2011/2012 Transport Asset Management Plan

Planning for our Future

Asset Management Team

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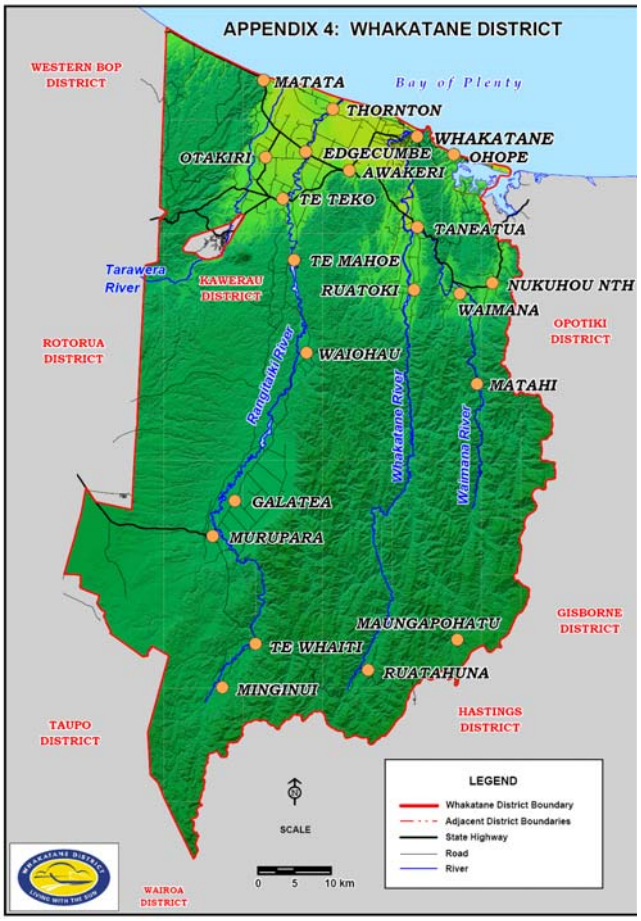
The Whakatane District

The Place

The Whakatane District in the Eastern Bay of Plenty is one of the most diversely beautiful areas in New Zealand. Sandy beaches are predominant along the 54 kilometres of coastline that stretches from Otamarakau in the west to Ohiwa in the east. Central areas include fertile lowlands and farming areas on the Rangitaiki Plains through to Murupara. Te Urewera National Park in the south, which makes 41% of the district, is protected native forest and is home to a rich array of flora and fauna. The total area of the district covers 433,000ha or 4,442km2

Figure 1: Map of Whakatane



Over 1,000 years ago, the first inhabitant of Whakatane was Tīwakawaka, a grandson of Maui, the legendary discoverer of Aotearoa. Tīwakawaka was the first explorer to settle the land around Kakahoroa (Whakatane). His canoe was *Te Aratauwhaiti*, and his descendants came to be known as Ngati Ngainui, the original people of Whakatane.

Some 200 years after the arrival of Tiwakawaka, the waka Mataatua sailed from the ancestral home of Hawaiki and moored in the river estuary near the town's commercial centre. Those aboard brought the kūmara (sweet potato) to Kakahoroa, and a parcel of soil from Rangiatea to place in the garden, Matirerau, in Whakatane.

Toroa was captain of the Mataatua. He took the men who had sailed with him and climbed the hillside to Kapu-te-rangi leaving the women behind. With the outgoing tide threatening to carry away the waka, Wairaka (Toroa's daughter) exclaimed *"e kia Whakatane ake au I ahau" (let me act the part of man)* and breaking tradition, the women paddled the waka back to safety. From this incident, Whakatane received its name.

The Natural Environment

The region is rich in forestry resources and has some of the country's best dairy farms, along with a large dairy processing plant located at Edgecumbe. The fertile soil of the district supports a variety of horticultural activities including market gardens, kiwifruit orchards and flower growing. Bottling water for export is an emerging industry.

The district has a strong forestry industry with up to a third of the area planted in exotic forests.

Climate

The District boasts an attractive climate with temperatures generally between 25 and 28 degrees in the summer months, and usually in high teens during winter, seldom lower than 11 degrees.

Whakatane records the highest temperature in New Zealand about 55 days of each year. Average annual sunshine is 2,332 hours with an average annual rainfall of 1,207 mm. During 2010 Whakatane recorded the highest number of sunshine hours in New Zealand.

Settlement

European settlement began in the 1830s when whalers, sealers and later missionaries and traders made their homes here. The area became a major shipbuilding centre and the vessels were used to carry maize, potatoes, wheat and flax to other northern population centres for sale or barter.

Although most Eastern Bay of Plenty Maori took no active part, the area nevertheless became embroiled in the New Zealand land wars during the 1860s and 70s. In 1869, the famed fighting chieftain Te Kooti raided the town, razing its few buildings. This led to the stationing of a unit of armed constabulary in Whakatane and the construction of a defensive redoubt on the promontory above the town centre.

Economy

Industrial and agricultural development accelerated from 1910 onwards when work began to drain the swamplands of the Rangitaiki Plains. Reclamation in Whakatane also created new land for residential and commercial development.

Agriculture remains an economic mainstay, but since the 1950s, plantation forestry and wood processing have also become increasingly important.

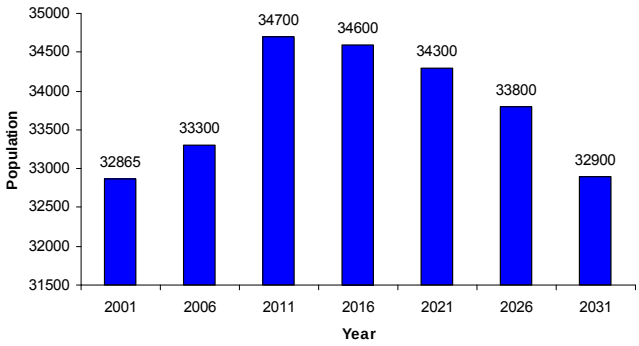
In latter years, tourism too has taken on an important role as more and more people have come to appreciate the region's rich heritage, wonderful coastal and bush resources and outstanding climate.

The Population

At the 2006 Census, Whakatane District's resident population was recorded at 34,500, a gain of 435 or 1.3% on the 2001 Census figure of (32,865). The parts of the district that recorded the highest rates of population gain over the latest Census period were Coastlands (37.3%), Maretotora (12.5%), Rotoma (8.6%), Urewera (7.8%) and Taneatua (5.2%). Matata, Edgecumbe, Whakatane North, Matahina-Minginui, Waimana and Murupara recorded noticeable population declines.

Whakatane District's population increase over 2001-2006 was driven by a natural population gain (births over deaths) of 1,384, counterbalanced to a considerable extent by an overall net migration loss of people from the district of approximately 950 or 190 per annum.

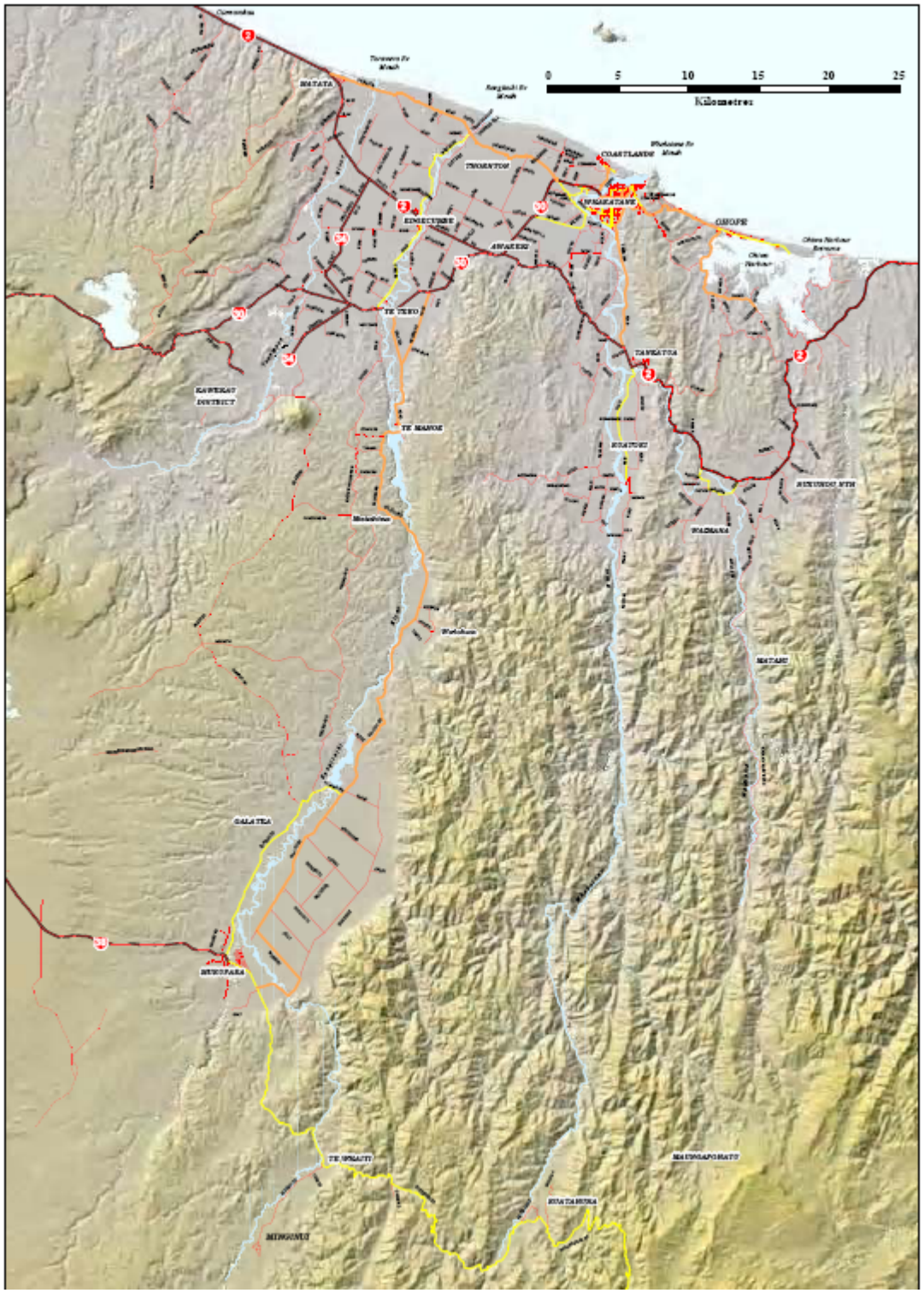
Figure 2: Population Projections - Medium Growth Scenario



Note: WDC Residential Growth Strategy

The urban areas of Whakatane (including Ohope) and the coastal strip are expected to experience considerable growth over the next ten years. The Whakatane Integrated Urban Growth Strategy adopted in September 2010 is based on an annual growth rate of around one percent – a population of 25,000 by 2050 scenario.

Figure 2: Area Location for Transport Catchments



Transport at a Glance

Table 1: Overview of the Transport Activity

Asset	Quantity
Drainage	33.6 km
Footpaths	292 ,458 m2
Islands (Traffic Control)	247,33 m2
Railings	14.7 km
SW Channel	247.7 km
Signage	6,257 Qty
Bridges	153 Qty
Carparks	52 Qty
Street Lights	2,410 Qty
Carriageway	904 km
Whakatane Airport	1
Value	
Replacement Cost ($000s)	**$331,256M**
Optimised Depreciation Replacement Cost ($000s)	$228,528M

(Based on 2010 Valuation – Land excluded at this time).

Key issues

Climate change – increases exposure to road closures and damage to the roading infrastructure.

- A series of significant storm events in the 2010/11 year caused over $8M worth of damage to the roading network. Whilst the NZTA subsidy for this rose to 78%, Councils share of approximately $2M created a significant rating burden on the community.
- Operational and Capital budgets for future years have had to be reduced to assist with the management of these extra incurred costs.
- Whilst it is anticipated this can be managed in the short term, reducing opex and capex funding requirrements to fund storm damage expenses is not sustainable in the long term.

Population growth and demand – the trend of population growth in urban and coastal areas puts pressure on the Council's transport network assets in these areas. The key consequences of population growth on the Council's roading infrastructure include:

- An increase in housing may require new roads (and associated assets) to be developed and vested to Council
- Existing roads may need to be upgraded to service the shift toward urbanization and the associated increased use of areas of the current network. This could involve realignments or the sealing of existing metal roads
- Requirement to provide for additional commercial car parks and service lanes to accommodate growth in areas such as Whakatane, Piripai and Ohope. This will mean an increase in the assets vested in Council
- Increase in associated operational and maintenance costs
- Increase in costs to residents
- Decrease standard of living (i.e. through delays in traffic, increased pollution etc)
- The knock on effect of increased traffic volumes in these growth areas, generated by employees, delivery trucks or other vehicles associated with commercial and industrial business may increase the rate of deterioration of existing roads due to heavy commercial vehicles. This also applies to the primary industries in place particularly the harvesting of exotic forests
- Potential new routes may need to be investigated as existing routes become congested around the newly populated urban areas
- New infrastructure may be needed to provide improved links or establish new links between communities such as between Whakatane and Piripai, and Whakatane and Ohope
- An increase in pressure on the existing public transport services with the need to provide an improved level of service
- An increase in the demand for pedestrian and cyclist facilities throughout the District.

Car parking - car parking in Whakatane is under increasing pressure, with additional facilities likely being required during the term of this LTP.

Alternative forms of transport – there is increasing pressure on the Council, both through legislation and from the community, to facilitate alternative forms of transport such as walking and cycling. The Council has developed and is implementing the Walking and Cycling Strategy 2007.

Safety - the Eastern Bay has long standing issues of drunk driving, including recidivist drunk driving, speed (not driving to the conditions), , disregard for restraint wearing and general problems relating to youth, alcohol and driving.

Affordability/levels of service – Transport networks is one of the Council's most expensive activities. A balance must be struck between extending and improving the network and ensuring that rates are kept at an affordable level.

The Council is in a large catch up programme to ensure long term sustainability of assets. Capital Projects that increase levels of service have been deferred until such time as high risk projects in other activities, such as Utilities, have been undertaken.

Addressing Issues

The Council monitors the ongoing shift in population distribution so that it can better plan for infrastructure requirements moving forward.

As the population centers develop and change within the District the Council has the opportunity to reassess the existing levels of service placed upon the existing network. The shift in population may necessitate an increase in the levels of services in some areas while allowing a decrease in others. Any changes in levels of service will be fully consulted on with the community.

The Council ensures it is compliant with the relevant legislative requirements related to the transport activity. This includes managing environmental performance and governance through the implementation and continuous improvement of the roading asset management plan (AMP). External funding is sought and maximised. Forward planning is undertaken with external parties to identify future requirements for funding. Investigation and consultation with the community is done to identify needs, such as alternative transport or new routes that may be eligible for funding.

While the Council will seek to maximise funding available from central government, the willingness of the community to pay will always be taken into account with regard to future planning.

Climate change and its related impacts must be factored in with regard determining infrastructure requirements. For example, the Council has included provision in the draft LTP for route security projects.

In order to ensure parking facilities are available to meet the needs of the community the Council is currently actively managing available facilities (through enforcement activities) as well as planning for further carparking development.

The use of alternative routes and bypasses is one way to mitigate traffic congestion in built up areas. The Council is developing a transportation network model which will support it in investigating, amongst other aspects, alternative routes for the District.

Road safety is an integral part of Council's activities that revolves around all forms of transportation, from the promotion of walking and cycling through to education programmes designed to positively influence driving behavior. The Governments road safety strategy, Safer Journeys 2020, is the primary guiding document in determining the Councils road safety programme projects.

The Eastern Bay of Plenty Road Safety Programme is a joint venture between Whakatane District Council, Kawerau District Council, Opotiki District Council and the Bay of Plenty Regional Council. The programme outcomes are achieved through the work of a road safety coordinator who is employed by the Whakatane District Council, but funded through the joint venture programme. Governance oversight is provided to the Road safety Co-ordinator by the Eastern Bay of Plenty Road Safety Committee, which was established 19 years ago to undertake practical road safety activities in the eastern bay. The committee currently consists of the roading engineers from the participating Councils, a councilor from each Council, the Police, the New Zealand Transport Agency (NZTA, and other organizations and individuals with an interest in road safety. The road safety programme is principally funded by contributions from the four participation Councils and a subsidy from the NZTA. The Police and other parties also contribute into specific activities within the programme.

The Council has adopted a policy whereby depreciation is funded to the extent that is needed to fund its share of renewals capital projects. As many roading projects attract subsidies, a substantial portion of depreciation is not required to be funded in this activity.

To address affordability issues in the transport networks area a number of cuts are proposed in both the operational expenditure and capital expenditure budgets:

- Opex:
- Capex:

Overview of Asset Management Planning

Asset Management Objectives

Whakatane District's first Transport Asset Management Plan (AMP) was produced in 1998 and updated in subsequent years.

In order to fulfil Community Outcomes, Vision, Goals and Objectives, Whakatane District has adopted a systematic approach to the long-term management of its assets by preparing this Asset Management Plan.

Whakatane District's overall Asset Management objective is to operate, maintain, replace/upgrade and create/purchase new assets over the long term to meet required Levels of Service (LoS) for the foreseeable future needs of the community in a sustainable way.

Whakatane District is committed to best, appropriate practice, asset management and to achieving the following key objectives:

- Continuous improvement of service delivery to the community
- Continuous improvement in maintaining and operating assets
- Ensure capital projects are robust, meet sustainability criteria and delivered to plan
- Comply with all statutory requirements.

Purpose of this Plan

Whakatane District recognises that this AMP is the fundamental driver of services, which impact directly on customers.

This long-term planning approach is considered necessary given the large capital and operating expenditure expected the long lives of the assets and the lead times in planning for upgrades, replacements and the purchase or building of new assets. The sequencing and timing of works are developed through discussions with key stakeholders and this plan is prepared in consultation with them.

The key aim of this plan is to:

- Provide a document to convey the long-term strategy for the management of the Transport assets.
- Improve understanding of service level standards and options, while improving customer satisfaction and organisational image.
- Identify minimum lifecycle (long term) costs to provide agreed level of service,
- Provide the basis for improved understanding and forecasting asset related management options and costs to smooth peak funding demands,
- Clearly justify the long term works programmes and justification of funding requirements.
- Manage the environmental and financial risks of asset failure.

This asset management plan also aims to demonstrate that the service potential of the Transport assets is being maintained.

Plan Timeframe

This AMP covers a 10-year timeframe. The plan assumes that the transport assets as a whole have an indefinite life and the main focus of the plan is determining the strategies required maintaining, rehabilitating and renewing components over the next 10 years. It is intended that this plan be reviewed every year as part of Councils Annual Plan processes, with a major update every three years for input into the LTP review LTP.

Key Planning Assumptions & Limitations of this Plan

This Intermediate-Advanced AMP has been prepared based on:

- Currently available information and data;
- Existing levels of service;
- A ten year forecasting horizon;
- Limited community consultation.

Relationship with other Plans and Documents

Whakatane District has a number of key strategic documents in place that govern many of its activities. These relate to, and will assist, in working towards the achievement of the community outcomes. The relationship between this AMP and other documents is shown in Table 2 and Figure 3.

Figure 3: Integrated Planning Framework/Linkages

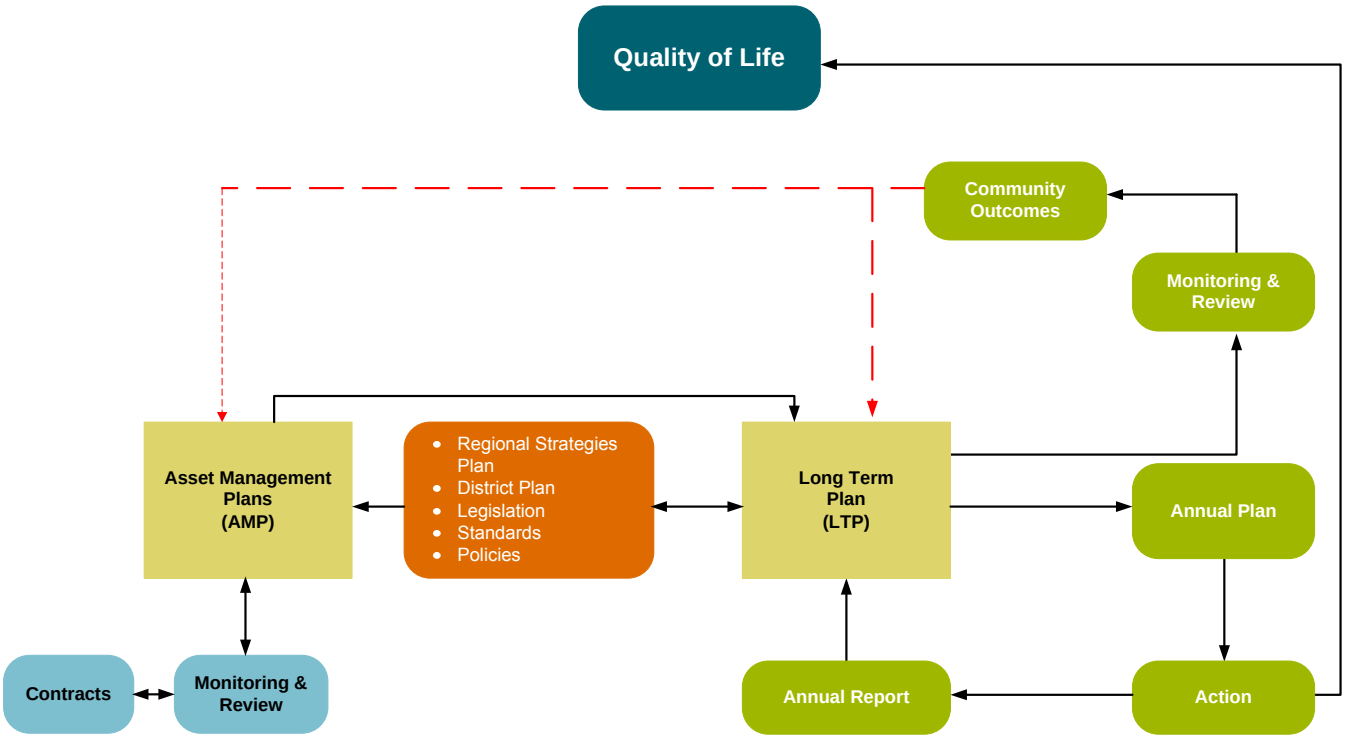
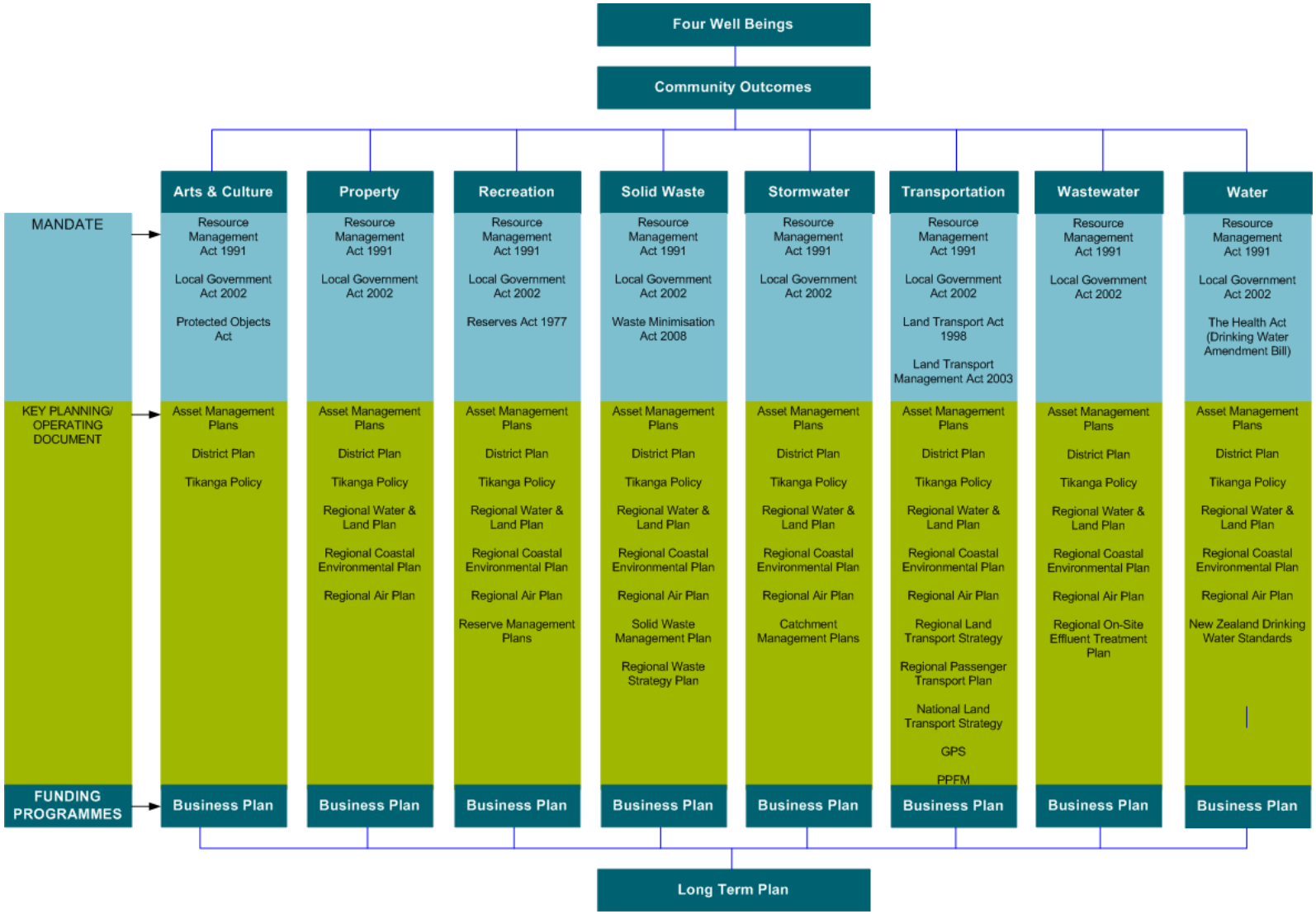


Table 2: Cyclic Planning Relationships with Other Plans, Reports and Documents

Plans/Documents	Description	Frequency
Long-Term Plan (LTP)	The LTP sets out an agreed vision and community outcomes for Whakatane District. The framework of this plan is in line with the requirements of the Local Government Act 2002 (LGA 2002). This plan will assist the Council in promoting sustainable practices as well as assisting the community to determine over time what 'outcomes' could and should be.	Must be produced every three years.
Annual Plan	The works identified in the AMP should automatically become the basis on which future Annual plans are prepared.	Must be produced in the intervening years between LTPs. Every third year the annual plan is embedded in the LTP
Annual Report	The Annual Report is the mechanism to report back to the community, showing Council's achievement against Annual Plan and LTP targets.	Must be produced every year to report progress
Asset Management Plans (AMP)	Levels of service, growth, risk, maintenance, renewal and development works and strategies are identified and budgeted for within this plan. This information automatically feeds into the LTP.	Should be reviewed and aligned every year prior to the LTP and Annual Plan process
Regional Plans	Bay of Plenty Regional Council Plans	Reviewed as and when appropriate, in consultation with the community and reviewed in alignment with the LTP, as appropriate
Contracts	The service levels, strategies and information requirements contained in AMPs are translated into contract specifications and reporting requirements.	Contract performance should be reviewed on a monthly basis
District Plans	Policies and objectives for land use and infrastructure, including designations of future works to be reflected in the AMP	As applicable

Figure 4: Relationship to Key Strategic Planning Documents



Scope of this Plan

The plan format shown below outlines the sections contained within this asset management plan.

Executive Summary	Summary of core components of all of the sections below, suitable for separate publication
Introduction Section 1	Overview of the region, the Transportation activity at a glance, asset management planning and the scope of the plan
Strategic Environment Section 2	This section outlines the vision, goals and objectives, community outcomes and how theTransportation activity contributes to those outcomes, rationale for Councils involvement, key partnerships and stakeholders and the key business drivers
Business Overview Section 3	Overviews the key service providers, overview of expenditure and funding, significant negative effects and outlines the structure that supports the Transportation activity
Levels of Service Section 4	Linking LoS to Community Outcomes, identification of current and future LoS and core values
Community Consultation Section 5	Overviews community feedback from surveys, service requests, LTP and other consultation
Growth & Demand Section 6	Identifies the key drivers influencing future demand and the management options to address the impacts of growth, developer contributions
Environmental Stewardship Section 7	Describes the environment and legislative requirements for compliance and significant negative effects
Risk Management Section 8	States the Transportation activity risks, descriptor, management options and monitoring
Sustainability Section 9	Sets out Councils sustainability objectives and outlines the social, economic, cultural and environment elements
Life Cycle Management Section 10	Identifies key issues, provides asset lifecycle overview, identifies maintenance, renewal and new development works
Projects & Financial Forecasts Section 11	Identifies 20 year financial forecasts, key assumptions, funding policies and projects
Processes & Practices Section 12	Describes the current asset management process and practices and the targets for improvement
Improvement Plan Section 13	Identifies the improvement tasks for the next 3 years

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Strategic Overview

OUR VISION IS

To be known as the place of choice for people to live, work and play.

In achieving our vision

- Our community will be safe and surrounded by people who are friendly and caring
- Businesses will be thriving
- There will be respect for and pride in our history
- We will be successful guardians of our natural environment

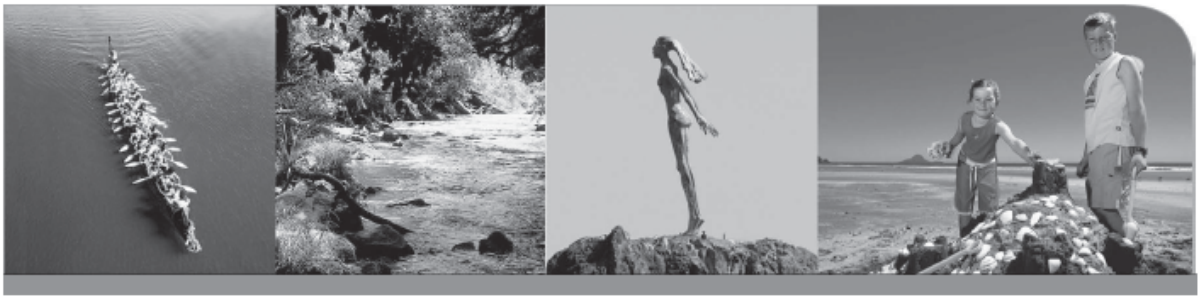
OUR PURPOSE IS

To lead the Whakatane District to sustainable economic, social, environmental and cultural wellbeing.

As a District Council we will achieve this through:

- Good governance, leadership and advocacy
- Integrated long-term planning.
- Effective and reliable community infrastructure
- Outstanding service delivery

Great Services, Excellent Delivery



Linkages –Community Outcomes, & the Transport Activity

The following outcomes were identified for the Whakatane District:

- Valuing Our Environment
- Reliable and Affordable Infrastructure
- Sustainable Economic Development
- Effective Leadership
- Quality Services
- Community Wellbeing.

Changes to the legislative requirements for Community Outcomes

The enactment of the Local Government Act 2002 Amendment Act 2010 has changed the statutory basis for the community outcomes process. Community outcomes are now to be merged with the long-term planning process with a focus on the outcomes the council will achieve.

Schedule 10 of the Act requires that the Long Term Plan must describe the community outcomes for the district; however Council is no longer required to report against the achievement of Community Outcomes.

As a result of the Local Government Act 2002 Amendment Act 2010 the Council reviewed its Community Outcomes as part of the LTP development.

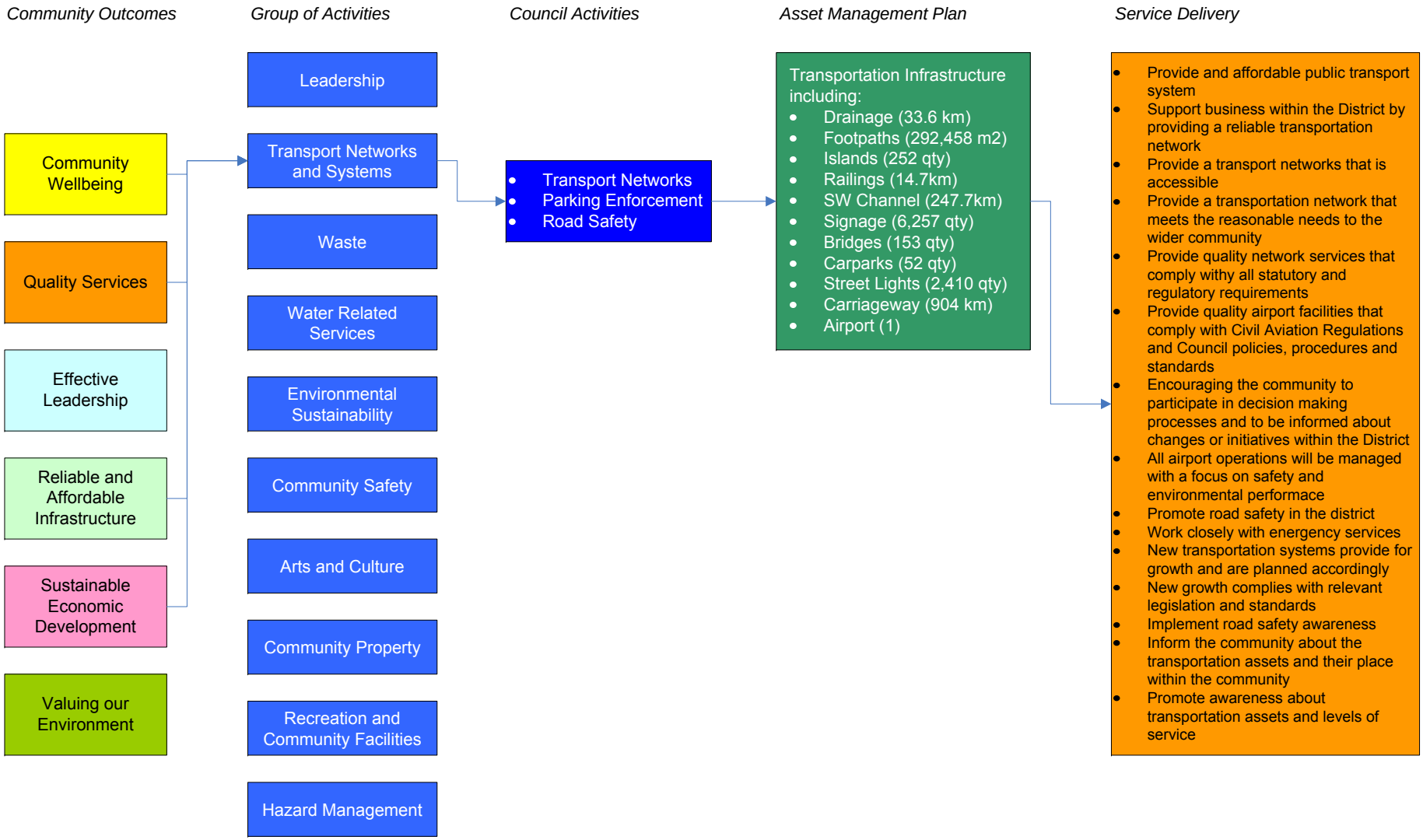
Transport Relationship to Community Outcomes

Whakatane transport activities primarily contribute to the following community outcomes:

-
- Reliable and Affordable Infrastructure
- Sustainable Economic Development
- Quality Services
- Community Wellbeing.

Figure 1 overleaf illustrates the links between Community Outcomes, groups of activities, Council activities and the Asset Management Plan (AMP). Please refer to Councils LTP for further information for other activities

Figure 1: Linkages to Community Outcomes and the Transport Asset Management Plan



How Transport Contributes to Community Outcomes

The transportation activities are provided by Council in response to needs and aspirations of the community to achieve services that will, where necessary, conform to national funding criteria, prudent use of resources and expectations of safety, sustainability and comfort.

Table 1: Transport Contribution to Community Outcomes

Community Outcome	Contribution to Community Outcomes (LTP)	Transport Objectives	These Have Been Addressed In….
Reliable and Affordable Infrastructure  **Meeting current and future needs**	◗ To provide infrastructure that facilitates growth and development. ◗ To ensure people, infrastructure and the environment are protected from natural disasters. ◗ To sustainably manage community assets.	◗ Provide a transportation network that meets the reasonable needs of the wider community ◗ Provide quality network services that comply with all statutory and regulatory requirements ◗ Provide quality airport facilities that comply with Civil Aviation Regulations and Council policies, procedures and standards ◗ Provide a transport network that is accessible ◗ Provide an affordable public transport system ◗ All airport operations will be managed with a focus on safety and environmental performance	◗ Levels of Service ◗ Business Overview ◗ Projects and Financial Forecasts ◗ Lifecycle Management
Sustainable Economic Development  **Working in partnership**	◗ To facilitate an economy that is prosperous in both urban and rural areas. ◗ To encourage business growth that builds on the region's assets. ◗ To support Māori economic development. ◗ To promote connected businesses through effective networks.	◗ New transportation systems provide for growth and are planned accordingly ◗ New growth complies with relevant legislation and standards ◗ Support business within the district by providing a reliable transportation network	◗ Growth and Demand ◗ Business Overview ◗ Projects and Financial Forecasts ◗ Levels of Service
Quality Services  **Excellent value for money**	◗ To provide services that meet the aspirations of the community. ◗ To ensure all customers are dealt with in a timely, helpful and friendly way.	◗ Inform the community about the transportation assets and their place within the community ◗ Promote awareness about transportation assets and levels of service	◗ Levels of Service ◗ Lifecycle Management ◗ Community Consultation
Community Wellbeing  **A caring community**	◗ To create vibrant, connected and safe communities. ◗ To support healthy, active communities. ◗ To build inclusive communities. ◗ To value, celebrate, promote and protect Māori culture.	◗ Promote road safety in the district ◗ Implement road safety awareness ◗ Encourage the community to participate in decision making processes and to be informed about changes or initiatives within the District	◗ Community Consultation

Sustainability Outcomes

Sustainability: What is it anyway?

A generally accepted definition of sustainability states that development should

"Meet the needs of the present without compromising the ability of future generations to meet their own needs"[1]

Whilst this definition nicely frames our ambition, it needs to be broken down further to identify the actions and changes in current behaviour that are required. When people are asked to behave sustainably they often respond "define it and we will do it".

The key to this is context. For example:

- What are the unique needs, challenges and opportunities facing Whakatane District Council at this time?
- What particular tools, techniques and policies can Council use in its move towards sustainability?

In other words:

- What needs to be done here, and why?
- How are we going to do it?
- What are the resources required?

There is no “one size fits all” approach and every organisation must discover how to implement sustainability principles in a way that works best work for them.

This section and the sustainability section of this AMP defines Sustainability in a context that is relevant to WDC and how this can be practically integrated into Whakatane’s ethos and ultimately into the delivery of community property services.

Sustainability Context

Sustainability & Local Government in New Zealand

Following the 2002 World Summit on Sustainable Development in Johannesburg, Central Government clearly signalled its intention to apply the principles of sustainability across government through all policy and decision-making processes. This desire to implement sustainability is found in legislative drivers that affect everyone from central government to regional authorities to local bodies.

Legislative drivers with direct implications for Whakatane District Council have been discussed in detail in the Strategic Environment section.

The concept of sustainability is particularly important for government organisations, whether they be central, regional or local, due to the responsibility to manage society’s resources in a manner that is in the best interest of all.

Working collaboratively can accelerate the process as we build on each other’s skills and experience to develop and disseminate best practices. This can be done through Environment Bay of Plenty, as well as other District Councils, alongside business, community-based organisations, and others.

Sustainability and Whakatane District Council:

Where are we now?

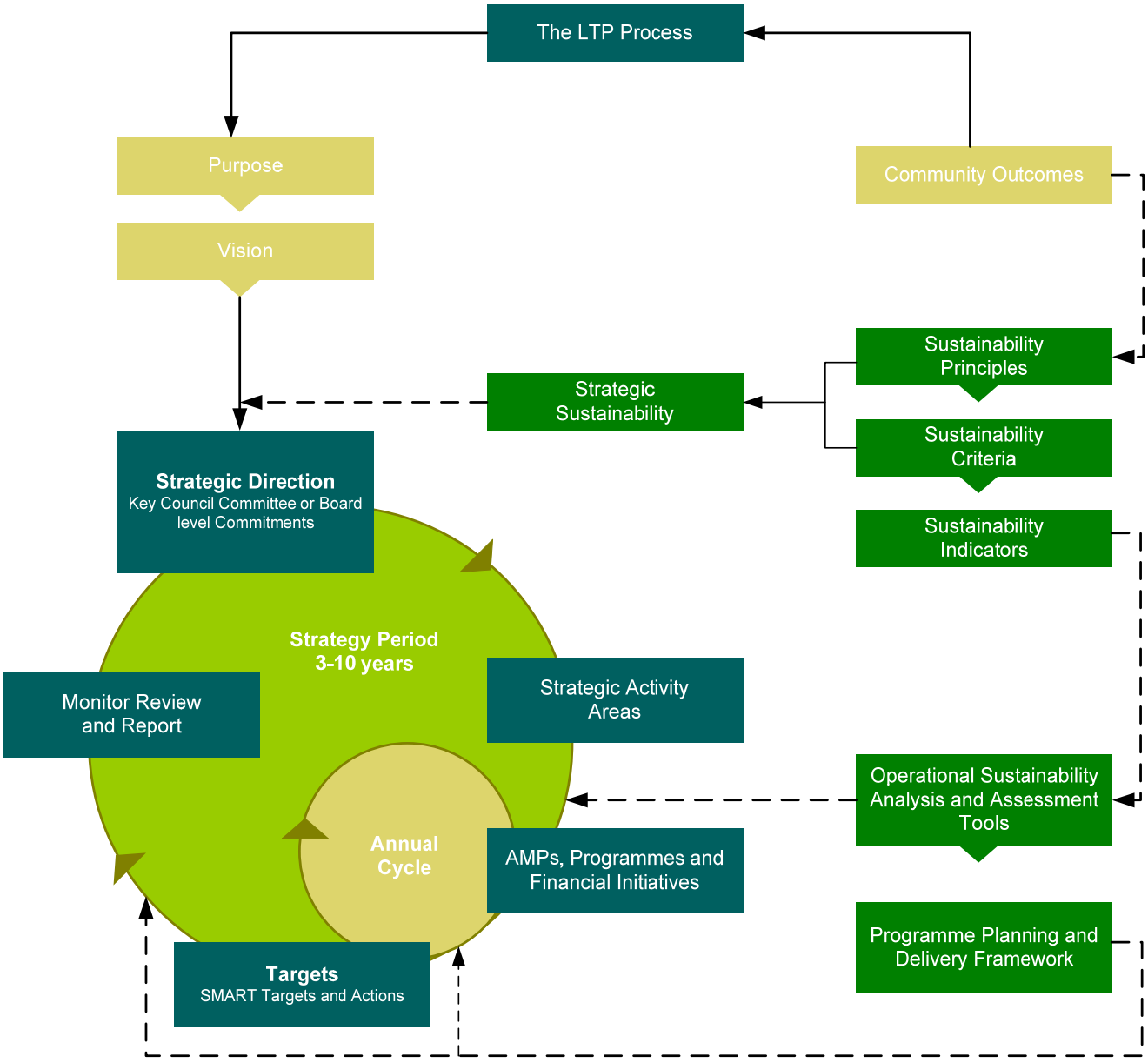
Whakatane District is committed to best appropriate practice asset management that includes the key objective of meeting robust sustainability criteria.

Alongside statutory requirements, the Long Term Plan (LTP), and health and safety considerations and ***sustainability performance indicators*** define the key business drivers for the current operation of Council services, as defined in the Business Overview section.

The Council has developed a Sustainability Strategy to outline its commitment to Sustainability. This is explored further under the Sustainability chapter of this Asset Management Plan. Figure 2 illustrates how Sustainability links through the organisation and aligns with its vision and strategic direction.

[1] (Brundtland Commission Report, Our Common Future, Oxford University Press, 1987).

Figure 2: The LTP Process and Sustainability Linkages



Essentially the above diagram shows how Whakatane's Vision can be implemented in a practical way through the development of sustainability principles, which consider the four wellbeing's and the practical application of the Community Outcomes. The Council is committed to best appropriate practice asset management. This includes the key objective of meeting robust sustainability principles.

In doing this, the Council will present the **sustainability principles** during the decision-making prosesses for the purpose of:

- **Identifying** the specific sustainability issues and sustainability opportunities to be considered with regards to each asset management plan;
- **Assessing** those issues ensuring that all sustainable options are considered; and,
- **Ensuring** consideration of all four wellbeings and Community Outcomes

The details of the Sustainability Strategy and Principles are outlined in Section 9 - Sustainability of this AMP.

Rationale for Councils Involvement

The rationale for Whakatane District Council involvement in the ownership of transportation assets is as follows:

"The purpose of the transport assets is to provide a sustainable, safe, convenient, comfortable and cost effective access system for the movement of people, goods and vehicles throughout the District".

The transport network is a vital part of the District that enables safe and comfortable access for people and movement of goods and services. It benefits residents, businesses and the District as a whole.

There are a number of legislative requirements that Council needs to take cognisance of and comply with, these are explained in more detail under Statutory Requirements within this Section.

This plan has been developed on the basis that Council intends to be responsible for the provision of the transport activity, for the Whakatane District, and considers the provision of the transport activity to be an essential function of Council.

Strategic Assets

Section 5 of the Local Government Act 2002 defines strategic assets as:

"…*an asset or group of assets that the local authority needs to retain if the local authority is to maintain the local authority's capacity to achieve or promote any outcome that the local authority determines to be important to the current or future well-being of the community***"**

Section 97(1) (b) requires that decisions to transfer the ownership or control of a strategic asset to or from the local authority be undertaken only if provided for in LTP.

Note that with the enactment of the 2010 Amendment Act, Section 97(1) (c), which required the decision to construct, replace, or abandon a strategic asset to be provided for in the LTP, has been repealed.

The LGA also requires that the Significance Policy shall identify all of the assets the Council considers to be strategic.

Council has determined the Roading system to be strategic in nature, including the land, carriageway, footpaths, bridges, street lighting and off-street parking. In addition the Whakatane Airport is considered a strategic assets.

Strategic assets as identified above are the assets in total and not the separate elements of the assets. The requirements of section 97 are only triggered if the proposal relates to the asset as a whole.

Section 97 of the LG Act requires those decisions to transfer the ownership or control of a strategic asset to or from the Council, or a decision to construct, replace or abandon a strategic asset can only be taken if the decision has been explicitly provided for by a statement of proposal in the Council's LTP.

Section 5 of the Act requires this asset to be included in the list as a Strategic Asset.

Refer to the "Policy on Determining Significance" in the 2009-2019 LCCTP for more information. While this policy is being reviewed through the development of the LTP 2012-22, the strategic assets are not expected to change as a result of this review.

Key Partnerships & Stakeholders

Council has a formal partnership with the following organisations/associations for the delivery of activities in the Access Networks and Systems groups.

Key Partnerships

- New Zealand Transport Agency
- New Zealand Police
- New Zealand Fire Service and Emergency Services
- Neighbouring District Councils
- Bay of Plenty Regional Council
- MOT
- Civil Aviation Authority
- Air New Zealand Link
- Whakatane Airport Users Group
- Galatea Aero Club
- Eastbay (Rural Education and Activities Programme (REAP)
- Eastern Bay of Plenty Road Safety Committee
- Eastbay REAP

External Stakeholders

- The community – citizens and ratepayers
- Ratepayers Associations
- Iwi organisations
- Emergency service providers (Police, Ambulance, Fire, Civil Defence)
- Utility companies – power (generation, transmission, distribution), communication, gas
- Disabled Persons Assembly
- Environmental groups
- Child Restraint Action Group
- Accident Compensation Commission
- Other Government agencies (Audit NZ, Ministry for the Environment)
- Contractors
- Schools
- Road safety instructors and providers
- Health promoters and institutions

Internal Stakeholders

- Whakatane District Council – Councillors, Committee and Community Boards), CEO and Managers
- Asset Management Officers
- Policy and Planning Officers
- Regulatory Services
- Financial and Corporate Officers
- Information Services Manager

Business Drivers

The transport assets are the largest asset group owned by Whakatane District Council, and accordingly the management of these assets is of critical concern to both the Council and the community alike.

The business drivers for the current operation of transportation are defined by statutory requirements, the Long Term Plan (LTP), health and safety and sustainability performance indicators. These are overviewed in the following section.

The LTP states that Whakatane District Council:

- Provides roading, airports, pedestrian and parking facilities, and public transport infrastructure for the sustainable, safe, convenient, comfortable and cost effective movement of people, goods and vehicles throughout the District, as well as to destinations outside the District;
- Fosters an integrated approach to road safety that includes a range of education, engineering and enforcement initiatives designed to enhance the safety of the environment, the vehicle, the road user, cyclists and pedestrians; and
- Monitors, enforces and administers the Council's Parking Bylaw, as well as vehicle defects such as Warrants of Fitness and Registration.

Delivery of Transport Services

Levels of Service (LoS) standards define the levels to which Whakatane District Council provides services to the community. Some standards are defined by statutory requirements, others in conjunction with the community, and some with key stakeholders. These standards (or levels of service) provide a basis for determining whether assets need to be constructed, replaced, remanufactured, or maintained. These performance measures have been defined to enable Whakatane District Council's performance to be measured and reported against.

These are covered in detail in the Levels of Service section of this Plan.

Health and Safety

Whakatane District Council's Health and Safety Policy:

"The management of Whakatane District Council is committed to ensuring that its employees, any contractor or employee of any contractor engaged by it, or any other person, are protected from harm while at work or in the place or in the vicinity of the place of work by fostering positive health and safety management practices in the workplace.

To ensure a safe and healthy working environment, management will develop and maintain a Health and Safety Management System."

Whakatane District Council will also demonstrate a commitment to best management practice in equal employment opportunities.

Statutory Requirements

Statutory requirements impact on the way in which Whakatane District Council operates to meet its obligations to its customers. Some of the key legislation for Transport is as follows:

Local Government Act 1974

The LGA 1974 legally defines roads in Section 315 as including carriageways and unformed areas, footpaths and pedestrian access ways (berms and other grassed areas), and as the total area from boundary to boundary, usually referred to as "road reserve".

Section 316 of the LGA 1974 essentially prescribes that the property rights of all roads are vested to the Council of the district of which they are located in, with the exception of State Highways. Section 317 adds that all roads shall be under the control of the local Council except for State Highways, which are under the control of Transit NZ, now renamed the New Zealand Transport Agency (NZTA).

For the purposes of utility access to roads, *control of the road rather than ownership* is the imperative factor as the controlling entity has the power to grant entry and conditions.

Land Transport Management Act 2003

The Land Transport Management Act (LTMA) was enacted on 12 November 2003. It provides for a more balanced and flexible funding framework for land transport. This means that while roading will continue to be of key importance, everyone's needs will be met, whether they are motorists, passengers, cyclists or pedestrians.

The LTMA 2003 formed Land Transport New Zealand in December 2004 from the merger of Transfund New Zealand and the Land Transport Safety Authority. Their mandate is to allocate resources in a way that contributes to an integrated, safe, responsive and sustainable land transport system. This involves the investment and allocation of funds to approved organisations such as local government to jointly fund the maintenance and construction of local roads, passenger transport capital projects, regional development, travel demand management, rail and barging projects and activities that promote walking and cycling. Funds are obtained from the National Land Transport Fund, a dedicated fund comprising revenue from road user sources.

Local Government Act

The Local Government Act 2002 (LGA) is based on a sustainable, effective, responsible, responsive and accountable local government being fundamental to achieving the long-term well-being of communities. The LGA 2002 outlines the responsibilities of local government and the decision making process for activities undertaken on behalf of the community, primarily through the adoption of the LTP. The LTP identifies all Council activities, including Transport (as a key issue) and prioritises projects for future development based on the expectant outcomes of the community.

The Local Government Act 2002 Amendment Act 2010:

- Introduces a focus on core business
- Requires the establishment of rules specifying the performance measures for core services
- Reduces some of the consultation requirements
- Requires additional financial reporting

The retained sections of LGA 1974 provides for the formation, management, stopping, closing, and control of roads, limited access roads, and provision of public safety.

Resource Management Act 1991

The RMA 1991 is New Zealand's primary legislation dealing with the management of natural and physical resources. It provides a national framework to manage land, air, water and soil resources, the coast, subdivision and the control of pollution, contaminants and hazardous substances.

The RMA has a single overarching purpose:

To promote the sustainable management of natural and physical resources.

The RMA establishes a hierarchy of policy documents from national instruments to regional policy statements, and regional (and district) plans. This 'hierarchy' and requirement to ensure consistency between plans, is to promote sustainable management and ensure integrated management of natural and physical resources at a national, regional and local level.

Civil Defence Emergency Management Act (CDEM) 2002

The Civil Defence Emergency Management Act 2002 (CDEM Act 2002) came into force on December 1, 2002. The CDEM Act 2002 ensures that New Zealand has the resources to manage disasters.

Emergency Management focuses on 'the 4Rs':

- **Reduction** – identifying and analysing risks to human life and property.
- **Readiness** – developing capabilities before an emergency occurs.
- **Response** – taking action immediately before, during or directly after an emergency.
- **Recovery** – initiating activities after impact, and extending them until the community's capacity for self-help is restored.

The Civil Defence Emergency Management Act 2002 requires:

- Whakatane District and other district and city councils in the region to form a Civil Defence and Emergency Management Group (CDEM Group).
- Development of a Civil Defence Emergency Management Plan that identifies risks from hazards and puts readiness, response and recovery procedures in place. The Plan is developed with public input to ensure hazards and risks are dealt with to a level accepted by the community.

Health and Safety in Employment Act 1992

The objective of the Health and Safety and Employment Act 1992 is to promote the prevention of harm to all people at work, and others in, or in the vicinity of, places of work. The Act applies to all New Zealand workplaces and places duties on employers, the self-employed, employees, principals and others who are in a position to manage or control hazards.

The emphasis of the law is on the systematic management of health and safety at work. It requires employers and others to maintain safe working environments, and implement sound practice. It recognises that successful health and safety management is best achieved through good faith co-operation in the place of work and, in particular, through the input of those doing the work.

Local Government (Rating) Act 2002

The Local Government (Rating) Act 2002 replaced the Rating Powers Act 1988 with updated and streamlined rating powers. The intention is to ensure that the community has the opportunity to be well informed about what its money is being spent on, and to express its views when major decisions are being made.

The three main purposes of the Act are to:

- Provide local authorities with flexible powers to set, assess and collect rates
- Ensure that rates reflect decisions made in a transparent and consultative manner
- Provide for processes and information to ensure that ratepayers can identify and understand their liability for rates.

Government Roading Powers Act 1989

This Act was established to set up how the government controlled roading authority would be set up and operated, including how funding to local authorities was to be managed.

Traffic Regulations Act 1976 & Land Transport (Road User) Rules

This legislation details Road Rules and Regulations to be adhered to and monitored. This affects the operation and use of transportation assets e.g. signage, speed limits, parking restrictions, installation of traffic signals (if appropriate in the future), and school patrols.

Civil Aviation Act 1990

Whakatane is a non-certified airport, so does not fall under the CAA legislation. Part 139 deals with operation and use of aerodromes for certified aerodromes; Whakatane Airport is also a member of the Aviation Industry Association.

Airport authorities Act 1966

This Act establishes local authorities as airport authorities with powers to operate airports.

Building Act 2004

In New Zealand, the building of houses and other buildings is controlled by the Building Act 2004. It applies to the construction of new buildings as well as the alteration and demolition of existing buildings.

The Building Act 2004 has repealed the Building Act 1991 and introduces a number of changes to the law governing building work.

Public Works Act 1981

Public works often cannot be carried out without affecting private landowners and their interests in land. For these reasons the Crown provides themselves with legislative powers to compulsorily acquire land for public works so that public works proposals are not unreasonably delayed. A basic principle of the Act is that no person shall be deprived of land without receiving fair compensation.

Hazardous Substances and New Organisms Act 1996 (HSNO)

The Hazardous Substances and New Organisms (HSNO) Act was enacted in 1996 with the hazardous substances related provisions of the Act coming into force in July 2001.

Territorial authorities have an enforcement role in the following areas:

- Premises not covered by the other enforcement agencies (e.g. private dwellings and public spaces);
- Dangerous goods licensing during the transitional period of the HSNO Act;
- Enforcing the HSNO Act when enforcing the RMA;
- Functions transferred by other enforcement agencies.

The first two enforcement roles are mandatory for territorial authorities and unitary authorities under the HSNO Act. The second two enforcement roles are voluntary, depending on any authority's preparedness and ability to take on such an enforcement role.

Specific Requirements for Asset Management Planning

The Local Government Act 2002 (LGA 2002) brought about some significant changes to the way councils operate, with a focus on community consultation and participation and the promotion of social, economic, environmental and cultural well-being of communities in the present and in the future.

The enactment of the LGA 2002 Amendment Act 2010 has seen a focus towards improved transparency, accountability and financial management, with emphasis in Schedule 10 on financial reporting. Section 3 (1) of Schedule 10 requires that Council report in the LTP the capital expenditure budgets to:

(a) Meet additional demand for an activity; and

(b) Improve the level of service; and

(c) Replace existing assets.

This has an implication for asset management planning, which must address:

- **Demand** – In relation to estimated additional capacity and the associated costs and funding sources. Section 5: Growth & Demand of this AMP covers this in more detail.
- **Levels of Service (LoS)** – Intended LoS performance targets and other measures by which actual levels of service provision may be meaningfully assessed, and the estimated costs of achieving and maintaining identified LoS, including sources of funding. Section 4: Levels of Service of this AMP covers this in more detail.
- **Renewals –** Including maintenance renewal and upgrades. This is covered in considerable detail Section 10: Life Cycle Management of this AMP.

National Standards

Council refers to the relevant documents contained with Transit New Zealand Standards and Guidelines Manual SP/M/021 Version 2 – August 2005. This document contains up-to-date standards and guidelines in current use throughout New Zealand, including international documents.

Bylaws

Whakatane District Council adopted a revised Consolidated Bylaw in 1998. Part 12 of the Bylaw was amended in 2003 and reviewed in 2009. The Traffic and Speed Limits Bylaw was further amended in July 2010 and March 2011 The objective of Part 12 – Traffic and Speed Limits is *"to set the requirements for parking and control of vehicular and other traffic on all roads under the control or ownership of the Whakatane District Council".* Part 12 of the Bylaw is stated under the following subsections:

Table 2: Bylaws

Bylaw	Status
Part 1: Interpretation	
12.1 Interpretation	Current
Part 2: Parking	
12.2 General Matters	Current
12.3 Parking	Current
12.4 Stopping Places for Special Vehicles	Current
12.5 Loading Zones	Current
12.6 Disables Persons Parking Places Reserved	Current
12.7 Obstruction of Traffic	Current
12.8 Charges for Parking	Current
12.9 Parking Fee to be Paid	Current
12.10 Heavy Motor Vehicle Parking	Current
Part 3: Traffic	
12.11 One Way Roads	Current
12.12 Road Works	Current
12.13 Damage to Signs	Current
12.14 Heavy Traffic Restrictions	Current
12.15 Bus Routes	Current
12.16 Temporary Restrictions on the Use of Roads	Current
Part 4: Other Matters	
12.17 Use of Engine Brakes	Current
12.18 Selling to Goods and Services at Intersections	Current
12.19 Displaying Vehicles on Roads	Current
12.20 Temporary Stands	Current
12.21 Authentication of Notices	Current
12.22 Service on Councils	Current
Part 5: Speed Limits	
12.23 Speed Limits	Current
12.24 Urban Traffic Areas	Current
12.25 Validation of Speed Limits	Current
Part 6: Offences and Penalties	
12.26 Offences and Penalties	Current
Part 7: Exemptions	
12.27 Exemptions	Current

Policies & Strategies

Council has developed various policies and works in partnership with many other agencies, to fulfil its role and align its activities to other agencies and organisations throughout the region. This means that in establishing its programmes, Council must be aware of the following policies, strategies and guidelines.

A number of these Policies are currently being reviewed through the LTP development process. Table 3: Council Policies

Policy Name	Status
Statement of Significant Accounting Policies (2009 LTP)	Current
Funding Impact Statement (including Rating Policy)	Current
Policy on Determining Significance	Current
Liability Management Policy	Current
Revenue and Financing Policy	Current
Development Contributions Policy	Current
Policy on Partnerships between the Council and the Private Sector	Current
Seal Extension Policy	Current
Road and Traffic Information Signs Policy and Guidelines	Current
Footpath Extension Policy	Current

Table 4: Strategies and Guidelines

Strategy Name	Status
Regional Land Transport Strategy 2011-2041	Proposed
Regional Passenger Transport Plan 2006	Operative
Regional Policy Statement 1999 (Updated Mar 2010)	Operative
Regional Policy Statement 2010	Proposed
Regional Water and Land Plan 2008 (updated Mar 2010)	Operative
Regional Coastal Environment Plan 2003 (Updated Feb 2011)	Operative
Regional Air Plan 2003 (updated Aug 2006)	Operative
River Gravel Management Plan 2001	Operative
Regional Pest Management Strategy 2011-2016	Draft
Regional Stormwater Strategy 2005	Operative
Regional Land Management Plan 2002	Operative
WDC Walking and Cycling Strategy 2007	Operative
Transit NZ 10 Year State Highway Plan	Operative
Land Transport Authority, Bay of Plenty Road Safety Strategy	Operative
NZ Transport Strategy 2008	Operative
Government Policy Statement 2012	Draft
Safer Journeys Road Safety Strategy 2010-2020	Operative
National Infrastructure Plan 2011	Operative

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Scope of Transport Services

Whakatane District Council is responsible for the following Transport asset groups;

- Roads (Basecourse, Formation, Top Surface)
- Footpaths
- Street lighting
- Signs and markings
- Drainage facilities
- Traffic controls
- Bridges and culverts
- Cycleways
- Service lanes
- Car parks
- Bus Shelters
- Galatea Airstrip
- Whakatane Airport

The Transport assets included in this AMP and their replacement values (as at 30 June 2010) are summarised in Table 1.

Table 1: Summary of Transport Assets (30 June 2010)

Asset	Gross Replacement Cost
Drainage	13,776,412
Footpaths	17,373,869
Island (Traffic Controls)	2,745,773
Railings	2,978,282
SW Channel	27,313,004
Signage	1,229,921
Bridges	39,434,662
Carparks	3,764,600
Street Lights	4,497,076
Carriageway	218,142,775
Whakatane Airport	2,081,713
TOTAL	**$333,338,087**

The Road Network

The roading network comprises of the following assets or services:

Pavements

Council's road network is approximately 903 km in length. 78% of the road network is currently sealed. Rural roads make up 86% of the majority of the network, with approximately 74% of the network (by length) carrying fewer than 500 vehicles per day.

Currently there are approximately 208 million vehicle kilometres travelled on the network each year with approximately 72% of this traffic being on the arterial and collector roads.

Road Category	Length (km)
Arterial	123
Collector	61
Local Roads	639
Special Purpose Roads	80
Total	**903**

Car Parks

The current number of car parks has not been quantified. Council is working through a process with the PSP to validate the inventory of car parks around the district, including clarification of ownership.

Footpaths

There are approximately 160km of footpaths within the Whakatane District including public accessways. The majority of urban areas have footpaths on at least one side of the street. Matata is an exception, but an annual programme is progressively addressing this.

Street Lighting

Street lighting is provided to increase the safety and convenience for both motorists and pedestrians and include:

- Carriageway Lighting (except rural State Highways)
- Amenity Lighting (car parks, rights-of-way, footpaths and amenity area)
- Under Veranda or Display Lighting (majority of Whakatane CBD is Council owned including Christmas Lights, however some are the responsiblility of individuals)

Street Signs

There are 6,257 street signs in the asset inventory at this time comprising a mix of regulatory and information signs.

Road Markings

Whakatane District has approximately 595 km of marked carriageways (almost the entire network has at least a centre line) the roadmarking asset comprises:

- Non intersection markings
- Intersection markings
- Miscellaneous markings

Drainage

Drainage includes Surface Water Channels and general drainage such as kerb and channel, culverts and catchpits. The purpose of drainage is to protect the road edge and substructure from stormwater erosion and divert runoff into the main stormwater system.

Traffic Controls

Whakatane District has 252 traffic control devices. Their purpose is to regulate, warn or guide traffic. Traffic controls refer to roundabouts, calming devices and local area traffic management (LATM) systems.

Bridges and Culverts

Bridges and culverts are an integral part of the transport network, both in terms of their role in the road network and in the drainage of land for agricultural or other uses. In accordance with NZTA guidelines, culverts with a cross-sectional area greater than 3.4m^2 are managed and reported as a bridge. Stock underpasses are also included under this asset group. Retaining walls are included in the inventory, although further work needs to be done to fill all the relevant data fields.

Cycle Ways

The purpose of cycle ways is to provide a safe, comfortable and convenient facility to people who use bicycles. Cycle ways may be formed as separate facilities or be incorporated by road marking on carriageways or footpaths. The Walking and Cycling Strategy details Councils desire to progressively improve and expand its cycle way network, and the draft implementation plan details the schedule of projects that will give effect to the strategy over the term of the LTP.

Road Berms/Vegetation Control

The road berm is the area of road reserve either side of the road formation. It provides a buffer area between carriageway/footpath and property for public use including the installation of utilities, street planting and roading support structures. In the urban area residents are expected to maintain the road berm adjacent to their property. In the rural area, vegetation control is undertaken by Council for safety reasons.

Bus Shelters

There are 6 bus shelters provided in conjunction with commuter services such as the Beach Runner or Bay Hopper. One new shelter is installed each year.

Railings

Railings include guardrails and sight rails that improve the safety of the network.

Land

Land encompasses road berms; paved road and Reserve land with a total of approximately 1,700 ha on formed and managed roads only. The value of this land represents a significant proportion of the total activity value.

Parking Enforcement

This activity is undertaken to regulate the use of defined public parking areas in specific parts of the district.

Airports (Whakatane & Galatea)

Council is responsible for the management of two airports in the district these are as follows:

Whakatane Airport

The Whakatane Airport assets include:

- Runways, taxiways and apron
- Grassed Areas, Water Supply and Fencing
- Runways Lighting and Navigational Aids
- Car Parks and Farm Access Road
- The main airport building/terminal and fire tender shed is a Community Services asset and not covered in this AMP.

Whakatane Airport has been established as a Council-Controlled Organisation (CCO), which is an organisation in which Councils hold 50% or more of the voting rights or can appoint 50% or more of the trustees, directors or managers). Eagle Airways provide scheduled flight services into Whakatane. They have a contractor provide the ground support services (check-in, refueling etc) for their flights.

Areas of the terminal building are leased for activities compatible with the operation of the airport. Lease of airport land is also available to commercial operators and associated industry. Under the terms of the Ngati Awa Settlement Act 2005, if land is not required for an aerodrome and ancillary aviation purposes it must be returned to Ngati Awa. Cropping and grazing are permitted uses within this agreement.

The airport is maintained as a non-certified aerodrome in accordance with the Civil Aviation Authority Aerodrome design for aircraft having a seating capacity of less than 30 passengers.

Services at Whakatane Airport are contracted to Air New Zealand Link.

Galatea Airstrip

The airport assets include a grassed runway and land for pastoral grazing, fencing, and ground leases.

Council is responsible for the ownership and management of these assets. Galatea airstrip has little infrastructural development, and no assessed value.

Council holds a public aerodrome licence for the Galatea Airport. Car parking is provided for on the grassed area beside the airstrip.

The Urewera Aero Club owns two buildings on site and leases the land from the Council.

Organisational Structure

Structure - The Council Management Structure for the Transport Group is shown in Figure 1.

Figure 1: Council Structure Supporting Transport

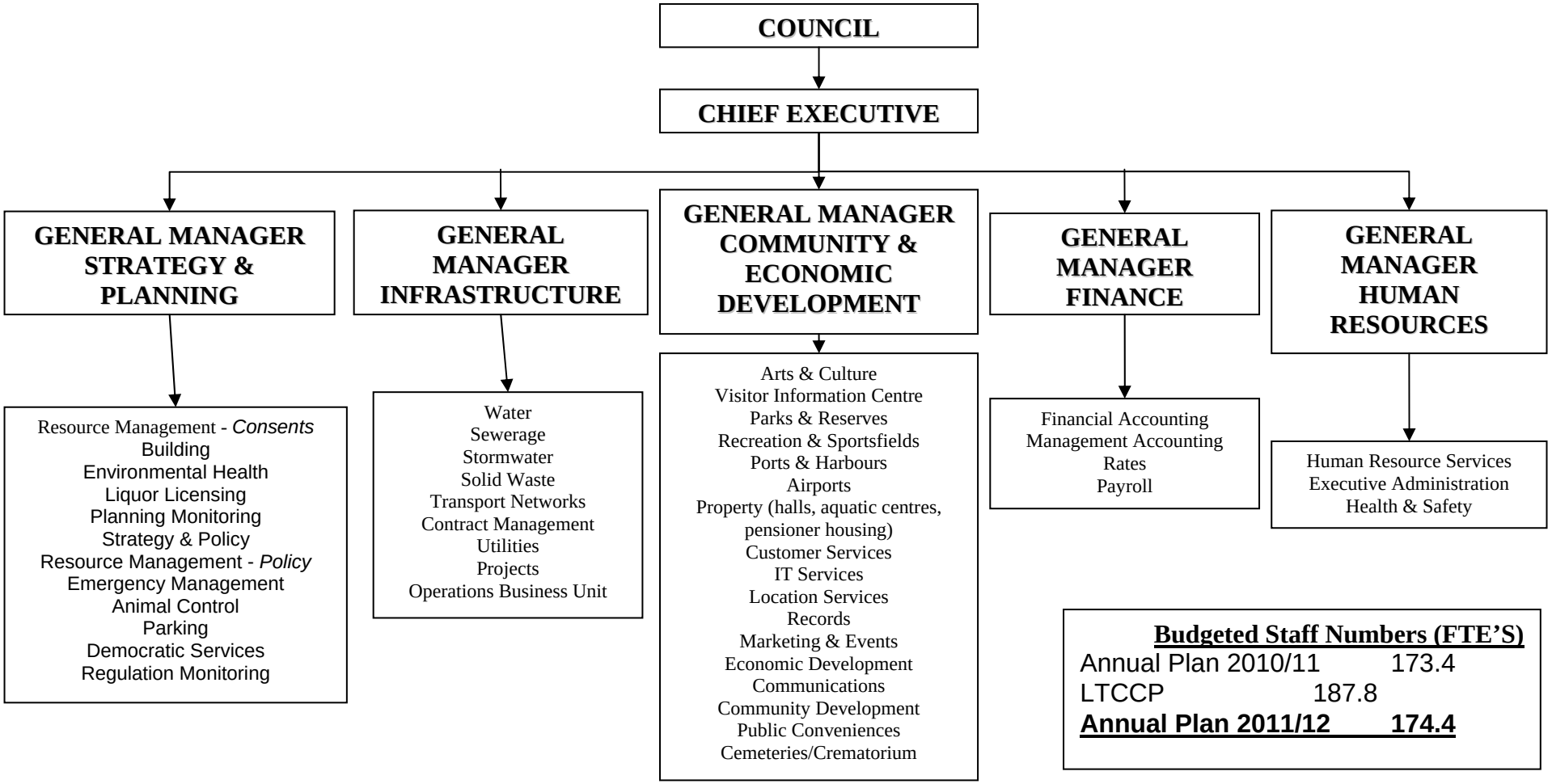

Table 2: Transport Roles and Responsibilities

Party	Role	Specific Responsibilities
Transport (WDC)	Responsibility for the management of Assets and services	◗ Financial control ◗ Performance monitoring ◗ Development of strategies and policies ◗ Customer service ◗ Planning ◗ Asset Management Planning ◗ Strong level of support from Professional Service Provider
Network Management Professional Services Provider (Currently Opus)	Provision of professional services to the Transport Manager	◗ Network operations & management ◗ Maintenance contract administration and monitoring ◗ Implementation of Strategies and Policies ◗ Design ◗ Review of new developments and assets
Capital Works Contractors (Various)	Responsible for implementation of capital new and renewal projects	◗ Physical construction of specified network improvements
Professional Services Providers (Various)	Professional services provision	◗ Professional advice, design, project management, reports
WDC Customer Services Call Centre	Call Centre, Customer Contacts	◗ Pass on customer information
WDC Regulatory Department	Oversee new applications for developments affecting assets	◗ Liaise with Utilities and representatives

Delivery of Transport Services

Relationships with Key Service Providers

Whakatane District has two key service provider relationships for Transport:

Network Management

Opus International Consultants have provided the principal network management services for Council over the past 5 years. Their 5 year contract term ended 30 June 2011. Council desires to review the way it delivers its roading services, including network management activities. However there will need to be a rollover of the professional services contract for a fixed term yet to be decided, to provide continuity of service until the new structure is formulated and adopted by Council. The Network Management activities include:

- Manage administrative functions
- Develop and update forward work programmes and maintenance strategies
- Management and observation of physical works contracts
- Check and approve work programmes and claims
- Audit field operations
- Inspect and report on road issues
- Handle public enquiries
- Safety management
- Data collection

Network Maintenance

Network maintenance activities are undertaken under a series of contracts.

- **Downer NZ Ltd** hold the primary network maintenance contract which includes pavement maintenance, edge marker maintenance, and vegetation control. As at 1 July 2011 they have two years remaining of their 5 year contract.
- **Directions NZ** have the signs maintenance contract. As at 1 July 2011 they have two years remaining of their 5 year contract.
- **Combined Traffic Systems** have the pavement marking contract. As at 1 July 2011 they have two years remaining of their 5 year contract.
- **Horizon Contracting** maintain the streetlight assets and also the navigation aids at the Whakatane Airport
- **Traffic Systems Ltd (Tauranga)** have the 5 year footpath maintenance contract. As at 1 July 2011 they have two years remaining of their 5 year contract.
- **Johnson and Masters Ltd** have won the resurfacing contract for the last two years. This contract is is re-tendered each year.
- **City Care** undertake the urban vegetation control activities

Significant Negative Effects of this Activity

Schedule 10 of the Local Government Act covers the information required to be included in the LTP. Section 2 Clause (1) (c) states that a long-term plan must, in relation to each group of activities of the local authority:

Outline any significant negative effects that any activity within the group of activities may have on the social, economic, environmental, or cultural wellbeing of the local community.

This sub-section provides information in accordance with this legislative requirement.

Table 3: Significant Negative Effects

Significant Negative Effect	Cultural	Social	Economic	Environmental	Sustainable Solution	Addressed In…
Economically, the cost of desired infrastructure improvements may exceed the communities ability to pay		✓	✓		Consult with the community on all costs and options for Levels of Service through the LTP process	◗ Levels of service ◗ Project & Financial Forecasts ◗ Risk Management
Transport development may impinge on culturally significant lands	✓	✓		✓	Track and record all the consultation procedures and results for each affected Maori/iwi for all projects outside the existing road reserve.	◗ Environmental Stewardship ◗ Community Consultation
Road and environment factors can contribute to crashes, particularly those that involve loss of control	✓	✓	✓	✓	New Zealand Transport Agency montiors and records through the Crash Analysis System (CAS) the % of accidents caused by loss of control. Undertake crash reducton studies (CRS) Liaise with the Eastern Bay of Plenty Road Safety Committee Undertake Route Security project Maximise funding for minor safety works	◗ Levels of Service ◗ Risk Management ◗ Life Cycle Management
The number of people killed or injured on roads each year	✓	✓	✓		NZTA montiors and records through the CAS % all road related deaths and injuries. Liaise with the Eastern Bay of Plenty Road Safety Committee	◗ Risk Management
The quality of surface runoff from roads that discharges into adjacent coastal or other waters	✓	✓	✓	✓	Compliance with Resource Consents and Council's Engineering Standards and Guidelines. Environmental controls.	◗ Environmental Stewardship ◗ Risk Management
Dust nuisance		✓		✓	Track and record complaints and comply with resource consent conditions during construction activities	◗ Environmental Stewardship
Health and safety risks associated with the operation, maintenance, or construction of Transport infrastructure		✓	✓		Ensure compliance with legislation and Health & Safety Management Plans. Maintain an Incidents Register.	◗ Risk Management
New roads or upgrades to existing roads may encourage vehicle use which may have environmental impacts				✓	The Council and other agencies are investing in alternative modes of transport such as cycling, walking and public transport	◗ Life Cycle management

Transport Funding & Expenditure

Funding

Approximately 80% of expenditure is spent on maintaining, operating and protecting the existing roading network. A further 20% is spent on improvements to provide a higher level of service, additional capacity and to address safety issues.

Funding for the management and maintenance of the road network is provided from rates and subsidy received from New Zealand transport Authority (NZTA). Funding for improvements is provided from NZTA subsidy, development contributions from developers, rates and from borrowing.

In determining the projects to be undertaken, the Net Present Value (NPV) (as defined by NZTA Programme and Funding Manual) is the governing criteria used with preference being given to projects, which can be shown to be economically justified and attract subsidy.

NZTA provide a 49% subsidy for approved road maintenance activities from 1 July 2012 – with a 2% increase after yr 1, then 1% the following 2 years, and a 55% subsidy for qualifying improvements. Special purpose roads are subsidised at 100% for maintenance and 75% for construction by NZTA. Not all roading activities are subsidised and these are identified in a separate non financially assisted cost centre.

Expenditure

Expenditure on Transport activities represents a significant Council investment. This can be viewed in Section 11 “Projects & Financial Forecasts.

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Overview

Asset management (AM) planning enables the relationship between levels of service and the cost of the service (the price/quality relationship) to be determined. This relationship is then evaluated in consultation with the community to determine the levels of service they are prepared to pay for.

Defined Levels of Service (LoS) can then be used to:

- Inform customers of the proposed LoS
- Develop AM strategies to deliver LoS
- Measure performance against defined LoS
- Identify the costs and benefits of services offered
- Enable customers to assess reliability, simplicity, quality, friendliness, and convenience.

In this context LoS define the quality of delivery for a particular activity or service against which service performance can be measured.

This section of the AMP covers the following:

Local Government Act 2002 Requirements - Details the legislation behind the process, including clause references and requirements.

Linking Levels of Service to Community Outcomes and Relationship with Asset Management Planning - Explains the links between this plan, LoS and community outcomes.

Public Transport Levels of Service - Provides details of the process of establishing LoS for Public Transport.

Understanding Community Priorities - Details how the community will assist in determining LoS and indicate their willingness to pay for those services.

Public Transport Values and Outcomes - Details Core Values, Activity Outcomes and how these relate to Customer and Technical LoS. This is presented as a table to ensure each value is addressed, outcomes identified and relevant levels of service (first draft) established for future consultation.

LGA Requirements

The Local Government Act 2002 (LGA 2002) prescribed that LoS must be developed from a community perspective. This is a fundamental change from the traditional approach.

Historically, LoS have been expressed in a technical way that describes what Council has expected from its service providers. These need to be presented to the community in a clear, informed way as 'customer levels of service', and consultation used to obtain the 'community perspective'.

Local Government Act 2002 Amendment Act 2010

The enactment of the Local Government Act 2002 Amendment Act 2010 has changed the development process of performance measures. **Part 11 Regulations, other Orders in Council, and rules** includes section 261A, B and C under the heading *Rules for performance measures* with requirements as follows:

261B Secretary must make rules specifying performance measures

(1) The Secretary must, as soon as is reasonably practicable, make rules specifying performance measures in relation to the following groups of activities:

- (a) water supply:
- (b) sewerage and the treatment and disposal of sewage:
- (c) stormwater drainage:
- (d) flood protection and control works:
- (e) the provision of roads and footpaths.

(2) Before making a rule under subsection (1), the Secretary must—

- (a) consider whether an existing performance measure is suitable for the purpose; and
- (b) have regard to whether a performance measure—
  - (i) measures the level of service for a major aspect of the group of activities; and
  - (ii) addresses an aspect of the service that is of widespread interest in the communities to which a service in relation to the group of activities is provided; and
  - (iii) contributes to the effective and efficient management of the group of activities.

(3) Before making a rule, the Secretary must—

- (a) consult every local authority; and
- (b) publish in the *Gazette*, and in all of the daily newspapers published in Auckland, Hamilton, Wellington, Christchurch, and Dunedin, a notice of his or her intention to make the rule; and
- (c) give interested persons a reasonable time, which must be specified in the notice, to make submissions on the proposal; and
- (d) consult any other persons or groups as the Secretary considers appropriate.

(4) The Secretary must—

- (a) make copies of the rules available for purchase at a reasonable price; and
- (b) make copies of the rules available free of charge, at all reasonable times, on an Internet site maintained by, or on behalf of, the Secretary; and
- (c) give notice in the *Gazette* that—
  - (i) the rules have been made; and
  - (ii) copies of the rules may be purchased and the place at which they may be purchased; and
  - (iii) the rules are available on an Internet site, free of charge, and state the Internet site address.

(5) A rule comes into force 28 days after the date of its notification in the *Gazette* or on such later date as may be specified in the rule.

When the rules have been published, Council will need to address this and include in this AMP.

Performance Measures Levy

The Amendment Act has also introduced a requirement (section 259) for Council to pay a levy to fund the development of the rules for performance measures.

Discuss how Council intends to fund this levy

Developing LoS

Schedule 10, Section 4 of the LGA 2002 requires Council to include a statement of service provision in its Long Term Plan. The statement is to include the intended levels of service for each group of activities that provides some specific requirements for the development of LoS as follows:

- Performance measures that will enable the public to assess the level of service for major aspects of groups of activities.
- Targets for each performance measure.
- Intended changes in the level of service and reasons for the change.
- Reasons for any significant change in the cost of a service

LoS Decision Making Process

LoS must be developed within the decision-making process set out in sections 76-81 of the LGA 2002

Table 1 - LGA Sections Related to Decision-making

Section 76	Decision Making
Section 77	Requirements in relation to decisions
Section 78	Community views in relation to decisions
Section 79	Compliance with procedures in relation to decisions
Section 80	Identification of inconsistent decisions
Section 81	Contributions to the decision-making process by Maori

(NB this has not changed with the amendments in 2010)

LoS Reporting

Long Term Plan

Schedule 10, Section 4 of the LGA 2002 Amendment Act 2010 requires that the LTP includes a statement of service provision specifying:

- Performance measures as specified in rules made under section 261B
- Performance measures that enable the public to assess the level of service but that are not specified in rules
- Performance targets set by Council for each performance measure
- Any intended changes to the level of service that was provided in the year before the first year covered by the plan and the reasons for the changes
- The reason for any material change to the cost of a service

Annual Report

Schedule 10, Section 25 of the LGA 2002 requires that an audited statement must be included in the Annual Report that:

- Compares the LOS achieved in relation to a group of activities with the performance target or targets for the group of activities.
- Specifies any intended change to LOS have been achieved.
- Provides reasons for any significant variation between the LOS achieved and the intended LOS

Changes in LoS

A change in LoS will either be reflected as a requirement to increase or decrease the LoS.

Any change will need to be consulted on with key stakeholders and the community. The outcomes then incorporated into the decision making process.

LoS Relationship to AM Planning

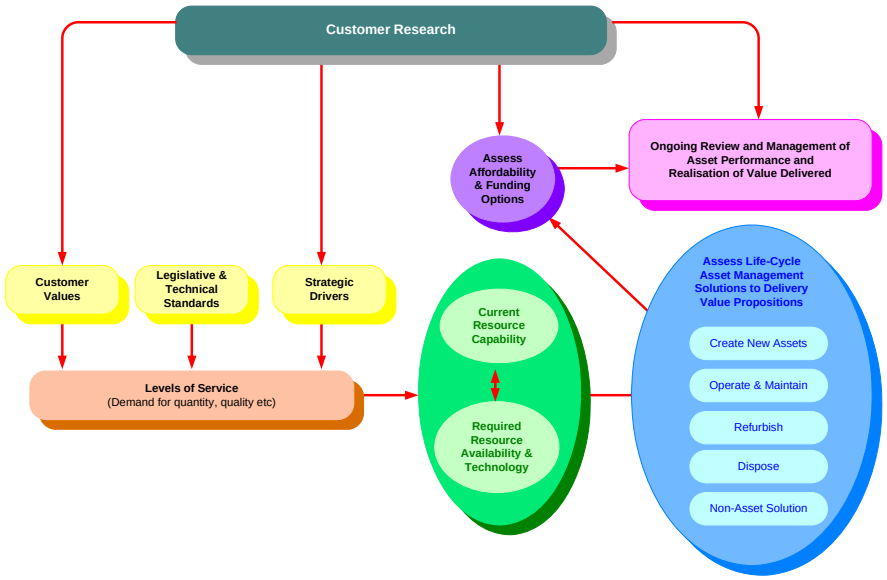
One of the basic cornerstones of sound asset management is:

To provide the levels of service that the current and future community want and are prepared to pay for.

LoS therefore provide the platform for all decisions relating to infrastructure management (as illustrated in Figure 1). Before developing detailed asset management strategies, Council needs to agree the LoS with the community with consideration given to the following:

- Required planned outcomes
- Minimum legislative requirements
- Technical constraints

Figure 1: LoS Relationship to Asset Management Planning



Source: The Developing Levels of Service and Performance Measures Manual 2007

Linking LoS to Community Outcomes

Council Outcomes

As outlined in the Strategic Environment section Council's transport activities contribute to the following community outcomes:

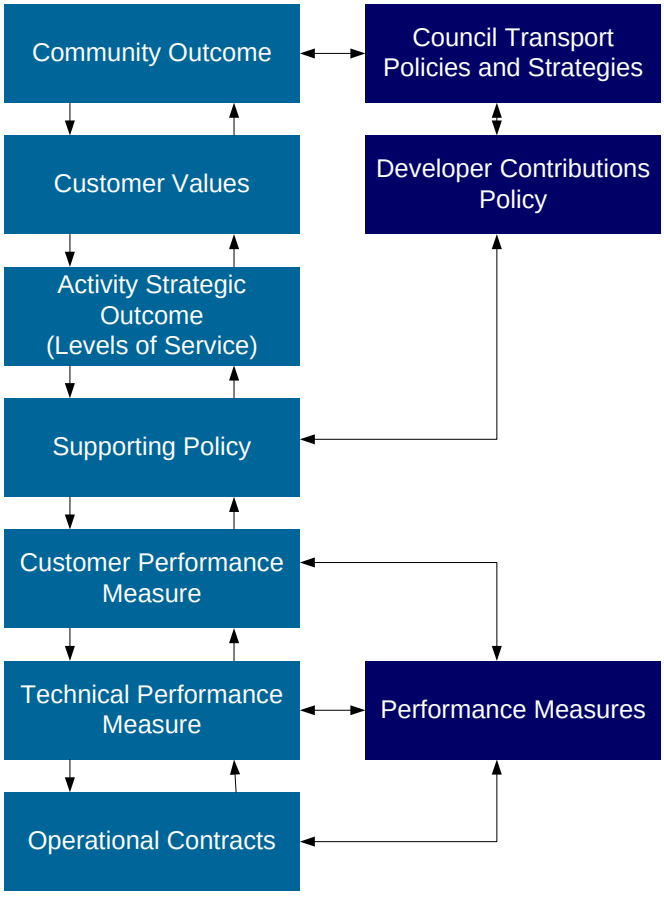
- Prosperous ***Economy***
- High quality affordable ***Infrastructure***
- Safe caring ***Community***

Transport also contributes to the outcomes of ***Development*** and ***Leadership.***

In order to deliver these outcomes, it is important that the transport technical and customer services and operational and maintenance contracts are clearly linked to achieve this.

Figure 2 shows the linkages as expressed in the Levels of Service tables later in this section.

Figure 2: LoS Linkages



LoS Delivery Process

Whakatane District has several key service providers for Transport:

The Network Management activities are currently out sourced and are provided under contract to Opus Consultants Ltd.

The maintenance activities are provided by a number of different contractors

- Downer NZ Ltd - pavement, drainage and edge marker maintenance and renewal, vegetation control and emergency works response
- Directions Ltd – road sign maintenance and renewals
- Combined Traffic Services Ltd – Pavement linemarking
- Horizon Energy Services Ltd – Streetlight maintenance and renewal
- Traffic Systems Ltd – Footpath maintenance and renewal

An annual contract is tendered for pavement resurfacing

LoS Development Process

As part of the 2006 LTCCP development process Whakatane District Council carried out a review of LoS. The outcome of the review defined a set of high level LoS statements and measures that were included in the 2006 LTCCP.

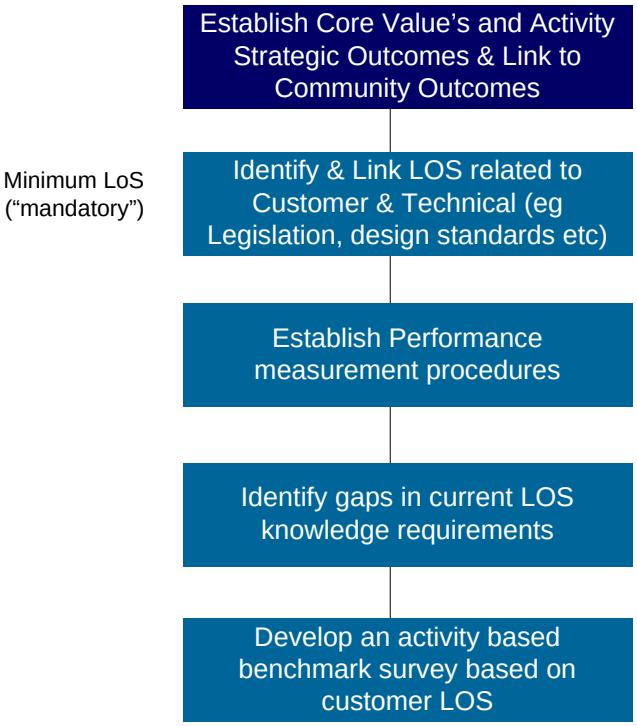
Whakatane is now seeking to develop the existing LoS further and to identify gaps in their knowledge of Customers perspectives about the delivery of the transport activity. Council will also identify what information needs to be provided from service providers to enable measurement between customer and technical LoS.

This process is described below in three parts as follows:

Part 1

To date Whakatane is working through the completion of Part 1 of the process as shown below, the results of which are included in this section. Figure 3 below illustrates the process undertaken.

Figure 3: LoS Process (Part 1)

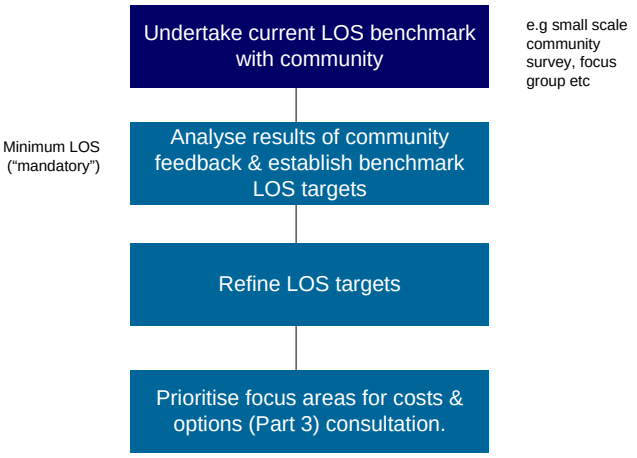


Part 2

Whakatane has undertaken consultation through the LTP and previous Customer Satisfaction surveys (see Community consultation section for detailed analysis).

The next step is to establish LoS benchmarks for the Transport activity by way of survey's, focus groups etc. as shown in Figure 3.

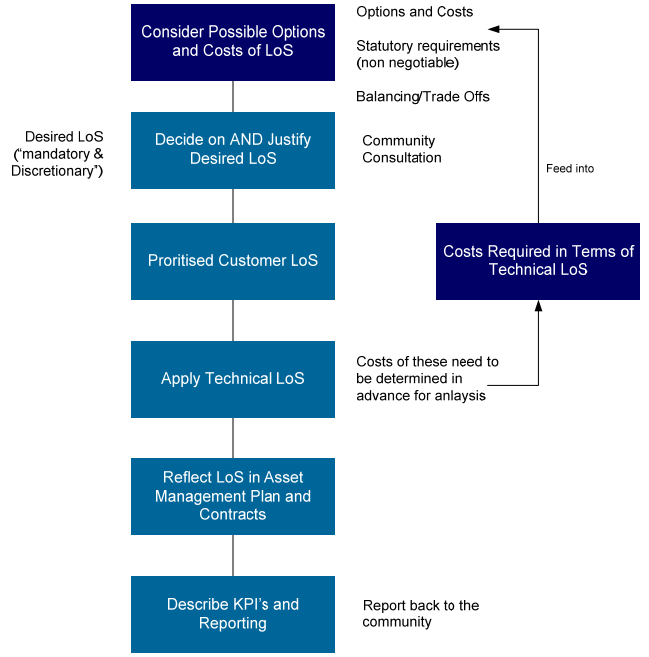
Figure 4: LoS Process (Part 2)



Part 3

The third part is to establish the benchmark survey and then consult with the community on service delivery options and their associated costs (as required under Schedule 10, Section 2(a) in the 2009/10 LTCCP

Figure 5: LoS Process (Part 3)



It should be noted that this process may be repeated in its entirety or specific parts updated such as technical levels of service in contracts. All changes must be reintegrated and linked back into the process.

Establishing Core Values

Core Values provide the cornerstone to the development of Levels of Service from both a customer and technical point of view. One simple word can easily define what is expected by the customer and to be delivered by the asset owner.

The *"Developing Levels of Service and Performance Measures"* Manual describes Core Values for Council activities (i.e. Stormwater, wastewater, water supply etc.). It is important for the customers and Council to consider which of these are most important as the priorities flow into the final required levels of service.

The core values considered to be important for the Transport activity are as follows:

- Accessibility
- Affordability
- Community Engagement
- Customer Interface
- Quality
- Safety

Activity Strategic Outcomes

Community outcomes were developed as part of the 2006 LTCCP. Further work has been undertaken to develop activity Strategic Outcomes for the Transport activity. The activity Outcomes developed with the LoS represented in the AMP are described as follows and aligned with the Customer Values.

Table 2: Customer Values and Activity Strategic Outcomes

Roading & Networks

Customer Value (NAMS)	Activity Strategic Outcomes
Accessibility	Roads are available for access.
Affordability	Roads are maintained to an appropriate standard. Roads are maintained in a cost effective way.
Quality	Roads are reasonably smooth and comfortable to travel on. Roads are predictable and provide no surprises. Roads are maintained to an appropriate standard.
Community Engagement	The community is dealt with in a timely, helpful and friendly manner.
Customer Interface	The community is dealt with in a timely, helpful and friendly manner. Roads are maintained to an appropriate standard.
Safety	Roads are reasonably smooth and comfortable to travel on. Roads are predictable and provide no surprises. Roads are maintained to an appropriate standard. Roads are available for access.

Road Safety

Core Value (NAMS)	Activity Strategic Outcomes
Accessibility **Quality** **Safety**	Provide Information and Educational experiences to Network users to reduce network related injuries and fatalities.

Airport

Core Value (NAMS)	Activity Strategic Outcomes
Accessibility **Quality** **Safety**	Provision of quality Airport facilities that comply with all Civil Aviation Regulations and Council policies, procedures and standards.

Identify and Linking Customer and Technical Levels of Service

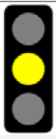
The following tables are based on the NZ NAMS *"Developing Levels of Service and Performance Measures"* Manual. It should be noted that these tables act as a template for developing levels of service. Accordingly, these need to be developed and refined further, then presented in an appropriate way for further community consultation.

Table 3: Roading & Networks Levels of Service

Level of Service	**Roads are reasonably smooth and comfortable to travel on**					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Quality • Safety					
Customer Measures	(1) Satisfaction that the Roads in the District are reasonably smooth and comfortable to travel on					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	 65.2	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	
Technical Measures	(1) Smooth Travel Exposure – the percentage of vehicle kilometres travelled on smooth*, sealed roads. (* indicates the ride quality experienced by motorists. (2) Potholes (sealed roads) (3) Potholes (unsealed roads) (4) Surface Condition (unsealed roads)					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	New measure	89-93%	90-94%	91-95%	92-96%	
2.	 98	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
3.	 67	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
4.	 89	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
How we will measure if target is achieved	(1) RAMM Reports (2) Monthly Audits (3) WDC Residents Perception Survey					

Level of Service	**The community is dealt with in a timely, helpful and friendly manner**					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Community Engagement • Customer Interface					
Customer Measures						
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
Technical Measures	(1) Requests for Service (RFS) are dealt with within specified timeframes					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	 85	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
How we will measure if target is achieved	(1) WDC Ozone Contact Centre report (2) Contractor Reports					

Level of Service	**Roads are predictable and provide no surprises**					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Safety • Quality					
Customer Measures						
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
Technical Measures	(1) Signs are maintained and effective (2) Edge marker posts are maintained and effective					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	 82	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
2.	 78	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
How we will measure if target is achieved	(1) Monthly Audits					

Level of Service	Roads are maintained to an appropriate standard					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Quality • Affordability • Safety • Customer Interface					
Customer Measures	(1) Satisfaction vegetation on roadsides is well maintained (2) Satisfaction adequate street lighting is provided (3) Satisfaction that local roads are maintained to an appropriate standard					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	 64.9	**Traffic Lights** Red = 0 – 50 Orange = 50 – 60 Green = 60 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 60 Green = 60 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 60 Green = 60 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 60 Green = 60 – 100	
2.	 69.8	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	
3.	61.5	60-64	61-65	62-66	63-67	
Technical Measures	(1) Surface Condition Index (sealed roads) (2) Pavement Integrity Index (sealed roads) (3) Road Shape (unsealed roads) (4) Road Detritus (5) Cesspits are adequately maintained (6) Drains are adequately maintained					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	99	96 – 99	96 – 99	96 – 99	96 – 99	
2.	96	94-98	95-99	96-100	100	
3.	 78	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	
4.	 81	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	

5.	 78	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100
6.	 79	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 80 Green = 80 – 100
How we will measure if target is achieved	(1) Routine maintenance audits (2) RAMM Reports (3) WDC Residents Perception Survey				

Level of Service	Roads are maintained in a cost effective way					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Affordability					
Customer Measures						
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
Technical Measures	(1) Maintenance and renewal costs per vehicle kilometres travelled					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	New Measure	< $0.05/vkt	< $0.05/vkt	< $0.05/vkt	< $0.05/vkt	
How we will measure if target is achieved	(1) NZTA Reports					

Level of Service	Roads are available for access					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Accessibility • Safety					
Customer Measures						
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
Technical Measures	(1) Roads are reopened to single lane access for at least 20 min per hour or an alternative route available within a reasonable time after emergency related closure					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	?	< 48hrs	< 48hrs	< 48hrs	< 48hrs	
How we will measure if target is achieved	(1) EOC records (2) Contractor reports					

Table 4: Road Safety

Level of Service	**Provide Information and Educational experiences to Network users to reduce network related injuries and fatalities**					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	*Sustainable Economic Development*	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Accessibility • Quality • Safety					
Customer Measures	(1) Satisfaction with the Safety of our Roads					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	66.3	64-68	65-69	66-70	67-71	
Technical Measures	(1) Deliver a series of Road Safety Education Programmes to the Community in Accordance with NZTA approved Programmes (2) Provide Monthly Road Safety lift outs in the Weekender (3) Provide Eastbay wide billboard programmes displaying NZTA approved Road Safety Material					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	30	20	20	20	20	
2.	 12	**Traffic Lights** Red = < 12 Green = 12	**Traffic Lights** Red = < 12 Green = 12	**Traffic Lights** Red = < 12 Green = 12	**Traffic Lights** Red = < 12 Green = 12	
3.	3	3	3	3	3	
How we will measure if target is achieved	(1) WDC Residents Perception Survey (2) NZTA Road Safety Reports					

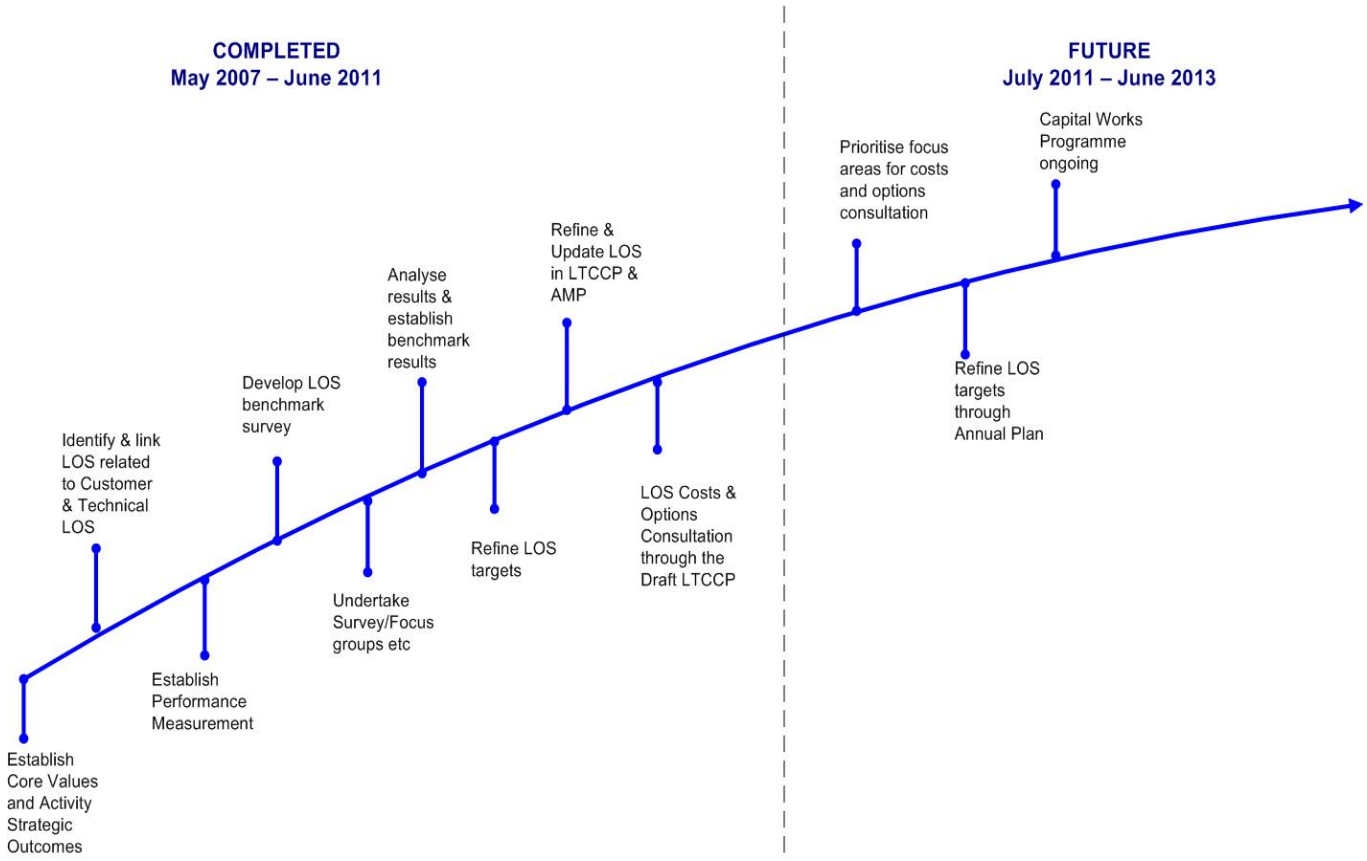
Table 5: Airport

Level of Service	**Provision quality Airport facilities that comply with all Civil Aviation Regulations and Council Policies, Procedures and Standards**					
Links to Community Outcomes	**Reliable and Affordable Infrastructure**	**Quality Services**	*Effective Leadership*	***Sustainable Economic Development***	Valuing Our Environment	Community Wellbeing
Customer Value	The core customer values this service aims to provide are: • Accessibility • Quality • Safety					
Customer Measures	(1) Satisfaction with the Airport Facilities					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	Not currently Measured	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	**Traffic Lights** Red = 0 – 50 Orange = 50 – 65 Green = 65 – 100	
Technical Measures	(1) The airport is maintained as a not-certified aerodrome in accordance with Civil Aviation Authority aerodrome design for aircraft at or below 5700 kg MC TOW (2) Compliance with Civil Aviation Authority Regulations (3) No non compliance notices received					
Targets	**Current performance**	**Year 1 target 20012/13**	**Year 2 target 2013/14**	**Year 3 target 2014/15**	**Years 4-10 target 2015-22**	
1.	100% compliance	100% compliance	100% compliance	100% compliance	100% compliance	
2.	100% compliance	100% compliance	100% compliance	100% compliance	100% compliance	
3.		**Traffic Lights** Red = Complaint Received Green = No Complaints	**Traffic Lights** Red = Complaint Received Green = No Complaints	**Traffic Lights** Red = Complaint Received Green = No Complaints	**Traffic Lights** Red = Complaint Received Green = No Complaints	
How we will measure if target is achieved	(1) Monthly Airport Reports (2) WDC Residential Perception Survey (3) Contractor Reporting					

Future Levels of Service Improvement

Whakatane are progressively working through a robust LoS development and community agreement process as outlined and flow charted earlier in this section. Below are the key tasks and timeline for development:

Figure 6: Timeline for Developing LoS in conjunction with the Community 2007-2011



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Overview

As a leader in the Community, Council acts on behalf of the diverse "communities of interest" within the District, and works with residents and ratepayers so that they can confidently participate in local decision-making.

This Community Consultation section provides details of the consultation and research that Council has carried out in order to establish how the community perceives the Transport activity and how it may better deliver Levels of Service (LoS).

Consultation Methods

Council has engaged in a variety of consultation approaches to seek both public opinion and to communicate its decisions and programmes to residents in the area.

Customer research carried out for Transport is as follows:

- Whakatane District Council Residents Perception Survey (2011)
- Customer service requests and complaints
- Seal Extension Policy
- Consultation carried out as part of the LTCCP 2009 process
- Iwi Liaison Committee feedback

An outline and results of each approach are summarised in the sub-sections below.

Changes in Community Consultation Requirements under the LGA Amendment Act

The enactment of the LGA 2002 Amendment Act 2010 has caused some changes in several of the sections previously affecting Council's requirements around consultation with the community. The following table lists the sections pertaining to community consultation and their current status since the Amendment Act.

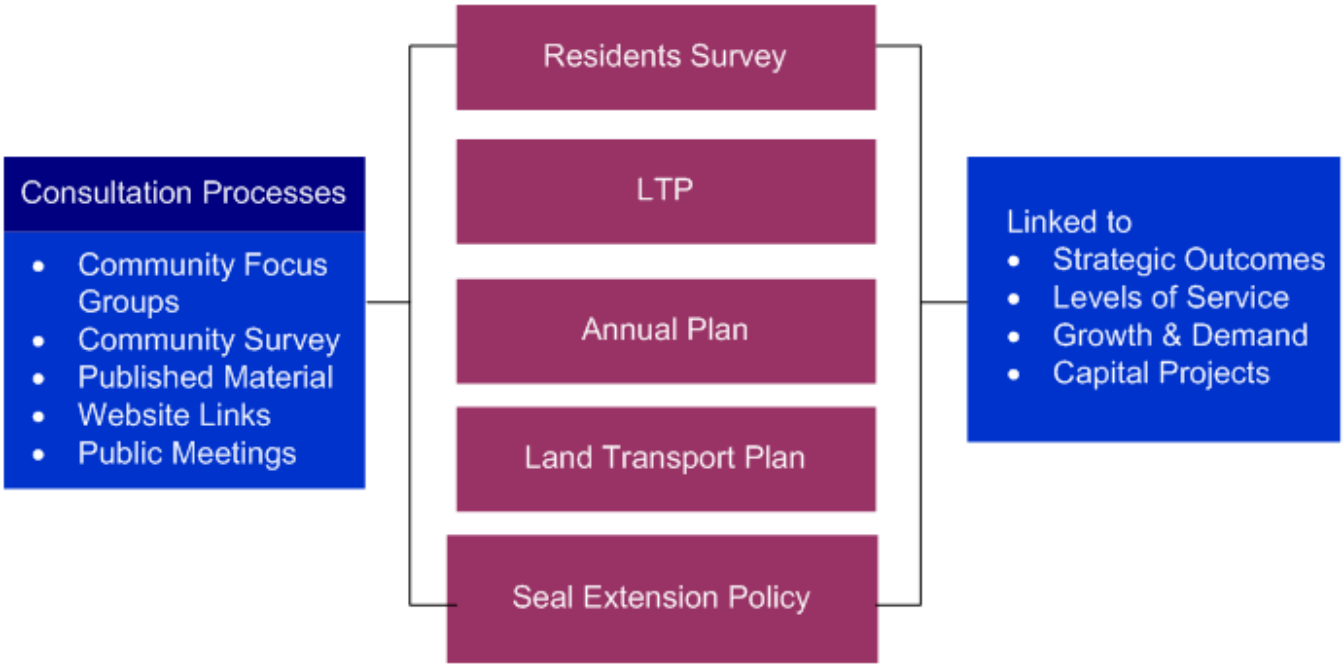
Table 1: Legislative Requirements under the Local Government Act 2002 No 84 (as at 27 November 2010)

Section	Title	Status	Implications of the Changes
76	Decision-making	Current	
77	Requirements in relation to decisions	Current	
78	Community views in relation to decisions	Section (2) repealed	Council must still give consideration to the views of people who are likely to be affected by Council's decisions; however it is no longer a requirement to consult at prescribed stages of the decision-making process
79	Compliance with procedures in relation to decisions	Section (3) and (4) added (under the 2004 Amendment Act)	These sections (which were added for the avoidance of doubt) require that when decisions are made, they include the decision-making requirements of any other legislative act
80	Identification of inconsistent decisions	Current	
81	Contributions to decision-making processes by Māori	Current	
287	Special consultative procedure	Current	
288	Decision-making processes commenced before enactment	Repealed	Only affected decisions made before 1 July 2003

Consultation Links

Consultation processes undertaken with the community help to underpin the overall direction and goals that Council will follow. Figure 1 below shows all of the ways that Whakatane community have been consulted with regarding the Districts Transportation activities over the last five years and how this consultation links into outcomes developed as part of this Asset Management Plan.

Figure 1: Consultation with the Whakatane District Community



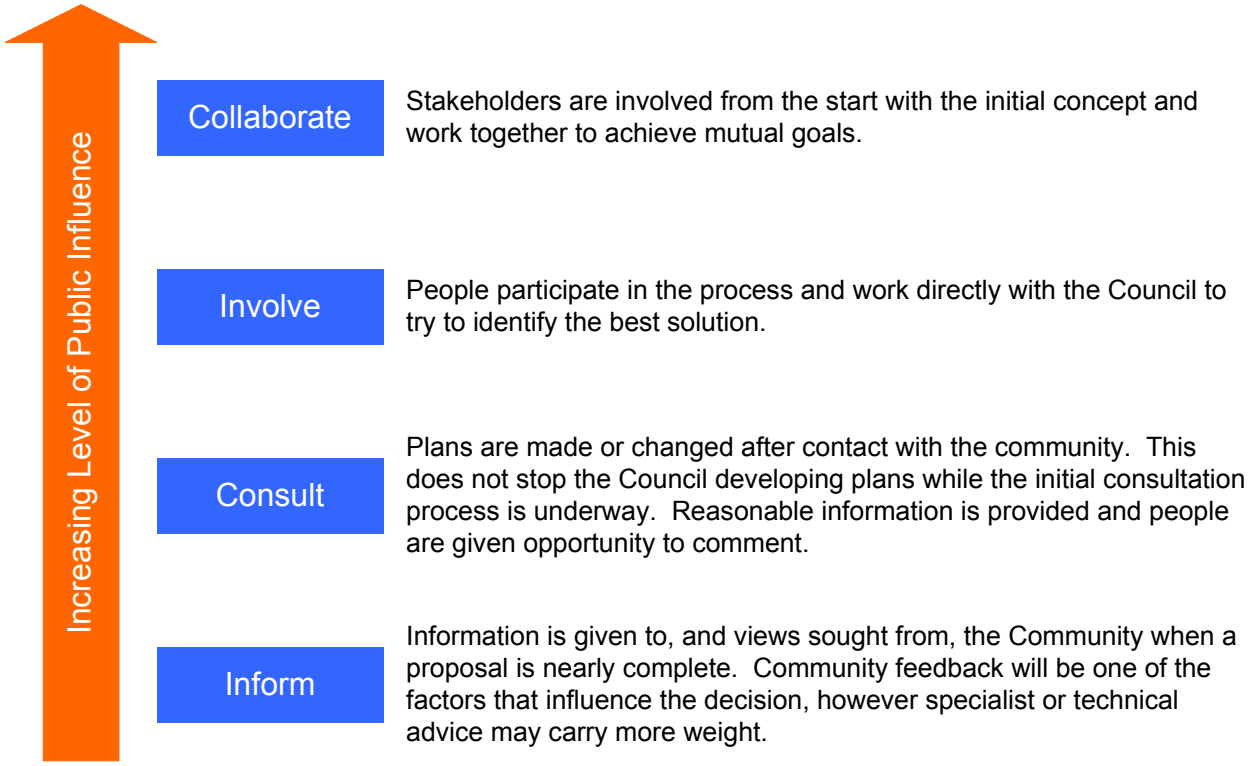
Consultation Policy

Whakatane District Council is currently developing a consultation policy. This will set out a consistent approach to be taken by the Council with regards to community consultation and will ensure compliance with the consultation requirements under the LGA 2002. Currently Council follows the special consultative procedure as outlined in the LGA 2002 when consulting with the public.

Generally speaking, Council aims to provide the opportunity for those who might be affected by decisions to express an opinion and be supplied with additional information where requested. It does not mean that the community will directly make a decision (unless it is a referendum situation), but the views of the community will be taken into account in all major decisions.

Figure 2 below shows the main levels of consultation that can be used by Council depending upon the proposal or decision that is being consulted on.

Figure 2: Type of Consultation



Source: IAP2 Public Participation Spectrum

International Association for Public Participation

Partnerships with Tangata Whenua

The iwi of the region are Ngati Awa, Ngai Tuhoe, Ngati Rangitihi and Whakatohea, which remain the guardians of the mana whenua (spirit of the land) of the Eastern Bay of Plenty region to this day. Whakatane's Maori community contributes approximately 42% of the local population of the area. This compares with a national average of 14.7 %.

The Iwi Liaison Committee is a standing committee of Council that works for the social, economic, environmental and cultural wellbeing of the whole community. Those involved in the committee represent the Maori/iwi communities of interest and this representation is reviewed every three years.

On the 23rd November 2005, a Memorandum of Understanding (Tutohinga) was signed between the Iwi Liaison Committee and the Whakatane District Council. This Tutohinga formalises the commitment of both parties to work together in good faith and gain an understanding and respect for one another's needs. The document is reviewed triennially shortly after the local body elections.

After strategic planning sessions between the two parties in 2005, the following main objectives and projects were identified to support Maori and Whakatane to engage in effective consultation and effective decision-making.

- Improving communication between the committee and council;
- Providing cultural training for Whakatane staff;
- Training Iwi Liaison Committee members on Council processes;
- Providing support to Maori initiatives in the community;
- Enhancing Maori capacity to engage in decision making through other procedures such as considering operational matters eg resource consents;
- Policy development to enhance participation eg Tikanga Policy, Treaty of Waitangi Policy.

Whakatane District Residents Survey

About the Survey

The Residents Survey provides information on the community's views of Council performance.

An initial survey was undertaken in 2000, which is used as a benchmark for comparison with further survey undertaken in subsequent years (2001, 2002, 2003, 2004, 2008, 2010 and 2011).

No surveys were undertaken in 2005, 2007 or 2009. The 2010 survey was a partial survey only used to monitor a small number of targets for the Annual Report and is of limited further use. The 2011 survey is the first full perceptions survey since 2008. Moving forward this is intended to be a triennial survey (conducted every three years) for financial reasons

The full Residents Survey 2011 included a sample size of 400 respondents selected from across the Council's five community board areas to be representative of the District's population distribution and demographics. It is worth noting that some survey questions related to specific services that may or may not have been used by the survey respondent such as customer services, boat ramps or building consent services. The survey results are based on those who used and were able to rate the service. Where less people were able to rate the service (in particular relevant to the Interim Survey) the margin of error for the result is greater.

The Residents Survey uses a Customer Satisfaction Index (CSI) to report survey results. The framework for interpreting the CSI scores is as follows:

Table 2: Future Proposed Consultation

CSI Score	Interpretation
79 or higher	Exceptional performance
77-78	Excellent performance
73-76	Very good performance
68-72	Good performance
62-67	Fair performance
61 or lower	Needs significant improvement

For further detailed information, refer to the Whakatane District Residents Survey 2011.

Advantages & Disadvantages

The advantages and disadvantages of the survey are as follows:

Advantages

- Comparative results from 2000, 2001, 2002, 2003, 2004, 2008 and 2011 surveys
- Demographic balance eg % Maori respondents, area balance, and reflective age distribution
- International Research Consultants independent professionals
- High level of confidence – margin of error +/- 4.83% (at 95% confidence level)

Disadvantages

- Sample size limited to 400
- Full survey conducted triennially due to cost limitations
- Individual satisfaction ratings can be significantly biased by one bad experience or the time of year (weather/holidays)
- The satisfaction rating scale was changed in the 2004 survey from a 3 point to an 11 point rating scale. This may create some difficulties in comparison of historical satisfaction data.
- No surveys were undertaken from 2005 – 2007 inclusive which has created a gap in the comparison data.

Transport Assets Surveyed

The Transport assets that were covered as part of the survey were:

- Roads;
- Road Safety;
- Council Carparks in Whakatane.

It should be noted that the smaller sample size surveyed in 2010 compared to 2008 and small numbers of respondents in many of the subgroups, care is recommended in the interpretation of these results.

The results are outlined as follows:

Roads

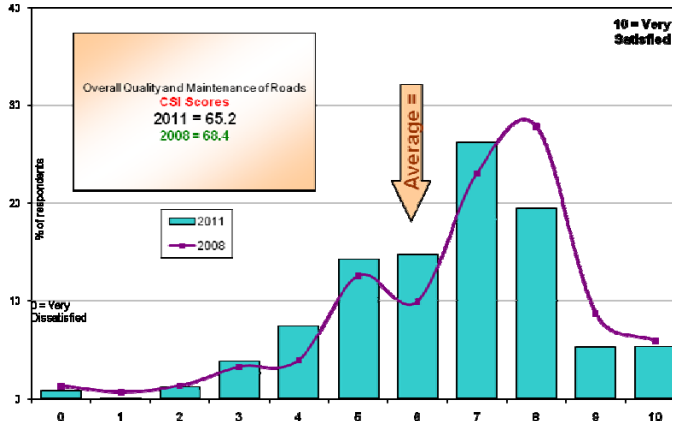
Satisfaction with the Overall Quality and Maintenance of Roads

Respondents were asked to rate their satisfaction with the overall quality and maintenance of the roads in the Whakatane District, using a scale where 0 is very dissatisfied to 10 being very satisfied.

Just over half of the respondents (56%) were satisfied with the overall quality and maintenance of the roads in the Whakatane District, (Scores 7 – 10). A tenth (11%) rated this with a score of 9 or 10 (exceeded expectation). The mode was a score of 7 (26%).

A third of the respondents (36%) rated their satisfaction with a score that was neutral (Scores 4 – 6), and 6% rated with scores that reflect dissatisfaction (Scores 0 – 3).

The CSI score for the overall quality and maintenance of the roads in the Whakatane District was 65.2. This is a decrease of 3.2 points from the 2008 CSI score of 68.4. The current CSI score still rates as a good performance but with potential for improvement.



Satisfaction with Overall Quality and Maintenance of Roads in the Whakatane District by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonably low levels of satisfaction with the overall quality and maintenance of the roads across most of the subgroups of interest.

The variables that appear to have had the greatest impact on satisfaction with the overall quality and maintenance of the roads were:

- Those from the Murupara / Galatea Ward (CSI score 70.5) are significantly more satisfied than those from the other Wards
- Those who live in the Country (CSI score 63.6) are less satisfied than those who live in Town (CSI score 66.0)
- Those in the over 65 age group (CSI score 70.9) appear more satisfied than those in the other age groups (CSI score 61.7 – 64.1)
- Those with a household income of less than $30,000 (CSI score 67.7) appear more satisfied than those in the higher income brackets.
- Respondents who thought they received good value for their rates (CSI score 72.7) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 56.8).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 68.9) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 52.6)
- Those who were satisfied with the overall performance of Council (CSI score 70.2) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 43.1).

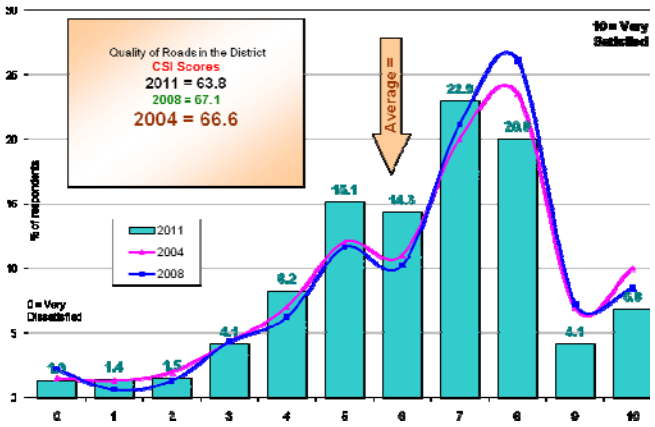
Those who lived on Residential Sealed Roads (CSI score 65.7) or Country Sealed Roads (CSI score 65.9) were significantly more satisfied than the few who lived on Country Unsealed Roads (CSI score 45.6). However, no group is very satisfied.

Satisfaction with the Quality of Roads in the District

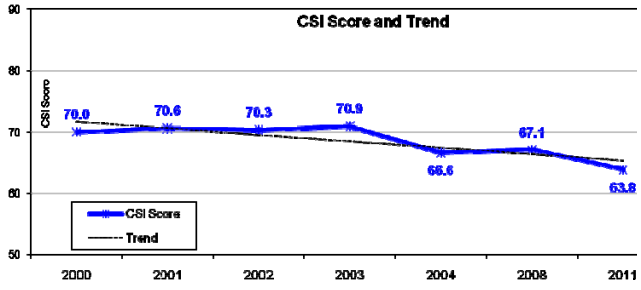
Respondents were asked to rate their satisfaction with the quality of roads in the District, using a scale where 0 is very dissatisfied to 10 being very satisfied.

Half of the respondents (54%) were satisfied with the quality of roads in the District, (Scores 7 – 10). A ninth (11%) rated this with a score of 9 or 10 (exceeded expectation). The mode was a score of 7 (23%). Over a third of the respondents (38%) rated their satisfaction with a score that was neutral (Scores 4 – 6), and 8% rated with scores that reflect dissatisfaction (Scores 0 – 3).

The CSI score for the Quality of roads in the District was 63.8. This rates as fair but needs improvement.



The CSI score of 63.8 is 3.3 points lower than the 2008 results and is the lowest recorded to date. The current CSI score is also below the declining trend line.



Satisfaction with Quality of Roads in the District by demographics

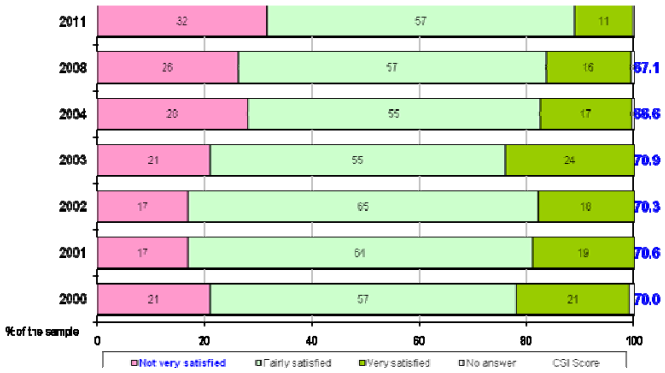
There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonably low levels of satisfaction with the quality of roads in the district across most of the subgroups of interest.

The variables that appear to have had the greatest impact on satisfaction with the quality of roads in the district were:

- Those from the Taneatua / Waimana Ward (CSI score 59.1) and Rangitaiki Ward (CSI score 57.1) are significantly less satisfied than those from the other Wards
- Those who live in the Country (CSI score 60.8) are significantly less satisfied than those who live in Town (CSI score 66.4)
- Those in the over 65 age group (CSI score 71.3) appear more satisfied than those in the other age groups (CSI score 61.7 – 62.4)
- Those with a household income of under $30,000 (CSI score 68.3) appear more satisfied than those in the higher income brackets.
- Respondents who thought they received good value for their rates (CSI score 71.5) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 53.8).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 67.8) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 52.3)
- Those who were satisfied with the overall performance of Council (CSI score 67.6) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 40.1).
- Those who lived on Residential Sealed Roads (CSI score 65.5) were more satisfied than the few who lived on Country Unsealed Roads (CSI score 39.2).

Quality of the roads Satisfaction Comparison with History

The following chart compares the history of satisfaction with the quality of the roads using the previous 3 point scale and an estimated CSI score for each year. This shows that 11% are very satisfied with the quality of the roads with a further 57% being fairly satisfied. However, a third of the sample, 32% of respondents were not very satisfied with the roads. The CSI score is the lowest recorded by this monitor.



Comparing the proportion of respondents who were less than satisfied versus those who are satisfied shows that there are fewer satisfied and more not very satisfied respondents this year.

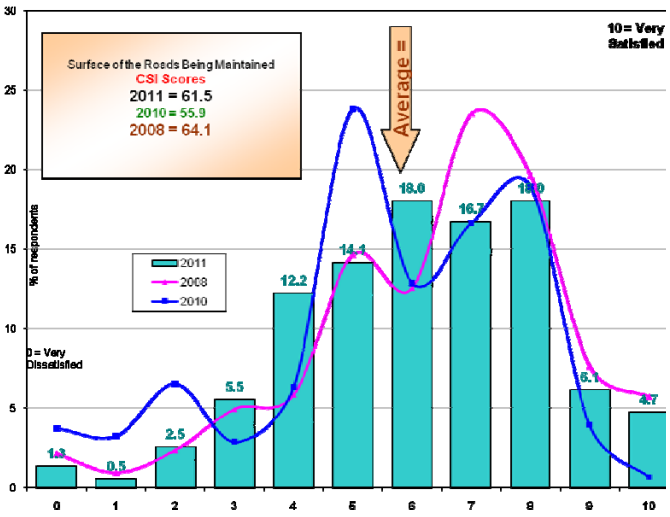
Satisfaction with the Surface of the Roads Being Maintained

Respondents were asked to rate their satisfaction with the surface of the roads being maintained (e.g. lack of potholes, cracks, bumps, etc); using a scale where 0 is very dissatisfied to 10 being very satisfied.

Less than half of the sample (46%) were satisfied with the surface of the roads being maintained, (Scores 7 – 10), however 11% rated with a score of 9 or 10 (exceeded expectations). The mode was a score of 6 and 8 (18%).

Close to a half of the respondents (44%) rated their satisfaction with a score that was neutral (Scores 4 – 6). A tenth of the respondents (10%) were dissatisfied (Scores 0 – 3).

The CSI score for satisfaction with the surface of the roads being maintained was 61.5. This again indicates respondents have some concerns about the maintenance of roads. The CSI score is up from the partial survey in 2010 but below the 2008 CSI score of 64.1.



Satisfaction with the surface of the roads being maintained by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonably low levels of satisfaction with the surface of the roads being maintained across most of the subgroups of interest.

The variables that appear to have had the greatest impact on satisfaction with the surface of the roads being maintained were:

- Those from the Rangitaiki Ward (CSI score 54.3) are significantly less satisfied than those from the other Wards
- Those who live in the Country (CSI score 58.7) are significantly less satisfied than those who live in Town (CSI score 63.5)
- Those in the over 65 age group (CSI score 68.8) appear more satisfied than those in the other age groups
- Those who have lived in Whakatane for 2 - 10 years (CSI score 55.8) appear less satisfied.
- Respondents who thought they received good value for their rates (CSI score 69.8) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 51.4).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 66.0) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 47.7)
- Those who were satisfied with the overall performance of Council (CSI score 65.5) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 42.0).
- Those who lived on Residential Sealed Roads (CSI score 63.2) were more satisfied than the few who lived on Country Unsealed Roads (CSI score 29.6).

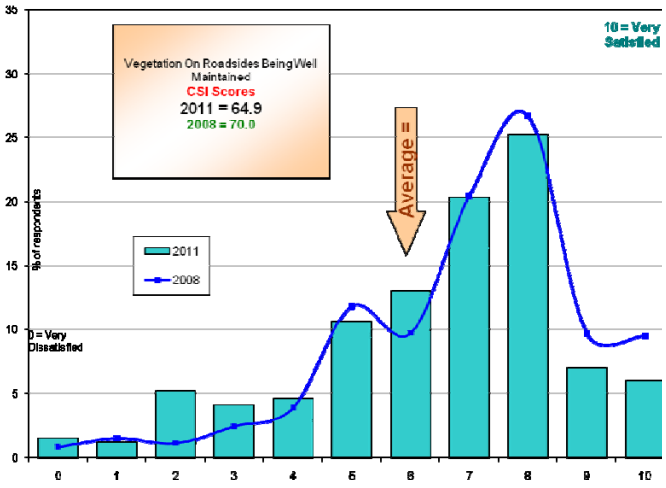
Satisfaction with Vegetation on Roadsides Being Well Maintained

Respondents were asked to rate their satisfaction with the plants and vegetation on the side of the roads being well maintained, using a scale where 0 is very dissatisfied to 10 being very satisfied.

Over half of the respondents (59%) were satisfied with the plants and vegetation on the side of the roads being well maintained, (Scores 7 – 10), including 13% who rated with a score of 9 or 10 (exceeded expectations). The mode was a score of 8 (25%).

A quarter of the respondents (28%) rated their satisfaction with a score that was neutral (Scores 4 – 6) and an eighth of the respondents (12%) rated with scores that reflect dissatisfaction (Scores 0 – 3).

The CSI score for plants and vegetation on the side of the roads being well maintained was 64.9. This is 5.1 points lower than the CSI score of 70 recorded in 2008. The current CSI score reflects a need for improvement.



Satisfaction with the plants and vegetation on the side of the roads being well maintained by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonable levels of satisfaction with the plants and vegetation on the sides of the roads being well maintained across most of the subgroups of interest.

The variables that appear to have had the greatest impact on satisfaction with the plants and vegetation on the sides of the roads being well maintained were:

- Those from the Ohope Ward (CSI score 72.5) are significantly more satisfied than those from the other Wards
- Those who live in the Country (CSI score 61.6) are significantly less satisfied than those who live in Town (CSI score 67.2)
- Those with a household income of under $30,000 (CSI score 68.9) appear more satisfied than those in the higher income brackets.
- Homeowners (CSI score 63.9) appear less satisfied than those who are renting (CSI score 68.6).
- Respondents who thought they received good value for their rates (CSI score 72.8) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 53.7).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 68.6) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 51.0)
- Those who were satisfied with the overall performance of Council (CSI score 69.8) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 36.9).
- Those who lived on Residential Sealed Roads (CSI score 66.3) were significantly more satisfied than the few who lived on Country Unsealed Roads (CSI score 48.5).

Satisfaction with Having Adequate Street Lighting

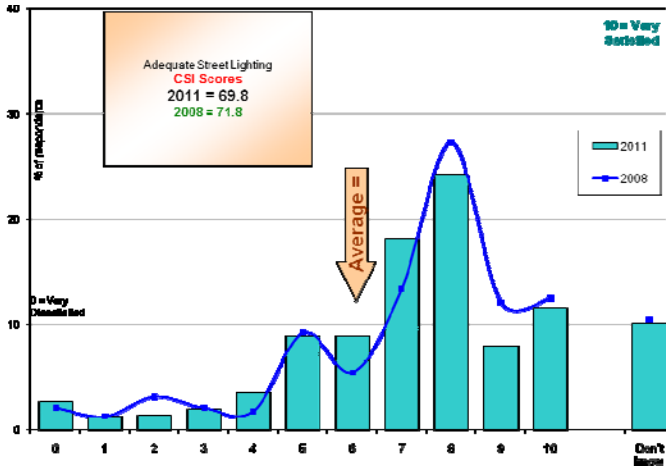
Respondents were asked to rate their satisfaction with having adequate street lighting, using a scale where 0 is very dissatisfied to 10 being very satisfied.

Two thirds of the respondents (62%) were satisfied with having adequate street lighting, (Scores 7 – 10), and 19% rated with a score of 9 or 10 (exceeded expectations). The mode was a score of 8 (24%).

A fifth of the respondents (21%) rated their satisfaction with a score that was neutral (Scores 4 – 6) while 7% rated with scores that reflect dissatisfaction (Scores 0 – 3).

Similar to 2008, a tenth of the sample (10%) did not answer this question but this rises to 25% in rural areas.

The CSI score for having adequate street lighting was 69.8. This is 2.0 points lower than 2008 but the CSI score again reflects a good performance but with potential for improvement.



Satisfaction with Having Adequate Street lighting by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonably levels of satisfaction with having adequate street lighting across most of the subgroups of interest.

The variables that appear to have had the greatest impact on satisfaction with having adequate street lighting were:

- Those from the Ohope Ward (CSI score 76.1) appear more satisfied than those from the other Wards.
- Those who live in the Country (CSI score 62.4) are significantly less satisfied than those who live in Town (CSI score 73.4)
- Men (CSI score 74.2) appear more satisfied than Women (CSI score 65.8)
- Those in the over 65 age group (CSI score 73.8) are significantly more satisfied than those who are in the younger age group.
- Those with a total annual household income of less than $30,000 (CSI score 72.1) are more satisfied than those in the other income brackets.
- Respondents who thought they received good value for their rates (CSI score 77.7) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 61.5).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 72.5) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 63.9)
- Those who were satisfied with the overall performance of Council (CSI score 72.9) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 52.4).

Those who lived on Residential Sealed Roads (CSI score 72.8) were significantly more satisfied than the few who lived on Country Unsealed Roads (CSI score 45.0).

Road Safety

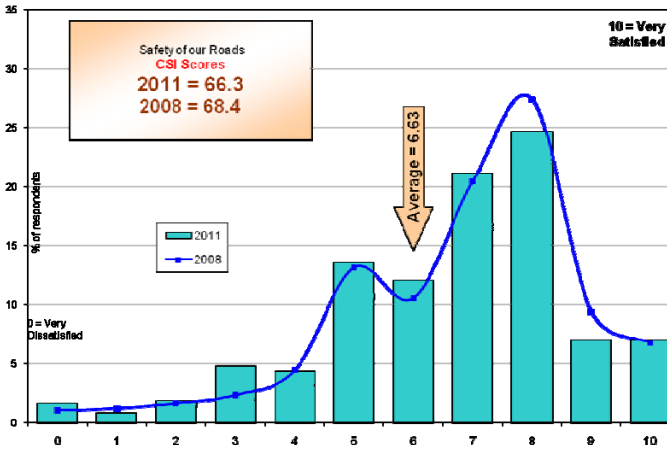
Satisfaction with the 'Safety of our roads'

Respondents were asked to rate their satisfaction with the 'Safety of our roads', using a scale where 0 is very dissatisfied to 10 being very satisfied.

Almost two thirds of the respondents (60%) were satisfied with the 'Safety of our roads', (Scores 7 – 10). A seventh (14%) rated this with a score of 9 or 10 (exceeded expectation). The mode was a score of 8 (25%).

Over a quarter of the respondents (29%) rated their satisfaction with a score that was neutral (Scores 4 – 6), and 9% rated with scores that reflect dissatisfaction (Scores 0 – 3).

The CSI score for the 'Safety of our roads' was 66.3. This is 2.1 points lower than 2008 and now reflects a fair performance but needing improvement.



Satisfaction with 'Safety of our Roads' by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The chart opposite compares these variables.

The analysis shows that there are reasonable levels of satisfaction with the 'Safety of our roads' across most of the subgroups of interest.

The variables that appear to have had the greatest impact on

satisfaction with the 'Safety of our roads' were:

- Those from the Taneatua / Waimana Ward (CSI score 57.0) are significantly less satisfied than those from the other Wards
- Those who live in the Country (CSI score 61.6) are significantly less satisfied than those who live in Town (CSI score 69.9)
- Those in the over 65 age group (CSI score 70.0) appear more satisfied than those in the other age groups (CSI score 64.0 – 65.6)
- Those with a household income of under $30,000 (CSI score 69.4) appear more satisfied than those in the higher income brackets.
- Respondents who thought they received good value for their rates (CSI score 75.7) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 56.5).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 71.1) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 53.0)
- Those who were satisfied with the overall performance of Council (CSI score 70.8) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 49.0).
- Those who lived on Residential Sealed Roads (CSI score 68.4) were significantly more satisfied than the few who lived on Country Unsealed Roads (CSI score 38.2).

Council Parking

Frequency of using Council Parking in Whakatane

Three quarters of the respondents (74%) had used the Council parking in Whakatane in the past 12 months, while 26% had not used this.

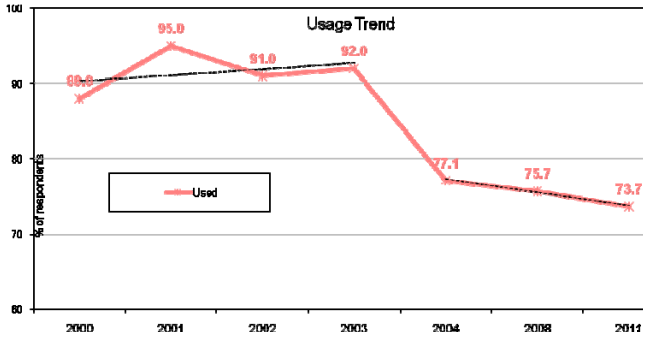
The largest group (41%) used the Council parking in Whakatane weekly. Close to a tenth of the sample (8%) had used this on a daily basis while 14% used this monthly and 11% used this once per year.

Usage of the Council parking in Whakatane was lower in the Murupara / Galatea Ward (46%) but ranged from 76% - 86% in the other Wards.

Comparing the history of Council Parking in Whakatane usage shows that current usage at 74% is down 2% from the 2008 result.

The chart shows the usage trend for Council Parking in Whakatane based on the percentage that had used these facilities in the past 12 months. Usage at 73.7% is 2.0 points lower than that recorded in 2008. This is lowest usage recorded to date.

Note: It is probable that changing the question wording from Council parking to Council parking in Whakatane in 2004 has caused the drop in usage from the 2000 – 2003 results.

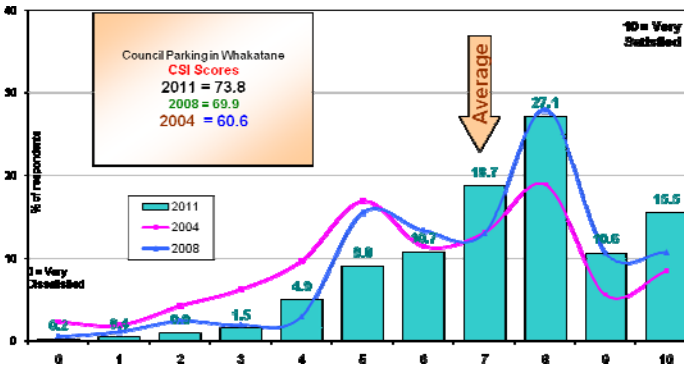


Satisfaction with Council parking in Whakatane

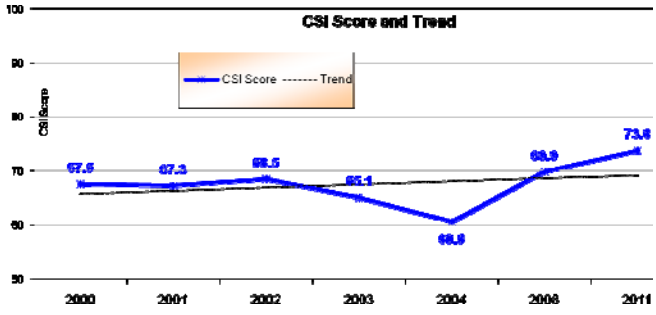
Respondents who had used Council parking in Whakatane in the last 12 months (n=294) were asked to rate their satisfaction using a scale where 0 is very dissatisfied to 10 being very satisfied.

Three quarters of the respondents in the subgroup (72%) were satisfied with Council parking in Whakatane (Scores 7 – 10). A quarter (26%) of the users rated these with a score of 9 or 10 (exceeded expectations). The mode was a score of 8 (27%). A quarter of the subgroup (25%) rated the Council parking in Whakatane with a score that was neutral (Scores 4 – 6), and 9 respondents (3%) rated with scores that reflect dissatisfaction (Scores 0 – 3).

The CSI score for Council parking in Whakatane was 73.8. This is a rise of 3.9 points from 2008 and this now indicates a good level of satisfaction.



The CSI score of 73.8 is 3.9 points higher than the 2008 result. This is the highest result recorded by the monitor and the latest result is well above the trend of recent readings.



Satisfaction with Council Parking in Whakatane by demographics

There are a number of variables which appear to have a significant impact on satisfaction with Council services and facilities. The analysis shows that there are reasonable levels of satisfaction with Council Parking in Whakatane across most of the subgroups of interest

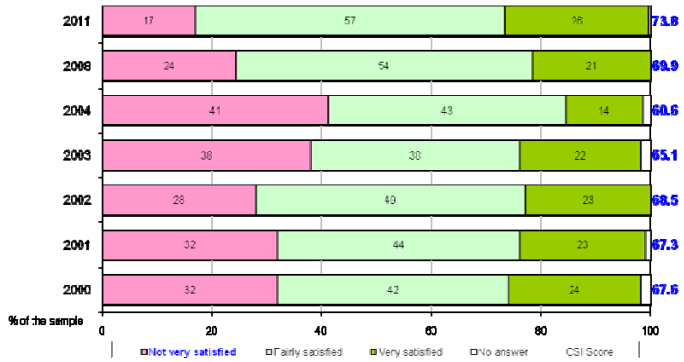
The variables that appear to have had the greatest impact on satisfaction with Council Parking in Whakatane were:

- Respondents from town (CSI score 75.3) are more satisfied than those from the country.
- Respondents aged over 65 (CSI score 76.4) appear more satisfied than those from other age groups.
- Respondents who have lived in Whakatane for less than two years (CSI score 80.5) appear more satisfied than those who have lived there longer (CSI score 72.7 – 75.6).
- Respondents who thought they received good value for their rates (CSI score 80.4) were significantly more satisfied than those who thought they got poor value for their rates (CSI score 62.6).
- Those who rated Whakatane as a place to live with scores of 9 or 10 (CSI score 79.1) were significantly more satisfied than those who rated Whakatane as a place to live with scores of 0 to 6 (CSI score 59.8)
- Those who were satisfied with the overall performance of Council (CSI score 79.4) are significantly more satisfied than those who were dissatisfied with the overall performance of Council (CSI score 59.2).

The respondents who used Council Parking in Whakatane daily (CSI score 86.4) are significantly more satisfied than those who use these less often.

Council Parking in Whakatane Satisfaction Comparison with History

The following chart compares the history of satisfaction with the Council Parking in Whakatane using the previous 3 point scale and an estimated CSI score for each year. This shows that the largest group of users, (57%) are fairly satisfied with the Council Parking in Whakatane with a further 26% being very satisfied. A sixth of the respondents were not very satisfied.



Comparing the proportion of respondents who were less than satisfied versus those who are satisfied shows that satisfaction levels have increased sharply again this year.

Customer Service Requests and Complaints

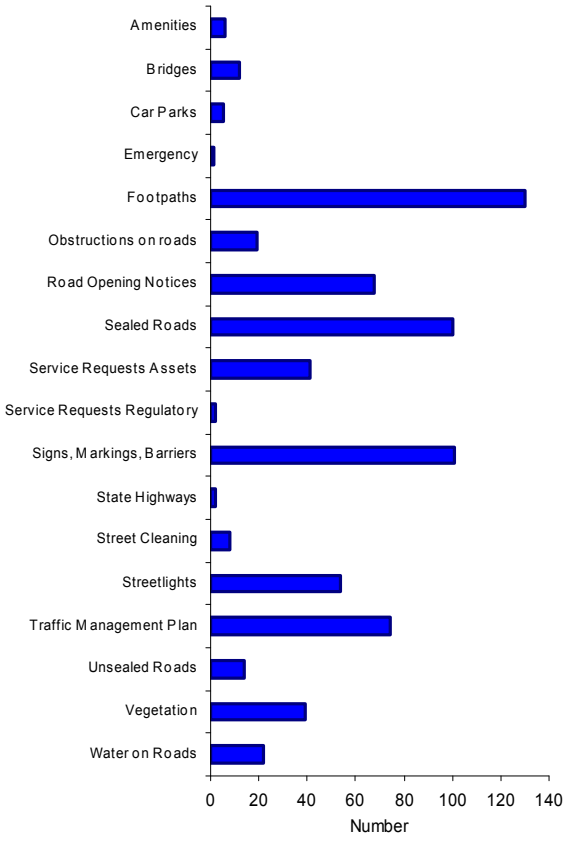
Whakatane operate a customer calls register on the Ozone system. This system has been in place since March 2009 and is providing more detailed information on customer service requests can be collated, trends can be analysed and a clearer understanding of opportunities for improvement can be identified.

Data for the 2006/07 financial year has been collated and analysed below. (Please note: The last month of the 2005/2006 financial year has also been included as this was the only month of data available for that financial year). This data was acquired from the Requests For Service (RFS) that were logged directly with the Roading Contract Manager (Opus), as not all requests were logged using the existing Apache system. Due to the lack of a feedback loop it is not possible to demonstrate how many requests were resolved within the target timeframe. However it is anticipated that with the implementation of the Ozone system this will be able to be demonstrated in the future.

For the 2006/2007 financial year the Roading Contract Manager received the following customer calls.

Requests for Service – 2006/07

Figure 3: RFS Received by Roading Contract Manager

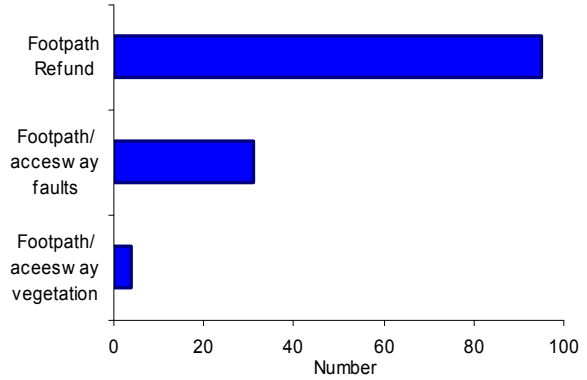


Of these the following categories can be broken down further:

- Footpaths
- Signs, Markings, Barriers
- Sealed Roads
- Vegetation Maintenance
- Water on Roads
- Unsealed Roads

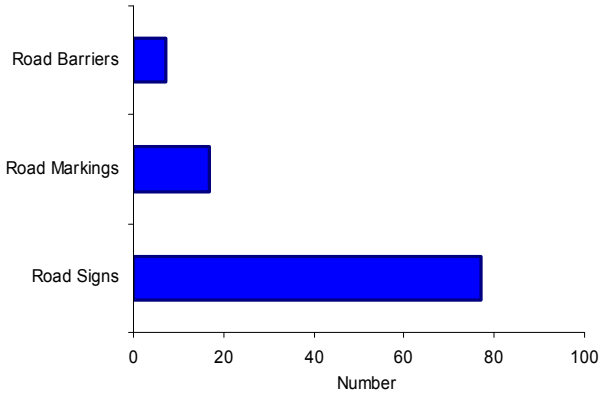
The largest number of RFS received related to footpaths (130 or 18.62%). Of these 95 were regarding a footpath refund.

Figure 4: RFS Regarding Footpaths



The second largest number of RFS received was regarding Signs, Markings and Barriers.

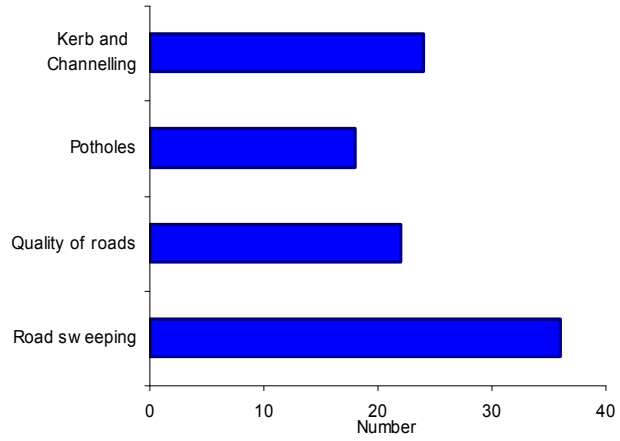
Figure 5: RFS Regarding Signs, Markings and Barriers



A total of 101 calls were received (14.47%). The majority of these related to road signs. Smaller numbers of calls related to road markings (17) and road barriers (7).

The third largest number of RFS received was regarding Sealed Roads.

Figure 6: RFS Regarding Sealed Roads



These totalled 100 calls (14.33%), only one less than Signs, Markings and Barriers.

The majority of these calls related to road sweeping (36), while a large number related to kerbing and channelling (24). 22 calls were received about the quality of roads, and 18 were received about potholes. If calls relating to quality and potholes are combined, this totals 40 calls relating to the quality of the road surface (or 40% of calls relating to sealed roads).

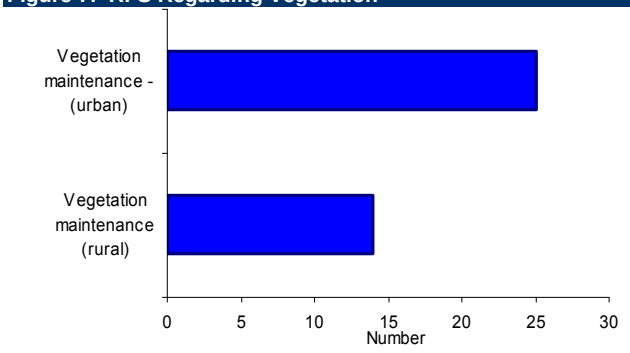
A significant number of all calls were received regarding Traffic Management Plans (74 or 10.60%) and Road Opening Notices (68 or 9.74%).

54 calls were also received regarding Streetlights (7.74% of all calls).

Fewer calls were received regarding the other RFS categories. Of these however, three should be noted as they can be further broken down for analysis: Vegetation (39 calls or 5.59%); Water on Roads (22 calls or 2.15%); and Unsealed Roads (14 calls or 2.01%).

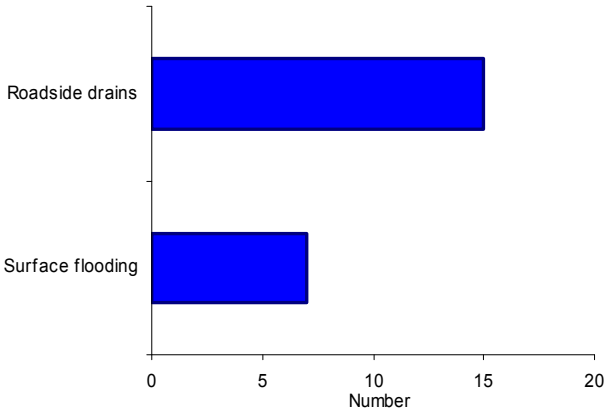
Of the 39 calls received regarding vegetation, 25 were related to urban vegetation (e.g. overgrowth on paths, access ways and streets), while 14 related to rural vegetation (e.g. overgrowth on rural roads).

Figure 7: RFS Regarding Vegetation



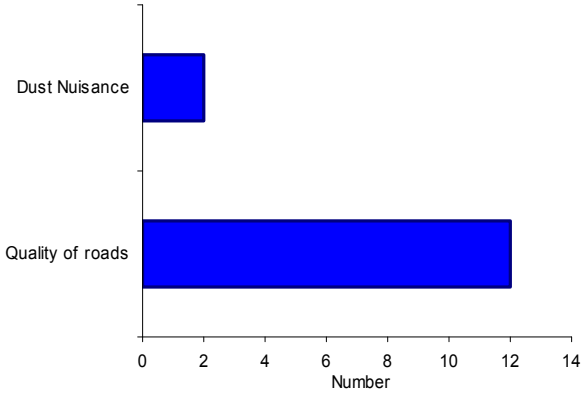
Of the 22 calls received regarding water on roads, the majority related to roadside drains (15) and the remainder related to surface flooding (7).

Figure 8: RFS Regarding Water on Roads



Of the 14 calls received regarding unsealed roads, the majority related to the quality of the roads (12 calls). The remainder related to dust nuisance (2 calls).

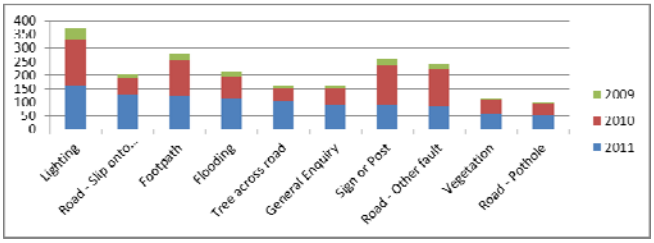
Figure 9: RFS Regarding Unsealed Roads



Requests for Service – 2009 - 2011

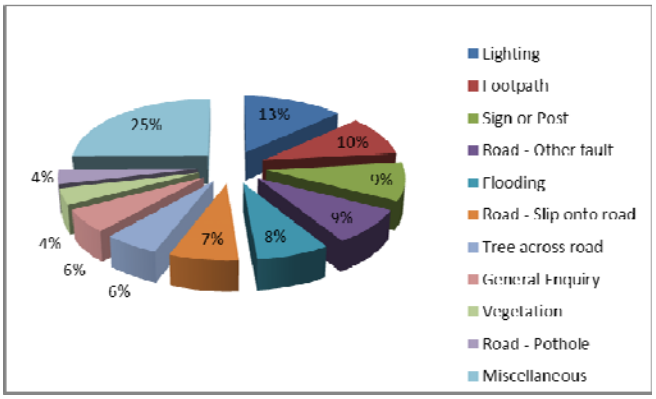
The data below is for 3 months in 2009, a full year in 2010, and 10 months in 2011.

Figure 10: RFS for all faults



The Top 5 faults of 2011 year to date are Lighting, Road – slip onto road, footpath, flooding and Tree across road.

Figure 11: Breakdown of RFS all fault types from 2009-2011



There is an increasing trend in lighting and footpath faults year on year.

Seal Extension Policy

The issue of seal extensions was consulted on through the process of the 2005/06 Annual Plan, and the 2006 LTCCP process.

A large number of submissions were received in the 2005/06 Annual Plan process. Many of these were 'proforma' submissions, which were submitted by a number of different people.

The volume of submissions received led to the development of the Seal Extension Policy. This was developed prior to the 2006 LTCCP consultative process, so the number of submissions received regarding seal extensions during this process decreased.

In 2008 the Policy was revised following submissions that came up via the Annual Plan process.

Due to funding constraints the Extensions budget is not included in the 2012-2015 LTP.

"Eastern Bay – Beyond Today"

The Whakatane District, Opotiki District, Kawerau District and Bay of Plenty Regional Councils took part in a collaborative process to determine Community Outcome for the Eastern Bay of Plenty. This process was called "Eastern Bay – Beyond Today".

Over 400 stakeholders were invited to four forums and a hui. These stakeholders ranged from government agencies, to community groups, iwi and business. Draft themes for community outcomes were the result of these meetings and used as the basis of district consultation.

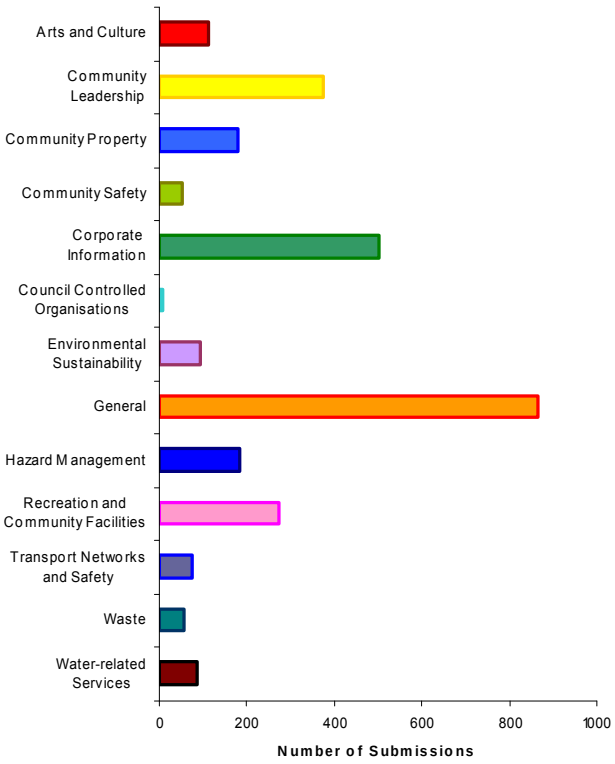
Continuing on from this in 2005, residents, ratepayers and absentee owners in the Whakatane District were encouraged to get involved in community and targeted meetings, workshops, displays and feedback stands. The resulting feedback received from over 900 people was used to draft the community outcomes.

2009-19 LTP Consultation

Background

A Draft Long Term Community Council Plan (LTP) has been published for 2009 -2019 and the consultation period closed on the 8th of June 2009. A total of 1,164 people submitted on the proposed plan with a combined total of 2,861 submissions. The submissions received covered a wide range of topics across all of Council activities with the results summarised in the following graph.

Figure 12: Overview Draft 2009/19 LTP Submissions



Interpretation

By far the largest numbers of submissions received were in the 'General' category and refer to a short form submission. These forms accounted for 30% of the submissions.

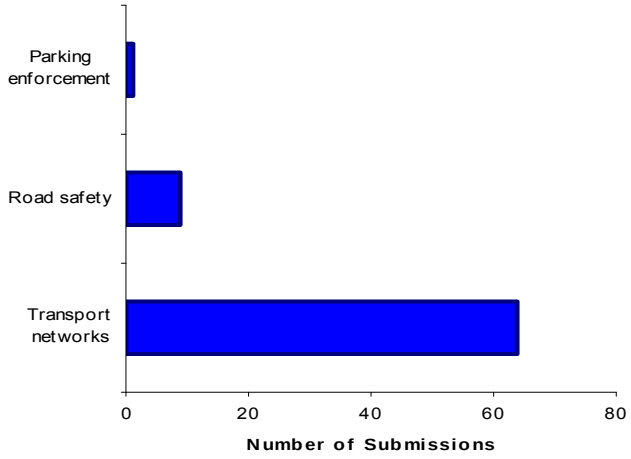
The next highest number of submissions was for Corporate Information with 18% of the total submissions. The majority of submissions under this category concerned opposition to the closure of the Murupara Service Centre, retention of the Harbour Endowment Fund and opposition to rates increases.

Transport Networks and Safety accounted for 3% of the submissions with 74 submissions received in total as part of the LTP consultative process.

Submissions on Transport Networks and Safety

The composition of the 74 submissions received for Transport Networks and Systems is shown below:

Figure 13: LTP Submissions on Transport Networks and Safety



Interpretation

Submissions that fell within the area of Transport networks and systems covered a range of issues. 64 submissions related to transport networks, 9 to road safety and 1 concerned parking enforcement. There were no submissions relating to airports

At least 3 opposed the proposal of the widening of Wanui and Thornton Roads; 6 were requests for sealing on Kope Drain/Jones Road and 8 concerned the need for maintenance on Ruatahuna Road.

There was support for projects which progress the walking and cycling strategy with at least 14 submissions concerning cycling or cycle ways. At least 4 submissions were in support of the new proposed bridge in Whakatane.

Not enough parking was noted around the athletic domain and at the end of Brabant Street. Under the parking enforcement category there was a request from members of the Disabled Persons Assembly Eastern Bay of Plenty for an audit to be carried out of disabled car parks in The Whakatane District to ensure they comply with NZ standards.

Current and Future Stakeholder Consultation

The LGA (2002) has given communities a mandate to become more involved in Council's decision-making processes. It is important to note that local government is a representational democracy, so the final decision is vested in elected members.

Whakatane District Council will work with the community, willing partners, iwi, organisations and agencies – both government and private, national and local. A range of consultation methods will be used to ensure public participation in this process.

Whakatane District Council will identify key organisations that can influence and contribute to community well-being, building on historic relationships and forging new links. Council will also encourage all residents in the District to participate in determining community outcomes.

Consultation Record

Table 2 outlines the recent consultation that Council has been involved with regarding this activity.

Table 2: Historical Consultation Record

Year	Issue	Consultation Approach taken
2005	"Eastern Bay – Beyond Today" Community Outcomes for the Eastern Bay of Plenty	A collaboration with Opotiki District, Kawerau District and Bay of Plenty Regional Councils. Involved 4 forums and a hui with over 400 stakeholders; community and targeted meetings; workshops; displays and feedback stands with resultant feedback from over 900 people.
2005	Strategic Plan of the Iwi Liaison Committee	Strategic planning sessions
2005/06	Seal Extension Policy	Consultation on this issue undertaken as part of the 2006 LTCCP
2007/ 2008	Transport Study	Special Consultative Procedure
2007/ 2008	Walking and Cycling Strategy	Special Consultative Procedure
2007/ 2008	Speed Limit Bylaw	Special Consultative Procedure
2009/ 2010	Walking and Cycling strategy (ongoing)	Special Consultative Procedure
2009/ 2010	Transportation Master plan	Special Consultative Procedure

Proposed Future Consultation

Table 3 outlines the new proposals that Council will be engaging with the community on are as follows:

Table 3: Future Proposed Consultation

Year	Issue	Proposed Consultation Approach

Future Strategies

- Although the residents survey was discontinued in 2005, it was reintroduced in 2008 enabling useful comparison with past performance and facilitating analysis of customer satisfaction;
- Whakatane will consult on the Long Term Plan every three years, and the annual plan on a yearly basis. The community will be encouraged to make submissions on issues contained within these plans, including Transport;
- Other consultation may be ongoing on an as-required basis or as the need arises, specific to community assets;
- The Ozone customer request for service system (by Origen Technology Ltd)) has been implemented across the organisation. This will allow for the accurate capture of query/complaint data and allow calls/requests to be tracked through allocation to relevant departments and eventual resolution.
- Levels of Service benchmarking, specific to Transport will be undertaken via a survey or through an LTP process.

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Introduction

This section describes the strategy that Whakatane will adopt for growth and demand related to the transport activity.

The Local Government Act requires that growth and demand be considered as part of asset management planning to ensure that future requirements are identified and planned for. This will ensure that the needs of the individuals, the community and the District can be maintained over the long term. Relevant legislation is discussed in Section 8, Strategic Environment.

The key drivers that influence growth and demand are:

- Population Considerations
- Residential and Business Development, and
- Demand management

Planning for future growth and demand is imperative to provide an economically sustained pathway to meet the needs of the District and visitors to the District. The provision of the transport activity and its management is an essential element in the planning process.

Growth vs. Demand

Growth and demand planning allows for the identification and quantification of areas within the District that are likely to experience significant pressures. Although Growth and Demand are considered together in this section, it is worth noting that they do have different implications regarding the on-going function/delivery of the activity.

Growth in relation to the Transport activity, mainly refers to the growth in population or areas that are growing due to new residential and commercial developments. These changes increase traffic flows due to commuting, heavy commercial vehicles increase due to increased demand for goods and services etc. This essentially leads to an increase in the volume of traffic in the network and changes in the location of traffic movements.

Demand for services can be influenced by growth, alternative modes of transport, type of developments, costs of Transport.

Overview

The Whakatane District consists of a number of urban communities that vary in population. According to the Statistics NZ medium growth scenario, projected growth for the District is expected to decline past 2006 but that decline does not necessarily mean an overall decline in demand. The rural to urban shift, the shift to the increasing number of properties housing fewer people and the attraction of visitors to Whakatane as a holiday destination have resulted in increased demand on existing facilities in areas around the District, particularly Ohope.

To assist in the development of this section a number of sources have provided important information on the key drivers, which are considered vital for the District moving forward.

The following documents set out anticipated growth:

- Whakatane Integrated Urban Strategy 2010
- Whakatane and Ohope Residential Growth Strategy – Review 2009
- Industrial Land Strategy 2010 Review Report
- Business Land Demand – August 2008
- Whakatane Retail Strategy – August 2005
- Whakatane Transportation Study 2007
- Airport Masterplan May 2008

The demand resulting from the growth (based on medium growth scenario) and its impact on the transport system are set out in the Whakatane Township Network Investigation Report July 08. A suggested approach to managing demand on the road network is also is set out in this report.

The Whakatane Integrated Urban Strategy adopted by the Council in September 2010 (details are followed) is based on a growth rate of around 1% and expected a population of 25,000 by the year 2050. The Transportation Study needs to be reviewed to accommodate this growth. The 10 year work programmes identified in this AMP is based on the Statistics NZ medium growth scenario.

Other demand management strategies include:

- Regional Land Transport Strategy
- WDC Walking and Cycling Strategy – October 08
- SH2 Alternative Routes Scoping Study Report – February 08

Structure

This section now considers

- Council's Growth Management Strategy – Council's approach to manage the growth
- Current travel behaviour - how are the transport assets being used?
- Population change – what natural change in demand is expected?
- Residential and Business Growth –changes in demand resulting from development
- Impacts on the transport activity – how will demand affect the current assets?
- Management Strategies – what is the plan for managing demand?

Council's Growth Management Strategy

Growth Management Strategy Development

In 2000, Whakatane District Council published a report, authored by Beca Carter Hollings & Ferner Ltd (Beca). The report outlined a Residential Growth Strategy for Whakatane and Ohope for the next 20 years based on a medium growth scenario from Statistics New Zealand. This report was subsequently updated by Beca in 2007 and in 2009 with more recent population and land use data.

The key outcome of the residential study was the confirmation that urban Whakatane is constrained by its environment. There are limited opportunities for expansion of the urban area given the location of the town being bounded to some degree by the river, the coast, an escarpment and with land stability hazards in the hill country and flooding hazards of the low plains.

The Whakatane Integrated Urban Growth Strategy was adopted by the Council in September 2010. The findings of the 2009 review of Residential Growth Strategy and various other industrial, commercial and transportation studies contributed to develop this new strategy.

Whakatane Integrated Urban Growth Strategy

This strategy focused on the township of Whakatane and includes the main urban area, Coastlands to the west and Ohope to the east. However, the strategy acknowledges that the smaller rural towns play an important role for future housing opportunities.

The Council has considered four growth scenarios for the area and selected the scenario 'A growing town'.

Scenario: A Growing Town

A population of 25,000 in 2050. An additional 3,000 jobs are required to provide income to additional households. The potential is there for more young people to remain in Whakatane as they see opportunities arise.

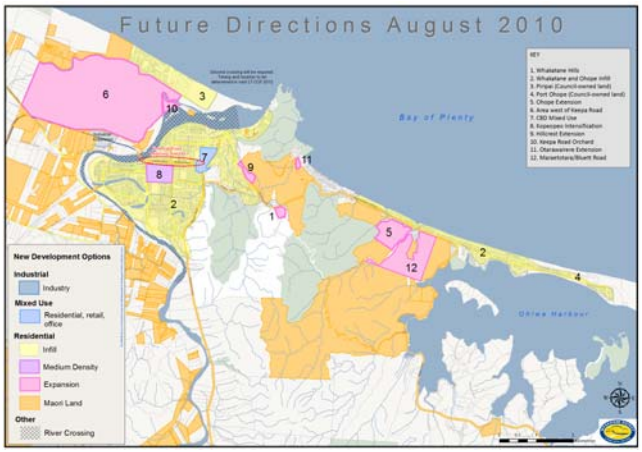
This scenario assumes an annual growth rate of around one percent, which is significantly higher than the high projection provided by Statistics NZ. It was considered preferable to explore the effects of more rapid population growth as most of the risks of managing growth relate to underestimating rather than overestimating the pace of change. If population growth is slower than projected, then the release of land for new development and building of new infrastructure can be postponed.

The Council's approach to accommodate this growth is a mix of high density development and green field development (hybrid philosophy).

Detailed information on this study is provided in the appendices and the preferred location of growth areas are shown in Figure 1.

The recommendations of this strategy are being further explored as part of the review of the District Plan, currently underway.

Figure 1: Preferred Locations of Future Growth



Current Travel Behaviour

Vehicle Ownership and Usage

The district is typical of a rural area with high car ownership and usage. The Statistics New Zealand 2006 census data revealed that 15.3% of households in the District have access to three or more motor vehicles, compared to 15.9% of all households for New Zealand. Ownership and usage levels are seen as acceptable given the need for communities to access services.

Walking and Cycling

Development in Whakatane has been characterised by low-density suburban development that is heavily dependent on private motor vehicles for every-day transportation. Footpaths have generally been constructed when roads are built, although consideration of concepts like connectivity and providing where people wish to walk have often been overlooked in this process.

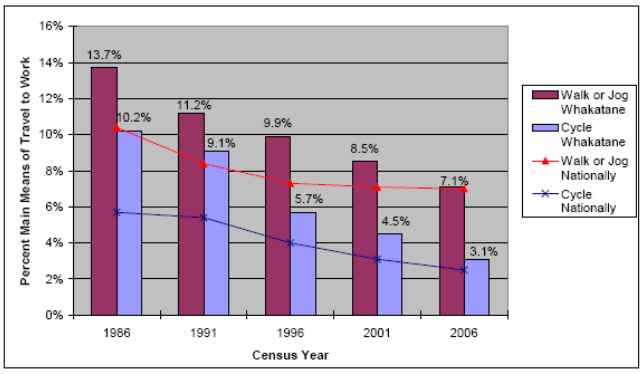
Perceptions of poor safety are reasons given for not walking or cycling. Crime, anti-social behaviour, vehicle speeds and increased traffic volumes, and poor driver behaviour are all perceived or real safety factors. Public walkways are often viewed as unsafe as historically they tend to be fenced on both sides, narrow, poorly lit, often vandalised, and vegetation not always adequately maintained.

Lack of maintenance, resulting in broken footpaths, overgrown vegetation and un-swept cycle lanes as examples, pose a safety risk for and have a negative effect on the quality of the environment and the goal of encouraging cycling and walking.

Figure 2 illustrates that commuter walking is more popular than commuter cycling in Whakatane; however both transport modes have experienced a steady decline in participants since 1986. In 1986, 13.7% walked (jogged/ran) and 10.2% cycled to work as their main means of travel, compared with 7.1% and just 3.1% respectively 20 years later in 2006.

For New Zealand as a whole, the graph similarly shows a reduction over the same period for commuter cycling rates, while the number who walk to work initially reduced but has been static at around 7% since 1996. For all years shown, the rates of commuter walking and cycling in Whakatane have been above or equal to the national figures (Walking and Cycling Strategy).

Figure 2: Walking and Cycling Statistics



Source: Walking and Cycling Strategy, February 2007

Improved safety and maintenance could improve the effectiveness of walking and cycling assets.

Congestion

Peak hour delays have been observed at Landing Road Bridge where the reduction in lanes from three inbound lanes to one and the intersection with Hinemoa Street are considered contributing factors.

The Whakatane Township Network Investigation Report has used a traffic model to reflect current and future traffic patterns. The concept of Level of Service has been used to identify these deficiencies, i.e. where congestion is experienced, by using capacity as a subjective measure of the way in which a link or intersection is operating under the traffic demands that are placed on it.

It identifies the Whakatane River Bridge as the key deficiency in the network as congestion in the morning peak on the southbound lane is indicated. However, whilst the level of congestion may rate high at a local level, when assessed against national criteria, and the wider congestions problems in other parts of NZ, it rates well below the threshold where it will attract NZTA funding.

Route security

One of the major challenges facing the district is its vulnerability to extreme weather events and natural disasters. This has an impact on all modes of travel – including air travel – and is a factor in the planning of both land use and transport infrastructure. NZTA have undertaken an Eastern Bay of Plenty Route Security study, in close consultation with the Eastern Bay of Plenty Councils and the Regional Council. This study has identified a number of capital projects that will improve route security if they are able to be funded.

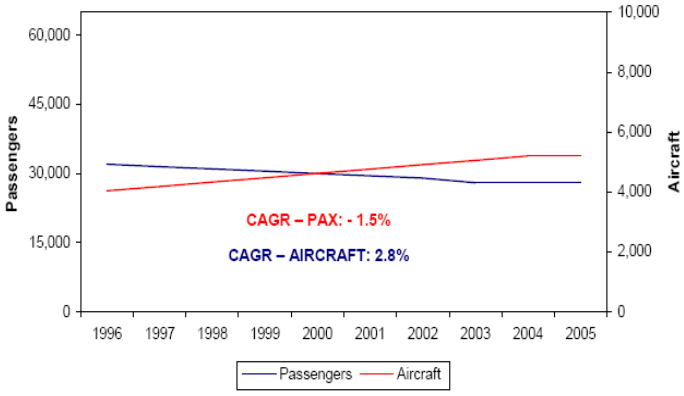
A key route security issue is secure access over the Whakatane River. The existing two bridges have high seismic risk profiles and there is a sound argument for the provision of a second bridge for route security reasons, if not for congestion relief.

Air travel

Whakatane Airport services the lowest population base and has the lowest passenger throughput of the existing Bay of Plenty airports (includes Tauranga and Rotorua). In 1996, Whakatane Airport had 32,000 passenger movements; this number has fallen to 28,000 over the past 10 years.

Figure 3 presents the historical traffic movements for Whakatane Airport. The airport has experienced a steady increase in aircraft movements of 3.3 per cent compound annual growth from 1996 to 2005. Passenger numbers have trended in the opposite direction, decreasing continually over the ten years, with a compound annual growth rate from 1996 to 2005 of negative 1.6 per cent (Whakatane Airport Data and URS Analysis).

Figure 3: Historic Whakatane Aircraft and Passenger Movement Data 1996 - 2005



Source: Whakatane Airport Data and URS Analysis

Population Change

The following section investigates the demographics of the Whakatane region; to gain an understanding of the potential needs of the community and where facilities may be required in future as growth occurs in different areas.

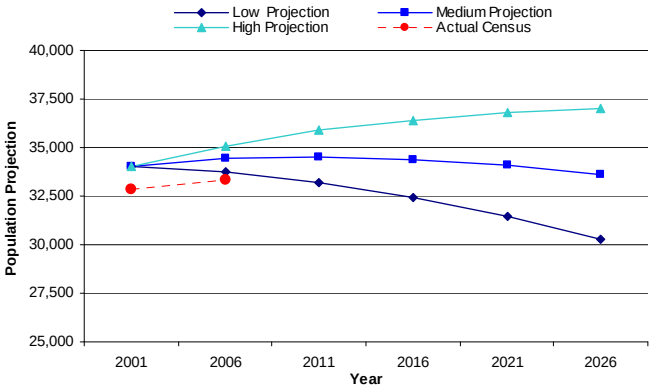
Demographic Overview

At the 2006 census, the District had a population of 33,300 (a gain of 435 from 2001) with the largest urban area being Whakatane (including Ohope). A total of 70% of the population live in the urban areas of Whakatane, Edgecumbe, Murupara, Te Teko, Taneatua and Matata.

Overall, rates of growth in the Whakatane urban area have slowed since the 1990s but there is strong growth in particular nodal areas such as Coastlands. This is symptomatic of a general trend –both nationally and internationally- of people moving closer to the coast.

Figure 4 below shows the low, medium and high population projections for the Whakatane region over the next 20-year period. This information has been extracted from the Whakatane and Ohope Residential Growth Strategy, which is based on Statistics New Zealand data. This is discussed in further detail below.

Figure 4: Whakatane District Population Projection



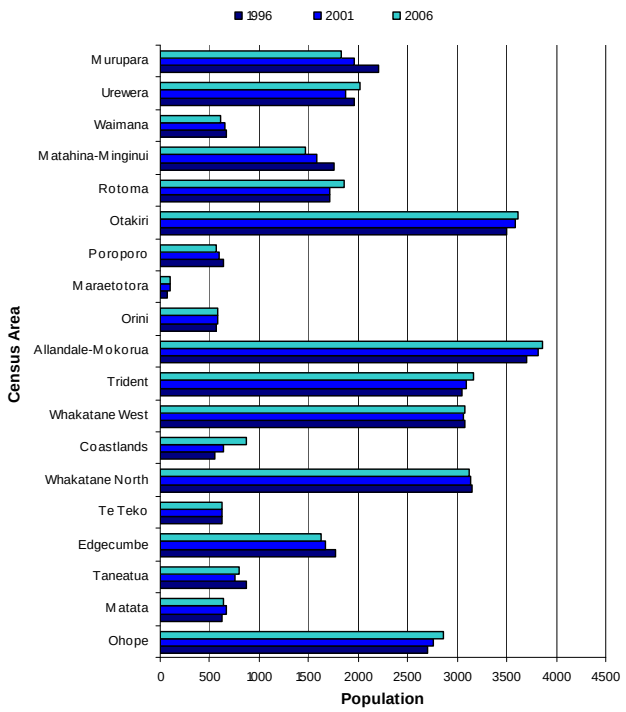
The medium projection has a similar gradient to the actual rate of change for the region and has been assumed for this management plan.

From the above figure, it is evident that the medium projection has a similar gradient to the actual rate of change for the region. This projection shows a slight population decline. Net migration projections and an ageing population are the main factors associated with this gradual change, as the 65+ age group has been increasing across the district since the 1980s.

Figure 5 shows the change in population across the district over the last three census periods. The census areas that have increased the most significantly included: Ohope, Coastlands and Rotoma. Murupara had the most significant decrease.

Although the district's population is predicted to decline past 2011, the urban areas of Whakatane, Piripai and Ohope are expected to experience significant growth.

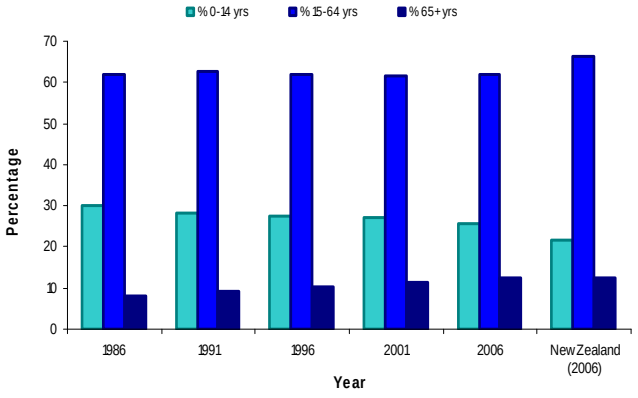
Figure 5: Population Census Figures between 1996-2006



Age Profiles

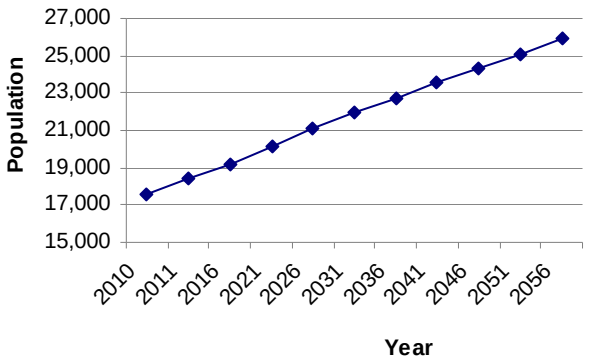
Figure 6: Changing Age Distribution 1996-2006indicates the changing population distribution in the Whakatane District since the 1996 census. The graph shows a clear trend which points to an increasing aging population (65+) years and a decreasing younger population (0-14 years). This reflects the national trend and is not unexpected.

Figure 6: Changing Age Distribution 1996-2006



Statistics NZ compiled a table in October 2009 setting out National Population Projections from 2009 – 2061 for NZ at a national level. Nine projections with different assumptions of fertility, mortality and net migration have been included into this table. Series 9 uses high fertility, low mortality and high net migration. Extrapolating the percentage growth at the national scale to the urban base population scale shows that by 2051 the Whakatane population would attain 25,105. The Whakatne Integrated Urban Growth Strategy is based on this growth prediction which is shown below.

Figure 7: Whakatane Integrated Urban Growth Strategy - Population Projection



Employment Statistics

Figure 8 provides a comparison of employment statistics in Whakatane with national statistics. In general Whakatane has a smaller percentage of fully employed people and slightly higher total unemployed rate. This is however balanced by a lower than average working age population.

Figure 8: Comparison with National Employment Statistics

In general Whakatane has a smaller percentage of fully employed people and slightly higher total unemployed rate. This is however balanced by a lower than average working age population.

Figure 9 and Figure 10 provide insight into the comparative ability of Whakatane residents to pay for services. in particular shows that in general Whakatane residents earn less than those in other non-metropolitan areas and significantly less that the national statistics indicate.

This ability to fund major transport improvement schemes even with NZTA contribution is a significant factor in determining how demand should be managed.

Figure 9: Professions

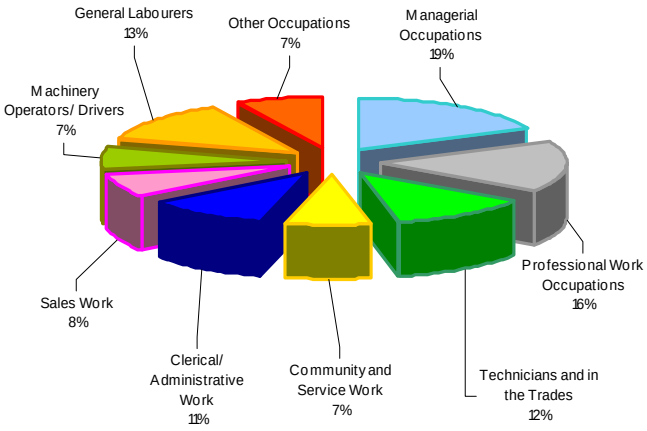
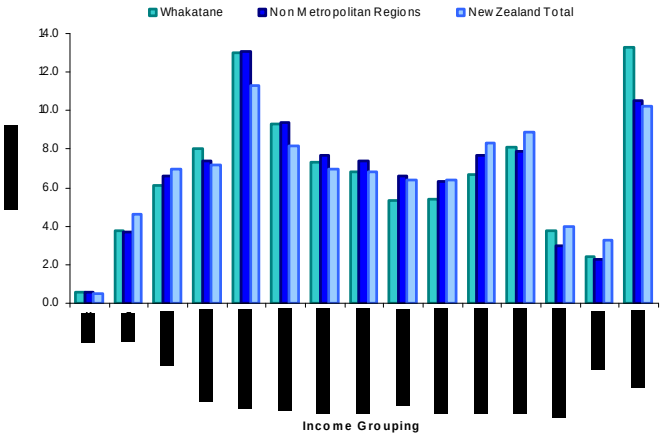


Figure 10:: Comparison with National Employment Statistics



Deprivation Index

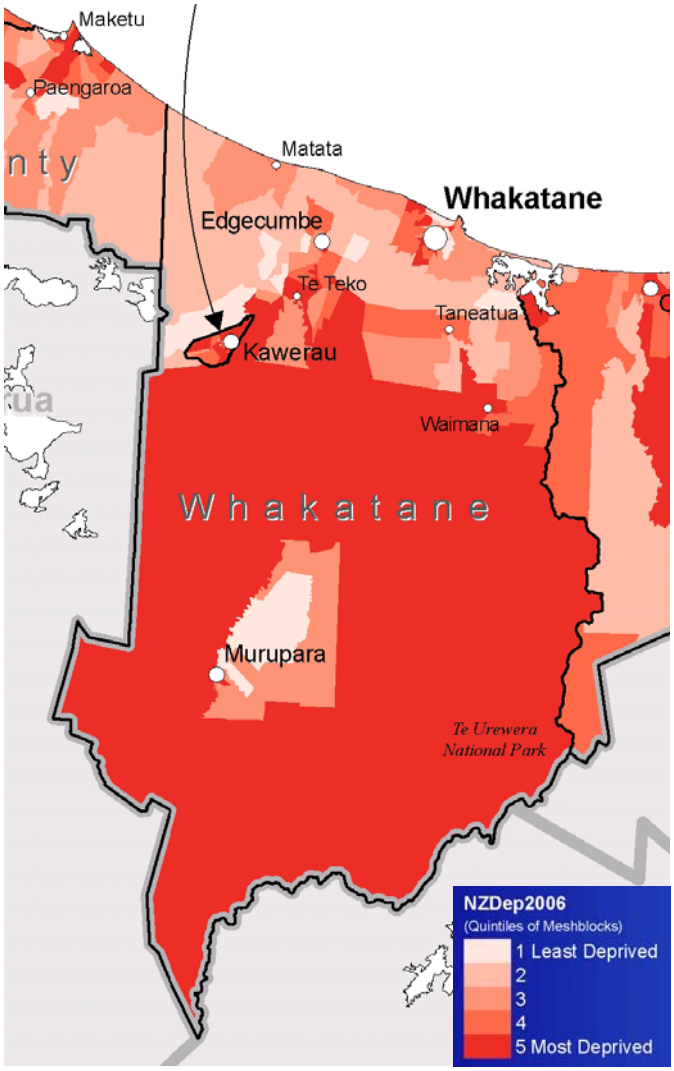
The New Zealand Deprivation Index for 2006 (NZDep2006) is a measure that takes into account various factors including employment status, income, lifestyle and accessibility, with the most deprived areas having a greater value. It is a decile-based measurement, which compares relative deprivation throughout the country. The Whakatane District averages a decile 8 rating. Table 1 below shows the decile for each census area unit of the District and Figure 8 shows the deprivation profile of the Whakatane District. The Whakatane District has high levels of deprivation, which may affect development and growth patterns. The relative deprivation of the residents in the district may affect the transport activity across Whakatane, particularly if some settlements are unable to afford to pay for services.

Table 1: Census Area Unit NZDep2006 Values

Census Area Unit	Decile	Population (Census 2006)
Ohope	4	2856
Matata	9	642
Taneatua	10	792
Edgecumbe	9	1626
Te Teko	10	627
Whakatane North	9	3114
Coastlands	1	873
Whakatane West	9	3084
Trident	10	3159
Allandale-Mokorua	7	3867
Orini	10	576
Maraetotara	6	108

Census Area Unit	Decile	Population (Census 2006)
Poroporo	9	570
Otakiri	4	3609
Rotoma	9	1863
Matahina-Minginui	10	1464
Waimana	10	615
Urewera	10	2022
Murupara	10	1836

Figure 11: Whakatane Deprivation Index 2006



Note that the Te Urewera National Park and Whirinaki Forest Park account for a considerable portion of the red in the figure above.

- In May 2008 the Minister of Transport asked that $10 million per annum be set aside in the national land transport programme (NLTP) to provide targeted funding assistance for approved organisations to meet transport needs for established communities in areas of high socio-economic deprivation. This funding source is known as the Community Transport Fund, or "T funds". These funds were accessed through a successful application to NZTA to provide further seal exctension to the Ruatahuna Road, and in 2011 a $400,000 seal extendsion was approved and constructed. This took the sealed section to the top the Tarapounamu summit. However a change of Government has seen these funds become no longer available.

Residential and Business Growth

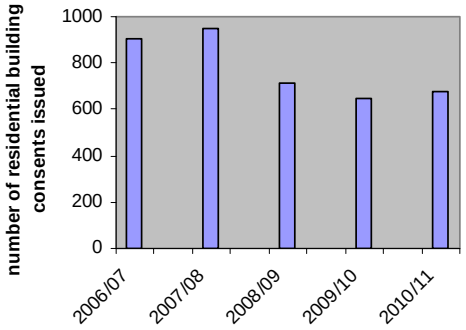
Residential Development

Whakatane urban and coastal areas are undergoing a surge in residential and commercial development due, in part, to the increasing number of people wishing to live and retire to a coastal area and the attraction of Whakatane as a holiday destination.

Historical Building Consents

Figure 12 below shows the total number of building consents for residential dwellings processed from 2006-2010.

Figure 12: Historical Building Consents



Anticipated Residential Development by 2050

It is understood that the residential growth should be higher than the historical to implement the Council's 'A Growing Town' scenario. To accommodate 25,000 people by 2050, an additional requirement of 200ha residential area has been estimated. This is based on the existing residential zoned land being taken up, a future average density of 12 – 15 dwellings per hectare, and an average household occupancy between 2.4 – 2.5. The quantum of additional residential zoned land could be over or under estimated depending on variety of factors. The only way to ensure that the Council is keeping ahead of development is to monitor population growth and uptake of residential land.

Industrial Development

Primary Industries

Essential to a predominantly rural authority, primary industries provide economic benefits locally, nationally and internationally within each industry sector. The nature of these industries represents a high demand on Transport infrastructure, which is aligned to the growth and demand of products.

Agriculture & Horticulture

Dairying has long been the District's agricultural mainstay, with farm conversions steadily increasing the number of dairy units. The resulting growth in milk production has averaged 2 to 3% each year for a considerable period, supporting the main industry of the Rangitaiki Plains and Fonterra Edgecumbe processing plant.

The fertile soil of the district also supports a variety of horticultural activities including market gardens, apple, avocado and kiwifruit orchards and floriculture. An increase in kiwifruit production has resulted in major expansion of the Eastpack kiwifruit packhouse at Edgecumbe.

Forestry

The district has an area of approximately 433,000 ha, of which one-third is planted in exotic forests. Rising harvest volumes in recent years have seen an increasing proportion of the district's log output exported in unprocessed form. The pulp and paper mills at Whakatane and nearby Kawerau represent about half of the total New Zealand employment in the pulp and paper industry and support many more service industry jobs.

Growth opportunities are available in timber processing before export. Promising business establishment possibilities include sawmills to produce packaging lumber for the Asian market and large cut lumber for both the domestic and export markets.

The transport network has respond to harvesting through improvements such as road widening.

Tourism

The Whakatane district and Ohope Beach in particular have long been popular holiday destinations. Having White Island, which is an active volcano offshore, dolphin watching, deep-sea fishing and diving, plus trout fishing, walking and tramping, make the district an attractive destination for adventure-seeking domestic and international tourists. Tourism is the fastest growing local industry and investment opportunities abound.

Whakatane hosts a variety of events throughout the year including the country's largest tuna fishing tournament, a significant summer arts festival and major sporting events such as national touch rugby, triathlon, multi-sport and jet boat sprint competitions.

The population in parts of the district trebles in the summer time.

The Whakatane Airport provides a key link to the districts tourism and business activities.

Commercial Fishing

There is resurgence in commercial fishing after a decline from 15 years ago when quotas were introduced and there are now a small fleet of commercial fishing vessels operating primarily due to the tuna fishing but others are involved in boutique type operations such as crabbing.

Industrial Land Strategy

An Industrial land strategy was conducted in 2006 and a report produced. This investigated the spatial trends occurring in the industrial market, projected future employment, required industrial zoned land and an assessment of the potential location for new industrial activities. The study looked at the whole of the Whakatane District and also Kawerau District. This was updated in January 2010 by Property Economics on land requirement for a population of 25,000.

The main findings from this study are:

By projecting future employment (by main industrial sector), the locational requirements for industrial land are able to be identified by using a floor-space per employee calculation.

Industrial zoned land is more than adequate to meet demand for a medium growth scenario. However, a population target of 25,000 would require 41 additional hectares of industrial zoned land for the Whakatane and Kawerau catchment.

Based on national and international trends, it is expected that there will be employment growth in the manufacturing, wholesale trade and electricity, gas and water supply sectors. Likewise, it is expected that there will be employment decline in agriculture, mining, construction, wood and paper processing and transport and storage.

Some industrial uses in Whakatane have floor-space to employee ratios far in excess of the national average, implying less efficient land use and the potential for intensification of industrial areas could take place.

The Whakatane industrial sector serves the local market and surrounding rural area but most heavy industry is located at Kawerau. There is market preference for continued location of some industrial activities at Kawerau.

Toi-EDA (the Regional Economic Development Agency) also favours Kawerau as a future logistics and distribution centre associated with the Port of Tauranga. This requires maintaining and developing the rail link between Kawerau and Port of Tauranga, in particular by concentrating more industrial activities there.

The reports conclude that given the lack of projected demand (certainly for a medium growth scenario), attention should be paid to developing an Economic Development Strategy aimed at enticing new businesses into Whakatane.

Anticipated Industrial Development by 2050

The Council will progressively work towards industrial development of the district to provide employment for new arrivals as expected in ‘‘A Growing Town’ scenario. The following actions are identified to implement the Council’s new growth strategy.

Council direction is for Kawerau to provide the majority of additional land required for industrial purposes so that Kawerau remains the industrial focus at a sub-regional scale.

Encourage industrial development to locate at Kawerau to strengthen existing rail link between Kawerau and Port of Tauranga.

Confirm the area required for a population of 25,000.

Investigate rezoning some further land to Industrial as part of the District Plan Review.

Monitor commercial activity in the logistics and distribution sector in the region.

Monitor land availability around the Port, and investment in rail capacity and upgrades to rolling stock.

A key weakness perceived of the Whakatane catchment is its propensity for natural disasters. Route security is currently under investigation and findings should be included in the next review.

Demand for industrial land in Whakatane is seen to be held back somewhat by trucks having to skirt around the town rather than pass through it.

The impacts of any future industrial development on the activity will be reviewed as and when building consents are issued.

Commercial and Retail Development

Commercial development includes business, office blocks, hotels/motels and industrial development.

Whakatane has seen an increase in the number of bulk retail store commercial developments in recent years. The Hub – large retail format - is located at the entrance to the town. The urban area particularly is experiencing demand for larger floor retailing, which will increase with population growth in the area. Two further large format retail stores have been granted consent for Mill Road, a Bunnings Warehouse and a petrol station.

It has been acknowledged that only one such centre can be supported in Whakatane, and an increase in trips across the bridge must be anticipated.

Commercial / Retail Development Studies

There are a number of studies which analysed the commercial/retail development of the Whakatane District. Whakatane Retail Strategy was prepared in 2005. Whakatane Large Format Retail Assessment Future Land Requirements (2005) and Whakatane District Business Land Demand (2008) by Property Economics; and Whakatane Commercial Land Assessment (2009) prepared by Property Economics are some of them which contributed to develop the Whakatane Integrated Urban Growth Strategy 2010. The findings of these studies summarise below.

- Future commercial employment sectors expected to grow to 2046 include education, health, and financial and support services.
- About 21ha of additional commercially zoned land is likely to be required in the longer term to meet demand, the majority of which can be located by the town centre. (This is a ground level estimate – it could be met by single level (21ha), or double storey (10ha land area) or three storeys (7ha)).
- About 3.3ha of additional speciality retail zoned land is likely to be required in the longer term.
- Of this, Coastlands to require at approximately 1ha of commercial zoned land to cater for this growth.
- Ohope to require a minimum of 0.7ha of commercial zoned land to cater for this growth (although this could be conservative as it does not take into account the influx of tourists over the summer season).
- Assuming an equilibrium market, growth of population to 25,000 would require an additional 3.8ha of large format retail.Anticipated Commercial / Retail Development by 2050

The Council will progressively work towards commercial / retail development of the district to provide employment for new arrivals as expected in ‘‘A Growing Town’ scenario. The following actions are identified to implement the Council’s new growth strategy.

Commercial

- Investigate rezoning of land to commercial/speciality retail business to service Coastlands, Ohope and the Whakatane town centre, bearing in mind current zonings.
- Through the District Plan review, consider encouraging the concentration of commercial activity in the Whakatane town centre.
- Encourage relocation of service industries and industrial activities in the urban area to industrial zoned areas e.g. McAlister Street.
- Review design guidelines to ensure form and function of commercial areas are considered.

Retail

- Through the District Plan review, consider the look and feel of speciality retail areas. Consider design guidelines for areas of mixed use development.
- Confirm quantum of land and location of commercial / speciality retail business to service Coastlands, Ohope and the Whakatane Town Centre.
- Through the District Plan review, rezone The Hub land to align with the activity.
- Consider the best location for an additional 3.8 ha of large format retail through the District Plan review.

Transport Hubs

Port

The close proximity to the Port of Tauranga is an important factor. This port handles about 1,000 cargo vessels a year and is New Zealand's largest export port by volume. Most parts of the Whakatane district are less than 100 kilometres from the port and enjoy excellent road or rail access. **A secure route between the port and business nodes is essential.**

Airport

A master plan has been developed for Whakatane Airport. This recognises its potential as a training facility and additional hanger capacity is planned.

Impacts on the Transport Activity

It is evident from the information and predictions detailed above that the actual population is set to remain fairly constant with a slight downward trend. However due to the increasing movement of the local population from a rural to urban environment and the reduction of the average number of people per household, housing projections are on a rising trend. The Council's recently adopted growth management strategy for urban areas is based on 'A Growing Town' scenario.

This movement of the population can impact on the Transport network in a number of ways, which include.

- An increase in housing may require new roads (and associated assets) to be developed and vested to Council
- Existing roads may need to be upgraded to service the shift toward urbanisation and the associated increased use of areas of the current network. This could involve realignments or the sealing of existing metal roads
- Requirement to provide for additional commercial car parks and service lanes to accommodate growth in areas such as Whakatane, Piripai and Ohope. This will mean an increase in the assets vested in Council
- Increase in associated operational and maintenance costs
- Increase in costs to residents
- Decrease standard of living (i.e. through delays in traffic, increased pollution etc)
- The knock on effect of increased traffic volumes in these growth areas, generated by employees, delivery trucks or other vehicles associated with commercial and industrial business may increase the rate of deterioration of existing roads due to heavy commercial vehicles. This also applies to the primary industries in place particularly the harvesting of exotic forests.
- Potential new routes may need to be investigated as existing routes become congested around the newly populated urban areas
- New infrastructure may be needed to provide improved links or establish new links between communities such as Piripai and Ohope
- An increase in pressure on the existing public transport services with the need to provide an improved level of service.
- An increase in the demand for pedestrian and cyclist facilities throughout the district.

Roads

The **Whakatane Township Network Investigation Report** considers future land use scenarios based on the draft Whakatane Urban Growth Strategy.

Residential land use growth - west and south of Coastlands, Maraetotara Valley, Blacks Farm (south of Whakatane), west of The Hub retail development, Poroporo and increased density within existing residential areas near the CBD and Kopeopeo in Whakatane township.

Industrial growth - expected but within the current zoned areas, although heavy industry is likely to be focussed around Kawerau.

Retail - The Hub to the north of the Whakatane River bridge and is expected to provide sufficient retail floor space for the foreseeable future, either by providing floor area within The Hub development itself or by the relocation of existing businesses to The Hub.

Future traffic scenarios were developed for 2016, 2026, 2036 and 2046 to identify deficiencies in the road network that can be expected to occur in the next 40 years. The concept of Level of Service was used to identify these deficiencies, ie where congestion is experienced, by using capacity as a subjective measure of the way in which a link or intersection is operating under the traffic demands that are placed on it.

The key deficiency currently is the Whakatane River bridge, which is starting to show some congestion in the morning peak on the southbound lane.

By 2016 the Whakatane River bridge shows more significant levels of delay, notably in the evening peak period in both directions, together with SH30/Mill Rd intersection.

In 2026 the Bridge/Landing Rd roundabout shows unacceptable levels of delay together with worsened levels of service on the Whakatane River bridge, SH30/Keepa Rd intersection and Phoenix Dr into The Hub in both morning and evening peak periods.

For 2036 and 2046 the same areas indicated above continue to worsen with regard to levels of service with the Landing Rd/Bridge roundabout, SH30/Mill Rd intersection and the single laned bridge on SH2 all showing unacceptable levels of service in the 2046 evening peak. Additionally, along Domain Rd, Commerce St, Gorge Rd, Ohope Rd and Pohutakawa Rd congestion builds at each year interval, particularly in the morning peak period.

The report also concludes that The Coastlands residential growth has a minimal effect on traffic volumes and levels of service compared to The Hub retail development. Movements to and from The Hub with origins and destinations south of the bridge account for a large percentage of the Whakatane River bridge problem.

The **industrial land strategy** observes that transportation networks, in particular access to the Port of Tauranga, are a key benefit to the key industrial nodes of Kawerau and Mill Road.

It is also noted a main concern from a roading perspective is the level of use of the bridge crossing the Whakatane River at White Pine Bush Road and the roundabout of Landing Road and Hinemoa Street. This bridge is perceived to be near capacity and a further crossing of Whakatane River will be required.

Walking & Cycling

With a focus on growth in urban areas within or surrounding Whakatane township, there is potential to affect some short distance trips.

It is noted that increased traffic volumes, even short local trips, have a negative effect on the safety and desirability of cycling and walking.

Airport

While the graph on page 3 of this section shows a historical decline in passenger numbers the airport study revealed that Whakatane airport passenger numbers are in fact projected to increase over the next 10 – 15 year period by around 0.5%.

The Airport Master Plan provides alternative growth plans which include additional facilities.

Parking

Car parking in Whakatane is under increasing pressure, with additional facilities required during the term of the LTP.

The Hub supports a significant proportion of parking demand however it is unlikely that people are using this facility when using the town centre.

Impact – A Growing Town Scenario

The growth areas to accommodate the growth according to this scenario has been identified by the Growth Management Strategy 2010 (refer Figure 1). The predicted impact on the transport activity by each of the growth area shows below.

Figure 13: Impact on the Transport Activity by Growth Area

Area	Impact on Transport Activity
Kopeopeo Intensification	Increased pressure on collector roads like King Street and Hinemoa Street, and also on connecting local roads. Also increased pressure on arterial routes such as Landing Road / Domain Road, and also the Landing Road bridge. Will increase the demand and shorten the timeframe for capacity upgrades to arterial routes and key intersections. Densities of 20 du/ha could achieve the thresholds required to support a bus route.
Whaka tane Town Centre Mixed Use	Increased pressure on the perimeter arterial roads of Commerce Street and McAlister Street as well as the connecting local roads. The Peace Street collector will also experience increased traffic as will the Landing / Domain arterial roads and the Landing Road bridge. Will increase the demand and shorten the timeframe for capacity upgrades to arterial routes and key intersections.
	Densities greater than 20 units per hectare could achieve the thresholds required to support public transport.
Infill in the Urban Area	Increased pressure on the roading networks serving the growth areas. Increased pressure on arterial links, including Pohutukawa Ave, Ohope Road, Landing Road and the Landing Road bridge. Will increase the demand and shorten the timeframe for capacity upgrades to arterial routes and key intersections. Higher densities could achieve the thresholds required to support a public transport system.
Wairaka	Increased development in this area will place congestion pressure on the current access in and out of this area. A review of the form and function of the existing roading network would be beneficial to help guide and assist any growth proposals for this area.
Piripai	Any growth west of the river will put further congestion on the bridge and routes into town. Increases the exposure to route security issues as there is only one bridge across the river to link town and the Town Centre to the westward growth. Increased densities will increase the threshold to support public transport. A development in this area and of this magnitude would benefit from some form of river crossing across the Whakatane River. This could provide easy access from the Whakatane Town Centre to the coast and establish a circuit/loop with interconnectivity between the Town Centre, Piripai, the Hub, the Walkway and back to the Town Centre. Care would have to be taken to ensure such a structure did not inhibit expected future river traffic movements, i.e. in and out of a Marina or other berthage facilities. Any new bridge structure should be upstream of any proposed marina facilities.

Port Ohope	Increased pressure on the roading networks serving the growth areas. Increased pressure on arterial links, including Pohutukawa Ave, Ohope Road, Landing Road and the Landing Road bridge. Will increase the demand and shorten the timeframe for capacity upgrades to arterial routes and key intersections. Population increases in Ohope will eventually trigger a need for its own retail service centre and this will in turn add to the existing network pressures. Serious consideration will have to be given to reopening and upgrading Maraetotara Road as a permanent, reliable and safe secondary route into Ohope. Higher densities could achieve the thresholds required to support a public transport system.
Hillcrest Extension	The roading network to service this block would be a cost to the subdivision. The roading costs per dwelling unit may be high and this will impact on the ultimate viability of this area for residential growth. Would result in increased traffic on Hillcrest Road, and Mokorua Gorge Road. Also Commerce Street, Town Centre, Landing / Domain Roads, and Landing Road Bridge.
Otarawairere Extension	Limited road upgrading would be needed. Would result in medium increase in pressure on routes into and through Whakatane and Ohope including Landing Road Bridge.
Ohope Extension	Pohutukawa Ave, Ohope Road, Landing Road and the Landing Road bridge. Will increase the demand and shorten the timeframe for capacity upgrades to arterial routes and key intersections. Particular pressure on Pohutukawa Avenue may result in amenity issues, and increased school congestion. Maraetotara Road would require upgrade. Population increases in Ohope will eventually trigger a need for its own retail service centre and this will in turn add to the existing network pressures. Serious consideration will have to be given to reopening and upgrading Maraetotara Road as a permanent, reliable and safe secondary route into Ohope. It is likely that an upgraded Maraetotara Road would be the route of preference for this subdivision to access Whakatane. Higher densities would support improved public transport service to the area.
Whakatane Hills Extension	The roading network can easily be extended, and would be a cost to the subdivision. However the costs per dwelling unit may be high and this will impact on the viability of this area for residential growth. Would result in increased traffic on Ohope Road, Hillcrest Road, and Mokorua Gorge Road. Also Commerce Street, Whakatane Town Centre, Landing / Domain Roads, and Landing Road Bridge. Opens potential for improved connectivity between Hillcrest/Ohope and Whakatane.
Keepa Road Orchard	Any growth west of the river will put further congestion on the bridge and routes into town. Increases the exposure to route security issues as there is only one bridge across the river to link town and Town Centre to any growth in this area. Increased densities will increase the threshold to support public transport.
Maraetotara	Would result in increased pressure on local roads, and links into and through Whakatane (Ohope Road, Gorge Road, Commerce Street, Domain / Landing Roads etc and the Landing Road Bridge. Particular pressure on Pohutukawa Avenue may result in amenity issues, and increased school

	congestion. Maraetotara Road would require an upgrade.
Piripai/Pa roa – West of Keepa Road	Any growth west of the river will put further congestion on the bridge and routes into town. Increases the exposure to route security issues as there is only one bridge across the river to link town and the Town Centre to the westward growth. Increased densities will increase the threshold to support public transport.
Central North Island Link	Via Galatea, Polairoa, Ngamtu – over 20 minutes quicker than SH30/5, has substantial heavy vehicle use, upgrade & sealing route wo9uld see significant growth in all traffic and improve connectivity to central North Island & South.

Management Strategies

Demand Management

Demand management is a broad term, which encompasses the following:

Transport demand management - a transport system approach which seeks to achieve modal shift (to low impact modes, e.g. cycling).

Traffic demand management – a single network approach which seeks to optimise or reduce traffic flows.

Travel demand management – focuses on the individual traveller and seeks to change travel behaviour through various initiatives (e.g. education and marketing tools).

Demand management involves providing people with options for travel other than simply constructing more roading infrastructure. It involves giving people realistic options for making trips, that do not involve using a car, and/or making best use of the road capacity available, including altering the times of day when people choose to make vehicle trips.

Demand management is a means of planning to balance infrastructure for walkers, public transport users and drivers, and to reduce travel demand. For example, demand management initiatives can include such measures such as improving the level of mode share for public transport, improving network functionality, upgrading pedestrian and cycle facilities, identifying freight corridors, promoting rural taxi services, integrating transport and land use planning.

Importantly, demand management does not necessarily remove the need to provide more capacity over time, but works together with new infrastructure provision by providing a more sustainable approach to transport.

While some demand management options may reduce the need to travel, or reduce the distances required to make trips, the focus is on providing people with an increased choice in the ability to make the trips that they need to 'live, work and play'.

Demand management strategies provide alternatives to the creation of new assets in order to meet demand and looks at ways of modifying customer demands in order that the utilisation of existing assets is maximised and the need for new assets is deferred or reduced.

Bay of Plenty Regional Land Transport Strategy 2007

The Bay of Plenty Regional Land Transport Strategy (RLTS) was adopted in June 2007. It identifies the region's future transport needs and outlines how they might be met.

The RLTS sets out the Demand Management Strategy for the Bay of Plenty region which is required by section 175(2)(o) of the Land Transport Act 1998, as amended by the LTMA. The Demand Management Strategy is based on the Bay of Plenty Demand Management Initiatives Discussion Document (September 2005) and the Demand Management Plan (February 2006), which was adopted by the Regional Land Transport Committee on 17 March 2006.

The Bay of Plenty Regional Land Transport Strategy 2007 (RLTS) includes sustainability as a strategic outcome. In particular, the outcome being sought is that "real efforts are made to manage travel and travel demand, optimise existing networks and improve alternative modes". One of the corresponding actions in the RLTS is to implement local pedestrian and cycling strategies, including the Whakatane Walking and Cycling Strategy.

Funding through the Crown grant is conditional on the region producing a balanced programme for investment in transport infrastructure capacity and in demand management measures. There needs to be a demonstrable ongoing commitment to demand management by the region in order to fulfil the requirements of the funding package.

There is no specific demand management strategy for Whakatane. Whilst demand in the district is generally decreasing, an increase in demand within urban centres is anticipated.

There are no plans to increase public transport provision or seek to reduce car trips. Rideshare and other rural solutions could be investigated.

The walking and cycling strategy identifies the potential to affect short distance commuting trips and recreational.

Management Strategies

Road Network

The Whakatane Township Network Report make the following recommendations:

- The existing Whakatane River bridge will need upgrading by 2016.
- The Bridge/Landing Rd roundabout will need upgrading by 2026.

- Phoenix Drive should either be four-laned or an additional entrance provided to The Hub by 2018 to cope with The Hub and additional surrounding 10,000m2 of retail development traffic volume.
- SH30/Mill Rd intersection will need upgrading by 2026.
- SH30/Keepa Rd will need upgrading by 2036, Domain Rd/Russell St and Domain Rd/McGarvey Rd by 2046.

These recommendations are still under consideration and no Council decision has been made on the preferred approach.

The current financial constraints mean that these projects have been deferred out of the current LTP.

An investigation of Alternative Routes for SH 2 has been undertaken. This scoping study identifies potential long term alternatives to the existing SH2 corridor that runs through the district from Matata in the west to Wainui in the east. Particular focus is given to routes that relocate the SH crossing of the Whakatane River closer to Whakatane township, rather than at its current location further inland near Taneatua. However under the current infrastructure planning environment NZTA is unlikely to support a significant change to the current state highway network form, function and layout.

A Heavy Traffic bylaw is in place which reduces the impact of inter district traffic on the Whakatane township. The Whakatane Integrated Growth Management Strategy 2010 identified the following actions to implement the strategy:

- Update the Transportation Study and traffic modeling to determine the impacts of faster population growth and locations on the roading infrastructure of Whakatane. For example, the capacity of Landing Rd bridge may need to be looked at sooner than anticipated.
- Investigate the impact of substantial industrial development at Kawerau on the roading network between Whakatane and Kawerau.

Parking

There is no formal parking strategy in place.

Walking & Cycling

The walking and cycling strategy is the first Walking and Cycling Strategy developed for Whakatane District Council. It outlines Council's commitment and plan to advance walking and cycling in the Whakatane, Ohope and Edgecumbe areas such that there is a notable future increase in the population of people participating more regularly in walking and cycling for transport and enjoyment. It does not pertain to Murupara or Te Teko.

The Council's goals to fulfil the Vision for walking and cycling in the Whakatane District are:

- To increase the number of people who regularly cycle or walk to school and work (measured by Census, traffic counts and public consultation surveys), particularly those living within 3km of their regular daily travel destination.
- To establish and promote a strategic Cycle and Walking Network within the Whakatane District.
- To continually develop road infrastructure that is accessible, well connected and safe for pedestrians and cyclists, such that walking and cycling become more viable and convenient forms of travel and recreation in Whakatane.
- To reduce the number and severity of Pedestrian and Cyclists injury accidents per year in the District
- To educate and develop a driver culture of awareness and acceptance that cyclist and pedestrians are legitimate road users.
- To ensure that cycling and walking are promoted in Council's land use and transport planning, engineering and development control policies.

Airport

The Airport Master Plan was adopted by Council in 2008. It provides a framework for stage managing growth and development at the Whakatane airport.

From an airport asset perspective, the main assets of the runway, taxiway and apron will be maintained and renewed in accordance with inspections and assessments in place at this time.

Whilst there is carry forward funding for the purchase of land for further airport activities such as Hangers or Flight Training facilities, additional funding will be required to develop the land to make it suitable for these requirements i.e., level out the dunes and depressions.

Monitoring

The purpose of monitoring the potential shift in existing population centres and the associated growth to an area that this will bring is so that the Council can better plan for infrastructure requirements moving forward. This requires the investigation of the cultural, social, economic and environmental implications associated with providing the service. The cost of new services will need to be spread fairly and equitably between developers, ratepayers and Council where appropriate.

As the population centres develop and change within the district the opportunity to reassess the existing levels of service placed upon the existing network should be undertaken. The shift in population may necessitate an increase in the levels of services in some areas while allowing a decrease in others. To facilitate a reduction in service however, may require a change in expectation for the local communities affected, which may not be an easy process to undertake.

Development Contributions

Introduction

This policy sets out what monetary contributions or contributions in the form of land will be required by the Council when development occurs that results in a growth related impact.

Under the Local Government Act 2002, ("LGA") the Council is required to have a policy on development contributions as part of its funding and financial policies in its LTP.

Development contributions may be required from development if the Council has a development contributions policy in place. The

Council first adopted a development contributions policy as part of its LTP in June 2004. It was reviewed in 2006 and again for inclusion in the LTP from 1 July 2009.

Policies relating to development contributions are controlled by the LGA. The LGA creates a framework for managing the costs of growth (s106 LGA).

Development contributions under the LGA are in addition to, and separate from, financial contributions imposed as a condition of a resource consent under Section 108 of the Resource Management Act 1991. A financial, contribution may be in the form of money or land or a combination of both. While Council generally considers development contributions under this Development Contribution Policy as its main funding tool for growth related costs of network infrastructure, community assets and reserves, it may also require financial contributions for other activities as set out in the District Plan. Development Contributions must not be required where a Financial Contribution has been applied as a condition on a consent for the same purpose on the same development.

Development contributions taken by the Council under the LTP relate directly to the assumed cost of development on current and future infrastructure networks.

Purpose

The purpose of the Whakatane Development Contributions Policy ("the policy") is to enable development contributions to be taken that ensure developers make a fair and equitable contribution to the development of network infrastructure, community infrastructure and reserves required to maintain an accepted level of service as development increases demand in the district.

The policy will apply to developments where applications for resource consent (land use and subdivision consents), building consents, or authorisations for service connection are received.

The policy is not intended to apply retrospectively, as provided by the Local Government Act 2002, for the pre-existing status of development on a property, including where applications for resource or building consents or service authorisations have already been granted by the Council before the implementation date of the policy. For clarity, a contribution is payable at a later stage of a development if an earlier application (resource consent, building consent or service connection) was granted prior to the implementation date of this policy but the subsequent application occurs after the date of implementation of the policy.

The Council may require contributions from a development where the effect, including the cumulative effect of a development with other developments, is to require new or additional assets or assets of increased capacity and, as a consequence, the Council incurs capital expenditure.

This also includes capital expenditure the Council has already incurred in anticipation of growth. This capital expenditure must be to provide for community facilities, which in the case of the Whakatane District, are network infrastructure, community infrastructure and reserves.

Funding the Council's capital expenditure for growth with development contributions must be considered alongside the Council's other funding tools, in order to provide certainty about the sources and levels of funding

Legislation

There are a number of key regulations or legislation that impact on the activity, its management, renewal, repairs, upgrades and impacts. The key legislative Acts are discussed in more detail in the Strategic Environment Section. However there is a key summary outlined below. Development contributions are also discussed at the end of this document.

Local Government Act 2002

Part 7 of the LGA 2002 includes a requirement (Section 125) to assess water and other sanitary services so that the community can have confidence that the public health of the community is adequately protected. Section 125 also requires that the assessment be included in the long-term plan, but, if it is not, Council must adopt the assessment using the special consultative procedure.

With the enactment of the LGA 2002 Amendment Act 2010, the sections that followed s125 have been repealed. These included requirements for specific information in the assessment (s126 and s127) and regulation around the process for making assessments.

Schedule 10 Section 6 now requires that the LTP identifies and explains any significant variation between the proposals outlined in the long-term plan and the Assessment of Water and Sanitary Services (previously there had been a requirement to contain a summary of the assessment with the LTP, which is now repealed).

Section 3 (1) (a) of Schedule 10 requires that the LTP include a statement of the amount of capital expenditure that is budgeted to meet additional demand for an activity.

Assumptions

Capital work programmes included in this AMP are based on the medium population projection by Statistics NZ over the next ten years. There are likely to be variations in this projected growth rate in parts of the District over this period.

Council's long term planning provides for a population of 25,000 by 2050 in Whakatane and Ohope. It would not be financially prudent for the 2012 LTP to anticipate building large scale infrastructure to meet this level of population growth without a commitment from one or more developers to proceed. Council has planned what infrastructure is needed to cater for this growth and this will be constructed in partnership with one or more developers. Sufficient land will be zoned through the District Plan and released in a staged manner.

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Environmental Stewardship

Overview

This section describes the environmental and legislative obligations that Council has in undertaking the Transport assets, and also includes those requirements specified as conditions of resource consents.

Legislation

There are a number of legislative mechanisms aimed to avoid or mitigate potential adverse environmental effects associated with the management of the Transport network. These are set at national, regional and district level.

Statutory requirements have been outlined in the Business Overview section. Specific requirements relating to environmental stewardship are covered in more detail in the following sub sections.

National

The role of Central Government is one of setting policy for transport management across New Zealand. This is achieved through the following key statutes:

Resource Management Act 1991

Under the Resource Management Act 1991, Council has a statutory obligation to avoid, remedy or mitigate any adverse effects on the environment through sustainable management. In this context, resource consents are one way, in which Council regulates the effects of activities such as building roads or bridges. Innovative design and use of Best Appropriate Practice in accordance with Councils Engineering Standards and Guidelines are also beneficial in taking into account and managing the effects an activity may have on the environment.

Land Transport Management Act 2003

The purpose of the Land Transport Management Act 2003 (LTMA) is to:

- Provide a integrated approach to land transport funding and management
- Improve social and environmental responsibility in funding, planning and management of land transport
- Improve long term planning and investment in land transport
- Ensure land transport funding is cost effective
- Improve flexibility of funding including enabling land transport infrastructure to be built on a tolled or public/private partnership basis or combination of these.
- The LTMA also requires the Council to consult with a wide range of parties when developing the annual land transport programme and requires that the programme is consistent with the Regioanl Land Transport Strategy (RLTS).

New Zealand Transport Strategy

All projects seeking funding from the National Land Transport Fund must take into account the objectives of the New Zealand Transport Strategy. These are to:

- Assist economic development
- Assist safety and personal security
- Improve access and mobility
- Protect and promote public health and
- Ensure environmental sustainability.

Local Government Act 2002

Specific to environmental stewardship the Local Government Act (LGA) includes the principles of making itself aware of community views; providing opportunities for Maori to participate in decision-making processes; collaborating and cooperating with other local authorities as appropriate; ensuring prudent stewardship of resources; and taking a sustainable development approach.

The LGA outlines the responsibilities of local authorities and the decision making process for activities undertaken on behalf of their community, primarily through the requirement to adopt a Long Term Plan (LTP). Councils are encouraged by the LGA to identify overall long-term priorities and to plan for the future.

Hazardous Substances and New Organisms Act 1996 (HSNO)

The HSNO Act and regulations control the import, manufacture or use (including disposal) of hazardous substances. Council administers the HSNO Act through enforcement officers, with a focus on facilities and activities that use, store, transport or dispose of hazardous substances, rather than on the substances themselves.

Regional Plans

Bay of Plenty Regional Council (BOPRC) is responsible for ensuring the natural and physical resources of the region such as the land, air, water and coastal resources are managed in a sustainable manner under the Resource Management Act 1991.

This includes the following responsibilities in relation to Land Transport:

- Prepare regional land transport strategies
- Chair regional land transport committees
- Issue air and water discharge consents under the Resource Management Act 1991

Draft Regional Land Transport Strategy

The Bay of Plenty Regional Land Transport Strategy (RLTS) was adopted in September 2004. The RLTS was the first regional land transport strategy to be completed under the new legislative environment of the Land Transport Management Act 2003.

The RLTS vision is for

"…an integrated, safe, sustainable land transport system that meets the current and developing needs of the people of a vibrant and growing region".

Section 175(2)(h) of the Land Transport Act as amended by the LTMA 2003, states that every regional land transport strategy must give early and full consideration to land transport options and alternatives in a way that avoids, to the extent reasonable in he circumstances, adverse effects on the environment. The following adverse effects (but not limited to) were considered in the Draft RLTS:

- Traffic congestion (including impacts on air quality)
- Vehicle emissions
- Carbon dioxide predictions
- Transport noise
- Vehicle growth rate
- Percentage of commuting trips by public transport, cycling and pedestrian modes
- Fuel usage
- Use of efficient energy modes
- Impacts on urban amenity

It is important to note that the RLTS is a strategic document and does not cover detail at a micro level (i.e. project design). The Strategy however, raises awareness and provides direction for future projects.

Submissions have been received on the RLTS and a decision was to be made in April 2007 with regards to the plans formal adoption however no decision has been made at this time. This will need to be reviewed with the next AMP update.

Regional Water & Land Management Plan

BOPRC has developed a Regional Water and Land Management Plan, which outlines the rules and regulations regarding earthworks and discharges. Under these rules and regulations certain types transport related development require Land Use Consents, such as:

- Earthworks
- Roadworks
- Reclamation
- Any proposed activity within the bed of a lake, river or stream such as the construction of structures (culverts,bridges, crossings)
- Any activity which results in discharges of stormwater containing contaminants into water or onto land

Land Use Consent applications will invariably include an Erosion and Sediment Control Plan. The purpose of these plans is to illustrate which erosion and sediment control measures are intended for the development.

Regional Coastal Management Plan

BOPRC's Regional Coastal Management Plan outlines the rules and requirements regarding earthworks, structures and discharges to the coastal environment from transport related development (amongst others). As such BOPRC issues coastal permits to control such activities.

Long Term Plan

Council has specified the following community outcomes in the Long Term Plan 2012-22 ("LTP") which relate to land transport management:

- Community Wellbeing
- Quality Services
- Reliable and Affordable Infrastructure
- Sustainable Economic Development

District Plan

The Whakatane District Plan assists Council to carry out its functions under the Resource Management Act 1991 in order to achieve the purpose of the Act to promote the sustainable management of natural and physical resources.

In this context, the Whakatane District Plan outlines the rules, objectives, policies and requirements for land based activities above Mean High Water Springs (MHWS). This includes earthworks, roadworks, and stormwater works (drainage) associated with transport related development. The District Plan also set outs the standards and controls for lighting, noise, hazardous substances (spill management), and contaminated land.

Resource Consents

Resource consents are a requirement for most transportation based development, particularly the formation of roads, bridges, culvert crossings and or the control of discharges from development or drainage works (to streams, rivers or the coast).

An Assessment of Environmental Effects (AEE) is required to support the resource consent applications to the respective Councils when seeking approval to implement transportation projects.

The AEE process involves the identification and assessment of both the potential and the perceived physical, social and cultural impacts that the proposed works may have on the existing environment, and includes the examination and comparison of options and alternatives for mitigating any identified adverse effects, and the confirmation and recommendations on the preferred options and methodology to carry out the works.

The critical environmental factors requiring consideration include geological and geotechnical effects of land movement (cut and fill), the ecological and biological effects of crossing water-courses, and the cultural, archaeological and social effects on the environment as the works cross the landscape, together with noise, air quality, and visual effects, a number of which may require specialist inputs and consultation with the local communities.

Positive effects, including major reductions in traffic congestion and travel times and the resultant improvements in air quality, noise levels and general visual amenity within the urban areas will need to be balanced against the adverse effects identified in the AEE.

Council has a database of consents that relates to transport activities; these are provided in the Table overleaf. In accordance with both Regional and District Plans, there are a number or requirements that must be met during the life of the consent. These requirements will stipulate monitoring conditions in the consent and will require the consent holder to report on the compliance with those conditions.

Table 1: Transport Related Consents

Number	Purpose	Status	Property Address	Expiry
20110	Realignment Of Mokorua Gorge Road	Current	Wainui Te Whara Stream, Alignment	1/10/2026
50062	Reconstruct A Bridge	Current	Ruddick Road Reserve, Waimana	30/06/2027
50143	Reconstruct & Maintain Structure Ohutu Stream	Current	Troutbeck Road, Galatea	30/11/2027
50300	Construct/Maintain A Culvert Within Stream	Current	Grant/Troutbeck Road, Murupara	31/03/2029
50622	Replace Twin Culverts In Watercourse	Current	Galatea Road, Otakiri Road	30/09/2030
50666	Extending Existing Culvert	Current	Soldiers Road, Otakiri, Culvert	30/09/2030
50892	Replace Wooden Bridges With Culverts	Current	Commerce Street, Whakatane	28/02/2032
51157	Place And Use A Culvert To A Tributary	Current	Braemar Road, Whakatane	30/09/2033
51166	Place A Culvert In Tributary Of Waioho Stream	Current	Burr Road, Poroporo, Whakatane	30/09/2033
60038	Place A Rock Weir On The Bed Of The Ohinekoao Stream	Current	Ohinekoao Stream, Herepuru Road, Matata	31/08/2033
60311	Construct A Bridge Over Hikurangi Stream	Current	Grant Road, Galatea	31/05/2034
60480	Replace A Bridge Over Ohinepoao Stream	Current	Herepuru Bridge, State Highway 2 West, Whakatane	30/11/2034
60612	Replace Edgecumbe Soldiers Rd Bridge	Current	Edgecumbe Soldiers Road, Edgecumbe	31/01/2035
61107	Reconstruct Mcivor Rd Bridge	Current	Mcivor Road Reserve, Whakatane	30/04/2036
61220	Ohotu Bridge Maintenance Works	Current	Ohotu Road, Ruatoki North	31/07/2036
61221	Whirinaki Bridge Maintenance Works	Current	Troutbeck Road, Murupara	31/07/2036
61379	Ls Earthworks To Construct Bridge	Current	Keepa Road, Whakatane	31/10/2036
61488	Replace Bridge Over Te Rahu Canal	Current	Paroa Road, Whakatane	31/01/2037
61554	Replace Superstructure Of Haupe Bridge	Current	Matahi Valley Road, Waimana	31/12/2036
61558	Construct & Place New Footbridge	Current	247 Pohutakawa Avenue, Ohope	31/03/2037
61864	Replace Bridge Over Awaiti North Canal	Current	Awaiti North Road, (Over Awaiti Canal), Edgecumbe	30/11/2037
62325	Replace Bridge Over Wainui Te Whara Stream	Current	Peter Snell Street, Whakatane	31/12/2038
62540	Extend Two Existing Culverts Under Road	Current	Hillcrest Intersection, Ohope Road, Whakatane	31/01/2039
62703	Discharge Particulate Matter From Bridge Operations	Current	Various Bridges, Whakatane District	30/06/2039
62834	Replace Culvert In Mangakirikiri Stream	Current	Mangakirikiri Stream, State Highway 38, Papueru	30/11/2039
62869	Works To Extend Existing Culvert	Current	60 Te Tahi Street, Whakatane	31/10/2039
62943	Discharge Stormwater From Recycling Park	Current	42 Te Tahi Street, Whakatane	30/04/2015
62964	Dam And Divert Stream	Current	Burnett Road, Nukuhou	31/05/2006
62965	Remove, Replace Bridge And Temp Bridge	Current	Burnett Road, Nukuhou	31/01/2040
62966	Large Scale Earthworks	Current	Burnett Road, Nukuhou	31/05/2006
62973	Works To Extend Bridge Over River	Current	Troutbeck Road, Galatea	30/04/2040
63245	Works To Reinstate Culverts/Bridges	Current	Murupara To Ruatahuna, Whakatane	31/08/2025
63262	Works To Deposit Material To Site	Awaiting Info (S92)	State Highway 2, Matata	
63508	Earthworks And Bridge Works	Current	Luttrell Rd Bridge, Raroa Stream, Waimana,	30/04/2041
63616	Earthworks Ohinekoao Stream Diversion	Current	Herepuru Road, Matata	31/05/2026

Consent Monitoring & Compliance

A significant number of the resource consents provided in Table 1 relate to the occupation of a structure over a river, stream or watercourse. The nature of these consents is to basically charge the consent holder an annual fee to be able to occupy the area for specified duration (normally 35 – 40 years). During the construction, there will be requirements to monitor the release of sediment into waterways, or to disturb the bed of the watercourse, which again may entail the need to assess the nature of the stream ecology and the impacts they may be imposed by the development. At the end of the consent period, Council will need to apply to have the consent renewed, or will need to apply for new consents.

Potential Issues

There are a number of adverse environmental effects that can occur in the process of undertaking Transport related development, particularly major construction projects. The potential effects of the Transport activity can be generated during both the construction phase and the operational use of the network. The information provided below outlines some of these issues and associated mitigation measures that could be employed.

Where appropriate these mitigation measures are incorporated into contract documentation.

Dust

Dust can affect vegetation health along the edge of the earthworks area, can be a nuisance to the surrounding public, and can contribute to sediment loads by being deposited in areas without sediment control measures. Sediments deposited on sealed public roads can also result in a dust nuisance. Similarly, unsealed roads can present a dust nuisance during periods of prolonged drought.

Mitigation Measures

The following mitigation measures may be considered in the control of dust emissions:

- Wheel washing for trucks leaving development sites
- Spraying down areas (with water) to control dust emissions
- Monitoring at site boundaries

Sediment Runoff

Sediment runoff from development works is generally controlled via sediment control techniques and administered by the Regional Council. Sediment from exposed areas of land can enter waterways, streams and rivers, potentially causing adverse effects to fauna and flora.

Mitigation Measures

The following mitigation measures may be considered in the control of sediment runoff:

- Effective sediment control techniques such as cut-off drains, ponds, and silt fences retain sediment and prevent it from entering water systems
- Compliance with an approved sediment and erosion control plan

Noise

Noise is a factor to be considered during construction projects. The District Plan contains the standards for noise and the restrictions imposed on construction such as hours of operation and the decibel limits to be adhered to. Monitoring typically takes place to establish background noise levels against which construction and traffic noise can be measured against. The documents that Council shall have regard to include:

- The New Zealand Standard 6805:1992 Airport Noise Management and Land Use Planning and NZS 6807:1993 Helicopter and Heliport Sound Management for activities around airports.
- NZS 6806: 1993 Road Traffic Sound.
- "Guidelines for the Management of Road Traffic Noise – State Highway Improvements" by Transit New Zealand 1994.

Mitigation Measures

The following mitigation measures may be considered in the control of noise emissions:

- Hours of permitted work
- Monitoring at site boundaries
- Compliance with standards
- Community consultation
- A Noise Management Plan is currently under review for the Whakatane Airport

Landscape Values

The district contains five broad landscape types. Each of these landscapes has an identifiable character based predominantly on geomorphological characteristics. Landscape value's also includes natural and cultural heritage features, which need to be taken into account with any proposed developments.

Mitigation Measures

The following mitigation measures can be considered when taking into account landscape values:

- Review District Plan maps
- Community consultation

Cultural Heritage

Places of particular cultural heritage value have been scheduled and identified on the District planning maps so that location is known and can be taken into account when considering development and applying for resource consents. The scheduled sites are those that are registered under the Historic Places Act 1993, or those requested to be scheduled following consultation with iwi. Not all sites are recorded and for major developments it is important that consultation be undertaken with tangata whenua, registered archaeologists, NZ Historic Places Trust and the Regional Council. Protocols can be developed in the event of discovery.

Mitigation Measures

The following mitigation measures may be considered when taking into account cultural heritage values or sites:

- Consultation with key stakeholders
- Development of protocols
- Due diligence prior to development

Stormwater Discharges

Stormwater discharges need to be managed to prevent pollutants from entering waterways. Roads provide a number or potential contaminants such as metals (from vehicles), hydrocarbons, gross pollutants (litter) and herbicides (from vegetation control). These can cause adverse effects for flora and fauna in receiving waters.

In addition, stormwater pipes/culvert outlets can cause scour during large flows.

There is an increased requirement for the management and treatment of stormwater run off, which will have an impact on costs in the future.

Mitigation Measures

The following mitigation measures may be considered in the control of stormwater discharges:

- Retention dams, swales, and outfall structures to dissipate flows. Any number of options can be evaluated prior to consent approvals.
- Evaluate receiving waters to determine background water quality
- Monitoring of the mixing zone

Climate Change

The International Panel on Climate Change (IPCC) best mid range estimate of sea-level rise has been adopted in the Bay of Plenty Regional Coastal Environment Plan (the IPCC mid range scenario (IS92a) estimate of 0.49 metres by the year 2100).

A recent review of the effect of climate change on the Bay of Plenty coastline (NIWA 2006) confirms that climatic variation can influence storm intensity, wave conditions sediment supply and erosion. Future changes in climate will alter these processes in the coastal environment, but in many instances there needs to be more data to accurately assess impacts. This also applies to sea level rise, which has been rising at a historical rate of around 1.8mm/year.

Until more information becomes available on rates of vertical land movement throughout the Bay of Plenty and any acceleration that could occur with global climate change, then accurate local impact assessment is not possible. In the meantime the current global estimate is considered appropriate and it is recommended that for planning purposes an allowance of 0.5 m for 2100 is used (as currently adopted by the plan). (BOPRC website). However, with future development works climate change will need to taken into account, especially with river/stream crossings and along coastal routes.

Mitigation Measures

The following mitigation measures may be considered when taking into account climate change:

- Have regard to projections during planning phases
- Cognisance of areas located as being potential harzard zones
- Specialist advice

Hazards

The Whakatane District and surrounding region are exposed to a number of natural hazards. From an activity point of view hazards have the potential to cause major disruption and need to be taken into account. It should be noted that Natural Hazards Planning is to be undertaken to manage the risks of identified hazards. This is being undertaken through the current District Plan Review and also on a wider regional level.

Coastal Erosion/Inundation

Coastal erosion is a process resulting in the loss of land as the shore retreats inland. Wave, wind and tidal action over a number of years can contribute to the long-term erosion of the shoreline; however storm events can have acute effects and be very damaging. Specific areas in the district such as Matata and Ohope pose as risks during storm events; similarly the Ohiwa Harbour is also vulnerable especially during storm tides.

An analysis of coastal hazards in the Whakatane district has identified areas currently affected by coastal inundation and erosion and areas that may potentially be affected in future. The District Plan includes a plan for how to manage these coastal hazards.

Flooding

Flooding is a commonly occurring major natural hazard that results when the natural and modified drainage systems fail in a particular rainfall event. The risk of flooding is influenced by a number of factors such as:

- Weather systems;
- Hydrological factors (catchment size, rainfall intensity and infiltration);
- Hydraulic factors;
- Soil type;
- Land use;
- Ground saturation.

Storm events and the resulting flooding can result in significant adverse effects on both residents and the environment. These effects may include:

- Personal injury or loss of life, property and possessions or livelihood.
- Disruption of utilities and Transport networks.
- Impacts on the environment may include vegetation and habitat loss, erosion and sedimentation in waterways, and soil and water contamination.

The Whakatane District was affected by severe flooding in 1998, 2004, 2005 2010 and 2011. Mitigation works have been undertaken and are underway for many of the affected communities including Matata, Edgecumbe, Awatapu, and Ohope. Works include the debris dams, realignment of culverts and flood flow channels.

Landslides

Landslides are generally caused by slope saturation and can include mudslides, debris flow or avalanches, rock falls and rock slides. Increased ground saturation can be caused by intense rainfall, changes in groundwater and water level changes in rivers, earth dam's lake banks and the coastline. Generally flooding and landslide events are closely linked as they both result from heavy rainfall, stormwater runoff and ground saturation.

The risk of flooding is influenced by a number of factors such as:

- Underlying geology;
- Proximity to rivers, lakes and the coast;
- Past and present land use including vegetation changes;
- Infrastructure development.

Landslides can result in significant adverse effects on both residents and the environment. These effects may include:

- Personal injury or loss of life, property and possessions or livelihood;
- Disruption of utilities and Transport networks;
- Impacts on the environment may include vegetation and habitat loss, erosion and sedimentation in waterways.

During the severe weather event of 2004 and 2011, Ohope and Whakatane suffered a number of landslips that affected properties in the area.

Earthquakes

New Zealand is considered amongst the most seismically active places on earth as it is located on an active boundary of two tectonic plates.

The Bay of Plenty is a zone of active tectonics with earthquakes occurring on a regular basis although most are not strong enough to be felt. However the region has experienced significant earthquakes in the past that have resulted in widespread damage and serious injury such as the Edgecumbe Earthquake in 1987.

Tsunami

Tsunamis are usually created by a sudden movement or rupture of the ocean floor, such as earthquakes, underwater landslides and underwater volcanic eruptions.

Tsunami can cause:

- Personal injury or loss of life, property and possessions or livelihood.
- Disruption of utilities and Transport networks.
- Impacts on the environment may include vegetation and habitat loss, erosion and sedimentation, soil and water contamination and salination of land.

The damage from tsunamis can occur as a result of inundation (flooding roads, buildings and land), the impact of the moving water (erosion, structural damage) and debris flow (debris carried by the wave moving inland and receding).

While tsunami have not been considered a significant threat in Whakatane in the past, the District's coastal location and proximity to a tectonically active seabed requires consideration of this natural hazard particularly for coastal and low lying areas.

During 2010 and 2011, the District was put on alert from a tsunami threat, although no tsunami was recorded in these events.

Future Requirements

The main item that needs to be addressed from an Environmental Stewardship perspective is the tracking of resource consents and the conditions that they may contain. Tracking legislation will also need to occur, specifically in relation to Climate Change and the impacts this might have on the transport network. In addition to this, a constant monitoring of natural hazards and their impacts will need to be ongoing.

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Overview

This transport-asset specific risk management planning will provide the basis for future risk analysis and improvement planning.

This section covers the risk management implemented by Whakatane District and how these apply to the current and future transport activities. In addition, an overview of Risk Management is provided along with suggested improvements to current practices.

The objective of risk management is to identify the specific business risks, together with any possible risks to the health and safety of employees, other contractors and the travelling and general public, associated with the ownership and management of the Transport assets. This can be used to determine the direct and indirect costs associated with these risks, and form a priority-based action plan to address them.

Putting the Risks into Perspective

Council policy and operation cannot influence all the factors contributing to these events. However, actual deaths and injuries, and the sobering ramifications, are occurring on the roading network. Whakatane District Council has a responsibility to assess the risks in order to best manage the network with the resources available to avoid and mitigate the effects of any event.

In addition, Whakatane District Council has highlighted a number of key risk areas across the activity including:

- Safety in road design and maintenance
- Network capacity
- Environmental considerations – dust and surface water contamination

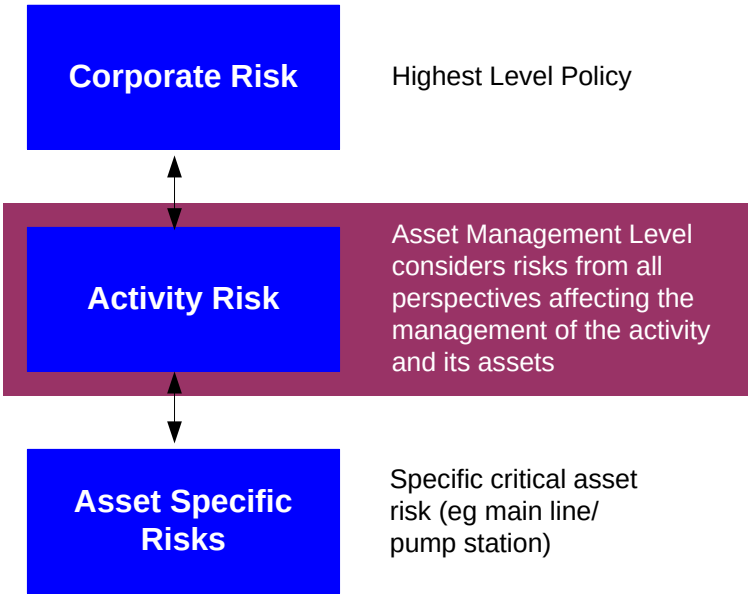
These are discussed in further detail in the Risk Registers and the overall Action Plan contained in this Section of the AMP.

Level of Risk

The purpose of this risk plan is to identify the risks associated with the transport activity and assets. This requires approaching the risks from many perspectives including financial, operational, organisational and public health and safety.

These risks are pertinent to both a higher, corporate level, and to a more detailed asset – specific level, but do not substitute for more specific risk analysis at those levels (see diagram).

The next step beyond this risk analysis is to develop more detailed risk plans where the criticality of specific assets is assessed and an action plan developed as appropriate.



Current Situation

Corporate Policy

The Council's risk management policy provides the context and framework for how risks to the Council are to be managed.

The objective is to identify realistic possible risks faced by Council, analyse and evaluate these risks. The outcome of this evaluation is to be used to:

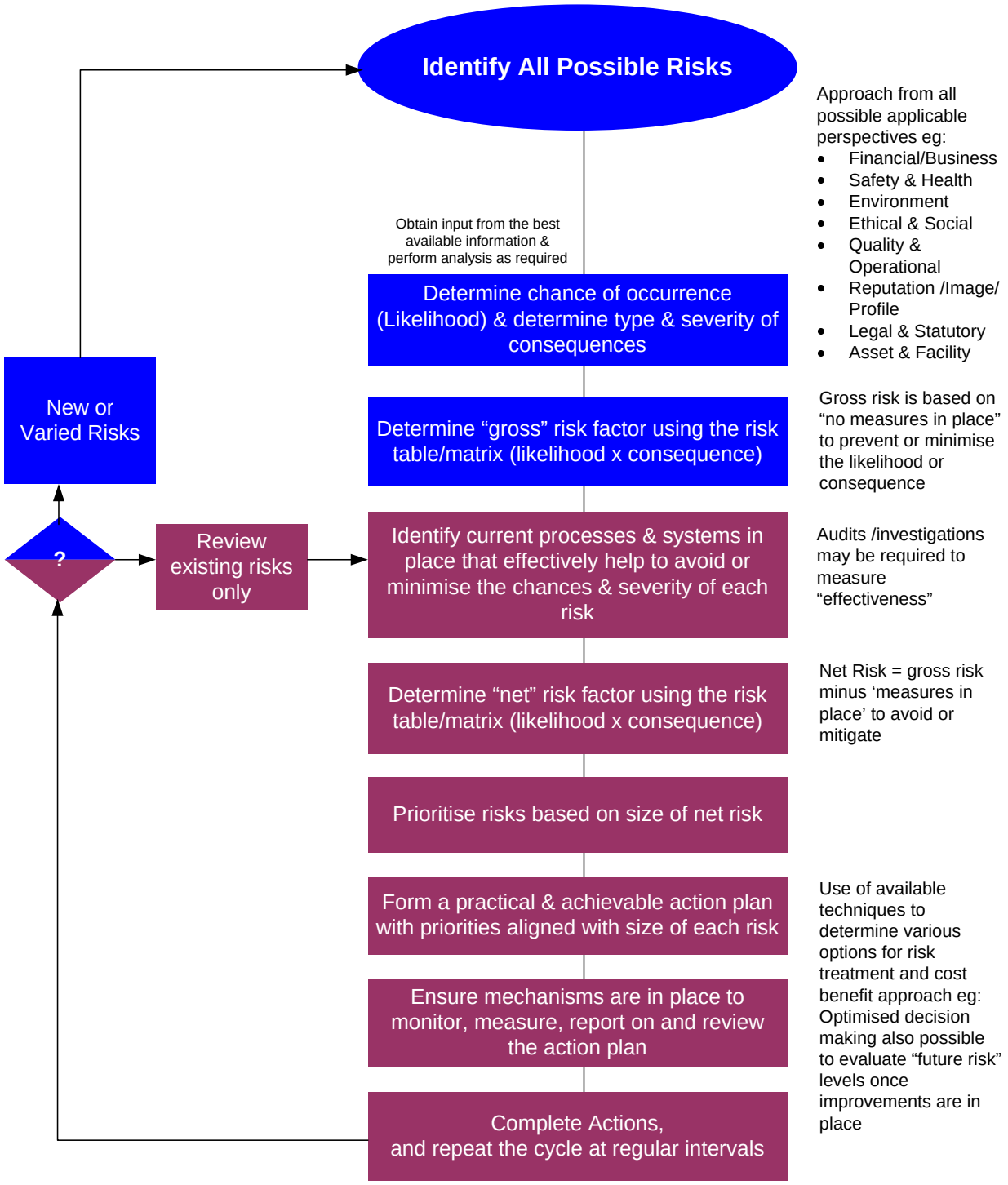
- Emphasise the importance of continuing to provide Council's core services and manage inherent risks
- Continually identify improvements required to Council services to avoid risk events, or minimise their impact or to realise identified opportunities

This policy also defines the responsibilities of Council managers and staff to form and maintain the framework, and use it to make sound decisions in alignment with business objectives.

Risk Management Process

The following flowchart and text details the key elements of the Risk Management Process undertaken.

Figure 1: Risk Management Process



The following sections expand upon the risk management process as identified in the flowchart (previous page). The risk assessment process has been generally based upon the Australian New Zealand Risk Management Standard 4360:2004 to establish a Risk Matrix as shown in Table 3. This matrix provides a tool to quantify a risk by identifying the likelihood of the risk occurring and the outcomes, or consequences should the risk occur. The first step in the process is to identify all possible risks.

Identify All Possible Risks

All possible risks affecting the asset activity need to be identified. Risks can include financial, environmental, social, operational and health and safety considerations. Once identified, risks are entered into the risk register (see Tables 5 to 9). The register is used to record and summarise each risk and to outline current mitigation measures and potential future management options.

Determine Likelihood and Consequence for Gross Risk Factor

Table 1 and Table 2 demonstrate the scales used to determine the likelihood and consequence levels, which are input into the risk calculation to consider the effect of a risk event.

The likelihood of occurrence and severity of consequences should be based on as much real data as possible, for example local knowledge or recorded events such as maintenance records, weather events etc. Some analysis may be required for verification.

The likelihood scales identify how likely, or often, a particular event is expected to occur, these are shown in the table below;

Table 1: Likelihood of Occurrence

Likelihood	Descriptor	Probability
Frequent	Continuous or will happen frequently.	5
Often	5 – 12 times per year	4
Likely	1 – 5 times per year	3
Possible	Once every 2 to 5 years	2
Rare	Less than once every five years	1

The Consequence descriptors in Table 2 indicate the level of possible consequences for a risk.

Table 2: Consequence Rating

Consequence	Descriptor	Score
Catastrophic	Loss of life, major financial loss	5
Major	Major financial impact, widespread damage, serious harm	4
Moderate	Moderate financial impact, potential litigation, loss of image	3
Minor	Minor financial impact, involves management time	2
Insignificant	Negligible effects	1

After the likelihood and consequence factors have been determined, the level of risk is calculated by multiplying the Likelihood of Occurrence (Table 1) and Consequence Rating (Table 2) together.

Risk = the likelihood of an event occurring X the consequence of such an event.

The final outcome is a risk rating. The risk rating enables definition between those risks that are significant and those that are of a lesser nature. Having established the comparative risk level applicable to individual risks, it is possible to rank those risks. Four risk categories have been used: Extreme, High, Moderate, and Low (see Tables 3 & 4).

Table 3: Risk Assessment Matrix

	Consequence				
Likelihood	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Rare (1)	1	2	3	4	5
Possible (2)	2	4	6	8	10
Likely (3)	3	6	9	12	15
Often (4)	4	8	12	16	20
Frequent (5)	5	10	15	20	25

Once the impact has been ranked according to the relative risk level it poses, it is then possible to target the treatment of the risk exposure, by beginning with the highest risks and identifying the potential mitigation measures.

Table 4: Comparative Levels of Risk

15 - 25	**Extreme Risk**	Requires immediate remedial action
8 - 12	**High Risk**	Requires remedial planning and action via the AMP
4 - 6	**Moderate Risk**	Address via new procedures and/or modification of existing practices and training
1 - 3	**Low Risk**	No formal requirement for further action, unless escalation of risk is possible

Initially, the gross risk needs to be calculated, so likelihood and consequences need to be considered as if there were no measures in place to prevent or mitigate the risk occurrence. Essentially gross risk is an exercise to determine “What is the worst that could happen?” Once the gross risk is determined it is possible to investigate the current systems and processes to identify the net risk and then formulate an action plan to further reduce the likelihood or consequences of identified risks occurring.

Identify Current Systems & Processes, and their Effectiveness

Identifying current systems and processes are identified, and as far as resources allow, their effectiveness measured. It is often practical to identify these processes and systems initially, and rank the effectiveness conservatively until the audits and actual practice prove otherwise. Audits can be identified as part of the improvement process.

Effectiveness of existing systems and processes is expressed in the following categories:

Excellent	Fulfils requirements thoroughly, very robust and positive measurable effects
Good	Fulfils requirements, robust and measurable, room for improvement
Fair	Barely fulfils requirements, effects hard to measure (or haven't been audited or measured), improvement required
Poor	Not fulfilling requirements, little measurement or effect on overall risk
Very Poor	Totally ineffective in avoiding or mitigating associated risk events

Determine Net Risk

The net risk is the actual risk that exists considering the effective measures implemented. The measures in place reduce either, or both, the consequence and the likelihood of a risk occurrence. The revised factors are input into the same risk matrix to obtain the Net Risk Factor.

Prioritise Net Risks and Formulate Action Plan for Risk Management

A priority order of issues to be addressed is obtained by sorting Net Risk Factors by risk level. The most suitable actions are determined considering available options and resources. The costs and benefits of these actions need to be analysed. The best available techniques are required to analyse the options e.g. optimised decision-making (ODM).

Application of ODM applies a 'value chain' to the proposed actions rather than just working from the highest risk down regardless of cost, for example:

- *A high risk may have to remain due to the inhibitive costs associated with avoidance or mitigation*
- *A medium risk event could be easily and cost-effectively avoided within resources available*

From an Asset Management perspective, the options for mitigating risks considered to reduce the cause, probability or impact of failure, are typically:

Do nothing	**Accept the Risk**
Management Strategies	Implement enhanced strategies for demand management, contingency planning, quality processes, staff training, data analysis and reporting, reduce the target service standard, etc
Operational Strategies	Actions to reduce peak demand or stresses on the asset, operator training, documentation of operational procedures, etc
Maintenance Strategies	Modify the maintenance regime to make the asset more reliable or to extend its life
Asset Renewal Strategies	Rehabilitation or replace assets to maintain service levels
Development Strategies	Investment to create a new asset or augment an existing asset
Asset Disposal/ Rationalisation	Divestment of assets surplus to needs because a service is determined to be a non-core activity or assets can be reconfigured to better meet needs

Monitor, Measure, Report, Review Plan and Actions

The management structure needs to be in place to ensure that actions are monitored, reported on and reviewed regularly. It is important to identify and constantly review the following:

Responsibility	Nominated person responsible for ensuring the risks are managed and improvements carried out in accordance with the programme
Best Appropriate Practice	The practices that should ideally be carried out to manage risks to an acceptable level
Audit Trail	Date of entries and revisions, target date for actions to be taken and actual task completion dates

In addition, management options should be ranked via benefit / cost analysis using Net Present Value (NPV) calculations. The inputs considered in the NPV calculation are:

- Capital investment costs.
- Changes in operating and maintenance costs.
- Reduction in business risk exposure (BRE).
- Increase in effective asset life / value.
- Increase in level of service.

All capital development projects should be ranked corporately for inclusion in the LTP/ Annual Plan consultation process using benefit / cost analysis plus the following additional criteria;

- Contribution to Council's Strategic Plan objectives.
- Contribution to Whakatane's business objectives.
- Level of project commitment (contractual and legal issues).

The resulting action plan for risk treatment needs to be practical and achievable such that the necessary resources and time frames are realistically met. The actions also need to be able to be monitored and measured.

Table 15 provides more detail with regard to future actions/tasks required for future stages of Risk Management, which include the ranking outlined above.

Review Risks

Most of the time, the risks identified will remain the same and reviews will occur in the context of these risks. However, it will be important to recognise when a new risk arises, or an existing risk changes in nature. In the latter case, the gross risk also needs to be re-evaluated.

Risk Register

The risk registers provided in the following tables for the current and future transport activities of Whakatane District Council have been developed in consultation with key staff.

Table 5: Asset Management Risks – Transport General Risks

Table 5: Asset Management Risks - General

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA01	**Lack of resources** – the ability to attract key staff and or retain skilled staff.	Organisational Financial	4	4	**16**	◗ District promotion (lifestyle) ◗ Dedicated HR staff ◗ Recruitment consultancy used (senior staff) ◗ Benchmarked salary levels.	Good	4	1	**4**	◗ HR Manager ◗ W&S Director ◗ Roading Asset Manager	◗ Look at review of recruitment policy (current lack of policies) Family/Lifestyle friendly policies ◗ Look at improving Career development. Draft policy/programme needs completing ◗ Review salary levels and incentives ◗ Implement the Performance Development system ASAP	◗ 6.01-08
TRA02	**Knowledge management** – inability to retain knowledge or have sufficient systems in place to manage data/information, especially regarding asset performance and condition. Loss of institutional knowledge. IT failure.	Organisational Financial Operational Etc	4	5	**20**	◗ Asset changes/updates –Information currently provided by contractors ◗ Condition surveys undertaken ◗ IT practices (backup, virus, security etc.) ◗ RAMM database in place ◗ RAMM managed by external consultant	Fair	3	3	**16**	◗ HR Manager ◗ Roading Asset Manager	◗ Responsibilities defined between WDC staff and RAMM consultant ◗ Suitable training for WDC staff so they have the ability to view snapshot summary report ◗ Protocols for update and ongoing auditing ◗ Development of Staff Retention Policy ◗ Develop clear processes for updating vested assets and new capital works into RAMM in conjunction with RAMM consultant	◗ 1.07.07 ◗ 6.01-08 ◗ 1.02.01-05 ◗ 2.02.01
TRA03	**Project Management** – projects inadequately scoped, budgeted, managed and documented, and reviewed, inadequate consultation with owners, resource consent issues etc resulting in time & cost, loss of image and other impacts.	Operational Financial Reputation/ Image Safety	4	5	**20**	◗ Project Management Training for key staff ◗ Annual Plan/LTP Process (is initial consultation) ◗ Use of trained external resource ◗ Have access to external specialists. ◗ Media Communication Plan ◗ Appropriate resources (e.g. software/information systems)	Good	3	3	**9**	◗ Roading Asset Manager ◗ HR Manager ◗ Manager Service Delivery	◗ Ensure adequate (quality) training for key staff ◗ Initial project information better communicated ◗ Project Closure/Reviews improved ◗ Define accountabilities and mapping organisation wide impacts and priorities ◗ Implement MCA process for CAPEX projects above $20,000	◗ 1.04.03 ◗ 1.07.07 ◗ 1.11.03 ◗ 6.01-08 ◗ 1.05.01-08
TRA04	**Maintenance Contract Management** – unsatisfactory resulting in unnecessary or excessive costs and/or insufficient output or quality. Poor Contractor performance.	Operational Financial Reputation/ Image	4	5	**20**	◗ Maintenance Contracts (Fulton Hogan and Total Power Services) ◗ Contract procurement process ◗ Contracts managed by Professional Services - Opus ◗ Contract conditions (KPI's, penalties) ◗ Financial reporting	Good	3	3	**9**	◗ Roading Asset Manager ◗ W&S Director ◗ Manager Service Delivery	◗ Develop contract procedures manual ◗ Improve Auditing and Reporting (including performance) ◗ Contract review and improvement	◗ 1.07.07 ◗ 1.11.03 ◗ 4.02,4.05
TRA05	**Capital Works Contract Management** – unsatisfactory resulting in unnecessary or excessive costs and/or insufficient output or quality. Poor Contractor performance.	Operational Financial Reputation/ Image	4	5	**20**	◗ Standard Capital Works Contracts ◗ Approved design and specification ◗ Contract procurement process ◗ Contracts managed by Professional Services - Opus ◗ Contract conditions (KPI's, penalties) ◗ Financial reporting	Good	3	3	**9**	◗ W&S Director ◗ Roading Asset Manager ◗ Manager Service Delivery	◗ Develop contract procedures manual (including closure review) ◗ Improve Auditing and Reporting (including performance) ◗ Contract review and improvement ◗ Strengthen reporting (including financial, performance, programme status) ◗ Implement MCA process for CAPEX projects above $20,000	◗ 1.04.03 ◗ 1.07.07 ◗ 1.11.03 ◗ 1.05.01-08

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Persons(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA06	**Asset Management –** not up to date, or insufficient quality of process and output.	Operational Legislative Financial	4	4	**16**	◗ Asset Management processes and practices ◗ Asset Information System ◗ Professional Services – Opus, GHD etc. ◗ RAMM (managed by Opus)	Fair	4	4	**16**	◗ GM Infrastructure ◗ Roading Asset Manager	◗ Asset Management Plan - Improvement Plan ◗ Continuing Staff Development ◗ Ongoing external review ◗ Ongoing budget provision ◗ Ongoing input from network manager	◗ 1.04.03-05 ◗ 5.01-03, 5.07 ◗ 6.01-08 ◗ 2.04.01-04
TRA07	**Inadequate condition/performance assessments–** lack of reliable data for renewals/replacements and valuations.	Operational Financial	3	4	**12**	◗ Internal and external feedback ◗ Condition assessments ◗ Some annual audits and monthly inspections ◗ RAMM, SLIMS	Fair	3	3	**9**	◗ Roading Asset Manager	◗ Periodic assessments (as deemed appropriate) ◗ Staff training ◗ Staff continuity (internal and external) ◗ Develop a process to ensure that knowledge is transferred, stored and accessible. Define champions and successors. External backup.	◗ 1.02.01-05 ◗ 6.01-08 ◗ 3.02.02 ◗ 2.02.01,03, 05
TRA08	**Compliance with Legislation and legal requirements** – inability or failure to comply with consents, statute and national standards. Increase in requirements.	Legislative Financial	4	5	**20**	◗ Compliance with resource consents, RMA, funding requirements ◗ Contract Conditions ◗ Consents database ◗ Some internal audits ◗ Staff training and development ◗ Local government networking ◗ Use of external advice/resources ◗ Standard templates and some written Council procedures ◗ Some auditing of works contracts (e.g. traffic management, safety, OSH)	Good	4	2	**8**	◗ W&S Director ◗ Roading Asset Manager ◗ Director Environment & Policy	◗ Monitoring of expiring consents and identifying new consents to be improved (define responsibilities) ◗ Key staff to keep updated on current legislation ◗ Regular communications to staff ◗ Development of Council procedures ◗ Communicating effects of legislative change to Council/ LTP process	◗ 6.01-08 ◗ 1.07.07 ◗ 1.01.03-04
TRA09	**Extreme Natural Hazards** – (landslips/ earthquake/ tsunami/ volcanic/ major storm event) causing damage to assets and or hindering development.	Environmental Public Health Organisational Financial	5	4	**20**	◗ Emergency Response Plan – Network inspection and hazard identification ◗ RFS feedback ◗ Civil Defence ◗ Maintenance contracts ◗ Structure audits and renewals ◗ Engineering Code of Practice ◗ Building code/standards ◗ Variation 6 coastal hazards (District Plan)	Good	4	2	**8**	◗ Roading Asset Manager ◗ Manager Service Delivery	◗ Liaise with National and Regional policy makers to identify hazards and ensure emergency response mechanisms are in place in the event of a hazard occurring ◗ Increase effectiveness of current practices as a priority	◗ 2.01.08
TRA10	**Technology** – inability to track technology, engineering developments/techniques, local and national trends and to utilise where relevant.	Organisational	3	4	**12**	◗ Local government networking ◗ Some staff development and training ◗ Use of external advice/resources	Good	3	2	**6**	◗ W&S Director ◗ Roading Asset Manager	◗ IT Policy/ IT Roadmap ◗ Further staff development and training	◗ 2.04.01-04 ◗ 6.01-08
TRA11	**Possible Political Interference**, or inability of elected members to fulfil roles and responsibilities or disregard for community views.	Organisational Reputation/ Image	3	5	**15**	◗ Councillors roles well defined and implemented ◗ Legislative requirements/ LTP process ◗ Reports to Council and Community boards ◗ Councillor induction/ handbook ◗ Councillors conferences	Good	2	3	**6**	◗ W&S Director ◗ Chief Executive ◗ Roading Asset Manager	◗ Manage process through Chief Executive	◗ 5.01

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Persons(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA12	**External Economic Influences (Cost Escalations)** – terrorism, rising costs (e.g. fuel), pandemic, worldwide incidents.	Economic	5	4	**20**	◗ Local government networking Responding to national directives ◗ Monitoring world events and reacting	Poor	5	4	**20**	◗ W&S Director ◗ Roading Asset Manager	◗ Track national and global trends. Monitor key economic developments and liaise with central government. ◗ Improve current practices	◗ 2.01.08
TRA13	**Decrease in Funding** – Both internal and including failure to acquire external subsidies.	Organisational Financial	3	2	**6**	◗ Asset management process ◗ Monitor other funding opportunities ◗ Prioritising projects/ LTP process ◗ Skill of staff/resources submitting external applications and reporting internally to Council	Good	3	2	**6**	◗ W&S Director ◗ Roading Asset Manager	◗ Maintain and manage clear lines of communication with key external agencies ◗ Forecast likely scenarios regarding effects of budget changes ◗ Using sustainable practices ◗ Increasing efficiency ◗ Rationalise spending	◗ 1.05.01-08 ◗ 1.01.01,02, 05 ◗ 1.04.03
TRA14	**Lack of Planning and timing of funding applications: -** Risk of people not applying for funding on time or not identifying potential areas where funding is required.	Organisational Financial	4	4	**16**	◗ Asset management process ◗ Monitor other funding opportunities ◗ Prioritising projects/ LTP process ◗ Approved NZTA annual programme ◗ Skill of staff and external resources submitting external applications and reporting internally to Council ◗ Knowledge and awareness	Good	4	3	**12**	◗ Roading Asset Manager	◗ Maintain and manage clear lines of communication with key external agencies ◗ Forecast likely scenarios regarding effects of budget changes ◗ Using sustainable practices ◗ Increasing efficiency ◗ Rationalise spending ◗ Staff training	◗ 1.05.01-08 ◗ 1.01.01,02, 05 ◗ 1.04.03 ◗ 6.01-08
TRA15	**Diminishing Funding Allocation** – subsidy, rate, tax, and development contribution changes including change of roading status.	Organisational Financial	5	4	**20**	◗ NZTA criteria & agreement with Council ◗ Development contributions ◗ Asset management process ◗ Monitor other funding opportunities ◗ Prioritising projects/ LTP process ◗ Approved NZTA annual programme ◗ Skill of staff and external resources in applying for funding ◗ Knowledge and awareness ◗ Lobbying authorities ◗ Active involvement with funding authorities	Good	4	3	**12**	◗ Roading Asset Manager	◗ Maintain and manage clear lines of communication with key external agencies ◗ Forecast likely scenarios regarding effects of budget changes ◗ Using sustainable practices ◗ Increasing efficiency ◗ Rationalise spending ◗ Staff training	◗ 1.05.01-08 ◗ 1.01.01,02, 05 ◗ 1.04.03 ◗ 6.01-08
TRA16	**Council Owned Roads and Bridges on Private land.**	Operational Legal Financial	4	3	**12**	◗ Reactive and solutions on a case by case basis	Poor	4	3	**12**	◗ Roading Asset Manager	◗ *Possible Future Option*: Review and list all bridges not on Council land and report ◗ Review during next AMP Review	◗ 5.01-03, 5.07

Table 6: Asset Management Risks – Roads

Table 6: Asset Management Risks – Roads

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA17	**Inadequate Road Design** - Sub standard geometry and low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents).	Public Health Reputation/ Image	5	5	25	◗ Conformance with all Council design standards (Engineering Code of Practice, National Standards) for both Council work and vested works ◗ NZTA results analysed, crash reduction studies ◗ Professional Services - Opus ◗ Monitoring and reviewing annual capital works programme ◗ Contract supervision and performance monitoring?	Good	4	4	16	◗ Roading Asset Manager	◗ Develop and Implement Council Safety Management System ◗ Identify and remedy blackspots and develop improvement strategy for identification and monitoring of skid deficient sites. Field identification during reseal programme.	◗ 1.11.03
TRA18	**Inadequate Road Maintenance** - Low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents, potholing, stone loss etc).	Public Health Reputation/ Image	5	5	25	◗ Maintenance Contract and specification monitored and reported ◗ Conformance with all Council design standards (Engineering Code of Practice, National Standards) for both Council work and vested works ◗ NZTA results analysed, crash reduction studies ◗ Professional Services - Opus ◗ Monitoring and reviewing annual capital works programme ◗ Contract supervision and performance monitoring	Good	4	4	16	◗ Roading Asset Manager	◗ Review Maintenance Contract and specifications	◗ 4.02,05
TRA19	**Network Capacity** - traffic volumes increase roading requirements.	Operational	4	5	20	◗ Developing Transportation Strategy and Model ◗ Asset Management ◗ Monitor traffic volumes and trends	Poor	4	4	16	◗ Roading Asset Manager	◗ Adoption of Transportation Strategy, Residential Growth Strategy, and Industrial Growth Strategy	◗ 1.01.01-05
TRA20	**Dust Nuisance** settling on adjacent property resulting in resident health issues, environmental effects and/or poor image.	Public Health Environmental Reputation/ Image	4	5	20	◗ Monitoring of Maintenance and Works Contracts ◗ Seal extension policy and programme ◗ Development contributions ◗ RFS feedback	Poor	4	4	16	◗ Roading Asset Manager	◗ Accelerate seal extension programme	◗ 3.02.02 ◗ 1.09.03
TRA21	**Hazardous Materials** - Leakage from transporter damaged in an accident or with a slow leak, bitumen spill, stock effluent from truck, droving or herd movements.	Environmental Public Safety	4	2	8	◗ Bylaws and enforcement (stock movement) ◗ RFS feedback ◗ Maintenance Contract ◗ Encouragement of off road races and underpasses	Poor	4	2	8	◗ Roading Asset Manager	◗ Review regulations for transport of dangerous goods and assess whether it is consistent with WDC ◗ Continued promotion of stock races and underpasses based on traffic volume and funding assistance from NZTA	◗ 3.03.01 ◗ 3.02.02 ◗ 1.09.03
TRA22	**Hazardous Environmental conditions** - landslide, flooding, trees on roads, washouts causing traffic delay, injury, potential litigation.	Public Health Financial	4	4	16	◗ RFS feedback ◗ Routine inspections ◗ Maintenance Contract ◗ Reactive signage	Good	3	3	9	◗ Roading Asset Manager	◗ Continue to identify high risk zones and outline mitigation measures, remedial works, buttressing, dewatering, signage, sealing etc Identify potential trees that may be affected by old age, disease or prone to high winds	◗ 3.03.01 ◗ 1.09.03
TRA23	**Low lying road** inundated by high tides, floods or heavy rainfall events.	Environmental Public Health Operational	4	3	12	◗ Identification of low lying assets ◗ Monitor during flooding ◗ Liaison with BOPRC ◗ Signage	Good	3	3	9	◗ Roading Asset Manager	◗ Identify at risk areas, carry out assessments (apply for funding) and remediate where necessary	◗ 3.03.01

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA24	**Loss of amenity and visibility** caused by rank roadside vegetation, spread of noxious weeds and debris (within the road reserve).	Environmental Public Health Reputation/ Image	4	4	**16**	◗ RFS feedback ◗ Maintenance Contract (weed spraying programme, tree management and mowing ◗ Removal of debris and detritus	Good	3	2	**6**	◗ Roading Asset Manager	◗ Review maintenance contracts. ◗ Monitor complaints and feedback ◗ Liaise with Regional Council to organise noxious weed control ◗ Work with community groups (farmers) ◗ Review funding	◗ 1.09.03 ◗ 4.02,05
TRA25	**Availability and cost of Road Materials and quality aggregate** – economic viability.	Operational Financial	4	3	**12**	◗ Good quarrying options available ◗ Testing	Good	3	2	**6**	◗ Roading Asset Manager	◗ Monitor availability and cost	◗ 3.02.02

Table 7: Asset Management Risks – Footpaths & Accessways

Table 7: Asset Management Risks – Footpaths & Accessways

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA26	**Pedestrian tripping or slipping** caused by uneven surface, damage, slippery surface.	Public Health Operational Reputation / Image	4	5	20	◗ Professional Services Contract with Opus ◗ Maintenance contract with Fulton Hogan ◗ Annual audit of all existing footpaths ◗ Footpath replacement/ renewal programme ◗ New capital works programme ◗ RFS monitoring complaints ◗ Reactionary work ◗ Engineering Code of Practice ◗ Development/ subdivision/ building consent control ◗ Urban tree strategy ◗ Footpath policy	Fair	4	3	12	◗ Roading Asset Manager	◗ Implementing six-monthly inspection programme for the entire network with corresponding budget increase. ◗ Annual root pruning programme	◗ 1.09.03 ◗ 1.10.08
TRA27	**Widespread footpath deterioration** caused by lack of funding.	Public Health Operational	4	5	20	◗ LTP consultation process ◗ Budgeting for community requests	Fair	3	4	12	◗ Roading Asset Manager	◗ Full audit and costing for footpath renewal ◗ Review of funding allocation based on community requests	◗ 1.01.03-04 ◗ 1.10.08
TRA28	**Widespread footpath deterioration** caused by poor construction/materials.	Public Health Operational	4	4	16	◗ Professional Services Contract with Opus ◗ Maintenance contract with Fulton Hogan ◗ Annual audit of all existing footpaths ◗ RFS monitoring complaints ◗ Engineering Code of Practice ◗ Development/ subdivision/ building consent control ◗ Footpath policy	Good	3	1	3	◗ Roading Asset Manager	◗ Auditing of contractor and number of complaints regarding poor workmanship	◗ 1.09.03 ◗ 1.10.08 ◗ 4.02
TRA29	**Widespread footpath deterioration** caused by lack of utilities reinstatements.	Public Health Operational	4	5	20	◗ Road opening notices (audited) ◗ Reinstatements occur if identified via RFS or officers ◗ Informal communication between OBU and Professional Services provider	Fair	4	3	12	◗ Roading Asset Manager	◗ Feedback required from OBU to Professional Services provider (to be covered by Origin system?) ◗ Education of OBU staff ◗ Improve auditing of remedial works associated with road opening notices	◗ 3.02.02 ◗ 1.09.03 ◗ 1.10.08
TRA30	**Inadequate Accessibility** for physically and visually challenged persons/ wheelchairs/ strollers/ walkers/ prams/ mobility scooters.	Public Health Reputation/ Image	3	5	15	◗ Engineering Code of Practice ◗ Development/ subdivision/ building consent control ◗ Eastern Bay Access Group (Council, staff, community reps, disabilities resource centre reps) ◗ RFS/ complaints ◗ Disability fund	Good	3	1	3	◗ Roading Asset Manager	◗ Continue Councils commitment to Eastern Bay Access Group and Disability Fund	◗ 1.09.03 ◗ 1.10.08

Table 8: Asset Management Risks – Street Lighting

Table 8: Asset Management Risks – Street Lighting

Risk Reference	**Risk Descriptor –** details the main component and provides an example of a risk(s) that may be attributable	**Risk Type**	**Gross Risk** (No effective measures in place)			**Current Practice/Strategy (Avoidance and mitigation measures)**		**Net Risk** (Considering measures in place)			Person(s) Responsible	**Management Options**	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA31	**Inadequate Carriageway/Amenity/Under Veranda lighting** resulting in crime or accidents (e.g. tripping and falling).	Organisational Public Health Reputation/ Image	4	4	**16**	◗ Engineering Code of Practice ◗ Development/ subdivision/ building consent control ◗ SLIM system ◗ CPTED Principles (crime prevention through environmental design) ◗ Professional Services provider ◗ Maintenance contractor (Total Power Services) ◗ Upgrade/ renewals programme ◗ Eastern Bay Energy Trust programme (annual grant for under veranda lighting) ◗ RFS/ complaints ◗ Assessments in conjunction with urban/street upgrades	Good	4	3	**12**	◗ Roading Asset Manager	◗ Continued programme of under veranda lighting in conjunction with Eastern Bay Energy Trust ◗ Audit of bulb types ◗ Match bulb types to appropriate areas ◗ Identify high-risk areas ◗ Review Levels of Service. ◗ Review RFS resulting from poor or inadequate lighting.	◗ 3.02.02 ◗ 1.09.03
TRA32	**Inadequate Intersection street lighting** resulting in accidents**.**	Organisational Public Health	4	4	**16**	◗ Engineering Code of Practice ◗ Requirements of NZTA ◗ Upgrade/ renewals programme ◗ RFS/ complaints ◗ SLIM system ◗ Professional Services provider ◗ Maintenance contractor (Total Power Services)	Good	4	1	**4**	◗ Roading Asset Manager	◗ Identify high-risk intersections ◗ Review Levels of Service ◗ Review RFS resulting from poor or inadequate lighting ◗ Review position of streetlights (distance from carriageway edge)	◗ 1.01.03-04 ◗ 1.09.03
TRA33	**Damage to streetlights** due to vandalism and or vehicle damage, resulting in crime, replacement costs and safety considerations.	Operational Financial Public Health	4	4	**16**	◗ RFS/ complaints ◗ Engineering Code of Practice ◗ CPTED Principles (crime prevention through environmental design) ◗ Professional Services provider ◗ Maintenance contractor (Total Power Services) ◗ Accident reporting and response times ◗ CCTV strategy	Good	4	3	**12**	◗ Roading Asset Manager	◗ Review position of streetlights (distance from carriageway edge) ◗ Further implement CCTV strategy through installation of more cameras where required	◗ 3.02.02 ◗ 1.09.03

Table 9: Asset Management Risks – Signs, Markings and Controls

Table 9: Asset Management Risks – Signs, Markings and Controls

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA34	Inadequate lane separation or definition, which may lead to vehicle accidents.	Operational Public Health	4	4	**16**	◗ Road marking programme as per contract with Fulton Hogan ◗ Engineering Code of Practice ◗ Development/ subdivision control ◗ Minor safety works ◗ Professional Services Contract ◗ RFS/ complaints ◗ NZTA crash statistics	Good	4	2	**8**	◗ Roading Asset Manager	◗ Ensure that safety measures/ temporary traffic measures are implemented as part of all roadwork's ◗ Review of standards, and audit of controls and control works. Ongoing Crash reduction studies (in conjunction with police, NZTA & network manager).	◗ 3.03.01 ◗ 1.09.03
TRA35	Inadequate Signage causing Accident/Damage – due to vandalism, non-compliant to standards, missing, deterioration. Including Sight Rails (chevrons, edge marker posts, bridge end markers, culvert markers) damaged and or missing.	Operational Public Health	4	4	**16**	◗ Road signs policy ◗ Sign programme as per contract with Fulton Hogan ◗ Engineering Code of Practice Development/ subdivision control ◗ Professional Services Contract ◗ RFS/ complaints ◗ Specified response times in maintenance contracts ◗ RAMM updates ◗ NZTA crash statistics ◗ Minor safety works	Good	4	2	**8**	◗ Roading Asset Manager	◗ Ensure that safety measures/ temporary traffic measures are implemented as part of all roadwork's ◗ Continue safety audits	◗ 3.03.01 ◗ 1.09.03
TRA36	Guard Rails/Medians damaged and or missing.	Operational Public Health	4	4	**16**	◗ Guard rail and median programme as per contract with Fulton Hogan ◗ Engineering Code of Practice Development/ subdivision control ◗ Professional Services Contract ◗ RFS/ complaints ◗ Specified response times in maintenance contracts ◗ RAMM updates ◗ NZTA crash statistics ◗ Minor safety works	Good	4	2	**8**	◗ Roading Asset Manager	◗ Ensure that safety measures/ temporary traffic measures are implemented as part of all roadwork's ◗ Continue safety audits	◗ 3.03.01 ◗ 1.09.03

Table 10: Asset Management Risks – Drainage Facilities

Table 10: Asset Management Risks – Drainage Facilities

Risk Reference	**Risk Descriptor –** details the main component and provides an example of a risk(s) that may be attributable	**Risk Type**	**Gross Risk** (No effective measures in place)			**Current Practice/Strategy (Avoidance and mitigation measures)**		**Net Risk** (Considering measures in place)			Person(s) Responsible	**Management Options**	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA37	**Flooding affecting roads** due to under capacity drainage, poorly located, or blocked drainage assets.	Operational Public Health Accessibility Financial	5	4	**20**	◗ Drainage maintenance programme as per contract with Fulton Hogan ◗ Professional Services Contract ◗ Engineering Code of Practice Development/ subdivision control ◗ RFS/ complaints ◗ Specified response times in maintenance contracts ◗ RAMM updates ◗ Annual drainage improvements programme	Good	5	2	**10**	◗ Roading Asset Manager	◗ Identify at-risk assets ◗ Review Levels of Service in problem areas ◗ Review Levels of Service in accordance with seasonal changes (leaf dropping) ◗ Review RFS/ complaints and plan improvement works.	◗ 3.03.01 ◗ 1.01.03-04 ◗ 1.09.03
TRA38	**Overtopped table drain** causing surface flooding.	Operational Public Health Accessibility	4	4	**16**	◗ Drainage maintenance programme as per contract with Fulton Hogan ◗ Professional Services Contract ◗ Engineering Code of Practice Development/ subdivision control ◗ RFS/ complaints ◗ Specified response times in maintenance contracts ◗ RAMM updates ◗ Annual drainage improvements programme	Fair	4	2	**8**	◗ Roading Asset Manager	◗ Increase auditing of contractor performance ◗ Identify at-risk drains and carry out options assessments ◗ Review Levels of Service in problem areas	◗ 3.03.01 ◗ 1.01.03-04 ◗ 1.09.03
TRA39	**Surface water contamination** during normal operation of the network caused by lack of environmental controls.	Environmental Operational Reputation/ Image	3	5	**15**	◗ Drainage maintenance programme as per contract with Fulton Hogan ◗ Professional Services Contract ◗ Engineering Code of Practice Development/ subdivision control ◗ RFS/ complaints ◗ Specified response times in maintenance contracts ◗ Annual drainage improvements programme ◗ Silt control for physical works contracts ◗ Resource consent requirements for discharges	Poor	3	5	**15**	◗ Roading Asset Manager	◗ Identify known problem areas and implement upgrade programme within existing projects ◗ Monitoring of discharges via consent conditions and liaison with Environment Bay of Plenty ◗ Future possible central government legislation	◗ 3.02.02 ◗ 1.09.03

Table 11: Asset Management Risks – Minor Structures, Retaining Walls and Sea Walls

Table 11: Asset Management Risks – Minor Structures, Retaining Walls and Sea Walls

Risk Reference	**Risk Descriptor –** details the main component and provides an example of a risk(s) that may be attributable	**Risk Type**	**Gross Risk** (No effective measures in place)			**Current Practice/Strategy (Avoidance and mitigation measures)**		**Net Risk** (Considering measures in place)			Person(s) Responsible	**Management Options**	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA40	**Wall failure** resulting from natural hazard (e.g. landslide, undermining), vehicle impact.	Environmental Operational Public Health	5	2	**10**	◗ Compliance with building code/standards ◗ Approved by design engineer ◗ Roading maintenance programme as per contract with Fulton Hogan ◗ Professional Services Contract ◗ Development/ subdivision control ◗ RFS/ complaints ◗ Specified response times in maintenance contracts	Very Poor	5	2	**10**	◗ Roading Asset Manager	◗ Update engineering code of practice ◗ Review RAMM data and update to include all retaining walls/ sea walls/ gabion walls etc, and make budgetary provision for this ◗ Implement annual wall inspection programme, and make budgetary provision for this ◗ Ensure compliance with Building code/standards and Councils Engineering Standards and issue certification at satisfactory completion. ◗ Monitor hazards frequency and implement inspection programme or testing of specific sites for stability.	◗ 1.09.03 ◗ 2.02.03 ◗ 3.02.02

Table 12: Asset Management Risks – Bridges & Culverts

Table 12: Asset Management Risks – Bridges and Culverts

Risk Reference	**Risk Descriptor –** details the main component and provides an example of a risk(s) that may be attributable	**Risk Type**	**Gross Risk** (No effective measures in place)			**Current Practice/Strategy (Avoidance and mitigation measures)**		**Net Risk** (Considering measures in place)			Person(s) Responsible	**Management Options**	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA41	Bridge Collapse/ damage/ deterioration/ erosion/ blockage – Accessibility, safety (excluding catastrophic events).	Structural Safety	5	4	**20**	◗ Annual Bridge Audit (170 bridges) leading to maintenance list. ◗ Bridge replacement schedule. ◗ Loading restrictions ◗ Bridge overweight permits ◗ All new bridges designed to NZ Standards and consented ◗ Maintenance Contract Fulton Hogan ◗ Professional Services Opus	Good	4	2	**8**	◗ Roading Asset Manager	◗ Review bridge replacement schedule on an annual basis.	◗ 1.10.08
TRA42	Private Bridges and Stock Underpasses on Road Reserve – Privately owned, but responsibility of Council (still working through – Brookfields legal advice).	Structural Safety Legal Financial	5	4	**20**	◗ *Initiative to assess the quantum and report to Council in light of Brookfields legal advice* ◗ *Revise as AMP is reviewed* ◗ *Develop policy* WORK IN PROGRESS: to be updated at the next AMP review	-	-	-		◗ Roading Asset Manager		◗ none
TRA43	Damage to services causing loss of water, electricity, phone etc.	Operational Financial Legal	4	3	**12**	◗ Annual Bridge Audit (170 bridges) leading to maintenance list. ◗ Bridge replacement schedule. ◗ Loading restrictions ◗ Bridge overweight permits ◗ All new bridges designed to NZ Standards and consented ◗ Maintenance Contract Fulton Hogan ◗ Professional Services Opus	Good	3	2	**6**	◗ Roading Asset Manager	◗ Assessment and audit of all services attached to bridges ◗ Maintain register of services attached to bridges	◗ 1.10.08
TRA44	Vehicle or pedestrians fall from bridge.	Public Health Reputation/ Image	5	4	**20**	◗ Conformance with design standards ◗ Sight rails, guard rails, handrail, signage, and delineation ◗ Annual bridge inspection	Good	4	2	**8**	◗ Roading Asset Manager	◗ Inspection of signage and safety barriers/ handrails etc, should be carried out in conjunction with the annual bridge inspection	◗ 1.10.08
TRA45	Structure damage from overloading.	Structural Organisational Administration	5	4	**20**	◗ Weight restrictions process, including signage ◗ Issuing and administration of permits ◗ Informal communication with logging companies to determine routes and loadings ◗ Bylaws	Fair	4	2	**8**	◗ Roading Asset Manager	◗ Enforcement of weight restrictions according to Bylaws ◗ Formalise communication with logging companies regarding routes and loadings ◗ Advertising and awareness ◗ Review current capacity of bridges, overweight permit process and communication of requirements	◗ 1.10.08 ◗ 3.02.02
TRA46	Economic/Social Cost due to Bridge restrictions – access to emergency services, freight [further discussion required]. WORK IN PROGRESS: to be updated at the next AMP review	Economic	-	-	-	◗ Postings and advertising Alternative routes ◗ Review high risk bridges	-	-	-	-	◗ Roading Asset Manager		◗ none

Table 13: Asset Management Risks – Car Parking

Table 13: Asset Management Risks – Car Parking

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA47	**Inadequate number** of car parking facilities (including disabled carparks).	Operational Financial Reputation/ Image	3	3	9	◗ Parking restrictions and enforcement in CBD ◗ Annual audit in CBD ◗ Conformance with District Plan requirements for new developments and the receipt of development contributions ◗ Fines into parking fund ◗ Bylaw ◗ Parking controls (Pay & Display)	Good	2	2	4	◗ Roading Asset Manager	◗ Review car park inventory, number of spaces and Levels of Service annually. Review seasonal monitoring as required. ◗ Review and further investigate opportunities to extend the Pay & Display areas	◗ 1.01.03-04 ◗ 1.05.01-08
TRA48	**Poorly marked or sign posted carparks.**	Operational Reputation/ Image	3	4	12	◗ Maintenance Contract Fulton Hogan (car parks are well sign posted)	Good	2	2	4	◗ Roading Asset Manager	◗ Monitor Contractor performance ◗ Inspect signage annually in conjunction with annual carpark utilisation audit	◗ 4.02

Table 14: Asset Management Risks - Airport

Table 14: Asset Management Risks – Airport

Risk Reference	Risk Descriptor – details the main component and provides an example of a risk(s) that may be attributable	Risk Type	Gross Risk (No effective measures in place)			Current Practice/Strategy (Avoidance and mitigation measures)		Net Risk (Considering measures in place)			Person(s) Responsible	Management Options	Improvement Plan Task Reference
			Consequence	Likelihood	Factor	Description	Effectiveness	Consequence	Likelihood	Factor			
TRA49	**Asset failure** affecting safe airport operations (e.g. flooding, subsidence, fencing, pavement or lighting failure).	Operational Public Safety Financial	5	4	20	◗ Maintain safety plans ◗ Asset Management ◗ Monthly inspection of runway condition, surrounds, perimeter fencing and VASIS lighting system ◗ Runway reseal and sweeping programme ◗ Vegetation maintenance programme	Good	4	1	4	◗ Roading Asset Manager	◗ Prioritise remedial work identified in monthly inspections	◗ 1.10.08
TRA50	**Demand for Airport** exceeds asset capacity.	Operational Financial	4	4	16	◗ Airport Strategy and master plan ◗ Monitor trends in airline activity ◗ Monitor passenger numbers	Fair	4	2	8	◗ Roading Asset Manager	◗ Management of surrounding residential developments ◗ Protection of noise envelopes and current and future flight paths ◗ Council adopt the strategy and master plan and review the provisions of the District Plan	◗ 1.01.01-03,05

Risk Action Plan

Table 15 is compiled from the Risk Register and highlights the most significant Net risks faced by the Transport activity. The main risks are listed in order of severity (Net risk) as assigned in consultation with key Council officers.

Actions that are required to achieve the desired improvements are indicated along with how progress on these actions will be monitored and reported. Where applicable, Action tasks will detail timeframes for achievement, and responsibility for these actions.

Monitor, Measure, Report, Review Plan and Actions

Management options listed in the risk tables have been refined into actions for each risk listed. These are the actions that are required to cost-effectively reduce the net risk by increasing Whakatane's ability to minimise the chances of the risk event occurring, or minimising the consequences should it occur.

Actions should consider the overall management of the asset, not just the minimisation of risk. If possible, proposed actions should align with other initiatives to:

- Reduce capital investment costs.
- Reduce operating and maintenance costs.
- Reduce business risk exposure (BRE).
- Increase effective asset life / value.
- Increase level of service.

The resulting action plan for risk treatment needs to be practical and achievable such that the necessary resources and time frames are realistically met. The actions also need to be able to be monitored and measured.

The monitoring/reporting column of the Risk Action Table specifies:

- **Responsibility:** Nominated person responsible for ensuring the risks are managed and that improvements are carried out in accordance with the programme;
- **Timeframe:** Achievable target date to be monitored and reported against; and
- **Method and Frequency of Monitoring:** This entire Action Table will be monitored by the Asset Management Steering Committee, but there will be certain actions that are being monitored and reported in other forums. These forums are to be specified and the frequency with which these actions will be reviewed.

The actions listed will be reported, monitored and reviewed regularly at the Asset Management Steering Group.

As necessary, this group will need to revise timeframes, responsibility, and even the appropriateness of continuing with the proposed action, or adding new actions.

As actions are complete, the net risk should reduce in most cases. The risk tables will need to be reviewed against these and updated to reflect these improvements.

Table 15: Asset Management Risk Action Plan – Transport

Risk Reference	Risk Descriptor	Risk Type	Net Risk	Action	Responsibility	Monitoring / Reporting	Timeframe
TRA09	***General:*** **Extreme Natural Hazards** – (landslips/ earthquake/ tsunami/ volcanic/ major storm event) causing damage to assets and or hindering development	Environmental Public Health Organisational Financial	20	◗ Liaise with National and Regional policy makers to identify hazards and ensure emergency response mechanisms are in place in the event of a hazard occurring	◗ Roading Asset Manager ◗ Manager Service Delivery	◗ Ongoing Monitoring (AM steering group meeting) Improvement Plan Actions: ◗ 2.01.08	◗ Quarterly
TRA17	***Roads:*** **Inadequate Road Design** - Sub standard geometry and low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents)	Public Health Reputation/ Image	16	◗ Develop and Implement Council Safety Management System ◗ Identify and remedy blackspots and develop improvement strategy for identification and monitoring of skid deficient sites. Field identification during reseal programme.	◗ Roading Asset Manager	Improvement Plan Action: ◗ 1.11.03	◗ June 2012
TRA18	***Roads:*** **Inadequate Road Maintenance** - Low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents, potholing, stone loss etc)	Public Health Reputation/ Image	16	◗ Review Maintenance Contract and specifications	◗ Roading Asset Manager	Improvement Plan Action: ◗ 4.02,05	◗ June 2012
TRA19	***Roads:*** **Network Capacity** - traffic volumes increase roading requirements	Operational	16	◗ Adoption of Transportation Strategy, Residential Growth Strategy, and Industrial Growth Strategy	◗ Roading Asset Manager	Improvement Plan Action: ◗ 1.01.01-05	◗ June 2008
TRA20	***Roads:*** **Dust Nuisance** settling on adjacent property resulting in resident health issues, environmental effects and/or poor image	Public Health Environmental Reputation/ Image	16	◗ Accelerate seal extension programme	◗ Roading Asset Manager	◗ Ongoing Monitoring (AM steering group meeting): Improvement Plan Actions: ◗ 3.02.02 ◗ 1.09.03	◗ Quarterly
TRA39	***Drainage Facilities:*** **Surface water contamination** during normal operation of the network caused by lack of environmental controls	Environmental Operational Reputation/ Image	15	◗ Identify known problem areas and implement upgrade programme within existing projects ◗ Monitoring of discharges via consent conditions and liaison with Bay of Plenty RC ◗ Future possible central government legislation	◗ Roading Asset Manager	◗ Update programme Improvement Plan Actions: ◗ 3.02.02 ◗ 1.09.03	◗ June 2012
TRA14	***General:*** **Lack of Planning and timing of funding applications:** - Risk of people not applying for funding on time or not identifying potential areas where funding is required.	Organisational Financial	12	◗ Maintain and manage clear lines of communication with key external agencies ◗ Forecast likely scenarios regarding effects of budget changes ◗ Using sustainable practices ◗ Increasing efficiency ◗ Rationalise spending ◗ Staff training	◗ Roading Asset Manager	◗ Ongoing Monitoring (AM steering group meeting) Improvement Plan Actions: ◗ 1.05.01-08 ◗ 1.01.01,02,05 ◗ 1.04.03 ◗ 6.01-08	◗ Quarterly

Risk Reference	Risk Descriptor	Risk Type	Net Risk	Action	Responsibility	Monitoring / Reporting	Timeframe
TRA15	***General:*** **Diminishing Funding Allocation** – subsidy, rate, tax, development contribution changes including change of roading status	Organisational Financial	12	◗ Maintain and manage clear lines of communication with key external agencies ◗ Forecast likely scenarios regarding effects of budget changes ◗ Using sustainable practices ◗ Increasing efficiency ◗ Rationalise spending ◗ Staff training	◗ Roading Asset Manager	◗ Ongoing Monitoring (AM steering group meeting) Improvement Plan Actions: ◗ 1.05.01-08 ◗ 1.01.01,02,05 ◗ 1.04.03 ◗ 6.01-08	◗ Quarterly
TRA16	***General:*** **Council Owned Roads and Bridges on Private land**	Operational Legal Financial	12	◗ *Possible Future Option:* Review and list all bridges not on Council land and report	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 5.01-03, 5.07	◗ June 2012
TRA26	***Footpaths and Accessways:*** **Pedestrian tripping or slipping** caused by uneven surface, damage, slippery surface	Public Health Operational	12	◗ Implementing six-monthly inspection programme for the entire network with corresponding budget increase. ◗ Annual root pruning programme	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 1.09.03 ◗ 1.10.08	◗ June 2012
TRA31	***Street Lighting:*** **Inadequate Carriageway/Amenity/Under Veranda lighting** resulting in crime or accidents (e.g. tripping and falling)	Organisational Public Health Reputation/ Image	12	◗ Continued programme of under veranda lighting in conjunction with Eastern Bay Energy Trust ◗ Audit of bulb types ◗ Match bulb types to appropriate areas ◗ Identify high-risk areas ◗ Review Levels of Service. ◗ Review RFS resulting from poor or inadequate lighting.	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 3.02.02 ◗ 1.09.03	◗ June 2013
TRA33	***Street Lighting:*** **Damage to streetlights** due to vandalism and or vehicle damage, resulting in crime, replacement costs and safety considerations	Operational Financial Public Health	12	◗ Review position of streetlights (distance from carriageway edge) ◗ Further implement CCTV strategy through installation of more cameras where required	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 3.02.02 ◗ 1.09.03	◗ June 2013
TRA37	***Drainage Facilities:*** **Flooding affecting roads** due to under capacity drainage, poorly located, or blocked drainage assets	Operational Public Health Accessibility Financial	10	◗ Identify at-risk assets ◗ Review Levels of Service in problem areas ◗ Review Levels of Service in accordance with seasonal changes (leaf dropping) ◗ Review RFS/ complaints and plan improvement works.	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 3.03.01 ◗ 1.01.03-04 ◗ 1.09.03	◗ June 2012
TRA40	***Minor Structures, Retaining Walls and Sea Walls:*** **Wall failure** resulting from natural hazard (e.g. landslide, undermining), vehicle impact.	Environmental Operational Public Health	10	◗ Update engineering code of practice ◗ Review RAMM data and update to include all retaining walls/ sea walls/ gabion walls etc, and make budgetary provision for this ◗ Implement annual wall inspection programme, and make budgetary provision for this	◗ Roading Asset Manager	Improvement Plan Actions: ◗ 1.09.03 ◗ 2.02.03 ◗ 3.02.02	◗ June 2014

Risk Reference	Risk Descriptor	Risk Type	Net Risk	Action	Responsibility	Monitoring / Reporting	Timeframe
				◗ Ensure compliance with Building code/standards and Councils Engineering Standards and issue certification at satisfactory completion. ◗ Monitor hazards frequency and implement inspection programme or testing of specific sites for stability.			

Network Safety

Safety of the Network

Land Transport NZ aims to ensure that New Zealand's roads are designed, constructed and managed safely and at a reasonable cost. To achieve this Land Transport NZ works in partnership with road controlling authorities (such as Whakatane District Council and Transit New Zealand), equipment suppliers and educational and enforcement organisations like ACC and NZ Police. Land Transport NZ sets safety standards for roads and promotes, assists and audits road controlling authorities' safety management systems.

Safety Management System

Council has a broad Safety Management System that is at this time being reviewed with regards to its usefulness.

Eastern Bay Road Safety Committee

The road safety initiative in the Eastern Bay of Plenty was established to promote and encourage road safety within the region by facilitating regional campaigns and focusing on particular road safety issues, such as child restraints and youth and alcohol.

Road safety is an integral part of this Council's activities that involve any person in walking, cycling, skateboarding, roller skating/blading, using a mobility scooter or wheelchair, motorcycling, driving a vehicle of any description, on the access ways in the District.

The Council's Road Safety Co-ordinator works supporting community groups and residents of Whakatane District in road safety initiatives, and running road safety projects in conjunction with groups such as REAP, Toi Te Ora Public Health, Hauora, ACC and Land Transport NZ.

The Council has several road safety projects this year addressing the District's main road safety issues, including intersection safety, cycle and pedestrian safety, and drink-driving.

This means that the 3 'Es' are utilised in the best way they can be to ensure improved safety for all access way users.

1. Engineering: As well as roads, engineering covers other such environmental safety measures as signage, calming measures, and speed limits. Local roads are the Council's responsibility. Transit New Zealand assists with funding local road improvements as well as being responsible for the State Highways in our District.

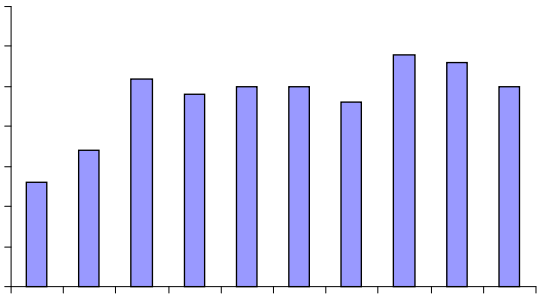
2. Enforcement: While the Police undertake this task, the Council has yearly agreements with them over the delivery of service in the District. We also work with them through the Road Safety Co-ordinator who maintains an active relationship with both the Traffic Sergeant and Area Commander. The Police and the Council are also represented on the Eastern Bay Road Safety Committee and this adds another dimension of ongoing communication. Council enforce parking breaches and the wardens also ticket for no registration and no warrant of fitness.

3. Education: This part of road safety is about the users of the access ways being responsible, knowledgeable, courteous and more able to reduce the risk of collision. Education takes place in many ways, from more high profile campaigns with much media coverage through to a local community initiative to address a particular road safety issue. Community forums, radio advertisements, newspaper articles, pamphlets and such activities as fatigue stops and seat belt checks are all part of our education approach. As road safety is about most citizens, keeping ongoing contact with many community agencies helps in furthering our road safety education. We support and work with such community groups as DARE, YATA (Youth Access To Alcohol), SADD (Students Against Driving Drunk), REAP, Toi Te Ora Public Health, Hauora, and health agencies, to further the opportunities for improved road safety outcomes. ACC and the Police Education Unit are also key partners. Land Transport New Zealand fund the majority of the expenses for both the Road Safety Co-ordinator position and Eastern Bay local road safety initiatives. (Other funders include Opotiki and Kawerau District Councils, Bay of Plenty Regional Council; and Toi Te Ora Public Health). The Eastern Bay Road Safety Committee is an integral part of the delivery of road safety in the Eastern Bay and the Council has one elected representative on that committee.

Crash Data

Figure 2 shows the number of crashes in Whakatane since 2002. The average per annum is 82, however it is important to note that the number is declining.

Figure 2: Injury and Fatal Crashes in Whakatane



For the year ended December 31 2009 Whakatane had recorded 25 crashes per 10,000 people and 36 casualties per 10,000 population (NZTA 2009). The average for the NZTA peer group (Group D) is 30 crashes per 10,000 people and 44 casualties per 10,000 population.

Road safety is an integral part of Council's activities that involve any person in walking, cycling, skateboarding, roller skating/blading, using a mobility scooter or wheelchair, motorcycling, driving a vehicle of any description, on the access ways in the District. In this context Council will continue to enforce the three E's (Engineering, Enforcement and Education as part of its campaign to increase road safety and reduce the number of injuries and fatalities that occur on the network.

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Background

Sustainability

The concept of sustainability is difficult to accurately define in a clear manner. The immediate challenge is to determine how best to move towards sustainability in a way that is appropriate to Whakatane District Council (WDC). For instance, what individual tools, techniques and policies can Council use to influence a move towards sustainable behaviour in a manner that is consistent with the needs and realities specific to the district?

How do we define sustainability so that it works best for our needs? We believe the best way to do this is by making the concept work within our every day operations.

Simply put, attempting to find methodologies for the practical expression of "*Operational Sustainability*" through the use of a "**Strategic Sustainability Framework**" is of most interest.

What are the implications of Sustainability?

In New Zealand the driving force for sustainability is the 1991 Resource Management Act (RMA). The RMA has provided the institutional framework for sustainably managing the nation's environmental resources for over a decade, while still providing for its social, cultural and economic wellbeing.

In practice, however, the RMA predominantly focuses on assessing the environmental effects of a proposed project rather than the overall sustainability of various initiatives (be it, programmes, policies or projects).

Other legislative acts in New Zealand also give authority to sustainability-focused initiatives. One notable example is the Local Government Act (LGA) 2002, which requires local and regional governmental bodies to base operational and regulatory decisions upon the reasonable consideration of social, cultural, economic, and environmental issues.

Building Act 2004	Part 1 – Preliminary Provisions Purpose and Principles
Civil Defence Emergency Management Act 2002	Part 1 – Preliminary Provisions
Energy Efficiency and Conservation Act 2000	Section 6 – Sustainability Principles
Climate Change Response Act 2002	Article 2 – Objectives Article 3 – Principles
Land Transport Act 1998	Part 13 - Land Transport Strategies

It is important to note that the concept of sustainability is more important for government organisations, be it central, regional or local, due to the responsibility of managing society's resources in a manner that must be considered "**in the best interest of all"**.

Where are the greatest opportunities for implementation?

Whakatane District Council is committed to achieving the goal of meeting the needs of the region in a sustainable manner, recognising that innovative solutions are now required. However, it has also been recognised that to be successful these innovative solutions must also reflect the unique physical needs, social needs and cultural geography of Whakatane.

As traditional guardians of public infrastructural assets, it is legislative requirements (such as the RMA 1991 and LGA 2002) that afford local government organisations a very real opportunity to develop and implement sustainability-focused frameworks.

The legislated requirement to formalise a planning and reporting methodology that pays considerations to sustainability issues within **Asset Management Plans** is also standard practice in New Zealand.

There are other Legislative drivers with direct Sustainability Implications for Whakatane District Council and the Asset Management Planning processes. These are detailed in the **Strategic Environment Section** of this AMP (see Section 2).

The key legislative drivers that directly relate to the **Transport Asset Management Plan** are as follows:

RMA 1991	Section 5 – Purpose Section 31 – Functions of Territorial Authorities Section 32 – Consideration of alternatives, benefits, & costs Section 35 – Duty to gather information, monitor, and keep records Section 72 – Purpose or District Plans Section 72 – Contents of District Plans
LGA 2002	Section 77 – Requirements in relation to Decisions Section 79 – Compliance with procedures in relation to decisions

Sustainability needs to be converted into practical tools for immediate use and continual improvement.

"Sustainability Initiatives" need to be straightforward, easy to understand and uncomplicated to develop / implement. Any initiatives that are developed must:

- Give a better understanding of what Sustainability means to our projects and our community;
- Allow an increased level of buy-in for a Sustainability 'vision' by those that have the ability to make decisions; andProvide the ability to respond to operational, socio-economic, environmental, cultural and regulatory requirements with regard to our sustainability framework.

The key is for Whakatane District Council to have a robust 'best appropriate practice' framework to develop and evaluate strategies and business management, as well as prioritise our programmes, polices and projects. However, the success of any Sustainability-based framework will rely on how it can be integrated into all of our stakeholder expectations, operational drivers, and processes.

Organisational Assessment

Overview

Whakatane District Council has adopted the Sustainability Strategy 2010-2015

Sustainability has become a buzz word of the 21 century, with many different definitions and interpretations. The most widely quoted definition of sustainability and sustainable development is, that of the Brundtland Commission of the United Nations, 1987:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

However sustainability is defined, it is about making decisions that consider the full impacts of any action or inaction, acting in a way that can be continued indefinitely.

To ensure that consequences are considered, there are four wellbeing areas that must be examined. These well-beings are social, economic, environmental and cultural. To be sustainable, it is essential that any action achieves the maximum benefits in these wellbeing areas, while having no negative impacts in any area. A sustainable action is one that can be continued indefinitely over time, and if an action has a negative impact on any one of the well-beings, then that action cannot be continued indefinitely.

The Council has developed a vision for what sustainability means for the Whakatane District Council. This strategy provides a response for the Council to sustainability.

Context for Whakatane

The Council operates within the environment of the Whakatane District. When considering the four well-beings, there are a few key characteristics of this community that must be given particular consideration when making decisions for the future. These characteristics will be considered alongside other elements of the District to ensure sustainable decisions are made.

The Local Environment

The community and the economy in which it operates are all dependant on the environment in which we live. Without preserving the environment that sustains us, the community will suffer. This is particularly the case in Whakatane, where the clean green environment and associated lifestyle and climate attract people and business.

Climate change – According to information from the Ministry for the Environment, the Bay of Plenty Region is likely to become warmer with less rainfall in eastern areas. Scientists estimate the region's temperature could be up to 3°C warmer over the next 70-100 years. This compares to a temperature increase in New Zealand during last century of about 0.7°C. Flooding could become up to four times as frequent and severe by 2070, with damages rising accordingly. The cost of dealing with stock losses, replacing or repairing damaged roads, bridges, houses and stormwater drains, and dealing with increased soil erosion and loss of nutrients may be substantial. It is important that this change is incorporated into decision making to prepare for the future.

There are likely to be benefits and opportunities from a change in climate too. Farmers could benefit from changing crop growing conditions and faster growth of pasture (although this may lead to other complications). However, if the rate and magnitude of climate change is not slowed down, beneficial effects are expected to diminish and the adverse long-term risks are expected to increase.

Council's Impact - The Council recognises that the actions it takes in its daily operations and in the delivery of services to the community can have adverse impacts on the environment. This includes the emission of harmful chemicals and the compromise of the natural environment due to its actions and decisions. Fossil fuels in particular are a significant source of Green House Gases for the Council and a significant source of emissions for the District.

However, the Council also undertakes actions to minimise its impact on the environment through reducing consumption and minimising waste. Services and facilities that the Council provides also help to reduce the impact that the community has on the environment. Ultimately, through this strategy, the Council hopes to minimise its adverse impact on the environment and also encourage and enable the community to reduce its impact on the environment.

Natural Resources – The Council, as with most of society today, is dependent on natural resources. Where these resources come from other countries or are sourced from a non-renewable resource that is depleting globally, this can lead to volatility of supply and cost of these resources.

The volatility of supply is also impacted by world events such as conflict and world demand. Where these resources are sourced from overseas, the supplies of such resources are also susceptible to fluctuations in price due to currency exchange rate variations.

Resources that the Council uses also have an environmental impact from the extraction and transportation of these products, and can have major environmental impacts such as major oil leaks.

Reducing dependence on resources that are finite and are controlled by other people reduces the Council's vulnerability to price and supply fluctuation. This strategy aims to address the Council's dependence on resources that it is unable to control and are harmful to the environment, and utilise the renewable resources that are available to the Council locally.

Māori Context

In Whakatane, approximately 42% of our community is Māori and the Māori perspectives and in particular those relating to Kaitiakitanga are a fundamental strand feeding the philosophy and practice of sustainability. Kaitiakitanga can be translated as guardianship or stewardship and also as intergenerational responsibilities. This provides a framework based on obligation and duty of care. Central to this framework are Māori values, a strong sense of cultural identity, and the retention and use of Māori knowledge. The Māori-world view is built around a cosmology that links all parts of the earth and nature. People exist in a relationship with the non-human world and are connected by whakapapa or genealogy. As all interactions with our environment invoke these relationships this view sees environmental, social, economic and spiritual values as being interconnected and inter-dependent.

Kaitiakitanga provides an alternative to the more effects based approach to sustainable development promoted widely within the Western world. Kaitiakitanga measures progress through a number of culturally defined indicators which include improved Māori wellbeing and standards of health, increased human and social capacity, strength of cultural identity, sustainable management of natural resources, and culturally appropriate strategies for achieving economic self-sufficiency for communities. There is increasing recognition of the need to engage with Māori and their cultural worldviews and to understand that these beliefs and values represent important aspects of sustainable development in New Zealand. This is reinforced by legislative requirements in the Local Government Act (2002), the Resource Management Act (1991) and other legislation which informs and impacts upon local government roles. This legislation reflects the importance of including local iwi and tangata whenua views, as well as Māori perspectives from within communities, as an integral part of resource management processes. This is reflected in the creation of the broader, more long-term partnerships that are being developed across the range of local government activities.

Strategic Aims

The Sustainability Strategy will form part of a high level strategic platform. It will ultimately influence most aspects of Council's strategic planning. This will also increase the level of certainty and transparency for the community.

The strategy aims to:

- Provide a consistent and applicable definition of sustainability for Whakatane District Council.
- Guide the Council's Long-term Council Community Plan including reviewing the Council's Asset Management Plans.
- Enable consistent decision making across the organisation
- Provide a strategic framework upon which the Council may build on future actions.
- Identify the need for specific actions that will promote sustainability within the Council.
- Present coordinated and coherent action plans that clearly identify actions, outputs and responsibilities.

Working towards more sustainable outcomes requires changing behaviour as much as it involves developing new processes. Creating behavioural change starts with values, education and awareness. It is about the way the Council does business.

Strategic Goals

Strategic goals for the Whakatane District Council are designed to ensure that the projects, operations and actions of the Council are all focussed on a common objective that complements other actions and help to contribute towards a sustainable organisation and District. These goals are a direction by which to consider all decisions of the Council and their use will ensure that the actions of the Council could be continued on an ongoing basis without detrimental effects on any of the four well-beings.

Goals:

Consider Whakatane District Council as an ecosystem and act accordingly:

"What comes in, how we use it, what we make and deliver, then discard."

We will:

a. Consider the whole value of what we consume

b. Make best use of resources

c. Optimise productivity whilst minimising waste

d. Through education and raising awareness develop a social conscience (internal and external)

These goals work to ensure that the Council is operating sustainably and consistently. Therefore the goals help to fulfil the strategy objectives to provide a commitment to the community and fulfil requirements to act sustainably.

Principles of Sustainability

To ensure that the sustainable goals of the Council are being met, the following principles have been developed. These principles are designed to provide specific, meaningful guidance for decision-making, while being broad enough to be considered across the full range of Council projects and operations.

These principles must be considered prior to all Council decisions. Evidence is required to show that the principles have been considered in reaching a decision. While the Principles will not determine a specific response, they will ensure that consideration has been given to the sustainability of any decision. For future Council Agenda Reports, a template will be developed to ensure that consideration for the principles is included within Council reports where decisions are required.

The use of these principles will provide consistency and assurance to the Council and the community that the full range of options are being considered and that the best decision for the Whakatane District is being made.

Principles:

Consider the whole of life impacts on the social, economic, environmental and cultural wellbeings;

Consider the whole value of what we consume:

- What are the inputs and where do they come from?
- What are the alternatives?
- What is the residual value?

Make best use of resources:

- Use resources to enable and encourage a sustainable community.
- Operate in an efficient and effective manner.
- Acknowledge and foster the value of our people and resources.

Optimise productivity whilst minimising waste:

- Fit for purpose.

- Future proofing.
- Reduce; reuse; recycle

Education and raising awareness

Consultation and communication

Summary

The Sustainability Strategy has been developed in response to the Council's recognition that its decisions should ensure the wellbeing of current and future generations. The Council has a responsibility to the community to ensure that it is operating in a manner that is most beneficial to the community, while having no detrimental impact on the social, economic, environmental or cultural wellbeing of the community today or tomorrow.

Working towards a sustainable organisation will require a change in behaviour and decision making at all levels of the organisation. This strategy is designed to provide a consistent and coordinated approach to decision making that will be used by officers, management and Councillors when considering options.

The application of the vision, goals and principles in this strategy will guide all future decisions at the Council, while the action plans that will be developed will lead to improvements in current Council operations.

This document represents to staff and to the community a commitment to operating in a sustainable manner.

The governance of the Sustainability Strategy and the action plans arising from it reach across all areas of Council. These cover the Council's internal resources of energy, waters, transport, solid waste and people. They span the array of Council responsibilities, including internal leadership, provision of services and infrastructure, regulation in the community and collaboration with other organisations.Whakatane District Council is committed to integrating Sustainability across our organisation through our Asset Management Planning Process, so as to achieve both *Strategic* and *Operational Sustainability*. To do this, we have aligned our strategic goals and have built Sustainability into our operational processes. The most immediate progress that we will make is to undertake an assessment where all Capital works lists contained within the projects and financial forecasts section will be ranked using this Sustainability Framework.

The importance of all this is that Sustainability planning within our Asset Management Planning is the vehicle through which we will ensure that our infrastructure services facilitate the achievement of ***Community Well-being and Sustainable Development*** for Whakatane District.

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Introduction

This Lifecycle Management (LCM) section provides the broad strategies and work programmes required to achieve the goals and objectives set out in Section 3 and 4 of this plan.

This section covers the following assets:

- Drainage
- Footpaths
- Cycleways
- Streetlighting
- Carriageway
- Bridges
- Bus Shelters
- Retaining Structures
- Traffic Controls
- Railings
- Signage
- Road Marking
- Vegetation Control
- Carparks
- Airports
- Formation

This Plan covers the lifecycle of the Transport activities including:

- Overview of the area
- Key issues
- Asset Description
- Asset Age & Condition
- Operations & Maintenance Plan
- Renewal Plan
- Capital Works Plan
- Disposal Plan

These items are discussed in more detail in the Asset Summary. Further analysis has been undertaken on sub groups of assets as required.

Legislative Requirements

The requirements to understand and budget for long term renewals requirements are outlined below in this extract from the Local Government Act 2002.

"**Balanced budget requirement**

(1) A local authority must ensure that each year's projected operating revenues are set at a level sufficient to meet that year's projected operating expenses.

(2) Despite subsection (1), a local authority may set projected operating revenues at a different level from that required by that subsection if the local authority resolves that it is financially prudent to do so, having regard to—

(a) the estimated expenses of achieving and maintaining the predicted levels of service provision set out in the long-term council community plan, including the estimated expenses associated with maintaining the service capacity and integrity of assets throughout their useful life; and

(b) the projected revenue available to fund the estimated expenses associated with maintaining the service capacity and integrity of assets throughout their useful life; and

(c) the equitable allocation of responsibility for funding the provision and maintenance of assets and facilities throughout their useful life; and

(d) the funding and financial policies adopted under Section 102, Work Category Definitions

Expenditure on infrastructure assets can be categorised into three main areas, which are discussed below

Operations and Maintenance

Replacement (Renewals)

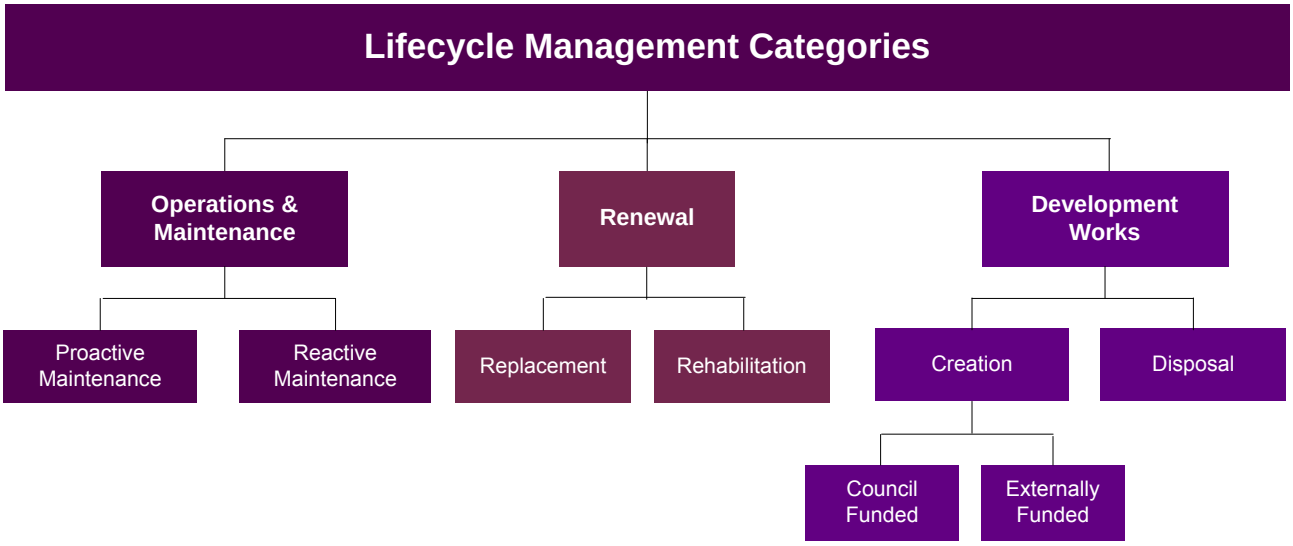
Capital Works (New Works)

These categories are described in more detail in Section 11 Projects and Financial Forecasts

.

Figure 1 below illustrates the following components of lifecycle management categories

Figure 1: Transportation Lifecycle Management Categories



These categories are described in more detail at the end of this section.

Operations and Maintenance

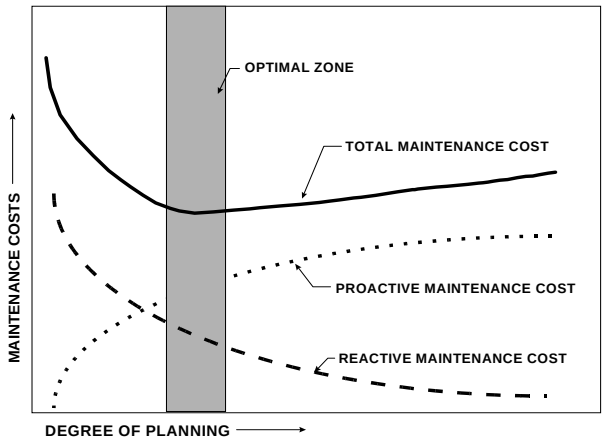
Operations and maintenance strategies cover the policies that will determine how the local transportation network will be operated and maintained on a day-to-day basis to consistently achieve the optimum use of the asset.

Table 1: Maintenance Categories

Routine (General) Maintenance	Routine maintenance is the regular on-going day-to-day work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. This work falls into two broad categories as follows:
Proactive	Proactive inspection and maintenance works planned to prevent asset failure.
Reactive	Reactive action to correct asset malfunctions and failures on an as required basis.

A key element of asset management planning is determining the most cost-effective blend of planned and unplanned maintenance as illustrated in Figure 2.

Figure 2: Optimal maintenance costing



Renewal Works

Renewal strategies are designed to provide for the progressive replacement of individual assets that have reached the end of their useful life. This is managed at a rate that maintains the standard and value of the network as a whole.

This programme must be maintained at adequate levels to maintain current levels of service and the overall quality of assets. Required levels of expenditure on the cyclic asset replacement programme will vary from year to year, and will reflect:

- The age profile of the assets.
- The condition /performance profile of the assets.
- The ongoing maintenance demand.
- The differing economic/useful lives of individual assets comprising the overall system of assets.

Failure to maintain an adequate cyclic renewal programme will be reflected in a decline in the overall standard of the network of assets. Where the actual programme falls below the cumulative budget target, the shortfall will be reflected in depreciation of the overall value of the network, resulting in a lower LoS and the need for more reactive maintenance.

Development Works

This sub section of the plan covers the creation of new assets (including those created through subdivision and other development) or works which upgrade or improve an existing asset beyond its existing capacity or performance in response to changes in usage or customer expectations. These works are either Council initiated or developer initiated.

While the Council recognises that asset development and asset renewal can occur simultaneously, it is important to note that the purpose of asset renewal is to prevent a decline in the service potential of the assets.

Asset renewal ***is concerned with maintaining the condition of the assets and current service levels.***

Asset development ***is concerned with the service improvements, measured by asset performance.***

Table 2: Development Work Categories

Growth	Any asset development (council funded and development contributions) that is required as a result of growth.
Levels of Service	Any asset development that is required as a result of a change in service levels.
Legislative	Any asset developed out of legislative requirements
Vested	Any subdivision development that is required as a result of land development and vested in Council by the developers.

Disposal

Disposal is the retirement or sale of assets whether surplus or superseded by new or improved systems. Assets may become surplus to requirements for any of the following reasons:

- Under utilisation
- Obsolescence
- Undeveloped (e.g. paper roads)
- Provision exceeds required level of service
- Assets replaced before its predicted economic life
- Uneconomic to upgrade or operate
- Policy changes
- Service provided by other means (e.g. private sector involvement)
- Potential risk of ownership (financial, environmental, legal, social, vandalism).

At this time Council has no plans to dispose of any of its transportation assets.

Network Issues

The Whakatane road network consists of approximately 902 km of predominantly rural roads. Over 76% of the network is sealed, which is above the national average of 60%. The development of the network has largely been guided by the 'valleys and plains' type topography. In this context, bridge roads define the four major river valleys (Rangitaiki, Whakatane, Waimana and Tarawera Rivers). A network of roads on the western side of the district was developed after draining of a peat swamp in the 1940s. Land use in the district is best summarised as 1/3 forestry, 1/3 pastoral and 1/3 national park.

Key Issues & Strategies

The key issues relating to the management of the transport activities are as follows:

Table 3: Transport Key Issues & Strategies

Asset Type	Key Issue	Strategies to Address Key Issues
Pavement	Unexpected early deterioration due to logging truck use.	Communication with block owners, harvest dates and budgeting for unplanned renewals
Bridges	Bridge upgrades for community lifelines that are not state highway	Align understanding with NZTA and community boards
Pavement	Flooding in low lying areas	Some issues in Matata

Asset Summary

Table 4 below is a summary of the assets currently owned by Whakatane District Council. The Gross Replacement Cost (GRC), Optimised Depreciated Replacement Cost (ODRC) and annual depreciation are current as at 01 July 2010.

Table 4: Asset Inventory as at 1 July 2010

Asset	Quantity (No.)	Length / Area	Units	Gross Replacement Cost - $	Depreciated Replacement Cost - $	Annual Depreciation - $
Drainage	1,912	33.6	km	13,776,412	8,285,003	276,458
Footpath	1,595	292,458	M^2	17,373,869	8,920,773	371,590
Island (Traffic Control)	271	24,733	M^2	2,745,773	1,329,244	54,915
Railings	699	14.7	km	2,978,282	922,217	152,179
SW Channel	2,116	247.7	km	27,313,004	14,894,859	510,627
Signage	6,257			1,229,921	637,074	80,574
Bridges	153	2,753	m	39,434,662	24,459,683	420,082
Carparks	52	5,797	m	3,764,600	3,023,251	56,197
Street Lighting	2,410			4,497,076	2,530,148	172,270
Carriageway	1,576	904	km	218,142,775	163,526,450	3,755,652
Whakatane Airport	1			2,081,713	989,890	82,105
TOTAL				333,338,086	229,518,591	5,932,650

Figure 3: Gross Replacement Cost of Network

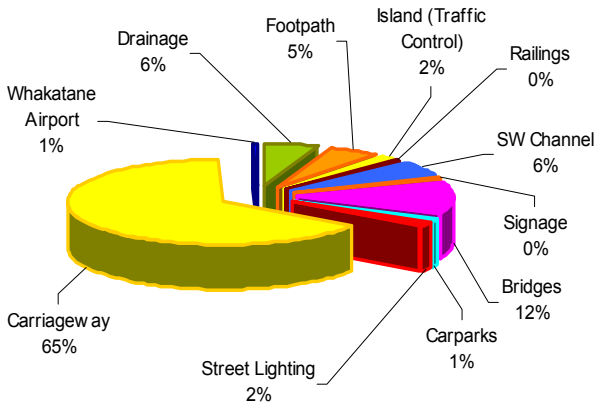
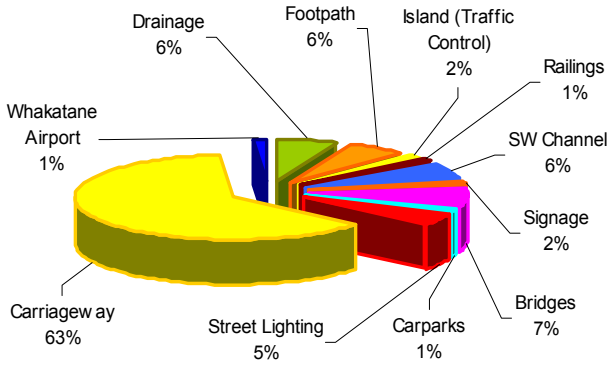


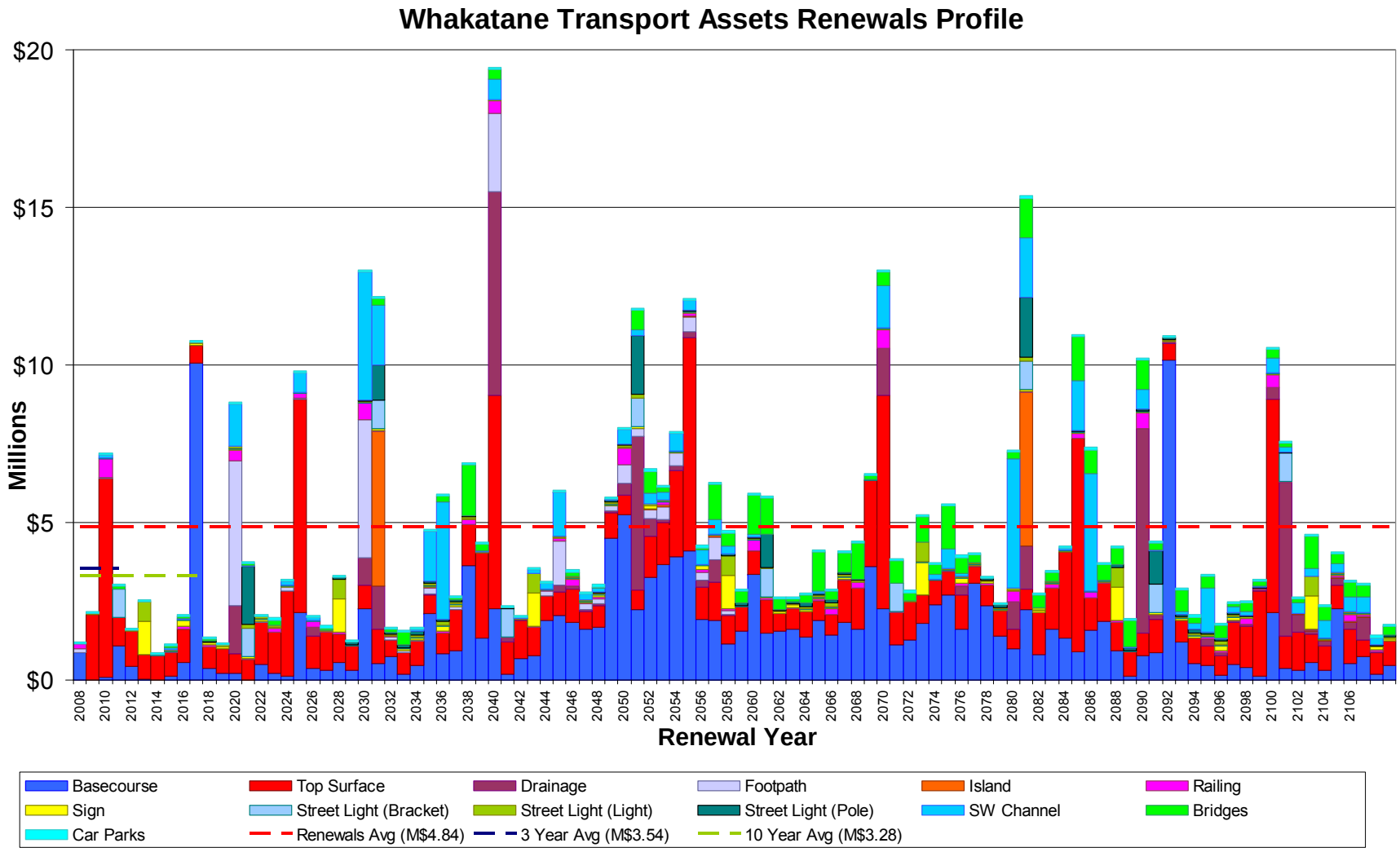
Figure 4: Annual Depreciation for Network



Renewals Profile

A renewals profile shown on the following page has been developed to illustrate the funding requirements over the coming years. This shows that if only a 20 year view is taken, there are significant quantities of base-course that will not be budgeted for. The data indicates the current budget for renewals should be increased to at least $4.9M per year. A there is no component valuation for car park assets, this annual amount has been flattened out as a per year basis.

Figure 5: 100 year renewal profile



Data Confidence and Reliability

Table 5 provides the confidence framework (NAMS IIMM) used to determine the confidence in the asset data used in this AMP.

Table 5: Asset Data - Confidence Grades

Confidence Grade	General Meaning
Highly Reliable	Data based on sound records, procedure, investigations and analysis, documented properly and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade highly reliable or reliable data is available.
Very Uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

Table 6 below reflects the confidence in the asset data for the Transport assets.

Table 6: Overall Confidence Data

Asset Type	Highly Reliable	Reliable	Uncertain	Very Uncertain
Drainage		√		
Footpaths		√		
Islands (Traffic Controls)		√		
Railing		√		
SW Channel		√		
Signage		√		
Bridges		√		
Retaining Structures		√		
Car Parks		√		
Street Lighting		√		
Carriageway		√		
Airport		√		

Table 7: Overall Data Completeness

Asset Type	0-20%	20-40%	40-60%	60-80%	80-100%
Drainage					√
Footpaths					√
Islands (Traffic Controls)					√
Railings					√
SW Channel					√
Signage					√
Bridges					√
Retaining Structures			√		
Car Parks				√	
Street Lighting					√
Carriageway					√
Airport					√

Table 8: Condition & Performance for Critical and Non Critical Assets

Asset Type	Highly Reliable	Reliable	Uncertain	Very Uncertain
Drainage		√		
Footpaths	√			
Islands (Traffic Controls)		√		
Railing		√		
SW Channel		√		
Signage		√		
Bridges		√		
Retaining Structures			√	
Car Parks		√		
Street Lighting		√		
Carriageway		√		
Airport		√		

Asset Condition

It is critical that Whakatane has clear knowledge of the condition of their assets and how they are performing. Condition data has been captured over a number of years, which has enabled Whakatane to understand future expenditure patterns and management decisions regarding maintenance, replacement and renewals. The development and continued use of condition assessment data will allow preparation of verifiable predictive decay curves for particular asset types and hence permit prediction of remaining life. Consideration will still be required to allow for economic influences in the adopted life for the asset type.

Condition Assessment & Results

The condition assessment model in Table 9 is the basis of assessing the asset condition of Whakatane's assets.

Table 9: Typical Condition Rating Model

Grade	Condition	Description of Condition
1	Very Good	Sound physical condition. Asset likely to perform adequately without major work for 25 years or more.
2	Good	Acceptable physical condition; minimal short-term failure risk but potential for deterioration in long-term (15 years plus). Minor work required
3	Fair	Significant deterioration evident; failure likely within the next 5 years but further deterioration likely and major replacement likely within next 15 years, Minor components or isolated sections of the asset need replacement or repair now but asset still functions safely at adequate level of service.
4	Poor	Failure likely in short-term. Likely need to replace most or all of assets within 5 years. No immediate risk to health or safety but works required within 3 years ensuring asset remains safe. Substantial work required in short-term, asset barely serviceable
5	Very Poor	Failed or failure imminent. Immediate need to replace most or all of asset. Health and safety hazards exist which present a possible risk to public safety, or asset cannot be serviced/operated without risk to personnel. Major work or replacement required urgently

Service Delivery

Opus (Opus) International Consultants acquired the Professional Business Service Unit in 2006. Opus now manages the majority of the contracts in operation in the District under the Professional Service Provider contract.

Table 10: Service Delivery Contracts

Contract	Contractor	Contract Period	Contract Start
Roading Maintenance Contract 04/24	Downer EDi Works	1.5+1+1+1	2009
Lighting Contract	Horizon Contracting	2+1+1+1	2007
Professional Services Provider RAMM Asset Data Management	Opus International Consultants	5 yrs	2006
Specialist Bridge Repairs Contract	Conspec Ltd	2 yrs	2007
Urban Weed Control	Citycare	2+1+1+1	2008
Bridge Maintenance	Conspec Ltd	2	2010
Signs	Directionz	2+1+1+1	2009
Marking	CRTS	2+1+1+1	2009
Footpaths	Traffic Services Ltd.	2+1+1+1	2009

Pavements

Overview

The objective of pavement assets (formation, base layers and surface) is to provide a pavement network that is suitable for:

- The effective and efficient movement of vehicles
- All year round access
- A safe suitable all-weather surface that is appropriate to its location and function in terms of skid resistance, noise reduction, and smoothness and has a structure suitable for legal traffic loading requirements.

Whakatane has approximately 904 km of road network throughout the district including 201 km of unsealed roads, which accounts for 23% of the network. The majority of the network is rural roads categorised by relatively low volume traffic movements.

There major renewals approved through the LTP process include Wainui Rd and Thornton Rd.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

- Vulnerability to serve rainfall events
- Capacity and pavement condition of rural & urban roads, whether or not affected by heavy traffic movements such as forestry vehicles and milk tankers or by light vehicles. This is a structural capacity problem not a capacity volume problem.
- Continuing demand for seal extension even though funding is not available means customer expectations cannot be met.
- Deterioration modelling is required to accurately predict future pavement performance and support funding requests
- Key roads reaching capacity (e.g. Thornton) in particular the coastal route. A study on this route is underway.

Assumptions & Confidence Levels

The current management of pavements is based on a combination of the current RAMM data, historic information and trends, and local knowledge. A validation exercise of RAMM has also been carried out to ensure 100% validation. Confidence has increased over the last three years

Asset Description

Roading Application of the hierarchy in practice needs to be reviewed in some areas e.g. Galatea/Ngamotu.

The WDC road network is classified in the RAMM database in the following hierarchy:

Table 11: Roading Hierarchy

Hierarchy	Description	Length - km	Traffic Volume		
			Min	Average	Max
Arterial	Roads that are of strategic district importance and a significant element in the local economy. Carry the heaviest volumes of traffic including heavy vehicles providing access in and out of the District.	**123**	C – 189 E – 180	C – 5435 E – 5790	C – 16802 E – 18492
Collector	Roads that are preferred local routes between areas of population or activity. Carry moderate volumes of traffic and provides a connection between local roads and the arterial network.	**61**	C – 249 E – 300	C – 3064 E – 9454	C – 9880 E – 12000
Local	Carry only local traffic, primary function is to provide access to private properties	**638**	C – 5 E – 5	C – 381 E – 343	C – 4700 E – 4600
Special Purpose	Local roads that are managed by WDC but maintenance and renewals are fully funded by New Zealand Transport Agency due to the low rate income from adjacent properties.	**81**	C – 22 E – 21	C – 298 E – 339	C – 1292 E – 1600
Total		**903**			

Length of Network

The following table provides the length of the current network (as at April 2011)

Table 12: Length of Network

	Urban	Rural	TOTAL (km)
Sealed	129.51	570.78	700.29
Unsealed	0.40	201.61	202.01
Concrete	0.06	0.15	0.21
Bridge	0	0.72	0.72
TOTAL	**129.96**	**773.26**	**903.23**

Carriageway pavements comprise three major asset components as follows:

Formation: The Formation layer is essentially the natural ground material that the carriageway structure is formed upon. Formation is considered to have an indefinite life and is therefore not depreciated over time.

Basecourse: The basecourse is the compacted granular material that sits above the formation. Basecourse has a much longer life, and therefore the renewals profiles vary differently to that of the surface materials.

Top Surface: This layer can comprise a variety of materials as explained below:

Table 13: Top Surface Layers

Layer Type	Description
Chipseal	Layer of sprayed bitumen with a stone chip spread on top as a running surface. The life cycle for a chipseal surfacing varies dependent on the chip size used (small chip means less bitumen that can be sprayed as the waterproofing membrane) and by traffic volume.
Slurry Seal	Emulsion cement and fine aggregate mix laid between 3 - 8 mm thick. This is used in heavily trafficked routes and commercial areas where there are moderate traffic stresses.
Friction Course	Mix of asphaltic binder and graded aggregate with hydrated lime filler which has a high volume of air voids and is laid in a 30 - 35 mm layer. This has not been used in the past but may be used in heavily trafficked urban areas in the future, particularly where road noise and vibration are a problem.
Asphaltic Concrete	Mix of graded aggregate and asphaltic binder laid in a 25 - 50 mm layer. Primarily used at roundabouts, busy intersections, central business areas and high traffic stress areas, and where road noise is an issue.
Emulsion Mix	Mix of emulsion and graded aggregate used as a smoothing course laid in a 25 to 75 mm layer and usually resurfaced with a chipseal within 2 years.
Unsealed	Metal surface, may be stabilised or have a clay bound wearing course surface.

These layers typically have very short lives and are renewed through re-sealing actions.

Asset Value

The valuation information provided for in this AMP is based on the 2010 Road Asset Valuation, undertaken by Opus International Consultants.

Table 14: Asset Information – Road Carriageway

Asset	Length (m)	GRC - $	DRC - $	AD - $
Sealed Roads				
Formation	TBC			
Basecourse	TBC			
Top Surface	TBC			
TOTALS				
Unsealed Roads				
Formation	TBC			
Basecourse	TBC			
Top Surface	TBC			
TOTALS				

From the information provided in Table 14 it is shown that basecourse accounts for approximately 61% of the GRC, with Formation and Top Surface constituting approximately 29% and 10% respectively.

Gross Replacement Cost & Annual Depreciated Costs

The figures below show the GRC and Annual Depreciation costs for the pavement network.

Figure 6: GRC Road Carriageway

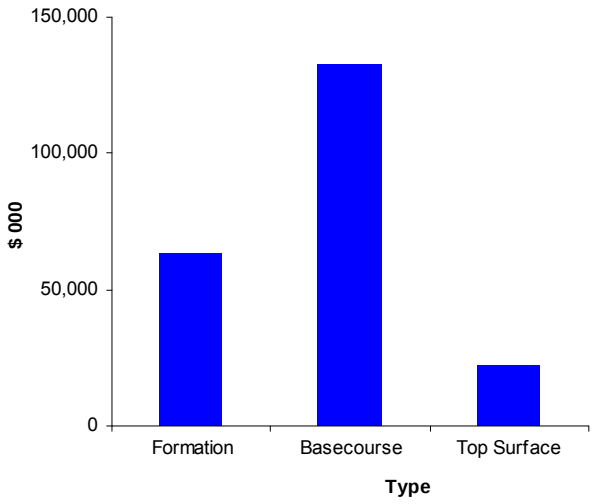
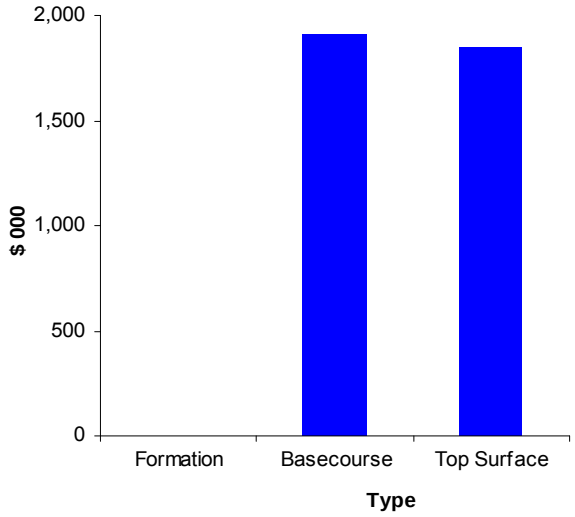


Figure 7: Annual Depreciation



Condition Assessment & Results

Pavement condition is measured annually via the RAMM rating and roughness survey whereby roads with >500 VPD are assessed annually and roads <500 VPD 50% of network per year.

Physical faults are continuously recorded over a fixed statistically representative portion of the carriageway. Capturing condition at any one time is complex because of the constant wear, and it is more meaningful to chart the trends from year to year.

The most significant issues in terms of pavement condition are:

- The need to review asset lives and adjust them to align with actual performance.
- Weak moisture sensitive pavements – need to keep waterproof
- Need to continuously review seal useful lives
- The continuing need to monitor the performance of weak pavements on the impacts of heavy traffic

The following information provides an overview of the condition data for the road network

Pavement Roughness

Road roughness, as defined in terms of NAASRA (National Association of Australian State Roading Authority) counts, is an indicator of road condition and performance. These counts are measured by either a standard response meter or laser profilometer being averages every 100 m for rural roads and 25 m for urban roads.

- A count of <70 is the standard requirements for new construction and rehabilitation of sealed roads
- A count of >150 is regarded as a “rough pavement” and depending on traffic volumes a smoothing treatment may be appropriate
- Smoothing rough pavements will no longer be subsidised

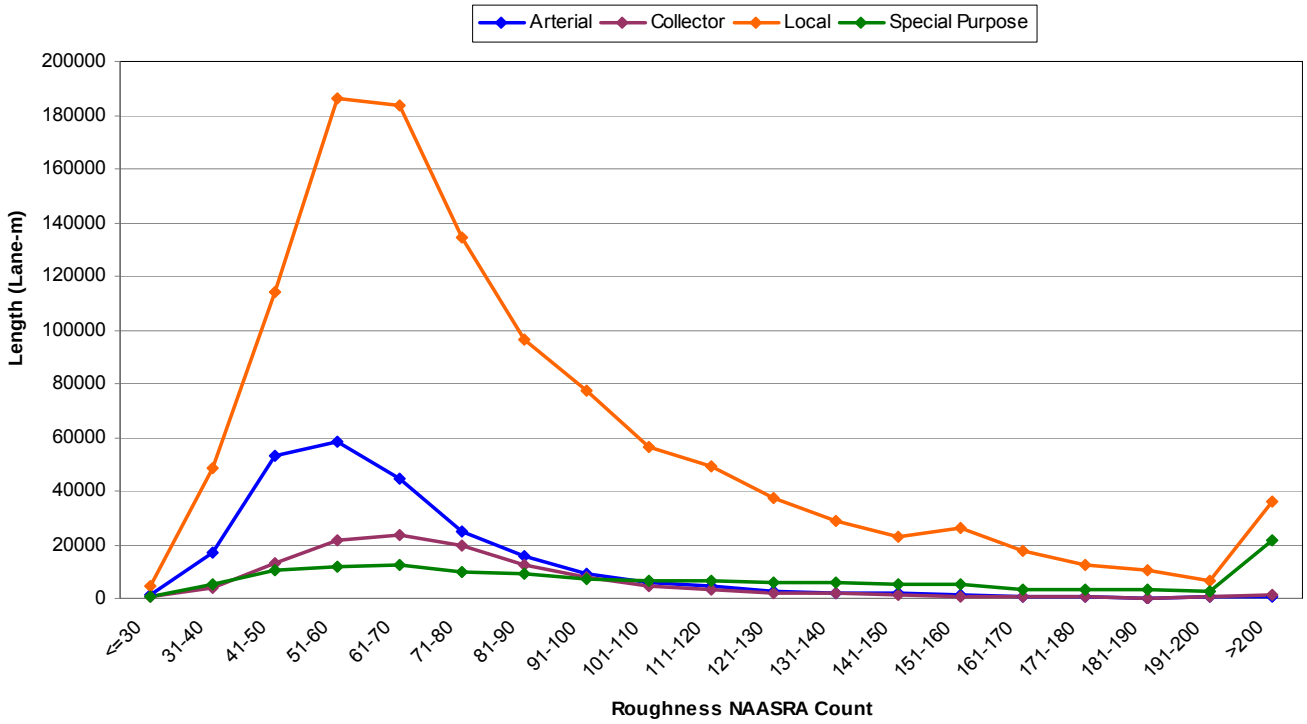
Table 15: NAASRA Measurements

Hierarchy	Target NAASRA	Excellent	Good	Moderate	Poor	Very Poor
Arterial	90	≤ 75	75-100	100-120	120-150	>150
Collector	105	≤ 90	90-100	100-130	130-150	>180
Local	120	≤ 100	100-120	120-150	150-180	>180
Strategic	75	≤ 75	75-100	100-120	120-150	>150

The NAASRA measurement supports KPI’s based on the NZTA network. These measurements are taken as a 5% sample of the entire network.

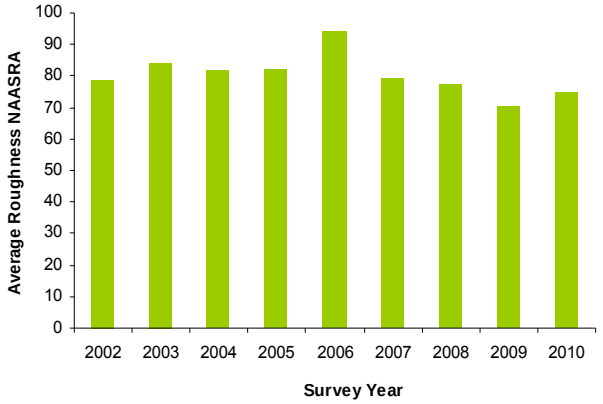
Figure 8 overleaf provides an overview of the Network Roughness as at April 2011 in RAMM. It shows that a good majority of the network is comfortably with the Excellent – Moderate range.

Figure 8: Network Roughness



Note: 2010 1st 50% of network surveyed – 2011 2nd 50% of network surveyed.

Figure 9: Average Roughness of the Network



Pavement Performance

Based on the data above, it is shown that in 2006 the average roughness of the network was approximately 94 NAASRA. And 27km of the network had a NAASRA count >150. This is under Councils KPI of <33km/yr. The 2005 results were affected by the flood events.

Understanding failure modes, their frequency and probability of occurrence is critical to the prediction of future costs and as the basis of optimised renewal decision-making. Pavement condition and deterioration is measured by taking regular statistically representative regarding of factors that influence pavement deterioration. An overview of historical pavement assessments is provided below:

Table 16: Historical Pavement Assessment

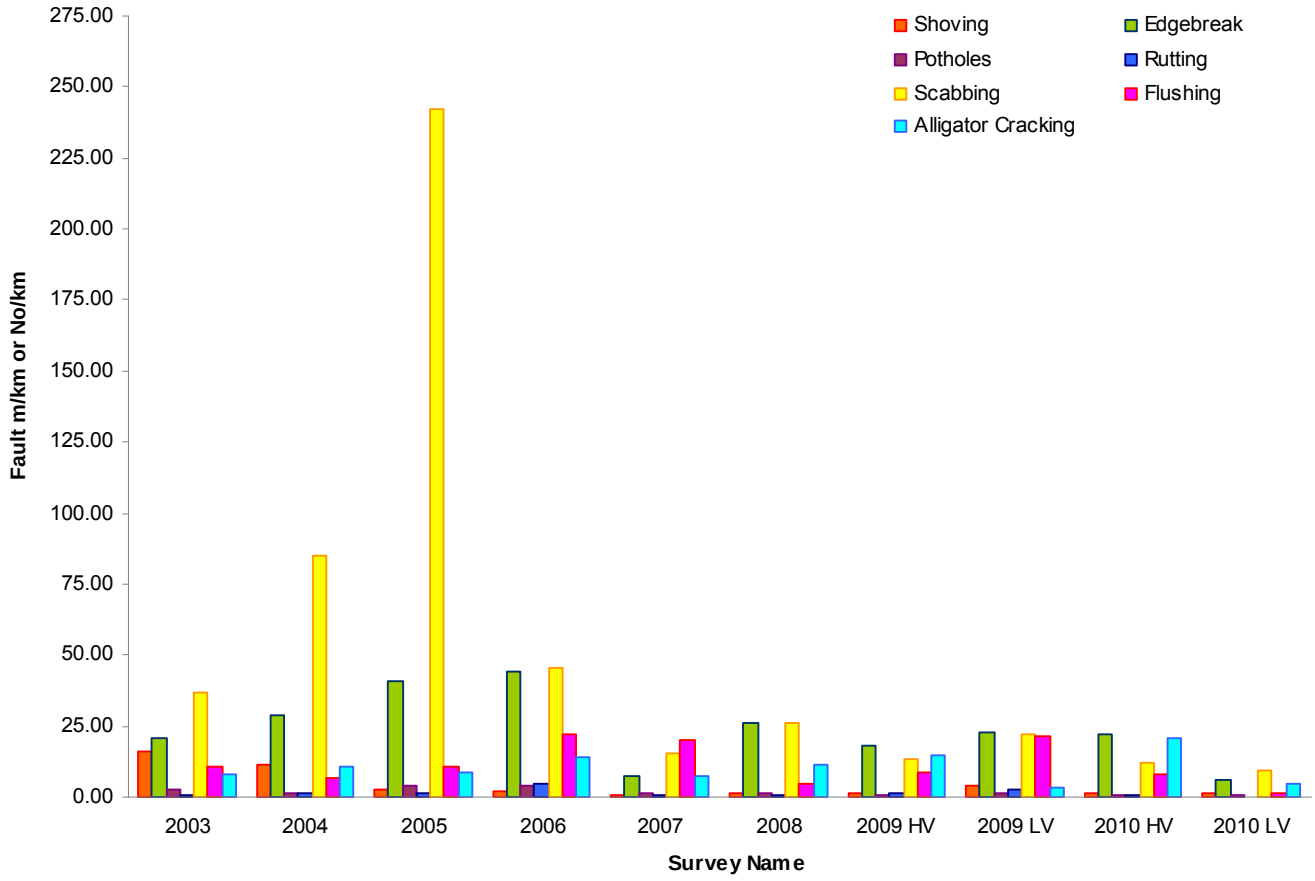
Year	Consultant	Description
2000	Opus Consultants Limited	The entire network was surveyed
2001	Duffill Watts & King Ltd	The entire network was surveyed
2002	Duffill Watts & King Ltd	The portion of the network that was surveyed is: Pavement use is one of ADT 100-500 or ADT 500-2000 Pavement type is Thin Surfaced Flexible Only rural roads
2003	Beca Carter	The entire network was surveyed
2004	Beca Carter	The portion of the network that was surveyed is: Pavement use is one of ADT 100-500, ADT 500-2000, ADT 2000-4000, ADT 4000-10000, ADT 10000-20000 or ADT > 20000 Only rural roads
2005	Beca Carter	The entire network was surveyed
2006	Opus Consultants Limited	The entire network was surveyed
2007	Opus Consultants Limited	The entire network was surveyed
2008	Opus Consultants Limited	The portion of the network that was surveyed is pavement use is ADT 500-2000 and above.
2009	**Opus Consultants Limited**	**The entire network was surveyed**
2010	Opus Consultants Limited	The portion of the network that was surveyed is 100% of pavements with AADT = 500 vpd and above, and 50% of pavements with less than 500vpd.

In accordance with the New Zealand Transport Agency's requirements for RAMM rating, surveys are generally carried out biannually for all sealed roads and annually for T3, T4, T5 and T6 roads. In addition a rating survey may be undertaken on unsealed roads.

RAMM rated failure modes for pavement include the following faults:

Observed RAMM Fault	Performance Information	Observed RAMM Fault	Performance Information
Shoving (sheer failure)	Basecourse shear failure	Scabbing	Insufficient Surface Binder
Edge break	Low Shoulder – insufficient width	Flushing	Excessive Surface Binder
Rutting	Wheelpath loading failure	Alligator cracking	Surface loading failure
Potholes/pothole repair	Surface permability failure		

Figure 10: Sealed Network Defects



The information contained in 10 above is derived from the following assessments of the network.

Figure 11: Shoving Defects

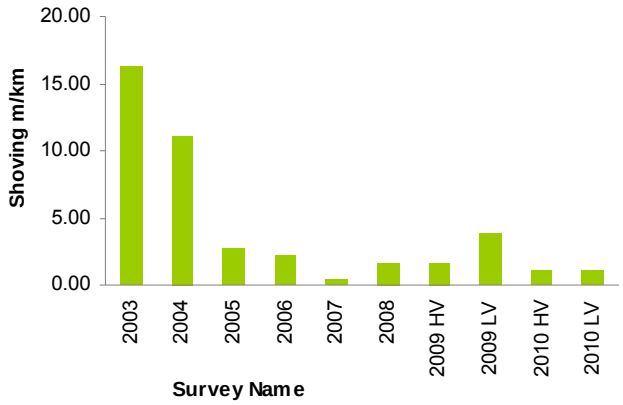


Figure 11 shows the historical shoving faults that have been recorded on the network. Shoving, waving or bulging of the pavement is a sign of movement, usually failure along a shear surface at some depth within the road formation. High values indicate that the road pavement is inadequate to support the traffic loading and renewal and strengthening of the pavement is required.

Figure 12: Edge Break Defects

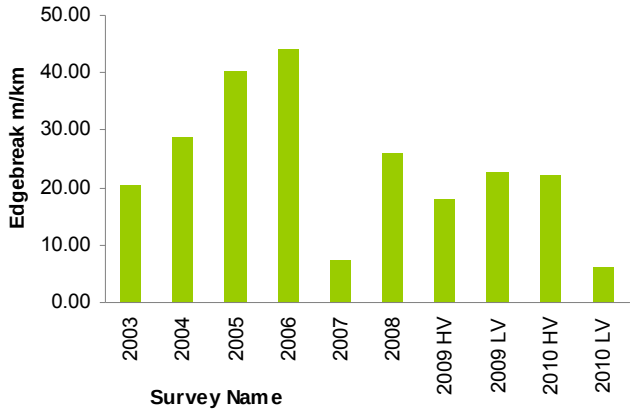


Figure 12 shows the historical edge break defects that have been recorded on the network. The measurements show a general decreasing trend in this defect after 2006.

The defect can be attributed to the following:

- Settlement after the edge of the seal has been raised or widened
- Inadequate seal width forcing traffic too close to the edge of the road
- Bad drainage or occasionally frost
- Inadequate shoulder, including rutting or vegetable growth
- Shoulder spraying (which has been halted)

High values indicate that the road pavement width is inadequate and seal widening may be required.

Figure 13: Pothole Defects

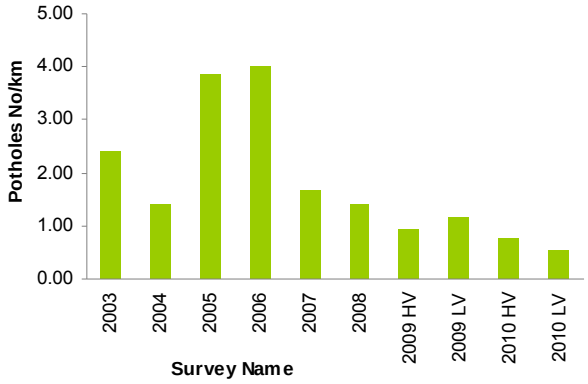


Figure 13 shows the number of potholes measure per km of network. The results show a decreasing trend in this defect.

Figure 14: Rutting Defects

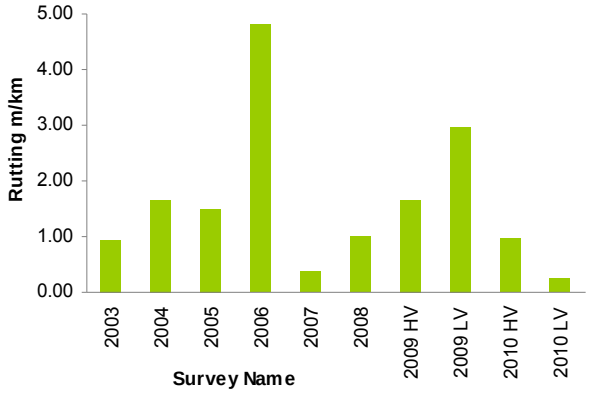


Figure 14 shows the rutting that has been measured in the network. Rutting is the longitudinal depression in the wheel path of the traffic lane. There are a number of potential causes including the break down of a weak gravel base material, an insufficient strength in the shoulder of the road or the failure of the subgrade material, which the gravel base has been laid on. The effect of rutting can lead to ponding of surface water, which is a safety hazard. High values indicate that the road surface needs smoothing to reduce vehicle-operating costs.

Figure 15: Scabbing Defects

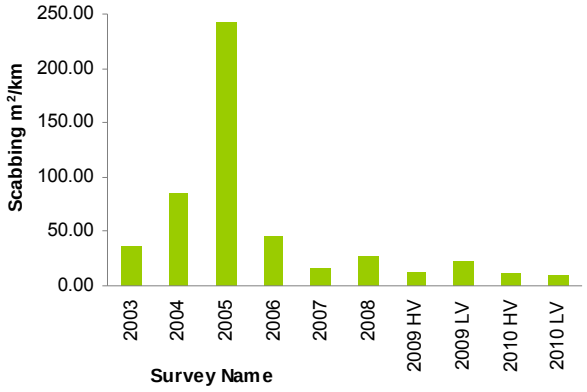


Figure 15 shows the historical measurements of scabbing within the network. Scabbing is the term used for sealing chip that becomes separated from the bitumen due to a lack of bond. The lack of bond can be caused by poor compaction, low binder application, rain within the first few days of the sealing, traffic travelling too fast over the new seal or even dirty or poor graded chip. Scabbing will also occur when a seal nears the end of its useful life, typically when the binder becomes brittle and the movement of traffic dislodges chip.

Figure 16: Flushing Defects

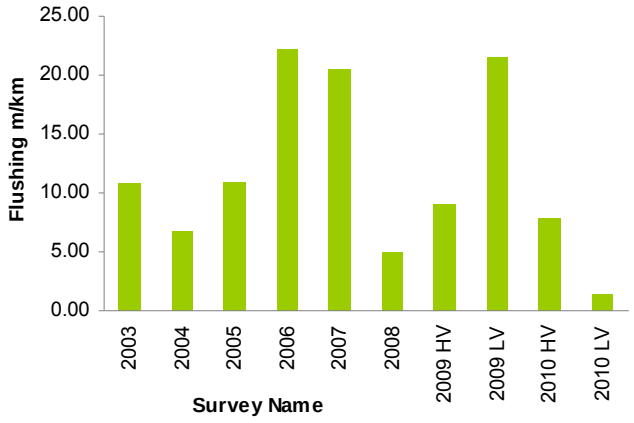


Figure 16 shows the historical measurements of flushing within the network. Flushing/bleeding results due to the following:

- Excess binder used during sealing
- Hot weather causing the binder to melt
- Surface chips getting pushed down by traffic into a softened basecourse

The figure above shows that there is a significant increase of flushing (m/km) in the years 2006, 2007 and 2009 (for low volume roads). It is unclear as to why this may be occurring, however it could be due to a higher use of smaller chip.

Figure 17: Alligator Cracking Defects

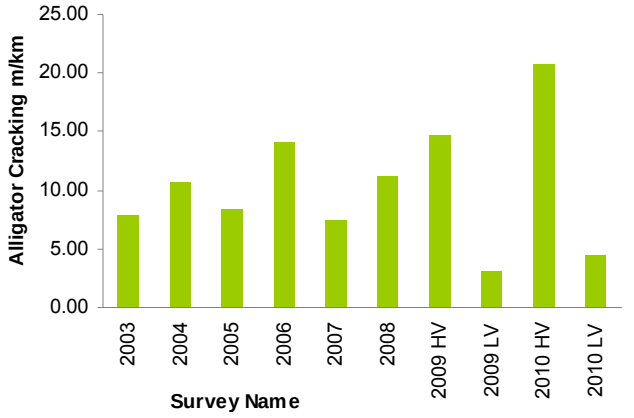


Figure 17 shows the extent of alligator cracking that has occurred in the network since 2000. Cracking typically occurs when pavements are subjected to repeated loadings causing flexing and ultimately cracking. Fine hair cracks are the first signs of failure, which, if not repaired will allow water to penetrate and weaken the pavement layer and or subgrade.

The impacts of the 2004 and 2005 flood events are evident in the defects graphs.

New Zealand Transport Agency KPI's

NZTA require a number of key pavement condition KPI's annually based on RAMM data and TLA returns. In recent years NZTA has introduced new KPI's called Surface Condition Index (SCI) and Pavement Integrity Index (PII). Information from all road controlling authorities in NZ is available from NZTA's web site http://www.smartmovez.org.nz/ .

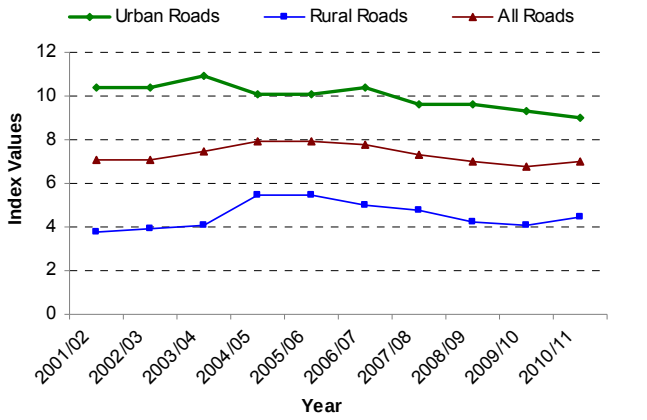
Surface Condition Index

The SCI is a composite index that describes the network surface condition and allows easy comparison of historical and future surface conditions. Graphically imported, the results are very quick to interpret. SCI has two key components:

- The Condition Index (CI) which is based on RAMM condition rating data, and
- The Age Factor Index (AI) of the surface, which uses the surfacing remaining life held in RAMM.

The SCI is used to trigger resurfacing or reseal treatments. Figure 18 shows that the SCI levels of the network have a positive trend from 2005/06.

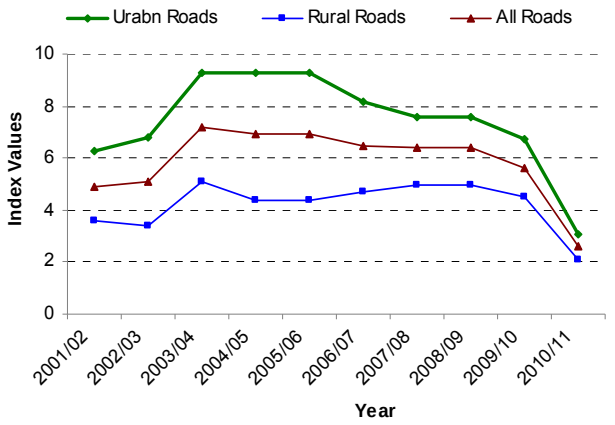
Figure 18: Surface Condition Index



Pavement Integrity Index

The PII measures the health of the pavements and is generated from the RAMM condition data. The network average of the PII is reported for historical and future performance. The PII graph (Figure 19) indicates a positive trend (decreasing Index value).

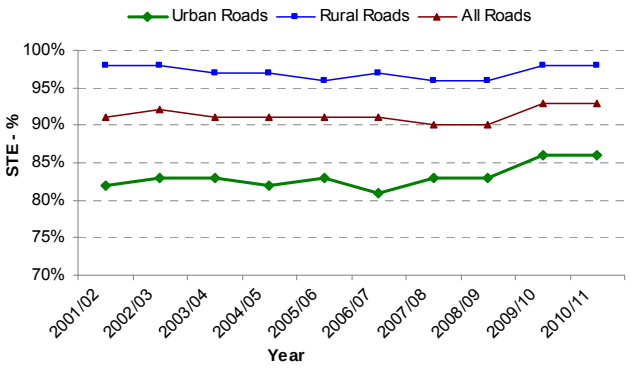
Figure 19: Pavement Integrity Index



Smooth Travel Exposure (STE)

STE is defined as the proportion of vehicles travelled each year on roads with condition above the targeted conditions for those roads. An increase in STE means that fewer vehicles are travelling on roads above the target roughness. For the purpose of the NZTA reviews, the target roughness is generally taken as 150 NAASRA. A roughness greater than 150 NAASRA usually indicates poor road condition.

Figure 20: Trends in Smooth Travel Exposure (STE)



Key Pavement Risks

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Pavements/Roads are the major component of the network and are subjected in some areas to high traffic volumes, which over time can lead to deterioration and eventually asset failure if not effectively managed.

Table 17: Key Pavement Risks

Risk Descriptor	Net Risk	Management Option
***Roads:* Inadequate Road Design** - Sub standard geometry and low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents)	16	Develop and Implement Council Safety Management System Identify and remedy blackspots and develop improvement strategy for identification and monitoring of skid deficient sites. Field identification during reseal programme.
***Roads:* Inadequate Road Maintenance** - Low skid value surfaces resulting in inefficient or unsafe operating conditions (loss of control accidents, potholing, stone loss etc)	16	Review Maintenance Contract and specifications
***Roads:* Network Capacity** - traffic volumes increase roading requirements	16	Adoption of Transportation Strategy, Residential Growth Strategy, and Industrial Growth Strategy
***Roads:* Dust Nuisance** settling on adjacent property resulting in resident health issues, environmental effects and/or poor image	16	Accelerate seal extension programme
***Roads:* Weak Moisture** susceptible pavements, vulnerable to loss of water proofing and spikes of heavy traffic e.g. Logging, harvesting etc	16	Continue the current active maintenance regime

Operations & Maintenance Plan

Routine maintenance is the on-going day to day work activity required to keep assets serviceable and prevent premature deterioration or failure. Two categories of routine maintenance are carried out;

Unplanned Maintenance: Work carried out in response to reported problems or defects (e.g., pothole repair). This includes site inspection of faults and prioritising works over a 1 and 2 month programme.

Planned Maintenance: Work carried out to a predetermined schedule (e.g., sump cleaning) or planned in association with other work (e.g., preparation for resealing).

Maintenance Plan

The maintenance contractor has the responsibility for identifying and programming the repair of maintenance works. The contractor proposes a monthly programme plus an indicative programme for the following months for approval by the WDC Professional Services Provider. Works are identified and reported by route position so that high maintenance cost road sections can be identified for other treatments such as pavement rehabilitation, resurfacing or seal widening.

Maintenance repairs are carried out as a result of customer complaints, routine inspections or planned work in preparation for maintenance reseals. General maintenance of roads comprises the following work activities:

- Pavement patching and repairs
- Metalling and grading of unsealed roads
- Repair of potholes
- Repair of surface openings and minor surface levelling
- Repair of surface defects (rutting, scabbing, flushing etc) and edge breaks
- Maintenance of unsealed shoulders
- Drainage maintenance, maintenance of side drains and removal of high berms
- Kerb and channel and carriageway cleaning
- Repairs to concrete kerb and channel, sumps and leads
- Road verge maintenance and vegetation control
- Maintenance of street signs

The Maintenance Intervention Strategy (linked to RAMM outputs in conjunction with onsite validation). The MIS provides a conuse statement of the strategies to be adopted in scheduling and approving road maintenance work. It defines the level of priority, the timing, repair type and dimension guidelines for each treatment length in advance of the treatment proposed in the FWP.

The intention of these strategies is that the network is maintained to an acceptable pre-determined level of service at minimum whole of life cost.

The following codes are used to identify the various strategies in the FWP for the WDC Network:

N Normal routine maintenance – business as usual.

P Pre Reseal repairs – next year is reseal. Complete pre-reseal repairs this year.

H Holding Maintenance – pavement rehabilitation proposed for current or following year.

R Restricted Maintenance – Pavement rehabilitation proposed for 2 to 3 years out.

W Pavement under warrenty – either for P/17 or a defects liability period.

S Special – e.g. Test section monitoring

The maintenance categories are as follows:

Table 18: Maintenance Categories

Maintenance Category	Description
U1	Unsealed pavement with traffic less than 100 VPD
U2	Unsealed pavement with traffic between 100 & 500 VPD
T1	Sealed pavement with traffic less than 100 VPD
T2	Sealed pavement with traffic between 100 & 500 VPD
T3	Sealed pavement with traffic between 500 & 2,000 VPD
T4	Sealed pavement with traffic between 2,000 & 4,000 VPD
T5	Sealed pavement with traffic between 4,000 & 10,000 VPD
T6	Sealed pavement with traffic between 10,000 & 20,000 VPD
C1	Concrete pavement with traffic less than 100 VPD

WDC have written their own maintenance specifications based on NZTA HM series specifications. The specifications have been modified to suit local requirements, as have the intervention levels for such activities as surface and shape restoration. The general aims are to maximise economic efficiency for WDC and the road users.

A Forward Works Programme for unsealed roads will be developed in 2011 & 2012 financial year. There is recognition of the fact that the programme is disjointed, however it is more robust than the historic practice of reactive maintenance, which was based on spot metalling. In addition to this, a programme of applying a clay bound wearing course (CRAP 30) has been introduced. The aggregate (overburden) is sourced from the greywacke quarries and other local sources of aggregate. The aim of this programme is to:

- improve riding quality by reducing corrugations and potholes
- reduce dust
- reduce maintenance costs.

Deferred Maintenance

Maintenance budget was deferred over past years due to council's inability to pay. $500,000 was cut from the 2009/10 and a further $1.5M from the 2011/12 budgets. On-going deferrals will be required to help fund emergency works and in recognition of Councils overall financial constraints.

Whilst there is not expected to be a significant impact from these deferral in the short term, there is a growing risk of impact on network condition and levels of service in the medium to long term, if funding levels are not able to be restored.

Renewal Plan (Pavement Rehabilitation)

Renewal expenditure is major work that restores an existing asset to its original capacity or required condition. The objective in rehabilitating and renewing an asset is to apply the correct treatments at the optimum time so that the required level of service is delivered while minimising total life cycle costs. The key activities are:

- Resealing/Resurfacing
- Pavement Rehabilitation[1]

Renewals planned for the next 10 years (20012/13 – 2022/23) can be viewed under Section 11 "Projects and Financial Forecasts.

Table 18: Renewal Options

Work Type	Objective	Methods
Resealing/ Resurfacing	To maintain a waterproof and skid-resistant road surface	**Chipsealing**: as described in Table 13: or emulsified bitumen covered with a layer of stone chips, with the amount of bitumen being altered according to the chip size and vehicle usage. **Slurry seal**: as described Table 13: and emulsified bitumen laid ~6 mm thick. **Friction Course**: as described in Table 13: and graded aggregate with hydrated lime filler which has a high volume of air voids and is laid in a 30-35 mm layer **Asphaltic Concrete**: as described in Table 13:.
Pavement Rehabilitation	Strengthen road sub-base and/or basecourse Alter road surface level if necessary to accommodate kerb and channel realignment	**Reconstruction**: Remove the existing basecourse and/ or subgrade and replacing with new material. This is usually done in urban areas where kerb lines determine the finished level. It is also carried out in areas that are particularly wet. **Rehabilitation**: Increase the strength of existing basecourse/ sub-base materials by adding granular basecourse and or a stabiliser (hydrated lime or cement) and recompacting. **Partial Rehabilitation**: Used where only parts of the pavement are exhibiting distress and it is more cost-effective to repair these areas only. In the rural area rehabilitation involves removing the existing chipseal and constructing an additional layer of road metal on top of the existing pavement construction

The required level of rehabilitation/ renewal will vary depending on;

- the age profile of carriageway surfacing and structure
- the condition profile of carriageways
- the level of ongoing maintenance demand
- the differing economic lives of the materials used
- the subgrade strength and type
- the usage of the road

Sealing and Resurfacing

The selection of the actual sections of carriageway to be treated each year is based on output from RAMM, which analyses average life data for each road section. I, the volume and mix of traffic using the road, and current condition. This is carried out as a desk top exercise. The resulting draft programme is then checked and adjusted in the field according to findings on site. Adjusted remaining lives are input back into RAMM.

RAMM Treatment Selection Algorithm

RAMM contains a treatment selection algorithm (TSA), which utilises the condition data and other road inventory data to make recommendations as to preferred treatments on the network. The outputs from the treatment selection are utilised at a network level and also at an individual treatment section level.

At a network level the treatment selection summary report identifies the length of the network recommended for resealing in the current and following year and also makes recommendations as to the length of the network to undergo more major treatments such as smoothing or strengthening. The treatment selection programme undertakes an economic analysis of the maintenance options for each road section so as to identify the most cost-effective treatment option based on the ongoing cost of maintenance and the unit costs of the various maintenance and renewal treatments.

The treatment summary report is a useful tool in assessing the effectiveness of the maintenance and renewal strategies being followed and is an indicator of the future maintenance needs of the network. The treatment selection outputs are also used to identify sections of road with various faults and make recommendations as to which specific road sections should undergo resealing or rehabilitation. These outputs are used in the preparation of the annual resealing and rehabilitation programmes. The treatment selection programme is run annually following

the updating of the RAMM database to reflect the physical work completed in the previous summer. Deterioration modelling using dTIMS has not been utilised in the past. But it is planned to use it in 2011 to test the sensitivity of funding levels and support funding requests.

RAMM includes as part of its treatment selection criteria a table, (Table 19) that sets out these average lives for varying traffic use. A positive NPV is currently used as the threshold for obtaining NZTA subsidy for capital renewal works.

Table 19: Base Resurfacing Lives in Years for Urban Roads

Surfacing	Pavement Use 1	Pavement Use 2	Pavement Use 3	Pavement Use 4	Pavement Use 5	Pavement Use 6	Pavement Use 7
Asphaltic Concrete	20	18	16	14	12	10	8
Macadam	20	18	16	14	12	10	8
Open graded porous asphalt	12	11	10	9	8	7	6
Stone mastic asphalt	16	14	12	10	8	7	6
Slurry seal	8	7	6	5	4	3	2
Single coat reseal (Grade 2)	16	14	12	11	10	9	8
Single coat reseal (Grade 3)	14	12	10	9	8	7	6
Single coat reseal (Grade 4)	12	10	8	7	6	5	4
Single coat reseal (Grade 5)	8	7	6	5	4	3	2
Single coat reseal (Grade 6)	6	5	4	3	2	1	1
Single coat 2nd coat (Grade 2)	18	16	14	13	12	11	10
Single coat 2nd coat (Grade 3)	16	14	12	11	10	9	8
Single coat 2nd coat (Grade 4)	14	12	10	9	8	7	6
Single coat 2nd coat (Grade 5)	10	9	8	7	6	5	4
Single coat 2nd coat (Grade 6)	8	7	6	5	4	3	3
Two coat reseal (Grade 2/4)	18	16	14	13	12	10	9
Two coat reseal (Grade 3/5	16	14	12	11	10	8	6
Two coat reseal (Grade 4/6)	14	12	10	9	8	6	4
Two coat 2nd coat (Grade 2/4)	18	16	14	13	12	11	10
Two coat 2nd coat (Grade 3/5	16	14	12	11	10	9	8
Two coat 2nd coat (Grade 4/6	14	12	10	9	8	7	6
Single coat 1st coat (Grade 3)	4	3	2	1	1	1	1
Single coat 1st coat (Grade 4)	3	2	1	1	1	1	1
Two coat 1st coat (Grade 3/5)	4	3	2	1	1	1	1
Two coat 1st coat (Grade 4/6)	3	2	1	1	1	1	1

In selecting the most suitable surfacing material for each category of road the impact of that material on the total pavement life and the life cycle cost is taken into consideration. The following factors are considered during material selection:

- Traffic volume, percentage of Heavy Commercial Vehicles (HCV) and road geometry (e.g. chipseal is inappropriate in high stress areas and highly trafficked roads in residential areas).
- The texture of the existing surface.
- The condition of the existing surface, for example, cracking, stone loss, flushing, etc.
- The need for waterproofing.
- The flexibility of the existing road formation (friction course, slurry seal and asphaltic concrete a semi-rigid materials and will fail if laid on a flexible road of insufficient depth to carry traffic loading).
- The proximity of dwellings to the carriageway and the potential for noise nuisance and vibration, for example because of poor subgrade conditions or poor trench reinstatement.
- Safety and appearance.

Chip sealing will remain the predominant resurfacing type to be used in the future. Chip seals include single and two coat seals as well as specialist treatments such as Polymer Modified Bitumen (PMB), Stress Absorbing Membrane Interlayer (SAMI) seals. Membranes (SAME) and geotextile reinforced seals. Specialist treatments may be used in high traffic stress areas, where the pavement is showing high distress levels such as cracking or where there is a history of premature failure of the surfacing. The initial chip seal treatment is specified by the consultant and the contractor then carries out the detailed design in accordance with the P17[2] specification. Any variations to chip size and seal type are then agreed between Contractor, Engineer and Asset Manager.

Texturising or void fill seals are used in areas exhibiting scabbing or flushing or as a pre-treatment to even out variations in surface textures for a pavement section.

Two coat seals may be constructed by the "drylock" or "racked in" method, (a single layer of bitumen with two applications of aggregate, largest first followed by a smaller locking chip) or the "bi couche" method (two applications of bitumen, one prior to each aggregate application).

First coat seals may be either a single coat grade 4 seal or a two coat grade 3/5 or 2/4. (The 2/4 seals are used on rural roads carrying larger volumes of HCV).

The first coat/second coat method remains the most economic life cycle option but there are some advantages in the two coat seal system and it is specified in the WDC Engineering Code of Practice as the minimum requirement for new roading developments. The use of the two coat seal provides a relatively resistant seal to damage from subsequent housing development or lack of initial traffic in urban subdivisions and tends to smooth the requirements for second coating for the forward programme.

The asphaltic surfacings, slurry seals and asphaltic concrete are used in moderate and high stress areas particularly in the urban areas. Friction mix has not been used to date but will be considered on urban arterial roads where there is significant noise and vibration issues e.g. This asphaltic surfacing must be placed on sound pavements to achieve their design life and therefore cannot be used when the underlying pavement won't support the flexible surface. Structural asphaltic concrete ≥50 mm depth is used to surface high stress roundabout intersections.

The average age of all sealed surfaces is approximately twelve years, with some older seals in the urban low volume roading areas. These areas will be resurfaced over the next 12 years, which has the potential to increase the surfacing cost significantly. There are a number of high stress points where the subsurface will not support the asphaltic concrete.

WDC are finding that surface sealing renewals are not required as frequently as expected. Design lives are reviewed and updated in RAMM each time field verified data is collected.

[2] The P17 specification is intended to apportion the responsibility/risk in a more equitable manner than provided for under the P4 specification, and to provide an environment to encourage innovation.

Area Wide Treatment (Rehabilitation)

NZTA requires a positive NPV for pavement rehabilitation works where the benefits are primarily maintenance savings to the Roading Controlling Authority. For pavement reconstruction where the benefits are primarily to the road user, in reduced roughness, vehicle operating costs or road safety and in this work category, the existing pavement may be widened after improvements carried out to a maximum of 20%. The target roughness value for those works is =70 NAASRA.

When rehabilitating roads, all drainage deficiencies including standard culverts are rectified and road widths are brought up to the appropriate road standard for those contained in the Engineering Code of Practice.

Older pavements that are starting to fail, or become rough, where a complying B/C cannot be achieved or current funding is not available may be scheduled for:

- resurfacing with a specified seal coat
- partial smoothing
- controlled deterioration where sufficient work is carried out to keep the road safe and usable until funding for rehabilitation can be secured.

Deferred Renewals

Storm damage in 2010/11 has resulted in a significant funding shortfall. As a result a significant portion of the resurfacing programme was deferred. Approximately $2M worth of work was postponed. A rebalancing exercise was carried out over the maintenance, reseals and renewals programmes to achieve the necessary savings.

Although the deferral of some renewal works may not impact significantly on the short-term repeated deferral will result in lower levels of service and cannot be sustained without increasing the whole of life costs of operating the assets.

Pavements Development / New Works

This section of the LCM covers the strategies for the creation of new assets (included those created through subdivision and other development) or works that upgrade or improve an existing asset beyond its original capacity or performance in response to changes in traffic needs of customer expectations.

New Works Asset Development

Pavement creation is closely related to:

- increased levels of services required by existing road users (to relieve traffic congestion, improve safety, etc)
- growth related capital works projects, and
- assets resulting from developments.

The development of the road network is undertaken in accordance with the District Plan, which indicates priorities for road widening and new construction. The road designations included in the Plan form a major commitment, which, under the Resource Management Act, must be constructed within the time frame described in the Plan.

Projects are justified and prioritised on the basis of a benefit/ cost analysis which accounts for:

- the benefit to the road user for reducing delays in the time to travel along a given route
- vehicle operating cost savings
- safety benefits
- intangible benefits, including community dislocation, environmental issues (pollution, water quality, noise and vibrations) and other possible local, regional and national issues.

Road lifecycle costs (of which pavements are a major component) may be reduced in the asset creation phase by reviewing the following:

- ranking criteria for all capital works and projects
- evaluation of options and staging for all road creation projects
- tendering and contract administration procedures
- review of strategies and plans.

Seal Extensions

The Seal Extension Policy ranks three attributes, they are:

- Traffic Impacts
- Exposure Factor
- Economic Assessment

There are some issues with identifying development contributions to seal extensions and renewals. $400k per annum on seal extension was deferred in 2009/10 and again in 2010/11. And there are no plans to carry out any seal extension work in 2011/12 due to the affordability issue. However the policy will be taken back to Council for consideration in the 2012/22 LTP.

It is of historic note that in 2010/11 funding was approved under NZTA's "T" funds to provide assistance for at risk communities with a high deprivation index. $500k (NZTA subsidy rate of 88%) was approved and spent on Ruatahuna Special Purpose Road.

Minor Improvements

Each year, when Council is preparing its capital works programme for the following 12 month period, provision is made for minor improvements works, which includes:

- Visibility improvements
- Improved streetlighting (rural flag lighting)
- Road curvature realignment
- Signage
- Road widening
- Intersection improvements

The potential projects for minor improvements are captured in the Safety Deficiency Data Base. This database incorporates a prioritisation process based on the safety benefits that can be achieved. This helps determine the key projects to be undertaken each year.

The funding of the Minor Improvements work category is outlined in NZTA's PPFM Manual.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels o f Service, regulatory, operational efficiency, or vested (gifted) through subdivisions.

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts

Disposal Plan

There are no plans to dispose of any roads.

Bridges

Overview

The purpose of road bridges and culverts is to provide continuous all-weather road access over rivers and streams. Watercourses and Underpasses have also been constructed to allow the safe movement of livestock from one side of the road to the other.

Key Issues

Some of the key life cycle management issues that affect bridge assets are

Table 20: Key Issues

Key Issue	Strategies to Address Key Issues
Route security due to a single bridge access over the Whakatane River	Study is required to understand the options to overcoming the risk and to establish who would build the bridge and who would own it
Management of Bridge data.	Improve the storage and management of bridging inventory and condition data
Risks from flood, storm and earthquake events	A regional Lifelines project is underway which will identify risks to the transport and other networks.
Non-Council Owned bridges on Road Reserve.	Mechanisms for identifying the Council's liabilities and for managing those liabilities need to be developed.

Assumptions & Confidence Levels

Based on the bridge inspection reports, Council is confident that bridges are in sound condition.

As indicated in the key issues section above, there are a number of areas that require further investigations and improvements. The majority of these items relate to improving the current level of knowledge of the bridge assets, which will allow council to:

- Clearly understand its responsibilities
- Prepare long-term forward programmes based on accurate information and analysis

Asset Description

Council maintains 163 bridges including culverts with a nominal area greater than 3.4m^2. Bridges includes concrete, timber and steel structures and has an overall value of $40,914,447. The annual depreciation cost for this asset group is $436,009. Behind pavements, this is one of the larger asset groups in the Transportation network.

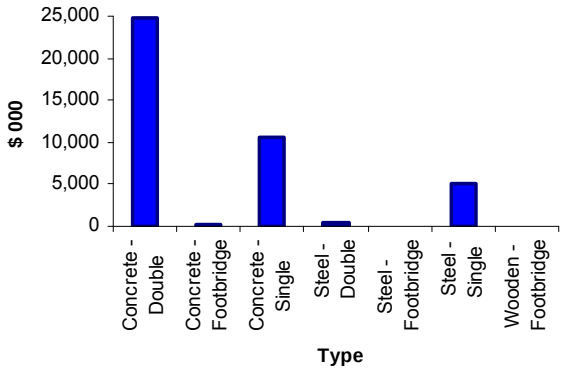
Table 21: Asset Information & Values

Asset	Length (m)	Quantity (No.)	Base Life (Average)	Age	RUL	GRC - $	ODRC - $	Annual Depreciation - $
Concrete - Double Lane	1,349	83	98	31	72	24,735,637	16,906,569	248,430
Concrete - Footbridge	55	3	55	9	49.7	124,844	110,508	2,270
Concrete - Single Lane	849	37	100	34	69	10,685,679	6,664,831	107,580
Steel - Double Lane	24	2	75	24	55	321,966	227,347	4,293
Steel - Footbridge	18	2	50	27	23	19,712	8,673	394
Steel - Single Lane	422	26	62	33	30	5,013,468	2,586,747	72,779
TOTALS	**2,717**	**153**				**40,914,447**	**26,510,457**	**436,009**

Gross Replacement Cost & Annual Depreciation

The figures below show the GRC and Annual Depreciation costs for Bridge assets.

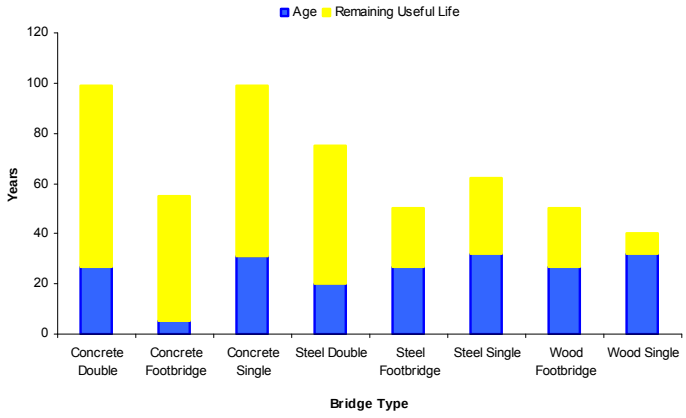
Figure 21: GRC for Bridge Assets



Asset Age

The graph below compares the average age with the average expected base life of each bridge component.

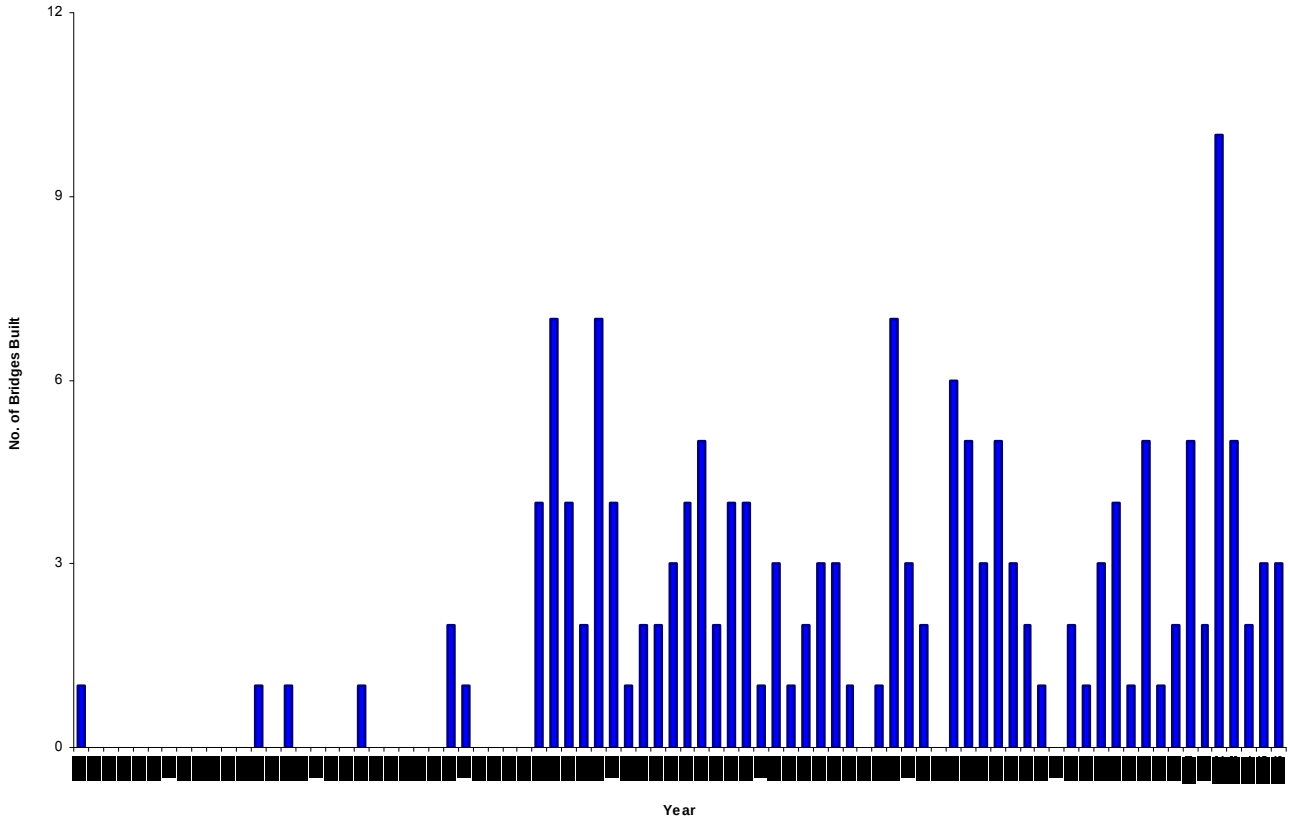
Figure 22: Asset Age



The last single land single span wood bridge in the district was on Burma Road and this was replaced in 2009. There are a number of single span steel bridges that are nearing the end of their useful lives including Burma Road (No.115), Matahi Valley Special Purpose (No.132) and Ruatahuna Road Special Purpose (No.164).

The figure below shows the number of bridges installed since 1925.

Figure 23: Histogram of Bridge Construction Dates



Condition Assessment & Results

Bridges are inspected and assessed for faults in accordance with the New Zealand Transport Agency Bridge Inspection and Maintenance Manual. Identified remedial work is categorised for repair as either a routine maintenance item or as a structural repair.

Weight Restricted Bridges

Currently there are 2 Class 1 weight-restricted bridges;

- Kirkbride Road Bridge (No 124). This had it's east abutment replaced in 2008/09.
- Ogilvies Bridge (No 133) on Matahi Valley Special Purpose Road, is a steel truss bridge with a concrete deck and abutments. In terms of condition it has in excess of 50 years remaining useful life. At this point in time, there are no proposals to upgrade this bridge before the end of its useful life.

Structural assessments of these bridges occurs annually to determine deterioration and the load carrying capacities relative to the maximum permitted loads which are determined in the Transit New Zealand Bridge Manual as 100% Class 1.

It is unlikely that population and traffic loading on this bridge will change significantly over the next 20 years. A 100% Class 1 heavy vehicle represents the maximum legal load for heavy vehicles of various axle configurations. The structural assessment and weight restriction of an existing bridge includes safety factors with the intention of not unduly over-stressing the structure.

A vehicle exceeding the weight restriction on a bridge may over-stress the bridge but not necessarily cause failure. Repetitive over-stressing of the bridge structure will, however, ultimately lead to failure.

There are financial implications to upgrade these bridges. In most situations it will mean the renewal or upgrading of the structure. This requires either a Benefit Cost Ratio greater than four to qualify for (NZTA) subsidy or a simplified flowchart to be followed for those bridges under $200,000.

Speed Restricted Bridges

The Whirinaki Road (bridge 67), crossing the Whirinaki River has a Heavy Vehicle speed restriction on, which restricts their speed across it to 20km/hr.

Waterway Capacity

- A number of the bridges in the Galatea area have capacity restrictions due to aggrading river beds. This is an issue being managed with the Bay of Plenty Regional Council.
- In Whakatane Township there are also waterway capacity issues with bridges over the Wainui Te Whara stream, from and including the Douglas Street Bridge, downstream.
- The triple concrete culverts that carry the Apanui Stream under The Strand, adjacent to Wally Sutherland Motors is under capacity. This contributes to the flooding problems in town. It is proposed to include an upgrade of this culvert in the 2012/15 LTP review.
- The twin culverts across Stanley Rd at the Waimana Gorge end are frequently overtopped and damaged. IUt is proposed to replace these with a large box culvert or bridge in the 2012/15 LTP.

Key Bridge Risks

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key risks associated with bridges are identified as the following:

Table 22: Key Bridge Risks

Private Bridges and Stock Underpasses on Road Reserve – Privately owned, but responsibility of Council	16	Policy developed. Council is completing assessments
Bridge Collapse/ damage/ deterioration/ erosion/ blockage – Accessibility, safety (excluding catastrophic events).	8	Review bridge replacement schedule on an annual basis.
Structure damage from overloading.	8	Enforcement of weight restrictions according to Bylaws Formalise communication with logging companies regarding routes and loadings Advertising and awareness Review current capacity of bridges, overweight permit process and communication of requirements

Operations & Maintenance Plan

Maintenance is derived through the following inspection programme in accordance with the Transit NZ Bridge Inspection Guide;

- Every year 50% of the bridges undergo a general inspection, and 1/3rd of these have more detailed structural inspection undertaken
- Annual superficial inspections co-ordinated with other routine maintenance work
- General inspections undertaken on a two year cycle
- Full structural inspections of all bridges and culverts undertaken on a six year cycle by a Bridge Inspection Engineer, taking into account such factors as structural integrity, defects, safety and appearance
- Special inspections after specific events such as earthquakes, severe floods or instances of overloading.

Repair treatments and priorities are determined by considering the impact on the following:

- Public safety
- Future costs if the work is not undertaken
- Traffic movement

Generic faults typically highlighted during inspections include:

- Signs of corrosion on steel beams
- Localised and general scour
- Concrete cracking and spalling
- Deterioration in timber components
- Expansion joint problems

- Handrail and guardrail repairs
- Potholes in bridge approaches.

In addition, works relating to non-complying permanent warning signs, scour protection, concrete and timber repairs are also undertaken.

Bridge Maintenance Future needs

The maintenance expenditure to maintain the delivery of the defined levels of service, include:-

- Expected planned maintenance work requirements.
- The nature, incidence and cost of unplanned maintenance (responsive) currently undertaken
- Planned inspections and preventative maintenance
- Managing assets to desired levels of service.

Non Council Owned bridges on Road Reserve

There are a significant number of roads that have deep drains with private connecting bridges and cattle stops. These have been identified as all bridges that are no owned by Council but on Council name. Property inspectors advised the owners of bridges that need maintenance with a Memorandum of Encumbrance and will charge un-maintained structures.

Deferred Maintenance

There is no deferred maintenance with the bridge assets.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for bridges and structures can be viewed under Section 11 “Projects and Financial Forecasts.

Renewal Plan

The overall Levels of Service objective is to steadily renew assets considering the following:

- The age profile
- The condition profile
- The level of on-going maintenance
- The economic lives of the materials used
- Financial and customer risks

The projected 10 year renewal expenditure will be improved as data confidence, accuracy and asset condition assessments are updated. Bridge condition is reviewed regularly and the renewal programme is reviewed accordingly.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels of Service, regulatory, operational efficiency, or vested (gifted) through subdivisions. .Generally all our bridges have more than ten years remaining useful life.

The exceptions are the;

- Ruatahuna Special Purpose Road Bridge (bridge 164) crossing the Mimiha Stream. This has degraded timber piles and substructure and likely requires replacement within the next ten years.

The Ohutu bridge over the Whakatane River at Ruatoki. There have been concerns in the past regarding the integrity of this bridge. Major repairs were carried out during the 1990-93 period to arrest deterioration of the concrete structure. However the piers settled in 1994-95, resulting in three piers being underpinned in 1999-2000, a further three in 2000-01, and two more in 2006-07. Deck joints and handrails have also been replaced. There were also major repairs carried out in 2009/10 to arrest further concrete deterioration. A study was carried out in 2000 to determine section maintenance strategies and the appropriateness of speed or weight restrictions for this bridge. Outcomes result in a factor of safety of 1 for class 1 heavy vehicle. This bridge is inspected every 6 months.

Disposal Plan

There are no bridge assets to be disposed at this time.

Structures

Overview

Structures principally include retaining walls, located either above or below the road, but they also include other infrastructure such as the Hillcrest Road steps, cattle stops, and some river protection structures, where their primary purpose is the protection of the adjacent road.

Key Issues

Some of the key life cycle management issues that affect retaining wall assets are

Table 23: Key Issues

Key Issue	Strategies to Address Key Issues
Private cattle stops not maintained	Develop policy to issue Memorandum of Encumbrance

Assumptions & Confidence Levels

Based on the recent addition of retaining walls to RAMM data, Council is not confident that retaining walls are in sound condition.

As indicated in the key issues section above, there are a number of areas that require further investigations and improvements. The majority of these items relate to improving the current level of knowledge of the retaining walls, which will allow council to:

- Clearly understand its responsibilities
- Prepare long-term forward programmes based on accurate information and analysis
- No valuation at this stage. Identification process completed in 2011.
- 50% of retaining walls inspected 2010
- Remaining 50% inspected 2011 – just done visual assessments only.
- Walls from recent storm damage repairs need udating in RAMM
- Need to provide for in valuation
- Lack of design info makes structural analysis difficult.
- Design life and age difficult to ascertain

Asset Description

The replacement cost of retaining wall assets is currently not available. These assets will be included separately in the next valuation.

Table 24: Asset Information & Values

Asset	Length (m)	Quantity (No.)	Base Life (Average)	Age	RUL	GRC - $	ODRC - $	Annual Depreciation - $
TOTALS								

Gross Replacement Cost & Annual Depreciation

The figures below show the GRC and Annual Depreciation costs for retaining wall assets Qty 163.

Figure 24: GRC for Retaining Structures

Figure 25: Annual Depreciation for Retaining Structures

Asset Age

The graph below compares the age with the average expected base life of each retaining wall component.

Figure 26: Asset Age for Retaining Structures

Renewal Plan

The overall Levels of Service objective is to steadily renew assets considering the following:

- The age profile
- The condition profile
- The level of on-going maintenance
- The economic lives of the materials used
- Financial and customer risks

Renewals are reviewed regularly, with any deferred work re-prioritised alongside new renewal projects and a revised programme established where required. The projected 10 year renewal expenditure will be improved as data confidence, accuracy and asset condition assessments are updated. These budgets may be adequate to maintain current Levels of Service, however, the potential number or size of problems that may be identified as confidence in the asset data increases may make these budgets inadequate in the future.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels of Service, regulatory, operational efficiency, or vested (gifted) through subdivisions.

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial Forecasts.

Footpaths

Overview

The purpose of footpaths and pedestrian ways is to provide a safe, convenient and defined means for pedestrian movement along side and linking roadways and public space.

Key Issues

Some of the key life cycle management issues that affect footpath assets are

Table 25: Key Issues

Key Issue	Strategies to Address Key Issues
Root damage	Proactive management including condition assessment to identify areas where treatment for root damage is necessary.
Vehicle damage to footpaths	Regular assessment of footpath condition and preparedness to respond reactively to faults identified or notified by the public. Grinding trip hazards is a cost effective solution.
Insufficient footpaths	Current funding constraints do not enable these issues to be addressed at this stage.

Some footpaths get developed under the footpath and cycleways strategies and then owned by Parks & Reserves. This attracts an NZTA construction subsidy.

In the current maintenance contract the footpath gets surveyed annually.

Assumptions & Confidence Levels

A Baseline condition rating survey was completed in 2009. This showed that the majority of the districts footpath asset is in a good to excellent condition. There is no requirement for a large scale renewal programme, and the annual maintenance and minor renewal activity is expected to generally meet level of service requirements

Council has good information about footpath assets and their condition. Council is confident that the current maintenance philosophy is meeting the level of service requirements.

Asset Description

WDC manages approximately 160 km of footpaths with a GRC of $17,373,869 as at April 2011 in RAMM. Most streets in urban areas have footpaths on both sides. Some have a footpath on only one side due to topographical restraints or insufficient need, while some streets have no footpaths at all. Rural roads seldom have formal footpaths but there may be a need to provide these where demand is significant such as school routes. The type of surface used is dependent on life cycle cost considerations, pedestrian volumes and the amenity value of the location (i.e. shopping precincts). The main types of footpath surfaces in the district townships are:

- **Asphaltic Concrete:** Mix of graded aggregate and asphaltic binder laid in a 15 - 20 mm layer.
- **Concrete:** Concrete to a thickness of 75mm and 115mm for vehicle crossings
- **Chip Seal:** Layer of sprayed bitumen with a fine grit spread on top
- **Interlocking blocks**
- **Unsealed footpaths:** fine graded aggregate

Table 26: Asset Information

Asset	Length (m)	Area (m2)	Base Life (Average)	Age (Average)	Remaining Life (Average)	GRC	DRC	AD
Asphaltic concrete (black)	5,764	13,751	30	16	15	1,247,610	628,372	41,056
Asphaltic concrete (red)	108	151	30	21	10	13,718	4,573	457
Concrete	173,156	252,783	50	23	27	14,131,767	6,961,143	282,635
Interlocking blocks	7,003	19,180	50	15	35	1,593,877	1,189,498	31,876.5
Seal	2,493	6,089	20	31	-11	340,225	103,490	14,630
Timber	261	491	50	14	23	21,911	16,330	438
Total	**188,785**	**292,445**				**17,349,108**	**8,903,406**	**371,590**

Gross Replacement Cost & Annual Depreciation

The figures below show the GRC and Annual Depreciation costs for Footpath assets. Concrete provides the main surface type for footpaths with approximately 81% of the GRC.

Figure 27: GRC for Footpaths

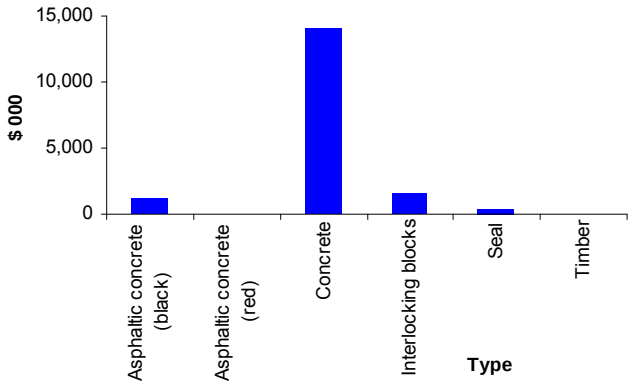
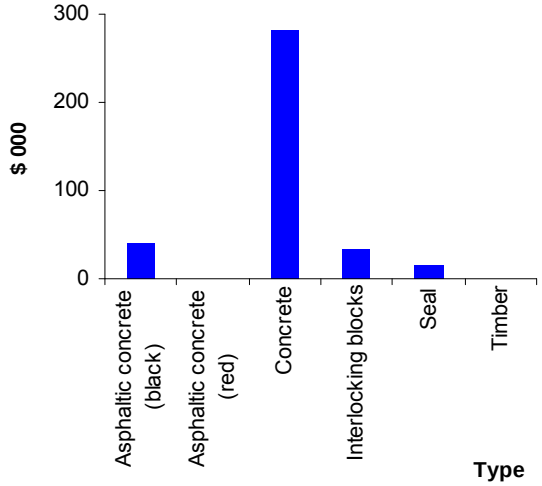


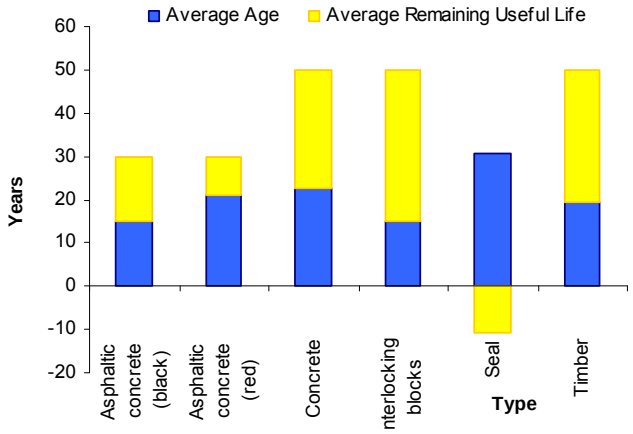
Figure 28: Annual Depreciation



Asset Age

The graph below compares the age (from RAMM) with the base life of each asset type. Whilst the graph shows that the average age of chip seal footpaths has exceeded their remaining useful life, their current condition is still assessed as being good and therefore not requiring imminent replacement. There is only a small quantity proposed for renewal in the 2012-15 LTP.

Figure 29: Asset Age



Condition Assessment & Results

WDC's footpath condition rating system uses three criteria to prioritise replacement needs:

1. Displacement (safety against tripping)
2. Cracked and settled
3. Discretionary (based on other factors such as usage, ponding potential, etc.)

The main reasons for deterioration are (in order):

1. Tree root damage
2. Vehicle damage
3. Disintegration from natural weathering (age)
4. Inadequate reinstatement by service authorities and unauthorised street openings

The most recent condition assessment of footpaths was completed in 2009). In general, the footpath condition is good. Some sub divisional works, which have been completed in the past, have proved to be of a poor quality construction, and there is an on-going problem of tree root damage and lifting of slabs. Interlocking blocks inherently require higher maintenance but have the advantage of being "re-usable" and can be uplifted and relayed to access or lay services. Interlocking blocks are generally confined to the highly trafficked retail areas.

Figure 30: Average Condition Result

Key Footpath Risks

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key footpath risks from the Risk Section are highlighted below:

Table 27: Key Footpath Risks

***Footpaths and Accessways:* Pedestrian tripping or slipping** caused by uneven surface, damage, slippery surface	12	Implementing six-monthly inspection programme for the entire network with corresponding budget increase. Annual root pruning programme
***Footpaths and Accessways:* Widespread footpath deterioration** caused by lack of funding	12	Full audit and costing for footpath renewal Review of funding allocation based on community requests
***Footpaths and Accessways:* Widespread footpath deterioration** caused by lack of utilities reinstatements	12	Feedback required from OBU to Professional Services provider (to be covered by Origin system?) Education of OBU staff Improve auditing of remedial works associated with road opening notices

Operations & Maintenance Plan

Management of the footpath assets is undertaken in house by Council staff. Works are identified by inspection and programmed for repair by the footpath maintenance contractor. The primary method of repair for displaced slabs used to be the replacement of the two adjoining sections of footpath. Over the past three years Council has been trialling concrete grinding of these joints. This has shown to be a cost effective treatment method and is likely to continue to be utilised in future years. Slab replacement is still required for broken sections of footpath. Footpath edges are sprayed under the urban vegetation control contract which is managed in-house by Council.

Staff also manage complaints received on footpath condition, monitor footpath deposits from building consents and approve the location and construction of vehicle crossings.

Footpaths in the CBD areas are subject to a higher rate of inspection because of the higher pedestrian traffic they are subject to.

The intervention level for the repair of concrete footpath has been set at a ≥ 10 mm lip, settled to a stage where the path is uneven, unsafe or ponding water. A significant issue is vehicle damage either from heavy vehicles using the berms or as a result of building activities on the adjacent property. To address the damage from building activities, Whakatane District Council takes a footpath/berm damage deposit of $400 with building consents issued for a significant building works on Urban Streets with footpaths. (Currently no footpath deposit is taken for minor alterations and minor building works.)

Deferred Maintenance

At the current level of service no maintenance is being deferred.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for footpath assets can be viewed under Section 11 “Projects and Financial Forecasts”.

Renewal Plan

Footpath renewals are defined as the replacement of continuous sections exceeding 20 m in length and include major upgrading works. Renewal expenditure is identified separately as it can be offset against asset depreciation.

The types of renewal work undertaken to restore footpaths to the required condition are;

Resurfacing to provide a smoother surface by:

- removing the existing surfacing and laying new surface (where the footpath profile is such that the surface level can't be built up with an overlay)

Reconstruct new basecourse and surfacing when:

- the footpath structure has deteriorated to an extent where resurfacing is not practical
- the condition of the kerb and channel or the condition of the carriageway rather than the footpath condition (particularly where the footpath is to be reconstructed on a new alignment).

The required level of renewal will vary depending on:

- the age profile of footpaths
- the condition profile of footpaths
- the adequacy of historical control of trenching, vehicles and weed growth
- proximity to trees
- the level of ongoing maintenance demand
- the differing economic lives of the materials used

Ongoing condition assessments will assist with the knowledge and development of FWP's for footpath assets

Deferred Renewals

There is no deferred maintenance.

Development Plan

The Footpath Extension policy provides the framework for prioritising further footpath development as funding allows.

Most streets in Whakatane and Ohope now have at least a footpath on one side of the street.

Matata has only a few footpaths and at the current rate of progress there will be a footpath in every street within the next 20 year period (this will also relate to other urban areas i.e. Taneatua, Te Teko, Murupara, Waimana, Ruatoki, Edgecumbe, and Te Mahoe)

Walking and Cycling Strategy 2007

The Walking and Cycling Strategy, approved by Council in 2007, has been followed up by a Walking and Cycling Implementation Plan. This plan is currently in draft for review, and proposes a series of specific projects over the life of the LTP.

New Assets Funding

Under the current government the New Zealand Transport Agency does not provide specific funding for walking and cycling projects, however they are able to be included and priorities under the Minor Improvement programme.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels o f Service, regulatory, operational efficiency, or vested (gifted) through subdivisions

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

No assets are planned to be disposed of at this time.

Cycleways

Overview

The purpose of cycleways is to provide a safe, comfortable and convenient facility to people who use bicycles. The Walking and Cycling Strategy has identified routes for potential use.

Key Issues

Some of the key life cycle management issues that affect cycleway assets are

Table 28: Key Issues

Key Issue	Strategies to Address Key Issues
Completion of the draft walking and cycling implementation plan	To be completed in conjunction with the Professional Services Provider. Large portion of the program can be completed at low cost through reallocation of the road space during reseals, low costs signs and other minor alterations.

Assumptions & Confidence Levels

The current inventory in RAMM is complete and accurate.

Asset Description

Cycleways may be formed as separate facilities or be incorporated by roadmarking, on carriageways or footpaths. Existing cycleways are located along:

- State Highway 30, from the western abutment of the Whakatane River Bridge to Keepa Road
- Keepa Road, from State Highway 30 to Bunyan Road – 1,050 m to date
- College Road from State Highway 2 to the School
- Warren Cole walkway and cycleway – 2,598m to date.
- Currently footpaths and cycleways are currently recorded as footpaths. This should have a category added to it to indicate it is combined
- Other cycleways are done with road marking

The valuation does not separately value cycleways. It is incorporated into footpaths

Table 29: Asset Information

Asset Description	Base Life	Age	RUL	Length	Quantity	Unit	GRC	ODRC	Annual Depreciation
No data available									

Gross Replacement Cost & Annual Depreciation

Figure 31: GRC and Annual Depreciation for Cycleways

Asset Age

Figure 32: Asset Age

Condition Assessment & Results

Condition assessments for on-road cycleways are done as part of the pavement

Condition for combined cycleways and footpaths are done as part of the footpath condition assessment.

Operations & Maintenance Plan

Deferred Maintenance

There is no deferred maintenance identified at this time.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for Cycleways can be viewed under Section 11 “Projects & Financial Forecasts.

Renewal Plan

Identified renewal works to be undertaken over the next 10 years.

Deferred Renewals

There are no deferred renewals at this time, however other assets will need to be incorporated into the inventory and a clear knowledge of ages and remaining useful lives will indicate whether or not renewals will need to be programmed. Keepa Rd and College Rd need reseals.

Cycleway between Ohope and Whakatane is completed, proposed off road walk/cycle path incomplete. Structures are built but NZTA pulled funding to complete the path.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels of Service, regulatory, operational efficiency, or vested (gifted) through subdivisions. The Walking and Cycling Implementation Plan when adopted will guide the capital works programme for this activity.

Walking and Cycling Strategy 2007

The Walking and Cycling Strategy, approved by Council in 2007, has been followed up by a Walking and Cycling Implementation Plan. This plan is currently in draft for review, and proposes a series of specific projects over the life of the LTP.

New Assets Funding

Under the current government the New Zealand Transport Agency does not provide specific funding for walking and cycling projects, however they are able to be included and priorities under the Minor Improvement programme.

In addition, on road cycle lanes have been introduced in the past three years by reallocating road space following reseals. This process will also continue.

Error! Reference source not found. More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

No assets are planned for disposal at this time.

Car Parks

Overview

The provision of car parks is to ensure the adequate supply of car parking for residents and visitors (both able and disabled) to commercial, recreational and business areas.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 30: Key Issues

Key Issue	Strategies to Address Key Issues
Ownership of the assets	The asset inventory lies within the RAMM database. Maintenance and renewal is deemed a Transport responsibility. Funding responsibility lies with the asset owner be it Transport, community Services or Utilities. The Transport group manages the function.
RAMM	Data capture of all carpark assets into RAMM to be completed in 2011

Table 31: Asset Value Information

Asset	Component	GRC - $	DRC - $	AD - $
Pavement	Formation	897,629	697,639	0
	Basecourse	2,026,100	734,001	16,532
	Surfacing	416,777	183,992	22,874
Drainage		104,231	57,396	2,085
Footpath		377,742	312,673	7,877
Surface Water Channel		539,224	358,104	10,785
Street Lights		110,572	53,996	5,060
Railings		5,092	1,610	268
TOTAL		**4,477,367**	**2,399,411**	**65,481**

Table 32: Car Park Inventory

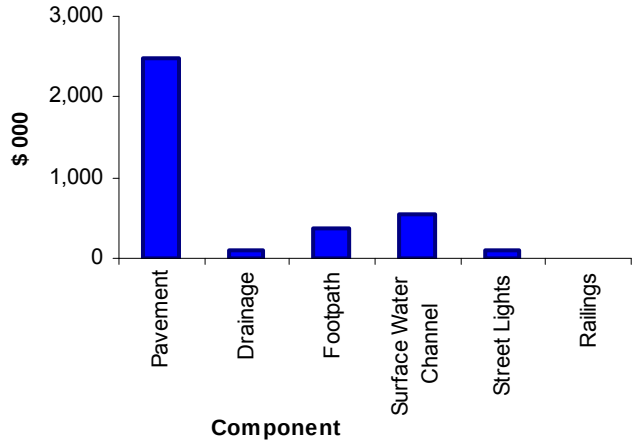
Car Park Owner	Park ID	Road / Address	Area m²	Total Area m²	Est.Parks
Harbour	2564	Kakahoroa Drive Yacht Club Carpark	272	772	18
Harbour	2491	Muriwai Dr Carpark #1 (Rp158 Lhs)	636	936	42
Harbour	2482	Muriwai Dr Carpark #2 (Rp180 Lhs)	666	636	44
Harbour	2474	Port Ohope Wharf Access Road	403	508	27
Harbour	2598	Port Ohope Wharf Access Road	298	408	20
Harbour	2475	Port Ohope Wharf Carparks	424	1,034	28
Harbour	2599	Port Ohope Wharf Carparks	533	1,758	36
Harbour	2486	The Strand Wharf Carpark (Rp32 Rhs)	414	424	28
Harbour	2488	Whakatane Boat Ramp Trailer Park	7,840	7,840	523
Harbour	2487	Whakatane Boat Trailer Carpark	867	667	58
Harbour		Muriwai Drive Carpark extension	2,363	2,748	
Local Authority	2602	Mcalister St Cpark Foreshore Access	189	189	13
Local Authority	2601	Mcalister Street Carpark #2	254	604	17
Local Authority	2597	Ocean Road Carpark (Rp3734 Lhs)	382	612	25
Parks Dept	2508	Brabant Street Carpark	2,044	1,674	136
Parks Dept	2563	Cutler Crescent Carpark	1,317	2,427	88
Parks Dept	2567	Mahy Reserve Access Road	924	1,454	62
Parks Dept	2568	Mahy Reserve Access Road	219	249	15
Parks Dept	2611	Maraetotara Reserve Carpark	453	668	30
Parks Dept	2471	Maraetotara Reserve Carpark	580	780	39
Parks Dept	2472	Maraetotara Reserve Carpark	354	574	24
Parks Dept	2490	Mcgarvey Road Rose Garden Carpark	357	262	24
Parks Dept	2587	Mokoroa Gorge Carpark	252	457	17
Parks Dept	2473	Ohope Community Hall Carpark	717	1,047	48
Parks Dept	2537	Ohope Tennis Court Carpark	460	685	13
Parks Dept	2465	Red Conway Carpark (Marist Rugby)	564	1,149	38
Parks Dept	2481	Short Street Carpark (Rex Morpeth)	1,767	1,727	118
Parks Dept	2466	Tennis Club Carpark (Rex Morpeth)	268	268	18
Parks Dept	2586	Tennis Club Carpark (Rex Morpeth)	388	1,058	26
Parks Dept	2589	Tuhoe Avenue Carpark	34	34	2
Parks Dept	2489	Tuhoe Avenue Carpark	469	1,359	31
Parks Dept	2588	Volkner Reserve Carpark	1,056	1,011	70
Parks Dept	2534	West End Road Carpark (Rp871 Rhs)	160	285	11
Parks Dept	2535	Wharekura Reserve Access Road	390	570	26
Parks Dept		Mitchell Park Carpark	980	212	
Parks Dept		Symond Road Carpark	90	90	
Parks Dept		Warren Cole Carpark	524	524	
Roading	2485	Clifton Road Carpark	290	850	19
Roading	2574	Kakahoroa Drive Carpark #1	1,246	1,016	83
Roading	2569	Kakahoroa Drive Carpark #2	1,548	1,463	103
Roading	2570	Kakahoroa Drive Carpark #3	1,621	1,566	108
Roading	2571	Kakahoroa Drive Carpark #3	866	816	58
Roading	2572	Kakahoroa Drive Carpark #3	233	193	16
Roading	2573	Kakahoroa Drive Carpark #4	2,385	2,310	159
Roading	2483	Kakahoroa Rab S/L Carpark (Rp28 Rhs	270	550	18
Roading	2479	Mcalister Street Carpark #1	1,228	3,158	82
Roading	2612	Mcalister Street Carpark #1	232	407	15
Roading	2484	Peace Street Carpark	1,305	1,225	87
Roading	2476	Pyne Street Carpark	544	2,644	36
Roading	2493	Victoria Ave S/L Carpark (Rp103 Rhs	300	340	20
Roading	2492	Victoria Ave S/L Carpark (Rp48 Rhs)	414	394	28
Roading	2468	West End Road Carpark (Rp1175 Lhs)	171	591	11
Roading	2469	West End/Villis Rab Carpark	1,669	1,319	111
Total			**40,271**	**52,966**	**2,669**

Estimated number of car parks based on 15m2 per park of net area. The net area is the actual seal area of the car park.

Gross Replacement Cost

The GRC for Car Parks as at 01 July 2008 is $3,764,600, which accounts for approximately 1 percent of the total GRC for the Transport Network.

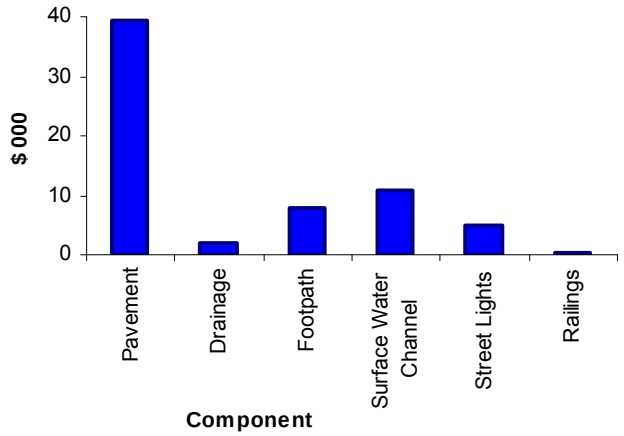
Figure 33: GRC for Car Parks



Annual Depreciation Costs

The Annual Depreciation for Car Parks at this time is $65,481.

Figure 34: Annual Depreciation



Asset Age

Once the Car Parks asset inventory has been completed the asset age can be assessed against the RUL.

Condition Assessment & Results

Figure 35: Average Condition Result

Key Car Park Risks

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key Car Park risks are identified as the following:

Table 33: Key Car Park Risk

Extent & condition of asset not certain. Potential funding impact.	4	Review car park inventory, number of spaces and Levels of Service annually. Review seasonal monitoring as required. Review and further investigate opportunities to extend the Pay & Display areas

Operations & Maintenance Plan

The maintenance of carparks is included in the scope of the roading maintenance contract. Maintenance repairs are carried out as a result of customer complaints, routine inspections or planned work in preparation for maintenance reseals. General maintenance of car parks comprises the following work activities:

- Pavement patching and repairs
- Metalling and grading of unsealed car parks
- Repair of potholes
- Repair of surface openings and minor surface levelling
- Repair of surface defects (rutting, scabbing, flushing etc)
- Drainage maintenance
- Repairs to concrete kerb and channel, sumps and leads
- Maintenance of signs and markings

Deferred Maintenance

There is not considered to be any deferred car parking maintenance.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for carparks can be viewed under Section 11 Projects and Financial Forecasts.

Renewal Plan

Renewals activity restores an existing asset to its original capacity or required condition. The objective in rehabilitating and renewing an asset is to apply the correct treatments at the optimum time so that the required level of service is delivered while minimising total life cycle costs. The key activities are:

- Resealing/Resurfacing
- Pavement Rehabilitation

The selection of surfacing type is typically based on the existing surface, how well that surface has lasted and knowledge of the engineer. Existing car parks that need resurfacing have been identified.

Deferred Renewals

Given that the current inventory is relatively incomplete it is unclear as to whether or not deferred renewals exist. A much clear picture will present itself once the validation exercise has been completed

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels o f Service, regulatory, operational efficiency, or vested (gifted) through subdivisions

Below summarises the projected capital works and renewals to be undertaken over the next 10 years. More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

There are no assets to be disposed of at this time.

Drainage Facilities

Overview

Drainage assets include culverts (<3.4m^2), catchpit assets and surface water channels. Drainage assets provide an essential service to the integrity of the pavement network and to provide a level of protection to property from flooding.

Key Issues

Some of the key life cycle management issues that affect drainage facilities are:

Table 34: Key Issues

Key Issue	Strategies to Address Key Issues
Some parts of the rural network are susceptible to erosion and incur regular storm damage	Specialist investigation is needed to determine best long term management strategy.
Some highly erodable areas in Matata	Understand land topography and climate. Managed by monitoring the areas and prohibit spraying to reduce erosion
Seasonal requirements for clearing catchpits	Audit monthly. During storm events, the contractor is required to mitigate issues and is only paid if the previous three months audits passed
Under capacity of the connected stormwater network.	Council wide focus on storm water improvements.
Precast pumice block type kerb & channel generally in very poor condition	Replaced as funds allow in advance of reseals
Leaf fall blocking cesspits	Problem areas have been identified, these receive additional monitoring and sweeps by maintenance contractor. When replacing cesspits in these areas NSCC back inlet type catch pits considered as they have less propensity to block.

Assumptions & Confidence Levels

Good drainage is one of the key aspects to ensuring the integrity and serviceability of the Districts pavement assets. Improvements have been made to surface water drainage over the last three years. To date the emphasis has been on rural stormwater channels (SWC) and although this needs to continue, a greater focus on urban road drainage is required to increase the overall confidence in the performance of the road drainage facilities. Overall the confidence in the asset is considered to be at a medium level.

Asset Description

There are a number of assets contained within drainage. The table below has been summarised from the RAMM data as at April 2011. Further detail is available with regards to culvert sizes (600mm - 1800mm). Similarly kerb and channel is inclusive of mountable as is kerb only. Dish channels include concrete, pipe and sealed. Catchpits are a significant asset within this group, it should be noted that this asset includes the catchpit lead only, being the connection to the main trunk line. The main trunk line is covered in the Stormwater Asset Management Plan.

In addition there are 85m of culverts, 8 catchpits and 222m of kerb and channels in RAMM added after 2010 valuation

Table 35: Asset Information

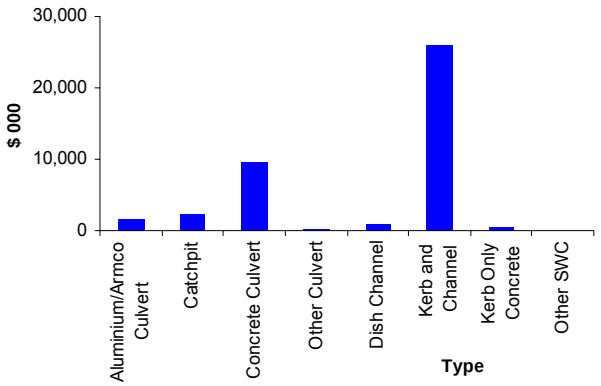
Asset	Quantity	Base Life Average)	Age (average)	RUL (average)	GRC - $	ODRC - $	AD - $
Aluminium/Armco Culvert	4,660 m	50	15	34	1,741,566	1,067,159	34,831
Catchpit	2,012	50	21	28	2,382,480	1,370,733	47,652
Concrete Culvert	30,142 m	50	19	29	9,449,028	5,743,067	188,980
Other Culvert	891 m	40	16	27	185,619	87,940	4,640
Other drainage*	876	70	6	51	0	0	0
Dish Channel	8,233 m	49	17	30	893,972	469,972	17,968
Kerb and Channel	231,818 m	50	15	31	25,947,207	14,109,389	483,309
Kerb Only Concrete	8,279 m	50	17	34	471,825	315,498	9,350
Flush Kerb	1,200 m	50	28	23			
Other SWC	1,425 m	50	1	27	0	0	0
TOTALS					**41,071,698**	**23,163,757**	**786,731**

* Drop Chambers, Flume down batter, sumps and side culverts

Gross Replacement Cost & Annual Depreciation

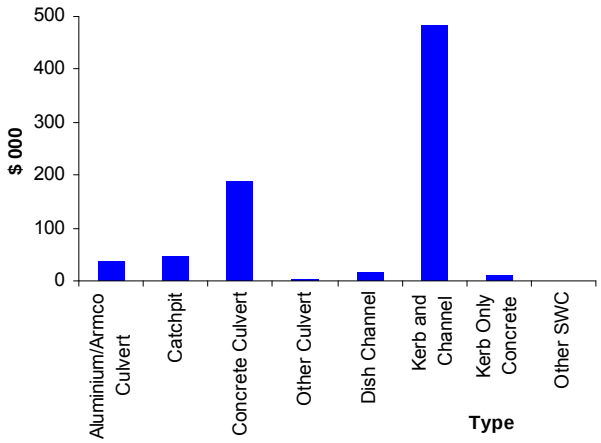
The GRC for drainage is $41,071,698. Concrete culverts and Kerb and Channel account for approximately 86% of the total amount.

Figure 36: GRC for Drainage



The Annual Depreciation for drainage is $786,731. Kerb & Channel and concrete culverts account for approximately 61% and 24% of this total.

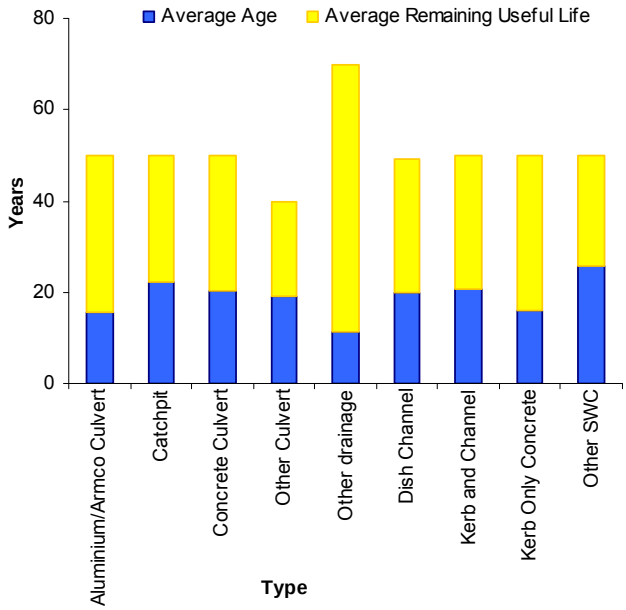
Figure 37: Annual Depreciation



Asset Age

The graph below compares the average age (as in RAMM) with the base life of each asset type (from 2010 valuation).

Figure 38: Asset Age



This info indicates the current funding level is correct as the net asset age is static.

Condition Assessment & Results

Figure 39: Average Condition Result

To be updated when RAMM contractor data updated

Key Drainage Facilities Risk

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key Drainage Facilities risks are identified as the following:

Table 36: Key Drainage Facilities Risks

Risk Descriptor	Net Risk	Management Option
Surface water contamination during normal operation of the network caused by lack of environmental controls.	15	Identify known problem areas and implement upgrade programme within existing projects Monitoring of discharges via consent conditions and liaison with Environment Bay of Plenty Future possible central government legislation Possible future requirements for sedimentation & pollutant trops has considerable cost implications.
Flooding affecting roads due to under capacity drainage, poorly located, or blocked drainage assets.	10	Identify at-risk assets Review Levels of Service in problem areas Review Levels of Service in accordance with seasonal changes (leaf dropping) Review RFS/ complaints and plan improvement works.

Operations & Maintenance Plan

The Roading Maintenance Contractor is responsible for the following maintenance activities

- Spraying of rural Surface Water Channels's (cyclical) (unit and measure)
- Cesspit cleaning (cyclical) (unit and measure)
- Kerb & channel sweeping (cyclical) (unit and measure)
- Culvert maintenance is typically reactive (six month inspection and unit and measure)
- Urban vegetation control (cyclical) (in-house unit and measure)

Deferred Maintenance

There is no deferred maintenance at this time.

Operations and Maintenance Funding Requirements

RAMM Contractor has been logged although the process for logging to RAMM is not defined.

Disposal Plan

There are no assets to be disposed of at this time.

Renewal Plan

Priority for the replacement of Kerb and Channel and Cesspits is given to road sections in conjunction with other renewal programmes, such as resurfacing, reconstruction and rehabilitation.

Deferred Renewals

There is no deferred maintenance. However there are a number of old deteriorating pumice kerb block, a lot have cracks/holes that are affecting the pavement – e.g. James Street but do not look good. These will be replaced when the adjacent road is resealed or rehabilitated.

Capital Works Plan

Capital works are generally initiated through triggers such as growth, Levels of Service, regulatory, operational efficiency, or vested (gifted) through subdivisions.

Culverts needing to be extended because they are a hazard are carried out within the Minor Improvement programme.

Culverts needing to be upsized will be undertaken as part of renewal works.

Below summarises the projected capital works to be undertaken over the next 10 years. More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Street Lighting

Overview

The purpose of street and amenity lighting is to provide agreed lighting levels in streets for the safe and efficient movement of vehicles, cyclists and pedestrians.

The street lighting asset has grown and developed on an ad-hoc basis over the years. The strategy is to upgrade lighting to the appropriate levels as defined in the Australia NZ Standard 1158.Although there have been recent upgrading works associated with the undergrounding of power, particularly in Whakatane and Ohope there are only 398 mercury vapour lanterns left throughout the district.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 37: Key Issues

Key Issue	Strategies to Address Key Issues
The need to improve energy efficiency by replacing obsolescent and inefficient lanterns.	Replacement programme with modern efficient LED lights.
Identify road crash sites where lighting is a factor and prioritising them for upgrading mains.	Night time inspections carried out by the PSP
A particular type of street light column where the galvanised pole is encased in a concrete base is prone to failure by corrosion at the interface.	Focus on renewing these columns.

Assumptions & Confidence Levels

This section is based on currently available information and has a medium level of confidence. Council is taking proactive steps to improve the confidence in the asset group through the monitoring and auditing of the maintenance contract.

The contract includes the following work:

- Routine inspections
- Repair/replacement of faulty/failed components within specified timeframes
- Identification, prioritisation and programming of improvements and ordered works
- Clear reporting requirements based on KPI's
- Updating and management of the streetlight database (SLIM)
- Further development of programme with the current maintenance contractor vs. the previous contractor

There is a medium level of confidence in the inventory and condition data.

Asset Description

The Street Lighting assets fall into the following categories:

Carriageway Lighting.

Where a streetlight lights a road carriageway that is eligible for funding as defined in the NZTA programming and procedures manual then the maintenance and renewal costs of this light is eligible for NZTA financial assistance at a current rate of 43% as a carriageway light.

Amenity Lighting.

Lights that light car-parks, rights-of-way, footpaths and amenity areas are not eligible for NZTA financial assistance and are amenity lights.

Under Veranda or Display Lighting

Some of these lights are the responsibility of the individual property owner and will in the future come under the amenity lighting category. With the CBD upgrade the majority of the lights in Whakatane became the responsibility of the WDC. These lights are not eligible for NZTA financial assistance.

Christmas Lights.

These lights are owned by the Whakatane District.

Table 38: Asset Information

Asset	Quantity	Base Life Average)	Age (average)	RUL (average)	GRC - $	ODRC - $	AD - $
Concrete poles	518	50	25	25	613,227	309,611	12,263
Fiberglass Poles	11	25	12	13	14,630	5,852	585
Galvanized Poles	1,528	30	14	16	2,220,054	1,176,586	74,005
Wooden Poles	82	10	9	1	18,164	2,384	1,755
Brackets	2,531	30	7	23	813,685	267,423	81,307
Lights	2,531	15	8	7	875,696	436,574	58,370
TOTAL					**4,555,455**	**2,198,430**	**228,285**

Gross Replacement Cost & Annual Depreciation

Figure 40 shows the GRC for the street lighting assets. Galvanised Poles account for 49% with a GRC $2,220,054. Street light brackets and lights account for 36% and 26% of Annual Depreciation for street lighting (due to shorter asset base life).

Figure 40: GRC for Street Lighting

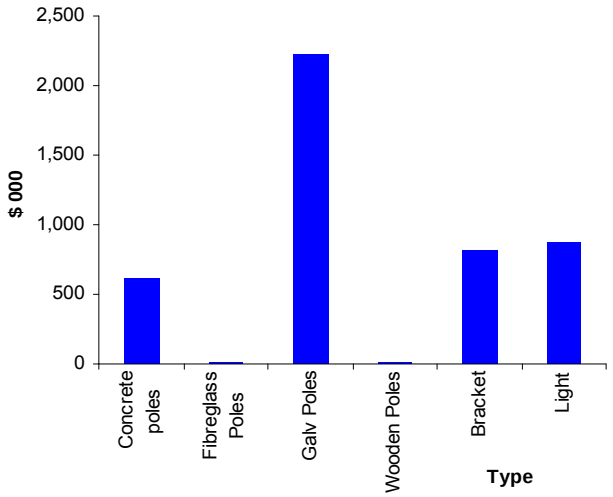
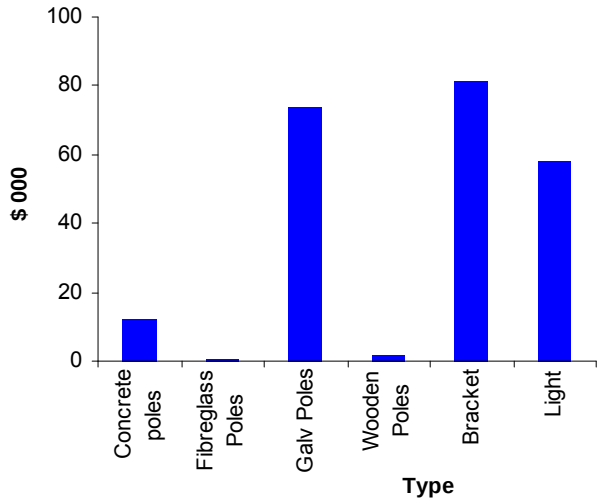


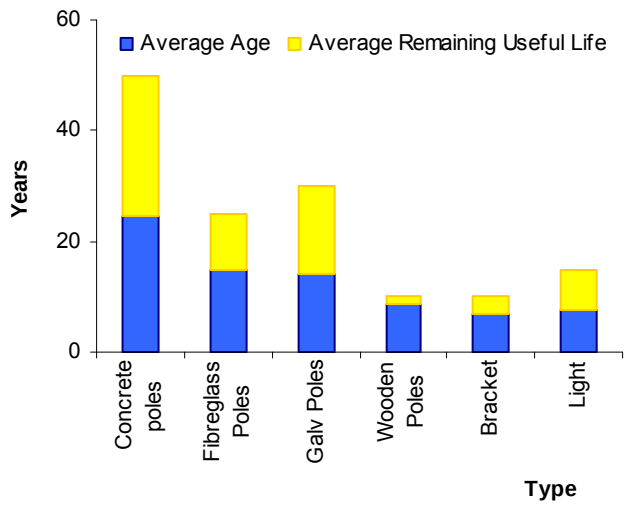
Figure 41: Annual Depreciation



Asset Age

Figure 42 below compares the average remaining useful life (from 2010 asset valuation) with the base life of each asset type. The actual installation data is not available in RAMM for majority of lighting assets, so assumed dates have been used. Wooden poles and brackets are in the last third of their remaining useful lives and a programme for replacements will need to be put in place.

Figure 42: Asset Age



Condition Assessment & Results

Condition and performance related data is collected in an ad hoc manner by the maintenance contractor. This contractor has access to and updates RAMM with completed work. A significant quantity of lantern renewals has occurred, as these assets are very aged and deteriorated. Brackets and poles have also been replaced where required.

Street light capacity and performance issues relate to light intensity, colour, reliability and safety. A gap exercise could be undertaken to identify where the contractor should be capturing more information.

Light Intensity

Street lighting design is based on NZS 1158.1.3: 1997.

Colour

Light colour is an important consideration in selecting light fittings. High pressure sodium vapour luminaries are preferred in urban areas with light levels being adjusted by spacing height and wattage luminaries. A mixture of lanterns on any one street should be avoided so as not cause light pooling.

Safety

There may be safety issues associated with older poles throughout the district. These will be gradually replaced in the future. In addition, Council will investigate flag lighting at major intersections.

Figure 43: Average Condition Result

To be updated when condition assessments complete.

Key Street Lighting Risks

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key Street Lighting risks are identified as the following:

Table 39: Key Street Lighting Risks

Risk Descriptor	Net Risk	Management Option
Street Lighting: **Inadequate Carriageway/Amenity/Under Veranda lighting** resulting in crime or accidents (e.g. tripping and falling)	12	Continued programme of under veranda lighting in conjunction with Eastern Bay Energy Trust Audit of bulb types Match bulb types to appropriate areas Identify high-risk areas Review Levels of Service. Review RFS resulting from poor or inadequate lighting.
Street Lighting: **Damage to streetlights** due to vandalism and or vehicle damage, resulting in crime, replacement costs and safety considerations	12	Review position of streetlights (distance from carriageway edge) Further implement CCTV strategy through installation of more cameras where required
Condition unknown - financial risk		Condition assessment of entire asset – update RAMM

Operations & Maintenance Plan

Streetlighting energy is supplied by Bay of Plenty Electricity and charged on a “per fitting per type basis”.

The energy for amenity and under-veranda lighting in the Whakatane CBD is metered and charged on a kWh consumption basis, while the remainder of the under-veranda lighting is currently charged to the shop owner affected.

The main 2 areas that energy costs may be optimised in future is therefore:

- Replacement of inefficient fittings
- Bulk purchase or tendering of energy supply.

Electricity faults are monitored by monthly inspection, while any 80 watt MV fittings will be replaced over the next 15-20 year period using more efficient LED lights.

The maintenance contract includes the following:

- Cleaning of diffusers to ensure full output from luminaries (lanterns)
- That all seals are effective
- That luminaries are securely fixed and supported
- That all columns are perpendicular and structural integrity is sound
- That all supports arms are securely anchored
- That all electrical mechanisms are installed and safe

All maintenance work must comply with the Electricity Act 1993 and Electricity Regulations 1993.

Deferred Maintenance

There are no significant items of deferred maintenance although some badly rusted poles in the district require urgent replacement. These poles have been identified and prioritised for replacement.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for street lighting can be viewed in Section 11 Projects and Financial Forecasts.

Renewal Plan

Asset renewal is undertaken when a streetlight, or components of a light, have reached the end of their economic life. Renewal works involve the replacement of either the complete pole and lantern or individual components (e.g. lantern, bracket, controllers or pole). The plan has been informal to date, a comprehensive renewals and upgrade programme needs to be developed over the next three years. The renewal programme involves upgrading lighting or the replacement of obsolescent fittings and is based on a number of factors:

- The power undergrounding programme
- Crash reduction studies where lighting is a factor
- Rural flag lighting
- Local crash or pedestrian safety concerns
- The upgrading of obsolescent fittings
- Power efficiencies

The renewal programme needs to be reviewed over the next three years to update it in line with current standards and technology.

Capital Works Plan

New assets are created at the time of sub divisional development by Council or Transit New Zealand tendered upgrading, new works, or as per the 10-year programme.

Future priorities centre around WDC’s rural flaglight programme. This programme is open-ended and has both navigational and safety benefits. The deficiencies are recorded in the Safety Deficiency Database and prioritised within that system. This programme will be funded through the Minor Improvement Programme.

A key part of the capital programme is partnering with the lines company to co-ordinate improvements with undergrounding works. Council’s historic undergrounding programme in conjunction with the lines company has been in abeyance for the last three years. However it is proposed to reinstate this programme with Council’s funding coming from the Minor Improvement Programme.

The Engineering Code of Practice sets out the requirements for new lights in subdivisional developments, including rights of way

New street lights will also arise from the upgrading programme. Known deficient areas outside the Whakatane urban area are:

- College Road, Edgecumbe
- Pohutukawa Avenue, Ohope
- Matata

Design Standards

The design standard for new works is AS/NZS 1158 and this is a requirement of the Engineering Code of practice for subdivisional development. The design work for major works is referred to lighting suppliers who have computerised design services. Their proposals are then reviewed and site checked by the installation contractor and WDC staff.

Electrical safety statutes, regulations and codes of practice apply to any works on the streetlighting activity.

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

Whakatane District Council has no plans to dispose of any street lighting assets at this time.

Railings

Overview

This asset category includes Guardrails and sightrails that improve the safety of the network.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 40: Key Issues

Key Issue	Strategies to Address Key Issues
Some bridges have no approach guard rails.	Identify the bridges and include them in the safety deficiency database and Minor Improvements prioritisation process.
RAMM needs populating with condition info	Collecting data via Maintenance contractor

Assumptions & Confidence Levels

Guardrail and sight rail data is stored in RAMM, which is relatively complete. The RAMM validation exercise currently underway will add to the completeness and accuracy of the data.

Asset Description

WDC maintain approximately 14.8 km of railings with a combined Gross Replacement value of $2,972,889 as at April 2011 in RAMM. Additional 93m of new Sight Rails is in RAMM added after the 2010 valuation.

Table 41: Asset Information

Asset Description	Quantity - m	Base Life Average)	Age (average)	RUL (average)	GRC - $	ODRC - $	AD - $
Barrier	202	100	5	95	0	0	0
Concrete Post/Steel Tube	59	20	29	0	18,138	0	569
Concrete Post/Timber Rail	156	20	21	0	47,957	0	2,398
Guard rail	1,929	20	15	7	564,110	261,059	27,570
Hand rail	337	20	9	9	94,684	45,621	4,734
Sight rail	5,925	10	17	-7	336,510	69,993	23,752
Steel Post/Timber Rails	204	20	14	7	62,713	3,597	3,136
Steel Tube/Post barrier	108	20	17	4	33,201	4,703	1,660
Timber	12	10	7	2	1,425	151	96
Timber Post/Steel Tube	37	20	7	13	11,374	7,393	569
W Section Guard rail	5,889	20	16	6	1,802,777	528,918	87,356
Total	**14,353 m**				**2,972,889**	**921,434**	**151,840**

Gross Replacement Cost & Annual Depreciation

W? Section Guardrails account for 61% of the GRC with a value of $1,802,777. Annual depreciation is $151,840, with Guardrails accounting for 58% of the total railing assets.

Figure 44: GRC for Railings

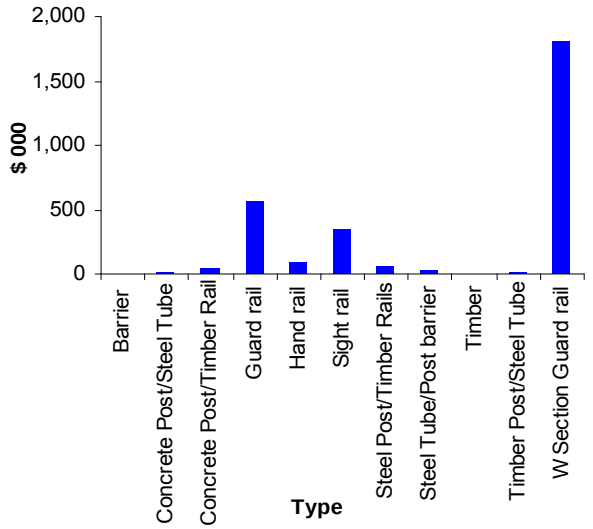
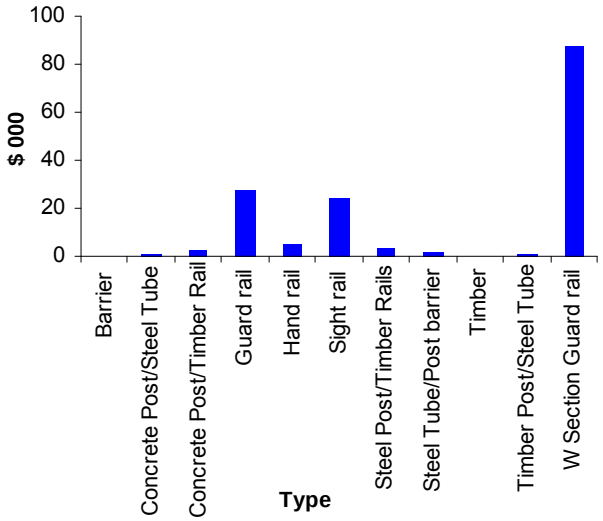


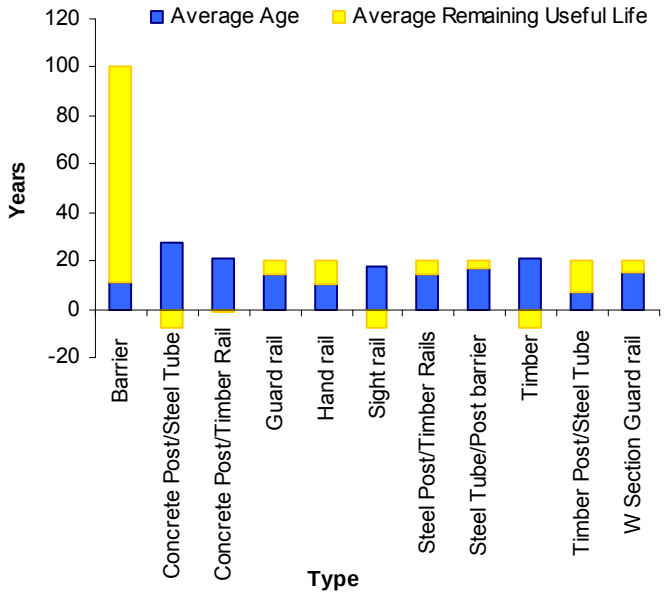
Figure 45: Annual Depreciation



Asset Age

The graph below compares the average age (as in RAMM) with the average base life of each asset (as in 2010 valuation).

Figure 46: Asset Age



Condition Assessment & Results

The condition of the guardrail and sight rail assets is monitored monthly in accordance with the road maintenance contractor.

Figure 47: Average Condition Result

To be updated when condition data updated

Operations & Maintenance Plan

Maintenance of minor structure assets is the responsibility of the maintenance contractor under the Sign Maintenance Contract administered by the PSP. Maintenance for guardrails and sight rails is cyclical, but also based on calls received via the public or noted during monthly audits of the network.

Maintenance is defined if the repair is only minor. All major repairs are considered renewals. Refer to the PPFM. WC 114 is maintenance and WC 215 is renewals.

Deferred Maintenance

There is no deferred maintenance at this time.

Renewal Plan

Guardrail and sight rail renewals are typically reactive and based on vehicular damage and environmental damage (flooding). The assets that are at or near the end of their useful lives will be assessed for inclusion in the renewal programme.

Deferred Renewals

There are no deferred renewals at this time.

Disposal Plan

There are no assets to be disposed of at this time.

Signage

Overview

Road signs are a vital component of the roading environment. Road users rely on signs to assist them in travelling along the roading network in a safe and efficient manner. Signs are able to provide this assistance by giving advance warning, by highlighting hazards or other obstructions, by providing information about road names, place names and distances.

A motor vehicle journey along any unfamiliar route will require at least some planning on the part of the road user. This is usually achieved by reference to maps or other publications. It is a not the responsibility of the road controlling authority to provide road signs as the only source of guidance to the road user.

The use of road signs should be limited to those signs that are legally required under the Traffic Regulations and those that the road controlling authority believes are essential for the safe and efficient movement of traffic. The use of internationally recognised symbolic signs should be encouraged. The wording of all road signs should be of a generic nature with no commercial advertising or trading names permitted.

Council has a Road and Traffic Information Signs Policy and Guidelines (December 2006) document that aims to provide a comprehensive guideline for the installation of Street Name Signs, Guide Signs, Tourist Signs and Local Facility Signs within Whakatane District. It also promotes the use of Motorist Service Signs on Strategic Routes and Regional Arterial Roads.

Key Issues

Some of the key life cycle management issues that affect road signage assets are

Table 42: Key Issues

Key Issue	Strategies to Address Key Issues
Vandalism	Continue with current inspection programme and identify type of validation and implement improvement programme

Assumptions & Confidence Levels

Sign data is held in RAMM and there is a high level of confidence of the quality of the data.

Asset Description

WDC manage over 6,000 signs across the network with a replacement value of $1,212,194 as at April 2011 in RAMM. This excludes the value of the assets added to RAMM after 2010 valuation (280 signs).

Table 43: Asset Information

Asset Description	Quantity	Base Life Average)	Age (average)	RUL (average)	GRC - $	ODRC - $	AD - $
Directional Signs	106	20	11	9	152,830	73,003	7,642
Fingerboards	1,237	15	8	7	234,007	103,713	15,599
Information Signs	289	15	8	7	51,475	25,940	3,428
Markers	584	3	2	1	10,643	2,193	1,796
Miscellaneous	4	15	10	5	177	59	12
Non Standard Signs	26	15	10	5	3,926	1,450	262
Permanent Warning Signs	1,690	15	8	7	326,278	159,160	21,760
Regulatory Signs	2,228	15	6	9	432,860	263,212	28,857
Total	**6,164**				**1,212,194**	**628,729**	**79,355**

Non assigned assets 274 – Total 6,438

Gross Replacement Cost & Annual Depreciation

Regulatory signs account for 36% of the GRC with a value of $432,860. Annual depreciation is $79,355, again with regulatory signs accounting for 36% of this total ($28,857).

Figure 48: GRC for Signage

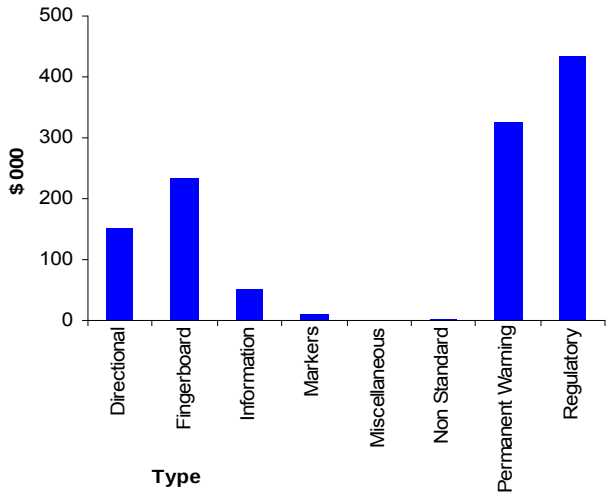
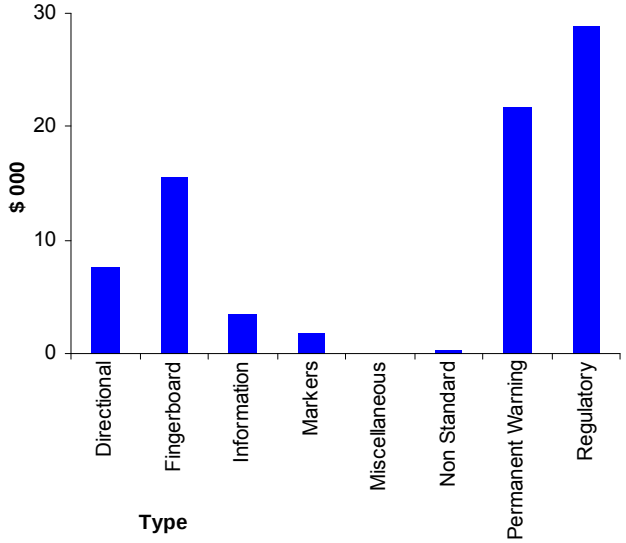


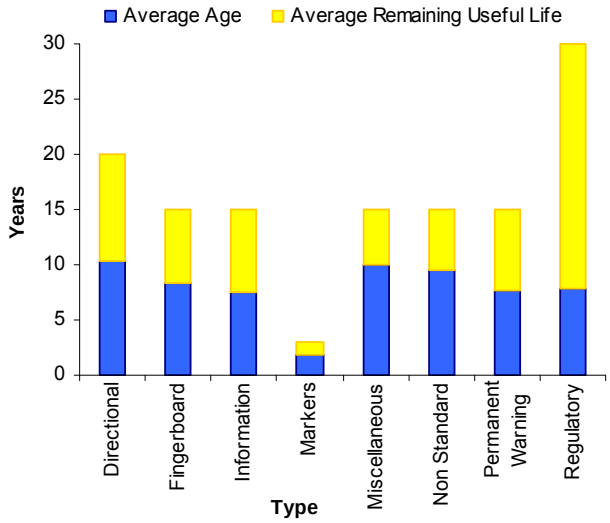
Figure 49: Annual Depreciation



Asset Age

The graph below compares the average remaining useful life (from 2010 valuation) with the base life of each sign type. The age data is not available in RAMM for majority of signs.

Figure 50: Asset Age



Condition Assessment & Results

There is no formal condition/performance rating/monitoring system. Night time inspections are carried out along Arterial and Collector roads to ascertain the reflectivity.

The overall condition of signs is considered to be moderate to good, which is achieved by regular inspections of signs by maintenance contractor and professional service provider. The signs are programmed for replacement where necessary. This is particularly the case for street nameplates, which often get damaged by vehicles or vandalism or over time the colour fades becoming hard to read. A considerable number of street nameplates are replaced each year.

Modern signs are manufactured from more durable materials and will last a minimum of ten years (usually guaranteed by the manufacturer) with the exception of those signs damaged by vehicles/vandals. Older signs are replaced as they become faded, rotten or due to vehicle/vandal damage.

Most signs are replaced as a result of damage resulting from vandalism and vehicle accidents.

There are annual daytime and night-time inspections by contractor. The PSP also does inspections at 10% of the network/month during the daytime.

The graph below shows the average condition of the assets.

Figure 51: Average Condition Result

To be updated when condition data updated

Key Signage Risk

Section 8 of this AMP outlines Risk Management relating to the Transportation Network. The section provides a comprehensive overview of how risk is derived and managed. Each component of the Transportation Network is assessed with regard to gross risk (risk with no effective measures in place) and net risk (measures in place) and the options available for Council to best manage those identified risks. Key Signage risks are identified as the following:

Risk Descriptor	Net Risk	Management Option
Inadequate Signage causing Accident/Damage – due to vandalism, non-compliant to standards, missing, deterioration. Including Sight Rails (chevrons, edge marker posts, bridge end markers, culvert markers) damaged and or missing.	8	Ensure that safety measures/ temporary traffic measures are implemented as part of all roadworks Continue safety audits

Operations & Maintenance Plan

The road signs and traffic aids maintenance and renewal contract is managed by the PSP. It is part of the Road Signs maintenance 5 year contract and Renewals contract and requires the Contractor to:

- Inspect the network on regular basis as specified in the contract.
- Carry out repairs and maintenance as part of their inspections in accordance with the specified response times.

The daytime and night-time inspection programme and road hierarchy governs the frequency of inspection. The strategy of using 3 metre poles and using stronger poles has reduced the vandalism. This is proving cost-effective, and will be continued. However vandalism continues to be a major maintenance cost.

All signs are designed and located and maintained according to the following Standards:

- Transit NZ “Manual of Traffic Signs and Markings - Part 1: Traffic Signs”
- TNZ Specification M/14 1991: Edge Marker Posts
- TNZ Specification P/16 1993: Installation of Edge Marker Posts
- TNZ 5414:1997 “Specification for Construction of Traffic Signs”
- New Zealand Transport Agency RTS 2: “Guidelines for Street Name Signs”
- New Zealand Transport Agency RTS 1: “Guidelines for the Implementation of Traffic Control at Cross Roads”

Deferred Maintenance

There is no deferred maintenance at this time

Operations and Maintenance Expenditure

The historical and projected operational expenditure for signage assets can be viewed under Section 11 Projects and Financial Forecasts.

Renewal Plan

The renewals are typically reactive in relation to vandalism and other damage such as crash damage.

Deferred Renewals

There are no deferred renewals.

Capital Works Plan

The known deficiencies are recorded in the Safety Deficiency Database. The works are prioritised and programmed through that process. Night inspections are particularly relevant for identifying deficiency issues relating to signs. The acquisition of new signs data from developers is analysed in the Code of Sub-development to ensure that Council's data is kept up to date.

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

There are no assets to be disposed of at this time.

Traffic Controls

Overview

Traffic controls in this section refer to traffic islands, medians, roundabouts, pedestrian refuges, calming devices and local area traffic management (LATM) systems. Their purpose is to regulate, warn or guide traffic. Their effectiveness as traffic control devices depends on their ability to command attention, make their meaning clear at a glance, allow adequate response time and command respect.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 44: Key Issues

Key Issue	Strategies to Address Key Issues
Demand from residents for traffic calming.	Identify areas of concern and monitor them then confirm actual need.

Assumptions & Confidence Levels

The RAMM validation exercise will increase the accuracy and completeness of the data set. This is important from both a management perspective and accurate accounting to ensure appropriate levels of maintenance and renewals.

There is a safety improvement s database that has been put through the MCA tool info on traffic request to look at traffic flows.

Asset Description

The gross replacement cost of traffic islands is $2,745,333 as at April 2011 in RAMM. The Table 45 below provides the details.

Table 45: Asset Information

Asset Description	M2	Base Life (Average)	Age (Average)	RUL (Average)	GRC - $	ODRC - $	AD - $
Central Refuge	243	50	17	33	24,359	16,147	487
Flower Bed	67	50	12	38	9,212	5,471	184
Kerb Extension	797	50	24	25	107,032	51,247	2,141
Median	2,294	50	20	30	207,939	114,978	4,159
Other	149	50	5	45	27,714	25,170	554
Pedestrian Platform Flush	198	50	27	23	32,952	15,158	659
Pedestrian Platform Raised	1,171	50	27	23	184,609	84,920	3,692
Rotary	3,130	50	26	24	1,738,739	799,820	34,775
Splitter	415	50	16	34	45,673	28,328	913
Throat	2,673	50	22	28	367,545	188,006	7,351
Total	**11,137**				**2,745,773**	**1,329,244**	**54,915**

Gross Replacement Cost & Annual Depreciation

Figure 52: GRC for Traffic Controls

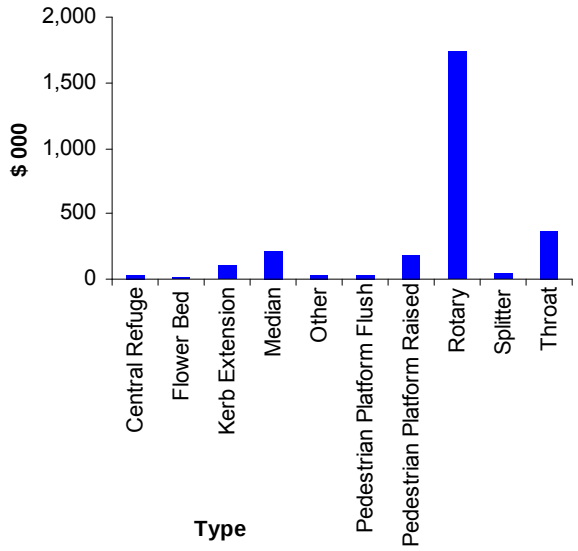
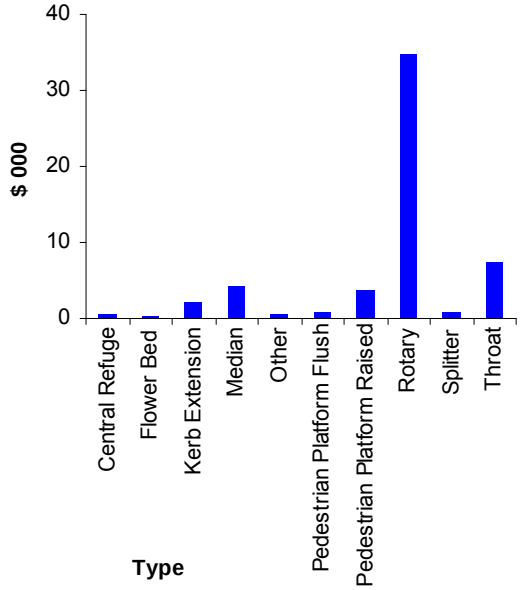


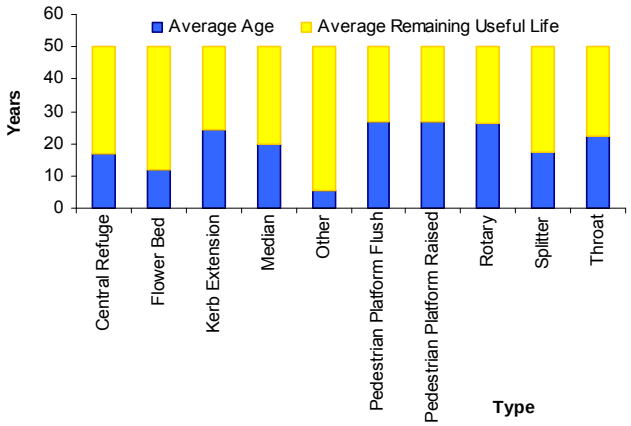
Figure 53: Annual Depreciation for Traffic Controls



Asset Age

The figure below compares the remaining useful life (from 2010 valuation) with the average expected base life of each island type. The age data is not available in RAMM for majority of island assets.

Figure 54: Asset Age



Condition Assessment & Results

Traffic controls are low maintenance items, typically with long lives. Condition monitoring is not warranted owing to the low expenditure and risk associated with this asset. Performance monitoring is done informally, after construction to assess the effectiveness of the control as a solution.

Figure 55: Average Condition Result

Operations & Maintenance Plan

Traffic controls are maintained and renewed by the Roading Maintenance Contractor. Traffic controls have long lives, and mostly expenditure is on unplanned repairs, and the maintenance of the facilities such as roundabouts, with pavement, surfacing, signs and markings charged appropriately against those activities.

Deferred Maintenance

There is no deferred maintenance identified at this time.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for traffic control assets can be viewed under Section 11 Projects & Financial Forecasts. There has been no expenditure in the last two years and none expected in the 10 year LTP period.

Landscaping within traffic islands is funded & maintained by Councils Operations Business unit.

Renewal Plan

There is no renewal plan in place at this time. This is achieved in conjunction with rehabilitation and resurfacing safety improvements.

Capital Works Plan

Traffic controls are installed are generally installed due to:

- Accident Reduction Studies
- Requests for traffic calming devices from the public

Design Standards

- Austroad - Guide to Traffic Engineering Practices - Traffic Control Devices, Parts 6, 7 and 8
- The Engineering Code of Practice contains traffic calming suggestions for new development works.

The general strategy has been to aim at a light to moderate traffic flow and avoid installation of traffic lights, which are relatively expensive to operate and maintain.

Below summarises the projected capital and renewal works to be undertaken over the next 10 years. More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Disposal Plan

No assets are planned for disposal at this time

Road Marking

Overview

The purpose of road marking is to delineate the road/pavement/footpath/service lanes to guide traffic movements and indicate road use restrictions. This is managed by the in-house professional services team. There is a proposed plan for remarking. Arterials and collectors are remarked annually and local roads every two years.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are as follows:

Table 46: Key Issues

Key Issue	Strategies to Address Key Issues
Roadmarking is a high cost activity	Review the level of service to see where price reductions can be achieved e.g. condition based performance

Assumptions & Confidence Levels

There is a high degree of confidence in the RAMM inventory. The marking contract is managed through RAMM Contractor. Markings are required to be loaded in RAMM to claim the payments for them.

Asset Description

WDC has approximately 575 km of marked centreline, no overtaking or flush median with a replacement value of $0.3 million. The road marking asset is not depreciated as it is renewed at a maximum of twelve months. Road markings are being noted in RAMM with a high level of confidence. The road marking asset comprises:

Table 47: Road Marking Information

Non intersection markings	Intersection markings	Miscellaneous markings
Centre lines and lane lines	Centre/edge/lane lines	Messages and symbols
Edge lines and shoulder markings	Lane arrows	Pedestrian crossings
No overtaking/passing lines	Limit/continuity lines	Railway level crossings
Median markings	Cycle lanes	Fire hydrants
Cycle lanes	Border/diagonal lines	Raised pavement markers
Parking areas		
Passing bays		

Raised Reflectorised Pavement Markers

RRPM's are also maintained under the Roading Maintenance contract. They have a typical effective life of 10 years. RRPM's have been installed on many urban arterial and collector streets, especially in areas with substantial volumes of traffic, to improve safety by highlighting the traffic lanes

Table 48: Asset Information

Asset Description	Base Life	Age	RUL	Length (m)	Quantity	Unit	GRC	ODRC	Annual Depreciation

Note that road markings were no separately valued in the last valuation.

Gross Replacement Cost

Figure 56: GRC Road Marking

Maintenance & Renewal Plan

Road marking maintenance and reinstatement is carried out under the main Roading Maintenance Contract. Roadmarkings are installed and maintained in accordance with the NZTA (Transit NZ) Signs and Road Markings Manual and the appropriate contract documents and specifications. The intersections of local roads with State Highways are maintained by the State Highway Contractor and repainted every year.

Annual line marking requirements are assessed by joint inspection between Council staff and the contractor. In general arterials and collectors are remarked annually and local roads every two years. This level of service continues to be refined. Road marking is located and maintained according to the following standards:

Transit NZ “Manual of Traffic Signs and Markings - Part II: Markings
TNZ Specification M/7 1993: Roadmarking Paints
TNZ Specification M/12 1986: Raised Pavement Markers
TNZ Specification B/12 1995: Pavement Marking
TNZ Specification P/14 1995: Installation of Raised Pavement Markers
New Zealand Transport Agency RTS 5: “Guidelines for Rural Roadmarking and Delineation”
New Zealand Transport Agency RTS 4: “Guidelines for Flush Medians”

Deferred Maintenance & Renewals

There is no deferred maintenance or renewals identified at this time.

Operations and Maintenance Expenditure

The historical and projected operational expenditure for marking assets.

New roadmarking may be identified by:

- Crash reduction studies
- New standards
- Road widening or seal extension
- New products are becoming available to improve the life and effectiveness of markings.

Vegetation Control

Overview

For the purposes of this AMP, vegetation control refers to control alongside road carriageways, kerb and channel, road berms, and footpaths. The maintenance includes roadside mowing, weedspraying, removal of fallen trees, drain clearing, reinstatement, bank stability etc to improve safety, reduce fire risk, maintain amenity values and to protect Councils assets.

Key Issues

Some of the key life cycle management issues that affect vegetation control include

Table 49: Key Issues

Key Issue	Strategies to Address Key Issues
Loss of amenity value	Review maintenance programme and audits
Spread of noxious weeds to neighbouring properties	Work with Regional Council and educate the public
Impeded driver sight lines	Regular control of vegetation as required

Asset Description

Vegetation control relates to land within the road reserve that is ***not*** road pavement, or any other associated structure such as a wall or bridge. As such, vegetation control is not an asset to be developed or renewed. The economic requirements relate to operations and maintenance.

Operations & Maintenance Plan

Vegetation control is carried out under two contracts. Rural roadside berm control is by the roading maintenance contractor. Vegetation control in urban areas is by the Parks and Reserves contactor. Regular audits are carried out by the in-house professional services unit to ensure that appropriate maintenance is being carried out to the standards required. There is as element of reactive maintenance that includes:

- Responding to public enquiries or RFS
- Removal of material that poses a significant risk
- Removal of material following a large storm event or flood

Deferred Maintenance

There is no deferred maintenance identified at this time.

Projected Operational Expenditure

The historical and projected operational expenditure for vegetation control assets can be viewed under Section 11 Projects & Financial Forecasts.

Bus Shelters

Overview

Bus shelters are provided for commuters utilising the bus services in the district. Bus shelters built privately and located on the road reserve for use by school children are not owned or maintained by Council. Shelters that are specifically used as part of the commuter services are subsidised by NZTA.

There are 8 bus stops in RAMM – 6 urban – Steel & Glass, 2 rural (Ruatahuna) – Timber.

There is an annual asset construction strategy to construct one shelter per year.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 50: Key Issues

Key Issue	Strategies to Address Key Issues
Vandalism and graffiti of the structure	Regular inspections and maintenance in response to requests

Assumptions & Confidence Levels

Council has a high level of confidence about the data relating to bus shelters. Asset Description

WDC has five shelters with an approximate replacement value of $15,000-$20,000 each.

Table 51: Asset Information

Asset Description	Base Life	Age	RUL	Area (m2)	Quantity	Unit	GRC	ODRC	AD
Bus Shelter					8				

Operations & Maintenance Plan

Operations and Maintenance Expenditure

The historical and projected operational expenditure for bus shelters can be viewed under Section 11 Projects and Financial Forecasts. Replacement of broken glass panels is undertaken on an as required basis by a local glass contractor. It is proposed to have cleaning of shelters completed by the signs maintenance contractor in conjunction with the sign cleaning programme.

Renewal Plan

At this stage, there is no identified renewal works for bus shelters.

Development Plan

Capital works are generally initiated through triggers such as growth, Levels o f Service, regulatory, operational efficiency, or vested (gifted) through subdivisions

More detail on funding sources for these projects is outlined in Section 11 Projects & Financial forecasts.

Airport Assets

Overview

The airport assets consist of an Airport at Whakatane and an airstrip at Galatea. The Galatea airstrip consists of a grazed field, which is maintained by the Galatea Aero Club and is not considered any further in this AMP. The previous AMP developed in 2002 is now superseded by this AMP.

Asset Description

The assets covered in this section include:

- Runways, taxiways and apron (Network administrators and Pavement Maintenance Contract)
- Grassed Areas (In-House Urban Vegetation Control), Water Supply (Managed by Council) and Fencing
- Runways Lighting and Navigational Aids (Network administrators and Pavement Maintenance Contract)
- Car Parks and Farm Access Road (Network administrators and Pavement Maintenance Contract)

The main airport building/terminal and Tender shed is a Property asset and not covered in this AMP.

Runways, Taxiways and Apron

The purpose of runways, taxiways and the apron is to provide a pavement suitable for all movements of aircraft and emergency vehicles that has a suitable all-weather surface appropriate to its function in terms of skid resistance and a structure suitable for loading requirements.

Grassed Areas, Water Supply and Fencing

Grassed areas include runway verges, and airport expansion areas (grazed land). Airport expansion land is leased to farmers for grazing and is provided with water reticulation for stock from the Airport water supply.

Lighting and Navigational Aids

Runway lighting and navigational aids include:

- Runway edge, end and threshold lighting
- Taxiway and apron edge lighting and floodlighting

Navigational aids including windsocks (Whakatane and Galatea), Variable Approach Slope Indicators (VASI) and beacon strobe lighting

- Development in LED lighting will see usage on airports in coming years.

Car Park and Access Roads

The purpose of car parking/access roads is to provide for parking for airport patrons and access to the grazing leases.

Airport assets are entered in RAMM, but their condition data is not yet populated. This includes the area of anything that is not the main road. The airway side is not subsidised whereas the car park side is subsidised.

Key Issues

Some of the key life cycle management issues that affect road carriageway assets are

Table 52: Key Issues

Key Issue	Strategies to Address Key Issues
Runway Pavement and surfacing are extremely susceptible to moisture resulting in ongoing isolated failures.	Maintaining a water proof surface is always the key to addressing moisture issues in pavements.
Fire Fighting Capacity. The current Braemar water supply does not provide the required pressure for fire fighting purposes	A proposal is being developed in partnership with the fire service to provide sufficient on-site water storage to meet fire fighting minimum requirements
Lack of land for hangar development	Land has been identified in the Airport Master Plan and funding provided for its acquisition.
Once the land is acquired for hangars, it still needs to be levelled before it can be used for any hangar development	A development strategy needs to be formulated
Navigation Aids – the runway lighting is obsolete and has been kept in service through salvaging spares form other airports as they have upgraded	Detailed assessment of remaining useful life and replacement requirement needs to be undertaken

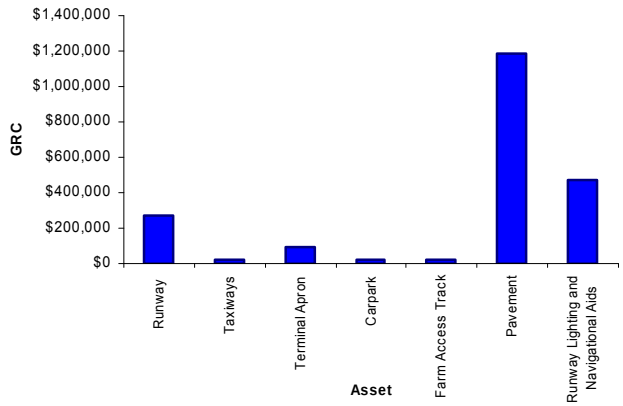
Table 53: Asset Information Summary

Project	Base Life (Average)	Age (Average)	Condition (Average)	GRC ($)	ODRC ($)	AD ($)
Airside pavement	10.5	5.4		$273,879	$152,283	$39,380
Taxiways	14.2	11.4		$20,626	$50,489	$1,842
Terminal Apron	14	10.5		$89,523	$44,132	$8,880
Carpark surface	13.5	9.0		$20,258	$7,467	$1,529
Farm Access Track	22	12.0		$19,167	$8,712	$871
Pavement	93	47.0		$1,182,642	$533,939	$13,802

Runway Lighting and Navigational Aids	30	15.0		$474,000	$237,000	$15,800
TOTAL				**$2,081,713**	**$898,890**	**$82,104**

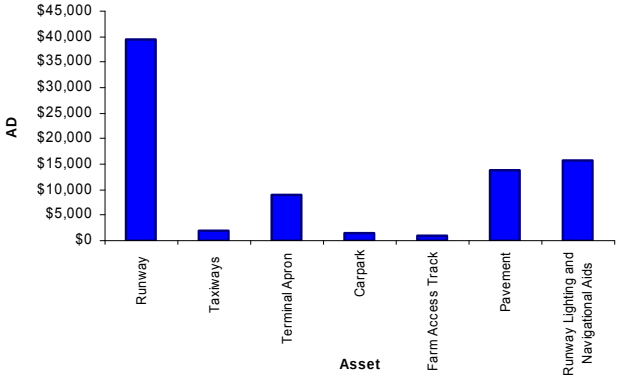
Gross Replacement Cost

Figure 57: GRC for Airport Assets



Annual Depreciation Costs

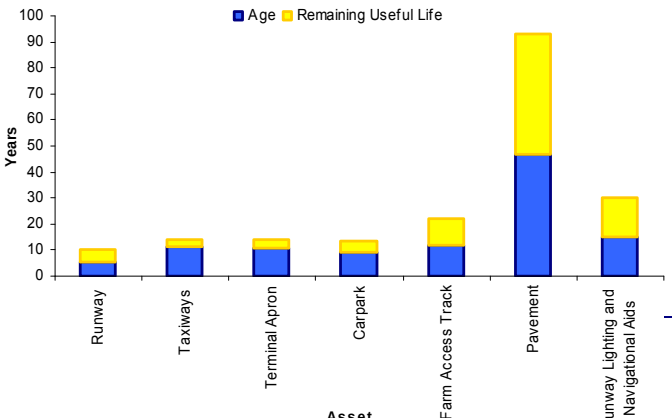
Figure 58: Airport Assets Annual Depreciation



Asset Age

The graph below compares the age with the average expected base life of each asset.

Figure 59: Asset Age



Condition Assessment & Results

The last condition assessment was undertaken in 2011. This assessment covers all assets except the Whakatane Airport Terminal, fire tender and generator sheds.

No significant condition issues were identified during the last assessment although deterioration of the existing slurry surfacing on the runway continues. A number of maintenance issues were identified and scheduled for repair and the forward works programme for the resurfacing of the Runway, Taxiways and Car Parks has been updated for the next ten years.

Surfacing and pavement condition was evaluated and assessed in accordance with the following table:

Table 54: Condition Grading Table

Condition	Description	Remaining Life
Very Good	Sound physical condition, surfacing likely to achieve full design life	80%-100%
Good	Acceptable physical condition. Minimum risk of short term failure but risk of potential failure in the long term	60%-80%
Average	Some deterioration evident; failure unlikely in short term but requires intervention in the medium term	40%-60%
Poor	Significant deterioration evident, failure likely in the short term and requires intervention now to prevent further deterioration	20%-40%
Very Poor	Serious deterioration evident. Failed or imminent failure likely in the short term	0%-20%

Table 55: Surfacing Types Legend

Description
Grade 6 Polymer Modified Emulsion & Rejuvenation oil
Grade 6 Cat55/60 seal
Slurry
AC
Grade 3/5 Seal
Grade 3 seal
Grade 5 seal

Table 56: Condition Result Runway Surface

Position: 0 at Western End	Length	Surfacing	Install Date	Useful Life	Condition July 2011	Future Surfacing Date

0-60	60	slurry	1997	9	poor	2009
0-60	60	G6 PMEr	2006	4	good	2010
60-95 LHS	35	G6 PMEr	2006	10	very-good	2016
60-95 CL	35	G6 PMEr	2006	4	good	2010
60-95 RHS	35	G6 PMEr	2006	10	very-good	2016
95-493 LHS	398	G6 PMEr	2006	10	very-good	2016
95-292 CL	197	G6 PMEr	2006	4	good	2010
95-415 RHS	320	G6 PMEr	2006	10	very-good	2016
493-544 LHS	51	G6 PMEr	2006	10	very-good	2016
292-544 CL	252	slurry	2003	6	average	2011
415-544 RHS	129	3/5 seal	1989	18	average	2010
544-718 LHS	174	3/5 seal	1989	18	average	2010
544-718 CL	174	slurry	2000	9	average	2011
544-718 RHS	174	3/5 seal	1989	18	average	2009
718-1110 LHS	392	3/5 seal	1989	18	average	2009
718-1064 CL	346	slurry	2001	9	average	2009
718-1110 RHS	392	3/5 seal	1989	18	average	2009
1110-1280 LHS	170	G6 PMEr	2007	10	very-good	2017
1064-1280 CL	216	G6 PMEr	2007	4	very-good	2011
1110-1280 RHS	170	G6 PMEr	2007	10	very-good	2017

Table 57: Condition Result Taxiway & Apron Surface

Position	Length	Surfacing	Install Date	Useful Life	Condition July 2007	Future Surfacing Date
Taxi way W	75	slurry	2001	10	average	2012
Taxi way W	75	3/5 seal	1989	18	average	2009
Taxiway E	75	slurry	2001	10	average-poor	2009
Taxiway E	75	3/5 seal	1989	18	average	2009
Apron	114	slurry	2001	10	average	2012
Apron	114	3/5 seal	1989	18	average	2009
Commercial Lease Taxi way	140	G6 Seal	1988	15	average	2010

Table 58: Condition Result Car Park & Farm Access Track Surface

Position	Length	Surfacing	Date	Useful Life	Condition July 2007	Future Surfacing Date
Northern		G5	1996	12	good	2010
Southern		G5	1997	12	good	2010
Western		G3	1988	15	average-poor	2010
Terminal		AC	2006	15	poor	2016
Farm Access Track	2290	unsealed		22	good	2017

Table 59: Condition Result Pavement

Asset	Date	Useful Life	Condition July 2007
Runways	1960	80	Average
Taxiways & Aprons	1960	100	Average
Car Parks	1960	100	Average

Table 60: Condition Result Runway Lighting & Navigational Aids

Asset	Date	Useful Life	Condition July 2007
Runway Edge, End and Threshold lights	1960	30	Average
Taxiway and Apron Edge and Flood lighting	1960	30	Average
Navigation Aids	1960	30	Average

Key Airport Risks

Key risk identified for the airport is as follows:

Table 61: Key Airport Risks

Demand for Airport exceeds asset capacity.	8	◗ Management of surrounding residential developments ◗ Protection of noise envelopes and current and future flight paths ◗ Council adopt the strategy and master plan and review the provisions of the District Plan

There is a requirement to protect the airport and ensure growth.

Statistics NZ have released a growth and development figures over the next 50 years and have been included in the Airport Master Plan.

Operations & Maintenance Plan

Runways, Taxiways and Apron

Maintenance works are undertaken to:

- Mowing around the grass runs and the runway
- Ensure safety for air traffic
- Ensure the airport remains operational under normal weather conditions
- Protect the investment in assets by ensuring the structure reaches its design life
- Minimise repair costs

The types of maintenance work activity undertaken include:

- Mowing and spraying of runway verges and around navigational aids (Urban Vegetation Control contract)
- Inspection and repair of navigational aids and lighting infrastructure (Urban Street Lighting Contract)
- Remarking of runway and taxiway markings

Monthly airport operational surfaces inspections are carried out by Council staff who initiate remedial action, if required. The inspection covers:

- Runway edges
- Drainage
- Cracking
- Holes
- Debris
- Marking condition/visibility

Additional inspections are carried out at the discretion of the airport management and by the CAA to ensure that the Whakatane Operational Plan is as published.

Comprehensive inspections are undertaken on a yearly cycle, supplemented by additional inspections by experienced persons, as necessary, after specific events such as earthquakes, severe storms or instances of overloading.

Grassed Areas, Water Supply and Fencing

Grazing areas are leased for a 12 year period with a 3 year right of renewal. The only maintenance obligation on WDC for this land is for the maintenance of stock water supply and the access road. Management of the water supply is by the OBU.

There is no routine maintenance programme for the leased areas. Lessees of grazed areas are responsible for maintenance of fencing, including the runway strip. The grassed area of the runway strip is maintained at > 100 mm length to discourage birds and cut once a year, in winter.

Lighting and Navigational Aids

The Street Lighting Contractor maintains navigational aids under a contract, which includes the lights in the car parking area. There is also a twice-yearly calibration flight undertaken by Airways to confirm the accuracy of the VASI landing aids.

The runway lights are activated by a Pilot Radio Controlled Activation System. This system enables a pilot to activate the runway lights on approach for a defined period rather than have the lights in operation at all times in adverse visibility.

Generator

There is a generator located on site which provides emergency power to the airport. It used to have to be manually started, however in 2011 an automatic starting system was installed. The generator supplies power to the navigation aids, fuel pumps and terminal building.

Car Park and Access Roads

Maintenance is carried out as per car park and pavement assets outlined earlier in this section

Deferred Maintenance

There is no deferred maintenance at this time

Operations and Maintenance Expenditure

The historical and projected operational expenditure for Airport assets can be viewed under Section 11 Projects and Financial Forecasts.

Renewal Plan

Runways, Taxiways and Apron

All anticipated costs over the life of an asset are considered when evaluating designs and construction materials. To date, slurry surfacing of the main traffic areas has proved to be the optimum solution although alternatives such as Asphaltic Concrete (A/C) have been considered. While A/C potentially offers twice the design life of Slurry Seal, the costs are between 2-3 times that of Slurry Seal rendering is uneconomic except where minor irregularities in the surface occur where it can be used for levelling.

The recommended treatment for the future is a combination G6 chip seal and slurry surfacing, known as a Cape Seal. The G6 seal will address the chip loss problem on the existing G3/5 and the cracking and bonding issues of the existing slurry surface. The slurry seal can again be applied to just the main traffic areas. It is important, that when designing the G5 seal, that the bitumen application rate over the existing G3/5 seal is increased by a minimum of 25% to address the low traffic factor.

Additionally all pavement defects need to be repaired prior to resurfacing to ensure that the pavement is progressively renewed and maintained in perpetuity.

Lighting and Navigational Aids

Aging and obsolescence of the runway lighting and navigational aid components has been a concern of airport management. These fittings are no longer being manufactured, however replacement components have to date been able to be sources from other airports who have upgraded their systems. Need to maintain until next generation LED is available.

Car Park and Access Roads

Renewals are carried out as per car park and pavement assets outlined earlier in this section

Deferred Renewals

There are no deferred renewals at this time.

Development Plan

There is a development plan to purchase more land for increased hangar development and is in accordance with the Airport Master Plan.

Airport expansion works and utility services upgrade are planned for the next 10 years period.

Disposal Plan

There are no airport assets to be disposed at this time.

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Overview

To undertake a sustainable, long-term approach to asset management, it is essential to prepare long-term financial forecasts. This allows a long term view of how the asset will be managed, how much this will cost and when additional funding may be required to meet expected service levels. These financial forecasts are a culmination of the previously discussed aspects of the Asset Management Plan such as:

- Community Consultation
- Levels of Service
- Demand Management
- Lifecycle Management
- Asset Lives
- Condition Ratings
- Asset Valuation
- Sustainability

The above forms the basis of the long-term operations, maintenance and capital requirements. Funding requirements have also been included in the financial statements

Expenditure

Expenditure on infrastructure assets can be categorised into four main areas, which are discussed below:

Operations and Maintenance

Operations and Maintenance expenditure is that required for the day-to-day operation of the network whilst maintaining the current levels of service. Examples of this type of expenditure are:

- Overheads
- Minor replacements

Maintenance costs are generally subdivided into 3 groups, these are described in Table 1.

Table 1: Maintenance Types

Maintenance Type	General Meaning
Routine	Day to day maintenance which is required on an ongoing basis and is budgeted for
Planned (Proactive)	Non day-to-day maintenance which is identified in advance and is incorporated into a maintenance budget for a certain time period
Reactive	Maintenance that is unexpected and necessary to attend to immediately to continue operation of the service

Replacement (Renewals)

Renewal expenditure includes rehabilitation and replacement of assets to restore an asset to its original level of service, i.e. capacity or the required condition. Renewals expenditure forecasts cover the cost of asset renewal through its whole lifecycle through to disposal of the asset.

Capital Works (New Works)

Capital works (new works) involves the creation of new assets, or works, which upgrade or improve an existing asset beyond its current capacity or performance in response to changes in usage or customer expectations.

Disposals

Asset Disposal is the retirement or sale of assets whether surplus or superseded by new or improved systems. Assets may become surplus to requirements due to obsolescence, underutilisation, changes in policy etc.

Asset Management Assumptions

The following transport Asset Management assumptions have been made in preparing the 10-year expenditure forecasts:

- All assets have an assumed useful life which is based on the National adopted guidelines.
- Asset information is as complete as possible at 1 July 2011. This is based on the RAMM and asset data supplied by WDC .
- Only transport assets have been valued.
- The determination of, asset replacement value, depreciated value, and renewal projections are based on the valuation data as at 1 July 2010.
- All projected expenditure is stated in dollar values as at 30th September 2011. With no allowance made for inflation.
- Operational costs are largely based on historical expenditure
- Consultation will be undertaken through the LTP prior to adoption of the financials.
- Forecasts are based on current expendituer required to achieve Levels of Service that have been consulted on with the public in the previous Annual Plan & LTCCP.
- Maintenance and operations allocations are largely based on maintaining current service levels.
- The depreciation has been calculated on a straight-line basis.
- It is assumed that regulations relating to transport will remain essentially the same over the planning period (i.e. 10 years to June 2019)

The LTP assumptons and asociated risks are outlined at the end of this section

Operations & Maintenance Planning

Operations & Maintenance

Maintenance strategies cover the policies that will determine how the transport network will be operated and maintained on a day-to-day basis to consistently achieve the optimum use of the asset. The work categories are defined as follows:

Routine (General) Maintenance

Routine maintenance is the regular ongoing day-to-day work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. This work falls into two broad categories as follows:

Planned (Proactive)

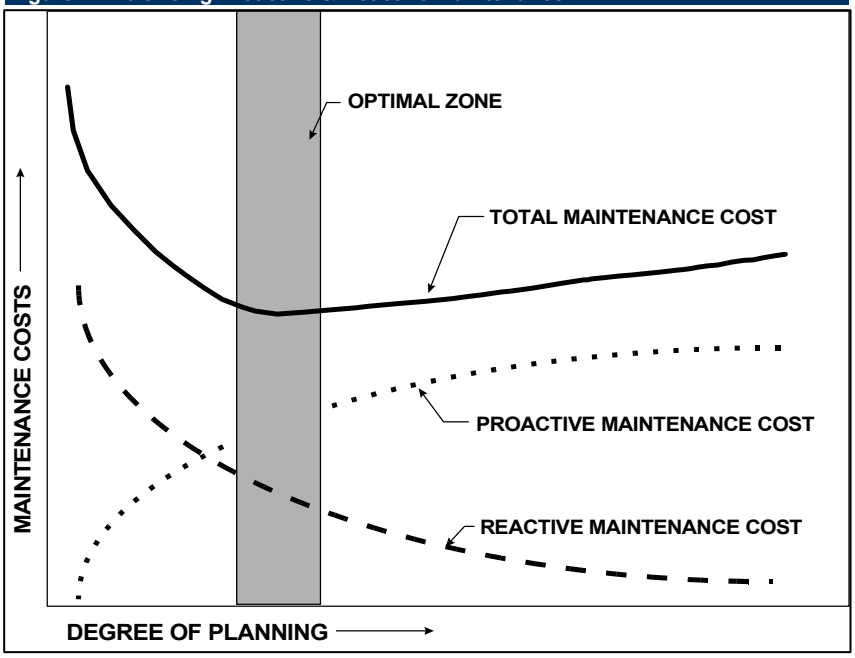
Proactive inspection and maintenance works planned to prevent asset failure.

Reactive

Reactive action to correct asset malfunctions and failures on an as required basis.

A key element of asset management planning is determining the most cost-effective blend of planned and unplanned maintenance as illustrated in Figure 1.

Figure 1: Balancing Proactive & Reactive Maintenance



The short-term maintenance strategy is intended to maintain the current levels of service standards. The long-term maintenance strategy will be modified to reflect the following factors:

- **Risk of failure** -The risk associated with failure of critical assets
- **Levels of service** - Changes in the current or agreed level of service
- **Economic efficiency** -Asset condition assessment
- **Extend the life of the asset component** -Asset improvements and development programme
- **Legislative compliance** – e.g. requirements of, LGA 2002, DWSNZ

Operations & Maintenance Programme

Maintenance works are under taken by a road maintenance contractor.

Customer service requests are recorded on Ozone and summarise data on the date, time, details, responsibility, response time and action taken. These requests are prioritised and actioned in conjunction with the programmed maintenance works.

Operations and Maintenance Forecasts

Anticipated work needs and costs over the next 10 years to ensure delivery of the defined levels of service, include:

- Expected operational work
- The nature, incidence and cost of unplanned maintenance (responsive) currently undertaken
- Planned inspections and preventative maintenance
- Expected planned maintenance work requirements.
- Managing assets to desired levels of service.

Operations & Maintenance Planning 2012/13 – 2021/2022

Table 1: Forecast Operations & Maintenance ($)

Actual $ 2010/11	AP $ 2011/12		LTP $ 2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Group: 60 Transport & Network Systems												
Activity: 30 FA Local Rds - Maint & Impro												
		Expenditure										
5,892,662	7,778,328	Depreciation	7,918,546	8,176,118	8,430,208	8,819,448	9,257,426	9,629,139	9,758,524	9,890,509	9,927,477	9,919,205
6,126,095	3,820,489	Direct Costs	3,842,955	4,043,955	3,842,955	3,944,138	3,963,138	3,964,138	3,863,138	4,064,138	3,863,138	3,964,138
219,397	364,955	Interest Paid	346,167	371,400	409,728	374,784	304,022	383,090	411,584	449,108	498,498	531,445
940,435	948,822	Overheads	1,060,419	1,078,968	1,097,737	1,072,139	1,069,508	1,106,266	1,066,567	1,074,669	1,108,898	1,078,432
13,178,589	**12,912,594**	**Total Expenditure**	**13,168,087**	**13,670,441**	**13,780,628**	**14,210,509**	**14,594,094**	**15,082,633**	**15,099,813**	**15,478,424**	**15,398,011**	**15,493,220**
		Revenue										
(152,599)	(175,600)	Development Contributions	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)	(68,253)
(7,988,791)	(3,304,054)	Subsidies and Grants	(4,354,247)	(4,335,133)	(5,141,274)	(5,205,207)	(5,468,720)	(4,675,614)	(4,630,820)	(4,449,657)	(4,404,863)	(4,744,924)
(301,268)	(138,402)	Sundry Income	(134,027)	(132,404)	(149,305)	(150,766)	(157,640)	(140,448)	(143,107)	(132,214)	(131,093)	(150,703)
(3,948,937)	(4,390,555)	Targeted Rates	(5,432,905)	(5,597,476)	(5,659,802)	(5,973,833)	(5,974,822)	(6,077,180)	(6,022,803)	(6,241,784)	(6,144,480)	(6,002,418)
(12,391,595)	**(8,008,611)**	**Total Revenue**	**(9,989,432)**	**(10,133,266)**	**(11,018,634)**	**(11,398,059)**	**(11,669,435)**	**(10,961,495)**	**(10,864,983)**	**(10,891,908)**	**(10,748,689)**	**(10,966,298)**
786,994	**4,903,983**	**Net Cost (Surplus) of Operations**	**3,178,655**	**3,537,175**	**2,761,994**	**2,812,450**	**2,924,659**	**4,121,138**	**4,234,830**	**4,586,516**	**4,649,322**	**4,526,922**
		Application of Funds										
8,387,189	3,087,444	Capital Expenditure	4,710,000	4,514,000	6,253,000	6,666,000	7,367,000	5,459,000	5,467,000	5,002,000	5,010,000	5,502,550
690,498	500,087	Loan Repayments	447,360	471,895	2,079,796	2,481,864	219,097	255,327	284,724	313,476	300,742	142,099
2,500,067	175,600	Payment to Reserves	68,253	68,253	68,253	68,253	68,253	68,253	68,253	68,253	68,253	68,253
11,577,754	**3,763,131**	**Total Application of Funds**	**5,225,613**	**5,054,148**	**8,401,049**	**9,216,117**	**7,654,350**	**5,782,580**	**5,819,977**	**5,383,729**	**5,378,995**	**5,712,902**
		Source of Funds										
(2,167,630)	(1,250,153)	Depreciation Reserve	(1,897,311)	(1,873,850)	(1,911,333)	(2,179,054)	(2,010,479)	(2,010,479)	(2,010,479)	(1,793,478)	(1,793,478)	(1,896,261)
(6,474)	(9,667)	Development Contribution Reser	(1,800)	(1,800)	(102,740)	(132,540)	(229,000)	(39,000)	(39,000)	(39,000)	(39,000)	(39,000)
(3,994,585)	(982,751)	Loans Raised	(443,302)	(380,657)	(1,168,883)	(1,106,259)	(1,566,371)	(690,967)	(694,271)	(676,925)	(680,229)	(779,425)
(3,545,194)	(6,424,543)	Non Funded Depreciation	(6,061,855)	(6,335,016)	(6,364,741)	(6,316,781)	(6,773,159)	(7,163,272)	(7,311,057)	(7,460,842)	(7,515,610)	(7,525,138)
(2,650,866)	0	Operational Reserve	0	0	(1,615,346)	(2,293,933)	0	0	0	0	0	0
(12,364,749)	**(8,667,114)**	**Total Source of Funds**	**(8,404,268)**	**(8,591,323)**	**(11,163,043)**	**(12,028,567)**	**(10,579,009)**	**(9,903,718)**	**(10,054,807)**	**(9,970,245)**	**(10,028,317)**	**(10,239,824)**
(786,995)	**(4,903,983)**	**Net Funds Applied to (Provided from)**	**(3,178,655)**	**(3,537,175)**	**(2,761,994)**	**(2,812,450)**	**(2,924,659)**	**(4,121,138)**	**(4,234,830)**	**(4,586,516)**	**(4,649,322)**	**(4,526,922)**

Actual $ 2010/11	AP $ 2011/12		LTP $ 2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Group: 60 Transport & Network Systems												
Activity: 32 FA Special Purpose Rd-M & Im												
		Expenditure										
0	214,890	Depreciation	78,921	163,813	247,118	327,170	406,982	489,820	520,232	556,364	577,709	599,054
915,856	456,501	Direct Costs	468,000	473,000	468,000	473,000	468,000	473,000	468,000	473,000	468,000	473,000
21,665	26,082	Interest Paid	57,087	59,812	61,096	63,228	62,222	63,063	60,470	59,395	59,742	57,207
104,390	113,111	Overheads	54,147	55,135	56,040	54,914	54,968	56,593	54,708	55,186	56,709	55,223
1,041,911	**810,584**	**Total Expenditure**	**658,155**	**751,760**	**832,254**	**918,312**	**992,172**	**1,082,476**	**1,103,410**	**1,143,945**	**1,162,160**	**1,184,484**
		Revenue										
(2,797,660)	(987,928)	Subsidies and Grants	(1,359,000)	(1,306,000)	(1,251,000)	(1,252,000)	(1,294,000)	(1,323,000)	(1,486,000)	(1,183,000)	(1,178,000)	(1,709,500)
(198,378)	(384,528)	Targeted Rates	(141,482)	(157,951)	(173,209)	(187,165)	(199,798)	(215,540)	(225,065)	(238,224)	(253,610)	(263,799)
(2,996,038)	**(1,372,456)**	**Total Revenue**	**(1,500,482)**	**(1,463,951)**	**(1,424,209)**	**(1,439,165)**	**(1,493,798)**	**(1,538,540)**	**(1,711,065)**	**(1,421,224)**	**(1,431,610)**	**(1,973,299)**
(1,954,127)	**(561,872)**	**Net Cost (Surplus) of Operations**	**(842,327)**	**(712,191)**	**(591,955)**	**(520,853)**	**(501,626)**	**(456,064)**	**(607,655)**	**(277,279)**	**(269,450)**	**(788,815)**
		Application of Funds										
1,643,798	759,234	Capital Expenditure	891,000	833,000	783,000	779,000	826,000	850,000	1,018,000	710,000	710,000	1,349,000
17,491	17,528	Loan Repayments	30,248	30,204	30,473	30,623	31,408	31,884	33,087	34,043	34,759	36,169
292,839	0	Payment to Reserves	0	0	0	0	0	0	0	0	0	0
1,954,128	**776,762**	**Total Application of Funds**	**921,248**	**863,204**	**813,473**	**809,623**	**857,408**	**881,884**	**1,051,087**	**744,043**	**744,759**	**1,385,169**
		Source of Funds										
0	0	Depreciation Reserve	0	0	0	0	0	0	0	0	0	(112,500)
0	(214,890)	Non Funded Depreciation	(78,921)	(151,013)	(221,518)	(288,770)	(355,782)	(425,820)	(443,432)	(466,764)	(475,309)	(483,854)
0	**(214,890)**	**Total Source of Funds**	**(78,921)**	**(151,013)**	**(221,518)**	**(288,770)**	**(355,782)**	**(425,820)**	**(443,432)**	**(466,764)**	**(475,309)**	**(596,354)**
1,954,128	**561,872**	**Net Funds Applied to (Provided from)**	**842,327**	**712,191**	**591,955**	**520,853**	**501,626**	**456,064**	**607,655**	**277,279**	**269,450**	**788,815**

Actual $ 2010/11	AP $ 2011/12		LTP $ 2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Group: 60 Transport & Network Systems												
Activity: 34 NFA Tspt - Maint & Improve												
		Expenditure										
0	104,942	Depreciation	8,920	9,420	9,920	10,420	11,820	13,220	14,620	22,860	23,660	24,460
1,167,314	907,384	Direct Costs	1,092,665	1,092,665	1,092,665	1,093,278	1,093,278	1,093,278	1,093,278	1,093,278	1,093,278	1,093,271
253,019	232,866	Interest Paid	209,290	207,012	203,451	202,654	192,059	186,654	170,328	162,024	160,890	148,654
449,309	574,639	Overheads	425,949	425,103	424,400	421,213	422,876	429,679	427,152	430,919	432,235	426,552
1,869,642	**1,819,831**	**Total Expenditure**	**1,736,824**	**1,734,200**	**1,730,436**	**1,727,565**	**1,720,033**	**1,722,831**	**1,705,378**	**1,709,081**	**1,710,063**	**1,692,937**
		Revenue										

(18,870)	(16,700)	Development Contributions	0	0	0	0	0	0	0	0	0	0
0	(55,419)	General Rates and District Funds Applied	0	0	0	0	0	0	0	0	0	0
(20,112)	0	Subsidies and Grants	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
(396,431)	(338,936)	Sundry Income	0	0	0	0	0	0	0	0	0	0
(2,153,598)	(1,960,378)	Targeted Rates	(2,289,448)	(2,197,785)	(2,192,331)	(2,219,600)	(2,193,086)	(2,183,753)	(2,104,318)	(2,050,654)	(2,050,428)	(2,002,776)
(29,881)	(47,000)	User Fees and Charges	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)	(27,000)
(2,618,892)	**(2,418,433)**	**Total Revenue**	**(2,321,448)**	**(2,229,785)**	**(2,224,331)**	**(2,251,600)**	**(2,225,086)**	**(2,215,753)**	**(2,136,318)**	**(2,082,654)**	**(2,082,428)**	**(2,034,776)**
(749,250)	**(598,602)**	**Net Cost (Surplus) of Operations**	**(584,624)**	**(495,585)**	**(493,895)**	**(524,035)**	**(505,053)**	**(492,922)**	**(430,940)**	**(373,573)**	**(372,365)**	**(341,839)**
		Application of Funds										
815,846	241,221	Capital Expenditure	145,000	145,000	145,000	255,000	225,000	255,000	582,000	240,000	210,000	240,000
438,363	302,464	Loan Repayments	389,569	303,840	305,465	306,941	309,557	309,382	250,976	204,653	207,067	180,123
293,870	311,441	Payment to Reserves	290,975	290,965	290,950	290,914	290,916	290,893	290,917	290,913	290,891	290,909
1,548,079	**855,126**	**Total Application of Funds**	**825,544**	**739,805**	**741,415**	**852,855**	**825,473**	**855,275**	**1,123,893**	**735,566**	**707,958**	**711,032**
		Source of Funds										
(155,039)	(82,724)	Depreciation Reserve	(70,000)	(70,000)	(70,000)	(150,000)	(120,000)	(150,000)	(120,000)	(150,000)	(120,000)	(150,000)
(17,715)	(1,950)	Development Contribution Reser	0	0	0	(900)	(900)	(900)	(23,220)	(900)	(900)	(900)
(172,048)	(36,908)	Loans Raised	(70,000)	(70,000)	(70,000)	(99,100)	(99,100)	(99,100)	(84,100)	(84,100)	(84,100)	(84,100)
0	(104,942)	Non Funded Depreciation	(8,920)	(12,220)	(15,520)	(18,820)	(40,420)	(52,353)	(55,953)	(66,993)	(70,593)	(74,193)
(454,028)	0	Operational Reserve	(92,000)	(92,000)	(92,000)	(60,000)	(60,000)	(60,000)	(409,680)	(60,000)	(60,000)	(60,000)
(798,830)	**(226,524)**	**Total Source of Funds**	**(240,920)**	**(244,220)**	**(247,520)**	**(328,820)**	**(320,420)**	**(362,353)**	**(692,953)**	**(361,993)**	**(335,593)**	**(369,193)**
749,249	**628,602**	**Net Funds Applied to (Provided from)**	**584,624**	**495,585**	**493,895**	**524,035**	**505,053**	**492,922**	**430,940**	**373,573**	**372,365**	**341,839**

Actual $	AP $		LTP $									
2010/11	2011/12		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Group: 60 Transport & Network Systems												
Activity: 40 Road Safety												
		Expenditure										
263,843	264,896	Direct Costs	255,385	255,385	255,385	266,625	266,625	266,625	266,625	266,625	266,625	266,625
152,075	122,196	Overheads	70,965	70,431	70,140	69,554	69,644	71,357	71,144	71,827	72,084	71,049
415,918	**387,092**	**Total Expenditure**	**326,350**	**325,816**	**325,525**	**336,179**	**336,269**	**337,982**	**337,769**	**338,452**	**338,709**	**337,674**
		Revenue										
(229,174)	(227,948)	Subsidies and Grants	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)	(238,500)
(30,025)	(54,725)	Sundry Income	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)	(54,725)
(95,392)	(104,419)	Targeted Rates	(33,125)	(32,591)	(32,300)	(42,954)	(43,044)	(44,757)	(44,544)	(45,227)	(45,484)	(44,449)

(354,591)	**(387,092)**	**Total Revenue**	**(326,350)**	**(325,816)**	**(325,525)**	**(336,179)**	**(336,269)**	**(337,982)**	**(337,769)**	**(338,452)**	**(338,709)**	**(337,674)**
61,327	**0**	**Net Cost (Surplus) of Operations**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		Source of Funds										
(61,329)	0	Operational Reserve	0	0	0	0	0	0	0	0	0	0
(61,329)	**0**	**Total Source of Funds**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(61,329)	**0**	**Net Funds Applied to (Provided from)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Actual $	AP $		LTP $									
2010/11	2011/12		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Group: 60 Transport & Network Systems												
Activity: 60 Parking Enforcement												
		Expenditure										
195,676	200,747	Direct Costs	245,844	245,844	245,844	247,794	247,794	247,794	247,794	247,794	247,794	247,794
154,016	159,911	Overheads	109,459	108,268	107,353	107,121	107,428	109,808	110,518	111,440	111,132	110,102
349,692	**360,658**	**Total Expenditure**	**355,303**	**354,112**	**353,197**	**354,915**	**355,222**	**357,602**	**358,312**	**359,234**	**358,926**	**357,896**
		Revenue										
(639)	(1,000)	Sundry Income	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
(367,798)	(418,000)	User Fees and Charges	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)	(418,000)
(368,437)	**(419,000)**	**Total Revenue**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**	**(419,000)**
(18,745)	**(58,342)**	**Net Cost (Surplus) of Operations**	**(63,697)**	**(64,888)**	**(65,803)**	**(64,085)**	**(63,778)**	**(61,398)**	**(60,688)**	**(59,766)**	**(60,074)**	**(61,104)**
		Application of Funds										
18,745	58,342	Payment to Reserves	63,697	64,888	65,803	64,085	63,778	61,398	60,688	59,766	60,074	61,104
18,745	**58,342**	**Total Application of Funds**	**63,697**	**64,888**	**65,803**	**64,085**	**63,778**	**61,398**	**60,688**	**59,766**	**60,074**	**61,104**
18,745	**58,342**	**Net Funds Applied to (Provided from)**	**63,697**	**64,888**	**65,803**	**64,085**	**63,778**	**61,398**	**60,688**	**59,766**	**60,074**	**61,104**

Capital & Renewal Planning

Renewal Works

Renewal expenditure is work that restores an existing asset to its original level of service, i.e. capacity or the required condition. These broadly fit into the following work categories as follows:

Rehabilitation

Involves the repair of an existing asset, or asset component. Rehabilitation doesn't provide for a planned increase in the operating capacity or design loading. It is intended to enable the assets to continue to be operated to meet the current levels of service.

Replacement

Doesn't provide for a planned increase to the operating capacity or design loading. Some minor increase in capacity may result from the process of replacement, but a substantial improvement is needed before asset development is considered to have occurred.

Renewal Strategy

Renewal strategies provide for the progressive replacement or rehabilitation of individual assets that have reached the end of their useful life. This is managed at a rate that maintains the standard and value of the assets as a whole. This programme must be maintained at adequate levels to maintain current levels of service and the overall quality of assets.

The general renewal strategy is to rehabilitate or replace assets when justified by:-

Asset Performance

Assets are renewed where it fails to meet the required level of service. The monitoring of asset reliability, capacity and efficiency during planned maintenance inspections and operational activity identifies non-performing assets. Indicators of non-performing assets include:

- Structural failure
- Repeated asset failure (breaks, faults)
- Ineffective and/or uneconomic operation
- Unsafe conditions for the public

Economics

When it is no longer economic to continue repairing the asset (i.e. the annual cost of repairs exceeds the annualised cost of its renewal). An economic consideration is the co-ordination of renewal works with other planned works such as road reconstruction. Council actively researches the effectiveness of new technology, which may reduce the direct and social costs of repair works.

Risk

The risk of failure and associated environmental, public health, financial or social impact justifies proactive action (e.g. probable extent of transport damage, health and safety risk). Where such assets are identified (critical assets), proactive inspection is undertaken to determine asset condition at a frequency appropriate to the risk and rate of asset decay.

Replacement (Renewal) Works Summary

While many of the smaller replacement (renewal) items are undertaken within maintenance, all major works are programmed as replacement items and are managed in a similar way to new capital works.

The replacement (renewal) programme and expenditure forecast for the next 10 years still needs to be improved as asset condition and data confidence improves.

The financial projections for (2011/12- 2021/22) are summarised in Table

Whakatane will consider the financial and customer risks of having sufficient funds to deal with renewal demands, consideration of detailed assessments, implementing proactive renewals and recognising the increasing maintenance and operational requirements.

New Works

New works are the creation of new assets or works, which upgrade or improve an existing asset beyond its existing capacity or performance in response to changes in usage or customer expectations. WDC recognises that asset development and asset renewal can occur simultaneously.

Asset Renewal is maintaining the condition of the assets and current service levels.

Asset Development is providing service improvements, measured by asset performance.

Development Planning Categories

New works fall into separate categories as follows:

Growth

Any asset development (council funded or externally funded) that is required as a result of growth.

Levels of Service

Any asset development that is required as a result of an increase in levels of service.

Legislative

Any asset developed to meet legislative requirements

Vested

Any assets vested (gifted) with Council.

As required by schedule 10 of the LGA 2002, with respect to Council funded development work, this plan also identifies and differentiates requirements of additional asset capacity in terms of increased demand (e.g. growth) or increase in service provision levels and standards.

Selection Criteria

The selection criteria for the prioritising and programming of asset development projects is done through the MCA contained in the Appendix

Council carries out a prioritisation process of all necessary renewal or development works. The priority list is used to assign funds when preparing the financial plans. It is important that the process be regularly reviewed and that the cost estimates reviewed at detailed design stage and/or purchase.

Capital & Renewal Forecast's

The tables below contains the transport which represents the, renewal and capital expenditure for the next 10 years (2012/13 – 2021/2022

Table 2: Transport Capital & Renewal Projects 2012/13 – 2021/2022

Proj. Id	Proj. Name	Proj. Desc	Funding Source	Capex $ 2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total Capex
Activity: Capex - FA Local Roads Renewal & Improve														
Cost Centre: Capex - LR211 Unsealed Road Metalling														
[P] T31190	FA RENEWALS LOCAL ROADS	LR211 UNSEALED ROAD METALLING	RENEWAL 51.96% SUBSIDY 48.04%	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	**3,000,000**
Cost Centre: Capex - LR212 Sealed Road Resurfacing														
[P] T31191	FA RENEWALS LOCAL ROADS	LR212 SEALED ROAD RESURFAC - CHIP SEALS	RENEWAL 51.32% SUBSIDY 48.68%	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,432,000	1,432,000	1,433,000	**16,897,000**
[P] T31192	FA RENEWALS LOCAL ROADS	LR212 SEALED ROAD RESURFACING - THIN AC	RENEWAL 51.30% SUBSIDY 48.70%	380,000	380,000	380,000	380,000	380,000	380,000	380,000	380,000	380,000	380,000	**3,800,000**
Cost Centre: Capex - LR213 Drainage Renewals														
[P] T31193	FA RENEWALS LOCAL ROADS	LR213 DRAINAGE RENEWALS - CULVERTS	RENEWAL 51.30% SUBSIDY 48.70%	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	**1,800,000**
[P] T31194	FA RENEWALS LOCAL ROADS	LR213 DRAINAGE RENEWALS - KERB & CHANNEL	RENEWAL 51.17% SUBSIDY 48.83%	130,000	100,000	140,000	270,000	270,000	270,000	270,000	215,000	215,000	214,550	**2,094,550**
[P] T31304	FA RENEWAL	LR213 Drainage Renewals - Taneatua Rd Blue Rock Culvert	LOAN 55% SUBSIDY 45%	0	0	0	0	0	0	0	0	0	0	**0**
Cost Centre: Capex - LR214 Pavement Rehabilitation														
[P] T31195	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - ON GOING	RENEWAL 51% SUBSIDY 49%	0	0	0	0	600,000	600,000	600,000	600,000	600,000	600,000	**3,600,000**
[P] T31196	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - TANEATUA RD	SUBSIDY 47% RENEWAL 53%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31197	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - THORNTON RD	RENEWAL 44% SUBSIDY 45% LOAN 11%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31198	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - MCCRAKEN RD		0	0	0	0	0	0	0	0	0	0	**0**
[P] T31199	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - AWAITI NORTH	RENEWAL 44% SUBSIDY 45% LOAN 11%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31200	FA RENEWALS LOCAL ROADS	LR214 PAVE REHAB - MATAHI RD		0	0	0	0	0	0	0	0	0	0	**0**
[P] T31305	FA Renewal	LR214 Pave Rehab - Arawa Rd RP 0-147 & 256-483	RENEWAL 52% SUBSIDY 48%	0	112,000	0	0	0	0	0	0	0	0	**112,000**

[P] T31306	FA Renewal	LR214 Pave Rehab - Muriwai RP 0-794	RENEWAL 51% SUBSIDY 49%	0	0	0	311,000	0	0	0	0	0	0	311,000
[P] T31307	FA Renewal	LR214 Pave Rehab - Main RP 458-1022	RENEWAL 53% SUBSIDY 47%	380,000	0	0	0	0	0	0	0	0	0	380,000
[P] T31308	FA Renewal	LR214 Pave Rehab - Tawa RP 252-467	RENEWAL 53% SUBSIDY 47%	51,000	0	0	0	0	0	0	0	0	0	51,000
[P] T31309	FA Renewal	LR214 Pave Rehab - Waiewe RP 235-390	RENEWAL 53% SUBSIDY 47%	68,000	0	0	0	0	0	0	0	0	0	68,000
[P] T31310	FA Renewal	Lr214 Pave Rehab - Awaiti Nth RP 670-1330	RENEWAL 51% SUBSIDY 49%	0	0	112,000	0	0	0	0	0	0	0	112,000
[P] T31311	FA Renewal	Lr214 Pave Rehab - Division RP 19-346	RENEWAL 51% SUBSIDY 49%	0	0	74,000	0	0	0	0	0	0	0	74,000
[P] T31312	FA Renewal	Lr214 Pave Rehab - Gow RP 3115-3480	RENEWAL 52% SUBSIDY 48%	0	85,000	0	0	0	0	0	0	0	0	85,000
[P] T31313	FA Renewal	Lr214 Pave Rehab - Hillcrest RP 752-1120	RENEWAL 51% SUBSIDY 49%	0	0	61,000	0	0	0	0	0	0	0	61,000
[P] T31314	FA Renewal	Lr214 Pave Rehab - Main RP13-155	RENEWAL 52% SUBSIDY 48%	0	91,000	0	0	0	0	0	0	0	0	91,000
[P] T31315	FA Renewal	Lr214 Pave Rehab - Murphy RP36-519	RENEWAL 52% SUBSIDY 48%	0	137,000	0	0	0	0	0	0	0	0	137,000
[P] T31316	FA Renewal	Lr214 Pave Rehab - Station RP350-840	RENEWAL 51% SUBSIDY 49%	0	0	130,000	0	0	0	0	0	0	0	130,000
[P] T31317	FA Renewal	Lr214 Pave Rehab - Thornton RP6600-6926	RENEWAL 52% SUBSIDY 48%	0	68,000	0	0	0	0	0	0	0	0	68,000
[P] T31318	FA Renewal	Lr214 Pave Rehab - Hinemoa RP54-252	RENEWAL 51% SUBSIDY 49%	0	0	138,000	0	0	0	0	0	0	0	138,000
[P] T31319	FA Renewal	Lr214 Pave Rehab - Downard RP410-2361	RENEWAL 51% SUBSIDY 49%	0	0	0	374,000	0	0	0	0	0	0	374,000
Cost Centre: Capex - LR215 Structure Comp Replacement														
[P] T31201	FA RENEWALS LOCAL ROADS	LR215 STRUCTURES COMPONENT REPLACEMENTS	RENEWAL 51.30% SUBSIDY 48.70%	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	1,300,000
Cost Centre: Capex - LR222 Traffic Servc Renewal														
[P] T31202	FA RENEWALS LOCAL ROADS	LR222 TRAFFIC RENEWALS - CARRIAGE LIGHT	RENEWAL 50.63% SUBSIDY 49.37%	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
[P] T31203	FA RENEWALS LOCAL ROADS	LR222 TRAFFIC SERVICES RENEWALS - SIGNS	RENEWAL 51.30% SUBSIDY 48.70%	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	1,200,000
[P] T31320	FA Renewal	Lr222 Traffic Renewals - Power Undergrounding Replacements	RENEWAL 51.30% SUBSIDY 48.70%	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	400,000
Cost Centre: Capex - LR231 Associated Improvements														
[P] T31205	FA RENEWALS LOCAL ROADS	LR231 ASS IMPROVE - SHOULDER RECON	SUBSIDY 43.83% LOAN 46.17% DEVCON 10%	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000
[P] T31206	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - NON SPECIFI REHAB	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	0	144,000	220,000	220,000	220,000	220,000	220,000	220,000	1,464,000
[P] T31208	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - MATAHI RD SEAL WIDE		0	0	0	0	0	0	0	0	0	0	0

[P] T31209	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - VALLEY RD SEAL WIDE		0	0	0	0	0	0	0	0	0	0	0
[P] T31211	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - TANEATUA RD REHAB	LOAN 48% SUBSIDY 40% DEVCON 12%	0	0	0	0	0	0	0	0	0	0	0
[P] T31212	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - THORNTON RD REHEB	LOAN 48% SUBSIDY 40% DEVCON 12%	0	0	0	0	0	0	0	0	0	0	0
[P] T31213	FA RENEWALS LOCAL ROADS	LR231 ASSOC IMPROV - AWAITI NTH RD REHAB	LOAN 48% SUBSIDY 40% DEVCON 12%	0	0	0	0	0	0	0	0	0	0	0
[P] T31321	FA Renewal	Lr231 Assoc Improv - Valley Rd Drainage Improv RP757-2178	LOAN 53% SUBSIDY 47%	100,000	0	0	0	0	0	0	0	0	0	100,000
[P] T31323	FA Renewal	Lr231 Assoc Improv Arawa St Drainage Improv RP0-147	LOAN 52.63% SUBSIDY 47.37%	0	38,000	0	0	0	0	0	0	0	0	38,000
[P] T31324	FA Renewal	LR231 Assoc Improv - Cliff Rd Drainage Improv RP6-193	LOAN 53.85% SUBSIDY 46.15%	26,000	0	0	0	0	0	0	0	0	0	26,000
[P] T31325	FA Renewal	Lr231 Assoc Improv - Awaiti Nth Seal Widen RP670-1330	LOAN 45.83% SUBSIDY 45.83% DEVCON 8.33%	0	0	24,000	0	0	0	0	0	0	0	24,000
[P] T31326	FA Renewal	Lr231 Assoc Improv - Fairfield Ln Drainage Improv Rp3-182	LOAN 52.78% SUBSIDY 47.22%	0	36,000	0	0	0	0	0	0	0	0	36,000
[P] T31327	FA Renewal	Lr231 Assoc Improv - Heale St Sth Drainage Improv RP15-134	LOAN 51.43% SUBSIDY 48.57%	0	35,000	0	0	0	0	0	0	0	0	35,000
[P] T31328	FA Renewal	Lr231 Assoc Improv - Division St Drainage Improve RP19-346	LOAN 50.77% SUBSIDY 49.23%	0	0	65,000	0	0	0	0	0	0	0	65,000
[P] T31329	FA Renewal	Lr231 Assoc Improv - Hillcrest Drainage Improv RP752-1120	LOAN 51.35% SUBSIDY 48.65%	0	37,000	0	0	0	0	0	0	0	0	37,000
[P] T31330	FA Renewal	Lr231 Assoc Improv - Mill Drainage Improv RP717-798	LOAN 52% SUBSIDY 48%	0	25,000	0	0	0	0	0	0	0	0	25,000
[P] T31331	FA Renewal	Lr231 Assoc Improv - Downard Seal Widen RP410-2361	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	0	76,000	0	0	0	0	0	0	76,000
[P] T31332	FA Renewal	Lr231 Assoc Improv - Nesbitt Sth Drainage Improv RP0-62	LOAN 50% SUBSIDY 50%	0	0	18,000	0	0	0	0	0	0	0	18,000
[P] T31333	FA Renewal	LR231 Assoc Improv - Hillcrest Drainage Improv RP1120-1786	LOAN 50.77% SUBSIDY 49.23%	0	0	65,000	0	0	0	0	0	0	0	65,000
[P] T31334	FA Renewal	LR231 Assoc Improv - Wilson Drainage Improv RP234-440	LOAN 51.11% SUBSIDY 48.89%	0	0	45,000	0	0	0	0	0	0	0	45,000
Cost Centre: Capex - LR241 Preventative Works														
[P] T31429	FA Renewals Local Roads	Flood Damage 2010		0	0	0	0	0	0	0	0	0	0	0
Cost Centre: Capex - LR322 Bridge Renewal														
[P] T31220	FA IMPROVEMENTS LOCAL ROADS	LR322 BRIDGE REPLACE - TE KOOTI RD #194		0	0	0	0	0	0	0	0	0	0	0
[P] T31221	FA IMPROVEMENTS LOCAL ROADS	LR322 BRIDGE REPLACE - MATAHI VA RD #131		0	0	0	0	0	0	0	0	0	0	0

[P] T31247	FA IMPROVEMENTS LOCAL ROADS	LR322 BRIDGE REPLACEMENT - QUAY STREET BRIDGE		0	0	0	0	0	0	0	0	0	0	**0**
[P] T31248	FA IMPROVEMENTS LOCAL ROADS	LR322 BRG RENEW - OHOTU BRIDGE	RENEWAL 20.50% SUBSIDY 59% LOAN 20.50%	0	0	0	0	0	0	0	0	0	500,000	**500,000**
[P] T31335	FA Improvements	Lr322 Brg Renew - Stanley Twin Culverts	LOAN 43% SUBSIDY 57%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31336	FA Improvements	LR322 BRG Renew - Powell Tangiroa Dr	RENEWAL 20.50% LOAN 20.50% SUBSIDY 59%	0	0	0	140,000	0	0	0	0	0	0	**140,000**
[P] T31337	FA Improvements	Apanui Stream Culvert Upgrade	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	750,000	0	0	0	0	0	0	0	**750,000**
Cost Centre: Capex - LR323 New Roads & Structures														
[P] T31229	FA IMPROVEMENTS LOCAL ROADS	LR324 NEW - MILL RD TO PHOENIX LINK	DEVCON 10% LOAN 45.90% SUBSIDY 44.10%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31230	FA IMPROVEMENTS LOCAL ROADS	LR323 NEW - 2ND WHK RIVER XING & LINK RD	DEVCON 10% LOAN 45.90% SUBSIDY 44.10%	0	0	0	0	0	0	0	0	0	0	**0**
Cost Centre: Capex - LR324 Road Reconstruction														
[P] T31235	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECON - LANDING RD		0	0	0	0	0	0	0	0	0	0	**0**
[P] T31236	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECON (GALATEA SLOW VEHICLE BAY)	LOAN 45% SUBSIDY 55%	0	0	0	0	0	0	0	0	0	0	**0**
[P] T31250	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECONS - THORNTON RD SEAL WIDENING	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	0	200,000	200,000	200,000	200,000	200,000	200,000	200,000	**1,400,000**
[P] T31251	FA IMPROVMENTS LOCAL ROAD	LR324 ROAD RECONS - THORNTON ROAD REALIGNMENT	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	500,000	500,000	1,900,000	0	0	0	0	0	**2,900,000**
[P] T31339	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECON - MATAHI REALIGNMENT	SUBSIDY 55% LOAN 45%	0	0	300,000	0	0	0	0	0	0	0	**300,000**
[P] T31340	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECON - LANDING RD	DEVCON 12.40% LOAN 14.30% SUBSIDY 59% RENEWAL 14.30%	0	0	75,000	675,000	0	0	0	0	0	0	**750,000**
[P] T31341	FA IMPROVEMENTS LOCAL ROADS	LR324 ROAD RECONS - WAINUI RD SEAL WIDENING	LOAN 45.90% SUBSIDY 44.10% DEVCON 10%	0	0	0	200,000	200,000	200,000	200,000	200,000	200,000	200,000	**1,400,000**
Cost Centre: Capex LR333 Adv Property Purchases														
[P] T31252	FA Local Roads	LR333 Adv Property Purchases	LOAN 41.29% SUBSIDY 58.71%	200,000	0	0	0	200,000	200,000	200,000	200,000	200,000	200,000	**1,400,000**
Cost Centre: Capex - LR341 Minor Improvements														
[P] T31238	FA IMPROVEMENTS LOCAL ROADS	LR341 MINOR IMPROVEMENTS	LOAN 41.30% SUBSIDY 58.70%	675,000	670,000	676,000	696,000	697,000	689,000	697,000	655,000	663,000	655,000	**6,773,000**

Cost Centre: Capex LTS452 Cycle Facilities

[P] T31245	FA LAND TRAN SYSTEM LOCAL ROAD	LR452 CYCLE FACILITIES - OHOPE RD		0	0	0	0	0	0	0	0	0	0	0
[P] T31246	FA LAND TRAN SYSTEM LOCAL ROAD	LR452 CYCLE FACILITIES - GORGE RD		0	0	0	0	0	0	0	0	0	0	0
		Activity Total: Capex - FA Local Roads Renewl & Improve		**4,710,000**	**4,514,000**	**6,253,000**	**6,666,000**	**7,367,000**	**5,459,000**	**5,467,000**	**5,002,000**	**5,010,000**	**5,502,550**	**55,950,550**

Activity: Capex - FA Special Purpose Roads

Cost Centre: Capex - SPR211 Unsealed Rd Metalling

[P] T33150	FA RENEWALS SP ROADS	SPR211 UNSEALED ROAD METALLING	SUBSIDY 100%	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	270,000	2,700,000

Cost Centre: Capex - SPR212 Sealed Rd Resurfacing

[P] T33151	FA RENEWALS SP ROADS	SPR212 SEALED ROAD RESURFACING	SUBSIDY 100%	121,000	114,000	67,000	64,000	107,000	130,000	175,000	0	0	175,000	953,000

Cost Centre: Capex - SPR213 Drainage Renewal

[P] T33152	FA RENEWALS SP ROADS	SPR213 DRAINAGE RENEWALS	SUBSIDY 100%	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	98,000	980,000

Cost Centre: Capex - SPR214 Pavement Rehabilitation

[P] T33153	FA RENEWALS SP ROADS	SPR214 PAVEMENT REHABILITATION	SUBSIDY 100%	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	160,000	1,600,000

Cost Centre: SPR215 Struc Component Replacement

[P] T33154	FA RENEWALS SP ROADS	SPR215 STRUC COMP REPLACE - SH38#164	SUBSIDY 100%	0	0	0	0	0	0	0	0	0	0	0
[P] T33155	FA RENEWALS SP ROADS	SPR215 STRUC COMP REPLACE - MATAHI #132	SUBSIDY 100%	0	0	0	0	0	0	110,000	0	0	0	110,000
[P] T33156	FA RENEWALS SP ROADS	SPR215 STRUC COMP REPLACE - MATAHI #134	SUBSIDY 100%	46,000	0	0	0	0	0	0	0	0	0	46,000
[P] T33163	FA RENEWALS SP ROADS	SPR215 STRUC COMP REPLACE - GENERAL REPLACEMENT	SUBSIDY 100%	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000

Cost Centre: SPR222 Traffic Servc Renewal

[P] T33157	FA RENEWALS SP ROADS	SPR222 TRAFFIC SERVICES - STREET LIGHTS	SUBSIDY 100%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	50,000
[P] T33158	FA RENEWALS SP ROADS	SPR222 TRAFFIC SERVICES - SIGNS	SUBSIDY 100%	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	220,000

Cost Centre: SPR231 Associated Improvements

[P] T33159	FA RENEWALS SP ROADS	SPR231 ASSOCIATED IMPROVEMENTS	SUBSIDY 100%	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	320,000

Cost Centre: Capex - SPR341 Minor Improvements

[P] T33162	FA IMPROVEMENTS SP ROADS	SPR341 MINOR IMPROVEMENTS	SUBSIDY 100%	87,000	82,000	79,000	78,000	82,000	83,000	96,000	73,000	73,000	87,000	820,000
[P] T33593	SPR Improvements	SPR322 - Brg Renew - #164 Mimiha Str	SUBSIDY 75% RENEWAL 25%	0	0	0	0	0	0	0	0	0	450,000	450,000
		Activity Total: Capex - FA Special Purpose Roads		**891,000**	**833,000**	**783,000**	**779,000**	**826,000**	**850,000**	**1,018,000**	**710,000**	**710,000**	**1,349,000**	**8,749,000**

Activity: Capex - NFA Transport

Cost Centre: Capex NFA Kerb & Drainage Renewal													
[P] T35150	NFA RENEWALS	DRAINAGE RENEWALS (NFA)	RENEWAL 100%	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**
[P] T35151	NFA RENEWALS	SOAKPIT RENEWALS	RENEWAL 100%	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**
Cost Centre: capex - NFA Amenity Lighting Renewal													
[P] T35152	NFA RENEWALS	AMENITY SIGNS AND LIGHTING RENEWALS	RENEWAL 100%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	**100,000**
[P] T35189	NFA Improvements	Walking and Cycling Implementation - Urban	LOAN 100%	0	0	0	0	50,000	50,000	50,000	50,000	50,000	50,000	**300,000**
[P] T35190	NFA Improvements	Walking and Cycling Implementation - Rural	LOAN 100%	0	0	0	0	20,000	20,000	20,000	20,000	20,000	20,000	**120,000**
Cost Centre: Capex NFA Footpath Renewal													
[P] T35154	NFA RENEWALS	FOOTPATH RENEWAL - ONGOING	RENEWAL 100%	0	0	0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	**350,000**
[P] T35188	NFA Renewals	NFA Pavement and Resurfacing Renewal	RENEWAL 100%	0	0	0	30,000	0	30,000	0	30,000	0	30,000	**120,000**
Cost Centre: Capex NFA New Kerbing & Drainage													
[P] T35155	NFA IMPROVEMENTS NEW KERBING & DRAINAGE	NEW KERBING & DRAINAGE	LOAN 100%	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**
Cost Centre: Capex - NFA Seal Extensions													
[P] T35187	NFA Seal extn	NFA Seal extn	LOAN 100%	0	0	0	0	0	0	0	0	0	0	**0**
Cost Centre: Capex - NFA New Amenity & Xmas Lights													
[P] T35153	NFA RENEWALS xmas lights	XMAS LIGHTS	RENEWAL 100%	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	**200,000**
[P] T35171	NFA IMPROVEMENTS UNDER VERANDER LIGHTING UPGRADES	UNDER VERANDER LIGHTING UPGRADES	LOAN 100%	0	0	0	15,000	15,000	15,000	0	0	0	0	**45,000**
[P] T35185	NFA New Stock crossing signs	NFA New Stock crossing signs	SUBSIDY 100%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	**50,000**
Cost Centre: Capex - NFA Miscellaneous Projects													
[P] T35173	NFA IMPROVEMENTS BUS SHELTER CONSTRUCTION	BUS SHELTER CONSTRUCTION	DEVCON 10% LOAN 90%	0	0	0	15,000	15,000	15,000	15,000	15,000	15,000	15,000	**105,000**
[P] T35192	NFA Improvements - Road Legislation (Road Reserve Purchase).	Costs including land purchase, legal fees, survey costs etc associated with acquiring portions of land where the road lies on adjacent private property rather than fully within the 20m wide road corridor.	LOAN 100%	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	**500,000**
Cost Centre: Capex NFA parking Renewal													
[P] T35176	NFA RENEWALS RESURF - PLANT RES, WHAREKURA, VOLKNER	RESURF - PLANT RES, WHAREKURA, VOLKNER		0	0	0	0	0	0	0	0	0	0	**0**
[P] T35177	NFA RENEWALS RESURFACING - STADIUM HORIZON CARPARK	RESURFACING - STADIUM HORIZON CARPARK		0	0	0	0	0	0	0	0	0	0	**0**
[P] T35178	NFA RENEWALS RESURFACING - PYNE ST CARPARK	RESURFACING - PYNE ST CARPARK		0	0	0	0	0	0	0	0	0	0	**0**
Cost Centre: Capex - NFA Parking Improvement													

[P] T35180	NFA CARPARK CONS - MULTI STOREY PARK	CARPARK CONS - MULTI STOREY PARK	DEVCON 10% LOAN 90%	0	0	0	0	0	0	0	0	0	0	0
[P] T35191	NFA Improvements	Pyne/O'Rourke Car Park	DEVCON 10% RESTRICT 90%	0	0	0	0	0	0	372,000	0	0	0	372,000
	Activity Total: Capex - NFA Transport			145,000	145,000	145,000	255,000	295,000	325,000	652,000	310,000	280,000	310,000	2,862,000
	Group Total: Roads and Footpaths			5,746,000	5,492,000	7,181,000	7,700,000	8,488,000	6,634,000	7,137,000	6,022,000	6,000,000	7,161,550	67,561,550
	Council Total			5,746,000	5,492,000	7,181,000	7,700,000	8,488,000	6,634,000	7,137,000	6,022,000	6,000,000	7,161,550	67,561,550

Disposals

As part of the whole life cycle management of assets, it is vital to consider the costs of asset disposal in the long-term financial forecasts for an asset. The cost of asset disposal is expected to be incorporated within the capital cost of new works, or asset renewals.

Disposal

Disposal is the retirement or sale of assets whether surplus or superseded by new or improved systems. Assets may become surplus to requirements for any of the following reasons:

- Under utilisation
- Obsolescence
- Provision exceeds required level of service
- Assets replaced before its predicted economic life
- Uneconomic to upgrade or operate
- Policy changes
- Service provided by other means (e.g. private sector involvement)
- Potential risk of ownership (financial, environmental, legal, social,).

At this time Whakatane has no plans to dispose of any of its transport assets.

Asset Valuation

Introduction

Statutory financial reporting requires Whakatane to revalue its fixed assets at least every five years. An asset valuation is to be used for asset management (calculating long-term asset renewal projections), identifying loss of service potential (depreciation) and for financial reporting purposes.

Accounting Standards

New Zealand International Financial Reporting Standard (NZIAS16) applies to all Transport infrastructure assets considered in the scope of this valuation for the general purpose of financial reports.

Industry Guidelines

All infrastructure assets valued have been done so in accordance with the methodology prescribed in the New Zealand Infrastructure Asset Valuation & Depreciation Guidelines Manual Edition 1.2 February 2004.

The assets have been valued on the basis of Depreciated Replacement Cost (DRC)/Optimised Depreciation Replacement Cost (ODRC) approach for the depreciable assets in accordance with NZIAS16 Requirements.

Valuation Process & Methodology

The last valuation was undertaken by Opus International Consultants for the 1st July 2010 and builds on valuations undertaken previously. The valuation report is attached in Appendix G.

Databases were supplied by Whakatane and discussions were carried out with the utilities asset manager to confirm the changes to the asset register from the previous valuation.

Table 2: Asset Data – Valuation Terminology

	General Meaning
Replacement cost (RC)	The cost of constructing a new infrastructure asset using the present day technology, and maintaining the original service potential
Optimised Replacement cost (ORC)	The cost of the modern equivalent asset that would be used to replicated the existing asset. The asset cost is 'optimised' down to allow for surplus capacity or technical obsolescence
Optimised Depreciation Replacement Cost (ODRC)	Is the optimised replacement cost after deducting the wear of an asset to reflect the remaining useful life of the asset. Calculated on the gross replacement cost of modern equivalent assets (MEA).

The assessment of replacement cost and optimised replacement cost (ORC) was established in accordance with Financial Reporting Standard (NZIAS16). Once the replacement cost has been established following data capture, the asset is then optimised to factor out over design, over capacity and redundant assets. The Accumulated Depreciation (calculated on a straight line basis) is then deducted.

Asset Register

Whakatane's transport assets are contained within RAMM,

The replacement costs were provided by WDC and were determined by considering last valuation rates, last years contract prices, consulting suppliers about price increase, consulting with and comparing prices with other Local Authorities in the region.

These valuations are completed in RAMM.

The latest valuation in 2010 was used as the basis upon which current replacement values and depreciation allowances have been assessed for each asset. The information is considered as accurate and complete for the purpose of the valuation.

Asset Assumptions (Valuation Assumptions)

The assumptions that have been used in the valuation of Whakatane's transport assets are as follows:

- Depreciation is by the straight-line method
- Asset age: actual construction dates were used where available. However where these were not available default values have been used
- The valuations are all reported in a Microsoft Excel format.

Additional Assumptions

- Asset information is as complete as possible at 1 July 2011. This is based on the asset data supplied by WDC.

Replacement Cost

The asset Replacement costs have been calculated as:

Replacement Cost (RC) = Unit Rate X Quantity

Optimised Replacement Cost (ORC) = RC x % of Optimisation

Assets have been depreciated on a straight-line basis (note residual values are not depreciated) to determine the ODRC.

Where ODRC (Optimised Depreciated Replacement Cost) is calculated as:

ODRC = (ORC-RV) * RUL/(RUL + AGE)+ RV

Where RV = Residual Value and RUL = Remaining Useful Life

The calculation for annual depreciation used is

Annual Depreciation = (ORC – RV)/(RUL + Age)

Policies

Whakatane District Council will adopt the following financial Policies in 2012/2013 LTP:

Revenue and Financing Policy	This policy identifies how the Council allocates the costs of its activities against available sources of funds, including rates and user charges
Funding Impact Statement	The Funding Impact Statement details the rating system and rating mechanisms. The Rating Policy includes the rates set for the planning period
Liability Management Policy	The Liability Management Policy explains the Council's approach to managing its liabilities and the ways in which associated risks are managed
Investment Policy	The Investment Policy outlines the Council's approach to managing investments
Development Contributions Policy	This policy sets out the financial contributions that will be required when development occurs. The financial contributions relate directly to the assumed cost of development on current and future infrastructural works.
Policy on Determining Significance	This policy outlines the Council's general approach to determining the significance of proposals and/or decisions. The policy includes details on the criteria, thresholds and procedures to be followed in determining significance. It also includes details of the Council's strategic assets and significant activities
Policy on Partnerships between the Council and the Private Sector	This policy outlines under what circumstances the Council will enter into partnership arrangements with private businesses, what conditions will be imposed and what consultation will take place
Remissions and Postponement Policies	These Policies cover a number of issues and address how and when the Council may consider it appropriate to assist by providing rates relief through remission of rates. These specific issues include: ◗ Rating unit affected by calamity ◗ Residential land in commercial, industrial or rural areas ◗ Uniform Annual General Charge and Targeted Rates in certain circumstances ◗ Penalties on unpaid rates ◗ Water-by-meter rates due to leak detection ◗ Educational institutions sewage (pan) charges ◗ Extreme financial hardship ◗ Outstanding rates and penalties on undeveloped sections
Policy on the Remission and Postponement of Rates on Māori Freehold Land	This policy outlines how the Council will deal with applications for the remission and postponement of rates on Māori freehold land

Risk to Significant Forecasting Assumptions

The table below outlines the risks to significant forecasting assumptions. Should theses assumptions prove to be incorrect there could be a significant effect on the level of rates to be collected from the community. If this were to occur, WDC would re-evaluate the works programmes to determine if the expenditure is appropriate and rates altered accordingly or whether the scope of the proposed works could be scaled down.

Table 3: Risks to Significant Forecasting Assumptions

Assumption	Consequence Of Risk Low = 1 Low/Moderate = 2 Moderate = 3 Moderate/High = 4 High = 5	Likelihood Of Risk Likely = 3 Possible = 2 Unlikely = 1	Degree Of Total Risk Low = 1 – 5 Medium = 6 –10 High = 11 – 15
Projected Growth Change Factors			
Growth Forecasting	4	2	Medium
Potential Social Changes	4	2	High
Potential Climate Change Impacts	3	3	Low
Rating Base	4	1	Medium
Major Cost Components			
Borrowing And Expected Interest Rates	4	2	Medium
Renewability Or Otherwise Of External Funding	4	2	Medium
Cost Factors	4	2	Medium
Levels Of Service	4	2	Medium
Revaluation And Future Revaluation Of Non-Current Assets	4	2	Medium
Depreciation Rates On Assets	4	1	Low
Funding Growth Related Development	4	2	Medium
Resource Consents / Designations	5	3	High
Service Delivery Options	4	1	Low
Failure Of Contractor Services	4	3	High
Preliminary Cost Estimates	3	2	Medium
Major Income Components			
Roading Subsidy Rates	5	2	Medium
Alternative Funding Sources	4	3	High
Divestment Of Assets	4	3	High
Statements Of Fact			
Natural Hazards	5	2	Medium
Fundamental Business Viability	5	2	Medium
Business Continuity	5	3	High
Estimates Of Commitments And Contingencies	5	2	Medium
Creation And Realisation Of Investments, Reserves And Assets	5	2	Medium
Governance	3	3	Medium

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Overview

This section covers the key Business Processes in place to assist WDC in delivering Asset Management and services.

Specific detail is provided on the following aspects:

Business Continuity Plan – which details WDC's ability to function and respond to any crises.

Civil Defence Emergency Management (CDEM) - The CDEM Group works together to reduce the potential effects of hazard events and to promote community and council readiness (preparedness).

Lifelines - Lifelines groups are typically voluntary groups of utilities working together to improve the resilience of infrastructure to hazards, often operating under the auspices of the regional council.

Plan Review & Monitoring – provides guidance on the long-term sustainability of this document.

Compliance with LGA 2002 Schedule 10 requirements – Key elements within schedule 10 that directly relate to AMP have been assessed and the relevant sections of the plan have been referenced. This provides WDC with the confidence that the requirements have been covered.

Advanced AMP & OAG Criteria – Tables are provided that assesses the current AMP against the Office of the Auditor General Criteria. This provides WDC with a snap shot of their current status.

Business Continuity Plan

Whakatane District Council currently does not have business continuity plans in place. By establishing the Plan, WDC are able to effectively react and respond to any crisis in a manner that ensures that its activities, provision of services and staff well-being are not unduly affected.

This Plan would ensure the viability of WDC in the event of an emergency or other event that significantly affects council's ability to deliver effective services to stakeholders.

Civil Defence Emergency Management

Why is a Plan Needed?

The Bay of Plenty has a wide range of hazards, including flooding, earthquakes, volcanic eruption, fire and a range of technological hazards. These hazards can cause disruption and death in communities and we need to be ready to meet the challenges that hazard events create.

It has been recognised for some years that emergency management needs to improve its ability to manage these hazards, respond to and recover from disasters, and to better coordinate limited emergency management resources. There is also an unrealistic level of expectation of what can be done for communities in a time of disaster. Communities need to be aware of the hazards and the potential consequences of these so that they are able to appropriately prepare for, respond to, and recover from a hazard event. The Civil Defence Emergency Management Group Plan provides the basis for civil defence and emergency management (CDEM) in the Bay of Plenty.

It has been prepared by the CDEM Group. This Group is made up of the following Bay of Plenty local authorities:

- Kawerau District Council
- Opotiki District Council
- Rotorua District Council
- Tauranga City Council
- Western Bay of Plenty District Council
- Whakatane District Council
- Bay of Plenty Regional Council.

The Plan is a requirement of the Civil Defence Emergency Management Act (CDEM Act) 2002. The Act requires that each Civil Defence Emergency Management Group has a plan to ensure that hazard management within the region occurs in an integrated and coordinated way. The plan must be consistent with the provisions of the CDEM ACT 2002.

The Bay of Plenty CDEM Group will, by implementing the principles of emergency management to endeavour to develop a safe and sustainable environment where the public and infrastructure are best able to coexist with natural and technological hazards.

The Purpose of this Plan

The purpose of this Plan is to provide a framework for civil defence and emergency management decisions to be made across the Bay of Plenty. The Plan also creates a commitment to the implementation of tasks and actions. It is expected that local authority long-term plans and the funding programmes of other agencies and groups will include financial or resource provision to enable the implementation of this Plan Development and Review

The CDEM Plan was developed by drawing on a number of information sources. Guidelines on producing group plans published by the Ministry of Civil Defence and Emergency Management (MCDEM) were used as the basis for developing this Plan. These guidelines ensure a degree of consistency on a national basis.

Hazard management will continue to be refined through the development of SOP and detailed response to individual hazards. The Group Plan will be regularly evaluated to ensure that it remains relevant and up-to-date. Minor changes will be made to the Plan as required. More significant changes will require consultation or will be aligned with the process of reviewing the Plan. Group plans must be reviewed at least every five years (2010).

This Plan remains current for five years from the date of approval by the CDEM Group (CDEM Act 2002, Section 53). However, annual reporting on the performance of the Group against the stated actions and targets within the Plan will allow for an ongoing review process to occur. On the basis of this ongoing review specific amendments may be made to the Plan prior to the Plan's expiry.

Two years after the adoption of the Plan, a formal review will be undertaken to assess its implementation. This review may recommend changes to the Plan.

The CDEM Act sets out a public process by which amendments can be made to the plan (CDEM Act 2002 Sections 56 and 57). Other than those amendments deemed to be minor, any amendments to the Plan are required to be publicly notified. This is to allow any party who is affected to lodge submissions setting out their concerns and have these considered by the CDEM Group.

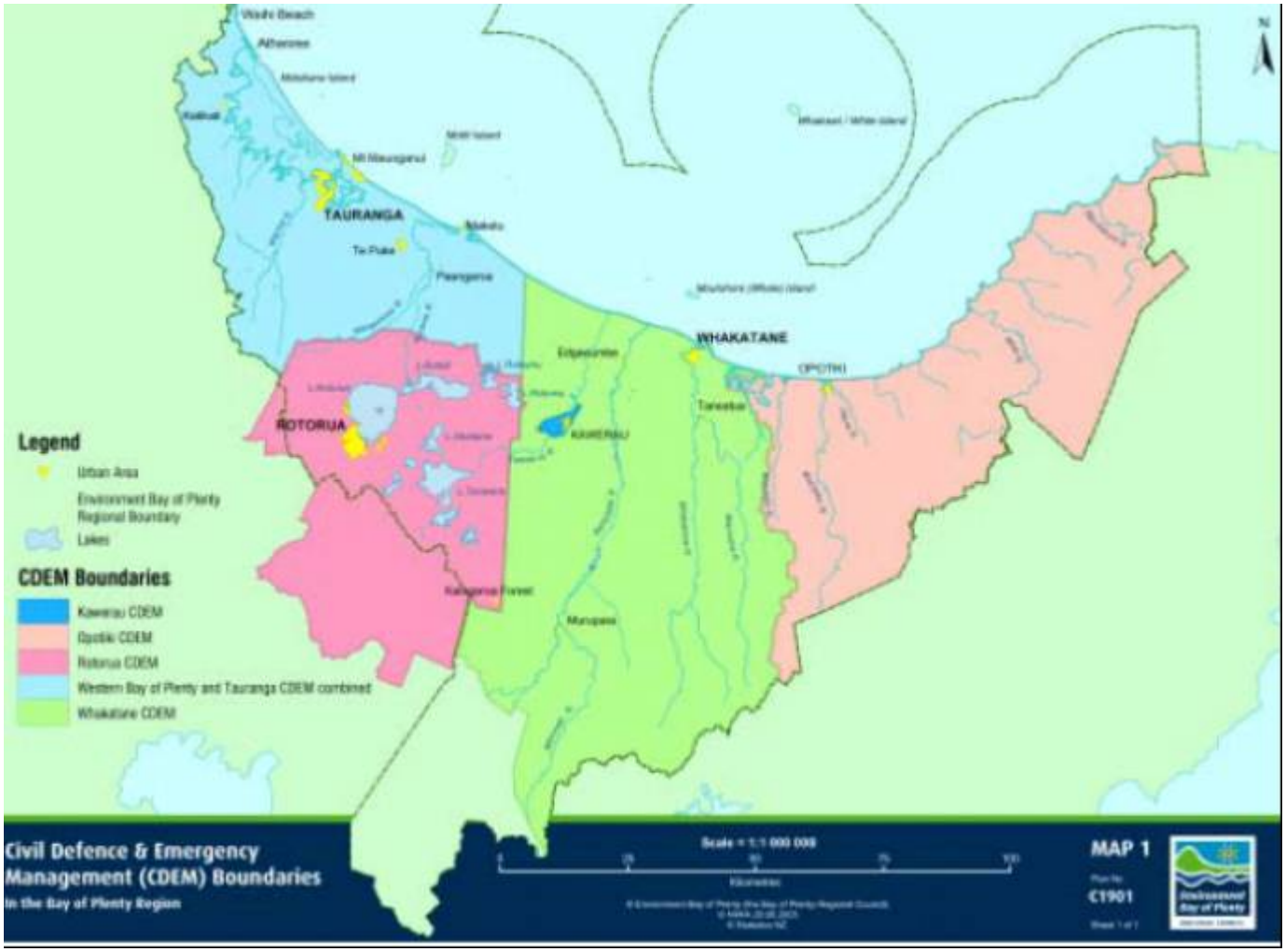
Profile of the Bay of Plenty CDEM Group Area

Jurisdictional Boundary

Local authority boundaries are used to define the areas that CDEM Group plan cover. For the Bay of Plenty the following local authorities are part of the Plan:

- Kawerau District Council
- Opotiki District Council
- Rotorua District Council
- Tauranga City Council
- Western Bay of Plenty District Council
- Whakatane District Council
- Bay of Plenty Regional Council

Figure 1: Bay of Plenty CDEM Group Area



Strategic Framework

Principles of Civil Defence and Emergency Management

The CDEM Act is designed to provide a framework within which the activities of emergency management can operate effectively in order to contribute to community recovery.

In order for this to occur it is essential that emergency management be based on a number of basic principles. Six principles have been used in the development of the CDEMG Plan for setting goals and developing operational and administration arrangements. The principles are:

- Increased Community Resilience
- Sustainability
- Holistic Community Management and Partnership
- Comprehensive Emergency Management
- Active Risk Management
- Integrated Emergency Management Resources
- Increased Community Resilience

All civil defence and emergency management actions should lead to a more resilient community. It is not possible for .the emergency management teams. To cater for every need that may arise in the event of an emergency.

Resilience involves the reduction of hazards (so that a community is less likely to be harmed) and the ability to respond to and recover from a disruptive event. Resilience is a measure of how capable a community is to avoid or withstand a disaster and to keep functioning as a community.

Therefore communities must be encouraged and regulated as required to proactively manage and reduce vulnerability to hazards as an integral part of core decision-making (such as where and how to build structures, facilities and infrastructure). Communities also need assistance in building internal capacity to deal with the challenges that disasters may bring.

Sustainability

It is important that any CDEM activities and decisions (especially mitigation and recovery) are based on the principle of sustainability in the long-term. Planning of communities should be based on a long-term strategy that is consistent with the hazards and vulnerabilities that are present. Mitigation activities that are undertaken without this long-term perspective may (while decreasing risk in the short term) actually increase it in the long term.

Holistic Community Management and Partnership

The essence of this principle is that communities need to accept that they have responsibility for managing their hazard risks. The community will feel the consequences of its planning and management decisions. Such decisions need to be made holistically within the wider social, economic, cultural and environmental context. For this to work a partnership approach is needed involving a partnership between all relevant stakeholders (including volunteer organisations) and co-ordinated by local government agencies via the CDEM Group.

The holistic approach relies on informed decision-making. Communities will effectively be making decisions about which consequences they choose to eliminate and which they will accept.

Comprehensive Emergency Management

This is the key operating principle for the new legislation. The principle describes both the emergency management actions that need to occur as well as indicating a priority for management purposes.

Comprehensive emergency management is a system for co-ordination of an organisation's, community's or nation's responsibilities and capabilities for managing emergencies and disasters.

The emphasis is on taking measures for reduction of the incidence and severity of potential disaster impacts, and effective planning and preparation of emergency response and recovery in the event that an emergency does occur.

The four elements, known as the **four R's** of emergency management, are:

Reduction: Activities that reduce the degree of long-term risk to human life and property arising from hazards.

Readiness: Activities that develop community capabilities for responding to an emergency.

Response: Activities taken immediately before, during or directly after an emergency that can save lives, minimise property damage or improve recovery.

Recovery: Activities that stabilise the affected community and assure that life support systems are operational, and longer term actions for community rehabilitation and restoration. This restoration needs to have a reduction focus to ensure that vulnerabilities are eliminated where possible. All civil defence and emergency management activities must be able to be located on this continuum.

Active Risk Management

Risk management is a process for ensuring that decisions about risk enable individuals, organisations, communities and the nation to minimise loss and maximise opportunities. This principle recognises that many risks will not be able to be eliminated and that the benefits of some activities mean that the risk is acceptable. The risks associated with CDEM hazards require active management. This means:

a) Identifying and considering all aspects of risk (social, political, economic and physical) from all hazards.

b) Determining acceptable risk levels.

c) Balancing costs and benefits of options to address risks.

d) Developing, agreeing on, and implementing ways to minimise potential damage and disruption.

This is achieved through a logical and systematic process of identifying, analysing, assessing, treating, monitoring and communicating risks arising out of hazards.

Integrated Emergency Management Resources

To adequately respond to hazards the horizontal integration (co-operation and co-ordination) of relevant agencies and the vertical integration within those agencies is required. This integration is critical to being able to access the required capability to respond to a disaster.

Relevant agencies are central government, local government, emergency services, lifeline utilities and relevant voluntary and private sector groups.

Horizontal integration is especially important in a deregulated environment. Prior to deregulation Central Government had an extensive resource base at its disposal. Examples of these were the Ministry of Works, the Post Office, transport networks and facilities of New Zealand Railways, and local government electricity and works departments. This resource-base provided direct control over many lifeline utilities and a well-resourced response capability. Central Government no longer has direct control of this extensive resource base and there is the need to co-ordinate the resources of others to create the required capability.

The systems that organisations use must also be integrated so that information flows and communication between organisations during an emergency event enable rather than hinder required activities.

Lifelines

Whakatane District Council currently has a lifelines group in place.

Lifelines are the essential 'utility' services, which support the life of the community. These services include water, wastewater, stormwater, power, gas, telecommunications and transportation networks. The lifelines voluntary group of utilities works together to improve the resilience of infrastructure to hazards, operating under the auspices of the regional council.

Business Systems

Whakatane District Council has developed its IT infrastructure around a number of key products that provide a platform for all IT applications. The table below sets out Council's cornerstone IT applications used by the Transportation group.

Table 1: Cornerstone Applications

Function	Product	Version (current and planned upgrades)	Group Responsible	Primary users
Word, spread sheets, email, project, access	Microsoft Office	2003	IT	All Transport Group
Financial accounting and reporting	Ozone	2.0.2771	IT, Finance	All Transport Group
Corporate Planning	Ozone	2.0.2771	Finance	All Transport Group
Geographical Information System	Arc GIS	Version 10	IT	All Transport Group
Asset Management System (some assets)	RAMM		Opus	All Transport Group
Enquiries/complaints	Ozone Contact centre		Opus	All Transport Group
Request for service	SRA/Works order	Latest version	Opus	All Transport Group

Council has a daily backup-to-tape schedule in place. This backs-up all the critical data onto tapes that is stored at an off-site location.

Continuous Process Improvement

Building Capability

Whakatane District Council has over come a number of significant challenges in the past three years. During mid-2004, 2005 and again in 2010 and 2011 Council experienced natural disasters that had severe impacts on community infrastructure and private homes. A lack of available resources to implement improvements in many areas of the business was superseded by the need to respond to the emergency over a number of months (which is still on-going to a degree), while continuing to respond to the operational needs to maintain Levels of Service to the Community.

Table 2: Key Improvements

Primary Function	Tertiary Process	Average Score	Comment
Asset Information Systems	2.03.05 Mobile Computing (Field Works)	43	Netbooks are being used in the field by the Consultant and Contractor to access and update RAMM and RAMM contractor.
People /Performance	6.01.01 Skills and Experience Profiles	50	No skills matrix currently exists. There is a need to better understand the current skill set available and an evaluation of future needs. At present there is no clear succession plan in place and although the group is fully resourced it is considered that efficiencies with systems and processes might reduce current workloads. Opportunities include: developing skills matrix, reviewing current staff levels, review recruitment policy and develop employee retention policy.
People /Performance	6.01.06 Training Programme	50	Training is currently reactive. Current funding allocated to staff for training purposes is not considered to be adequate. The major opportunity identified in this GAP analysis is to generate a training calendar and ensure adequate funding is in place to develop staff in accordance with career development.
People /Performance	6.01.07 Corporate Knowledge Management	50	Activity and process knowledge is retained by individuals (within their heads) and not available to the wider organisation. This is recognised and steps are being taken to assist in the dissemination of knowledge particularly through the Asset management planning process, however further documentation of knowledge is required.
Asset Information Systems	2.01.05 Plans and Drawing Records	54	Overall Councils data electronic management system. EDRMS (Electronic Data and Records Management System) will assist with this process
Total Asset Management Plan	6.01.05 Appropriate Level of Resources	54	Additional staff have been recruited to support asset managers, although there are still gaps in the structure to be filled.
Processes and Practices	1.10.01 Policy	55	WDC has all the primary policies in place, including a Maintenance Strategy.

Also during 2004 and 2005 a number of staff resignations in key areas and the implementation of new systems to better support the business needs also put additional pressure on resources.

New Zealand Transport Agency

As part of the New Zealand Transport Agency's (NZTA) quality processes they carry out a number of audits within New Zealand across all Road Controlling Authorities. These audits are intended to check compliance with NZTA's procedures and policies. They also check processes systems and personnel are in place to support analysis and good asset management decision making. These audits form a significant part of the business processes that determine how well the Council's assets are performing and how well they are being managed, maintained and renewed.

Procedural Audits

Procedural audits are carried out in terms of section 69(1) (k) of the Land Transport Management Act 2003. A procedural audit of each approved organisation is carried out every two to four years. The objectives of the audits are generally as follows:

- To review any issues arising from previous procedural audit(s)
- To review final claims for the period being audited
- To assess the audit trail of transactions for financially assisted works
- To assess compliance with Land Transport NZ's approved procurement procedures
- To review contract management procedures
- To review Council's professional services provider/network manager/business unit for compliance with Land Transport NZ's requirements
- To recommend measures for improved practice if appropriate

Technical Audits

Technical audits are carried out on at least a four-year cycle. Factors that determine the frequency include the size of Land Transport NZ's financial contribution, the complexity of each organisation's programme, network condition (pavement and safety) and the outcome of previous audits. Each approved organisation will be advised at least a month in advance of the audit commencing. The objectives of the audits are generally as follows:

- To review any issues arising from previous technical audit(s)
- To assess whether the level and quality of roading maintenance being carried out by the Council is realistic and acceptable
- To determine the extent to which Council's structural and corridor maintenance programme is meeting (not exceeding) maintenance needs
- To determine the extent to which Councils RAMM database is able to provide reliable reports and treatment selections
- To determine in light of the answers to the above, that there is progress towards achieving a least cost, long-term, maintenance programme

Road infrastructure safety assessment (RISA)

The Road Infrastructure Safety Assessment (RISA) programme is a safety- focused technical review of several sample sections of a road network, to identify areas that could be improved.

The RISA is based on international best practice guidelines. The audit is carried out in advance of a Technical Review and the results are included in the technical review report. The recommendations are typically used to prioritise safety improvements, which Councils can then include in their next Land Transport Programme.

Theme audits

Theme Audits each address a specific topic that is common to / affects many approved organisations. The topics may vary considerably. The choice of topic is made by limited survey involving NZTA auditors as well as representatives from approved organizations.

Between 1 and 4 theme audits are carried out each year. The results are published in individual theme audit reports for the purposes of:

- informing approved organisations about issues that have been encountered, current good practice and future direction
- feeding into policy development by the NZ Transport Agency or others in the sector such as Ministry of Transport, Local Government NZ, or the RCA Forum.

AMP Review & Monitoring

This plan is a living document, which is relevant and integral to daily activity. To ensure the plan remains useful and relevant the following on-going process of AMP monitoring and review activity will be undertaken:

- Formal adoption of the AMP by the Committee/Council
- Review and formally adopt levels of service to comply with community outcomes (options vs costs): WDC will undertake a service level review to determine an accurate understanding of both the current and future needs and expectations of customers.
- Revise AMP annually to incorporate and document changes to works programmes, outcome of service level reviews and new knowledge resulting from the AMP improvement programme.
- Quality assurance audits of AM information to ensure the integrity and cost effectiveness of data collected.
- Peer review and external audits will be undertaken to assess the effectiveness with which this plan meets corporate objectives. Periodic internal audits will be undertaken to assess the adequacy of Asset Management processes, systems and data and external audits will be undertaken to measure Asset Management performance against 'best practice'.

Table 3 outlines the procedures and timetables adopted to achieve these objectives and community outcomes.

Table 3: AMP Review and Monitoring Processes

Activity	Action	Milestones
AMP Development	◗ Development and adoption of strategies by Council and Committee ◗ Adoption of AMP by Committee & Council ◗ Complete next revision of AMP ◗ Annual update and enhancement	31 March 2012 30 August 2012 30 June 2013 30 April each year
AMP Review	◗ Annual review of plan content by Manager Community Facilities – Check AM plan content for consistency with adopted council programmes and plans – Compliance with agreed AM improvement programmes – Effectiveness and adequacy of AMP processes, systems and data	30 October each year
	◗ External review of technical content, with results reported in LTP. ◗ External review of AM plan information by Audit New Zealand	30 January each year by external AM consultant. 30 November triennially
Asset Management Data	◗ Confirm data collection and data standards, specifications, and quality assurance. ◗ Undertake quality audits on data integrity	Develop data standards and specification Undertake sample audits of data supplied by

	and report results.	contractors in Feb and July of each year.
	◗ Review data collection, data flows and entry standards and quality assurance processes.	Review and develop data collection, data flows, entry standards and quality assurance processes each year
Level of Service	◗ Review current levels of service (LoS options vs. costs); key performance indicators (KPI's) (Including public consultation process.)	Review LoS (options vs. costs), KPI's by 30th May each year
	◗ Measure levels of service delivered and reporting process (in terms of social, economic, environmental and cultural well-being) in Annual Report.	Measure levels of service delivered and reporting process in Annual Report by 30th July each year.
	◗ Review and implement community consultation process.	
	◗ Adopt LoS through LTP	Develop and implement strategy Every 3 years.

Compliance with LGA 2002 Schedule 10 Requirements

In late 2006 and again in 2009 WDC undertook a GAP analysis review of where it was at and where it needed to be. A number of key projects were identified, priorities assigned and funding sought from Council.

The Review of the AMP in consideration of the Local Government Act 2002, Schedule 10 Requirements

LGA 2002 Schedule 10 Requirement	LGA 2002 References	Section Covered
Describe, to the extent required by the local authority, the community outcomes for the local authority's district or region.	LGA 2002 Schedule 10 – 1	Strategic Environment
Identify the activities within the group of activities.	LGA 2002 Schedule 10 – 2 (1) (a)	Business Overview
Identify the rationale for delivery of the group of activities (including the Council outcomes to which the group of activities primarily contributes)	LGA 2002 Schedule 10 – 2 (1) (b)	Business Overview
Outline any significant negative effects that any activity within the group of activities may have on social, economic, environmental or cultural well-being of the local community	LGA 2002 Schedule 10 – 2 (1) (c)	Strategic Environment
Include, i) in detail for each of the first 3 financial years covered by the plan; and ii) in outline for each of the subsequent financial years covered by the plan; for each group of activities a statement of the intended levels of service that specifies a) any performance measures made under section 261B for a group of activities and b) the performance measures that the local authority considers will enable the public to assess the level of service for major aspects of groups of activities for which performance levels have not been established under a); and c) the performance target or targets set by the local authority for each performance measure; and d) any intended changes to the level of service that was provided in the year before the first year covered by the plan; and e) the reason for any material change to the cost of a service.	LGA 2002 Schedule 10 – 2 (1) (d), and 10 – 2 (4) (a – e)	Levels of Service
For each group of activities, include a statement of the amount of capital expenditure that the authority has budgeted to a) meet additional demand for the activity; and b) improve the level of service; and c) replace existing assets	LGA 2002 Schedule 10 – 3 (1) (a-c)	Growth & Demand Projects & Financial Forecasts
For each group of activities include a funding impact statement that identifies (a) the sources of funding to be used by the local authority; and (b) the amount of funds expected to be produced from each source; and (c) how the funds are to be expended.	LGA 2002 Schedule 10 – 5 (2) (a-c)	Projects & Financial Forecasts
Steps the local authority intends to take to foster the development of Maori capacity to contribute to the decision – making processes of the local authority over the period covered by the plan.	LGA 2002 Schedule 10 – 8	Community Consultation
Provide as summary of the local authority's policy on determining significance under the Act.	LGA 2002 Schedule 10 – 11	Strategic Environment
Clearly identify – (a) all of the significant forecasting assumptions and risks underlying the financial estimates: (b) Without limiting the generality of paragraph (a), the following assumptions on which the financial estimates are based: (i) the assumptions of the local authority concerning the useful life of significant assets; and (ii) the assumptions of the local authority concerning sources of funds for the future replacement of significant assets: (c) in any case where significant forecasting assumptions involve a high level of uncertainty; and (ii) an estimate of the potential effects of that uncertainty on the financial estimates provided.	LGA 2002 Schedule 10 – 17	Business Overview Projects & Financial Forecasts

Progress towards Achieving Advanced AMP against the OAG Criteria

Whakatane District council are on the journey towards achieving advanced asset management. Although Whakatane are achieving well in some areas we have taken a comprehensive analysis of the way asset management is undertaken and the way in which transportation services are delivered across the District. A GAP analysis and Improvement Plan for this activity is contained within the appendices.

The OAG criteria provides us with a clear understanding of the status and in conjunction with the Improvement Plan, council is able to map out the tasks ahead to achieve Advanced Asset Management. Asset Management is constantly changing and council is now in a better position to plan for, assess and react to changes as they occur.

Table 4 overleaf provides the assessment of the AMP against the OAG criteria following the update to asset management plans in June/July 2009.

The Office of the Auditor General (OAG) has established the following criteria for acceptability of AMP for infrastructural assets.

Table 4: AMP Review Measured against Criteria for Core and Advanced Asset Management

Key AMP Criteria	Key points for achieving "Core" Criteria	Key points for achieving "Advanced" Criteria	Covered In AMP Section ….	In Development	Basic	Intermediate	Advanced	Comments
Levels of Service	Asset Management (AM) Planning should define the level of service or performance required of the asset, linked to the strategic/community outcomes of the organisation. The significant services (for which service levels should be subject to consultation and agreement) should be stated.	◗ Community outcomes linked to LoS and customer and technical performance measures	LoS					Council has undertaken a robust process in the development of this plan to review the LoS statements and performance measures both from a customer and technical prospective. The LoS section outlines in detail the current situation and next phase of improvements for LoS development. LOS options and costs have been evaluated through the LTP process and reflected in the AMP. A consultation strategy is currently under development Reporting on measures is largely occurring on a monthly basis from consultants and contractors, but publicly only through the Annual Report annually
		◗ Evaluating LoS Options & Costs	LoS					
		◗ For each of those significant services; – Undertaking consultation with the community and other relevant stakeholders, using consultation processes which meet industry recognised standards.	LoS, Community Consultation					
		– Adoption by the Council or governing body of the levels of service and standards after consultation has taken place.	Los, Community Consultation					
		– Public communications of the levels of service and standards in a 'Customer Charter' or equivalent public document.	LoS, Community Consultation					
		– Regular monitoring and public reporting of the organisations adherence to agreed levels of services and standards.	LoS					
		◗ Ensuring the AM plans of each significant service reflect and are based on the agreed levels of service, including technical performance targets and measures which underpin the customer-agreed levels of service and standards.	LoS					
Description of Assets	An adequate description of the asset, both physically and in financial terms, with the ability to aggregate and disaggregate information. State the remaining useful lives of assets. A financial description of the assets that is linked to the physical description and meets the requirements of: ◗ Financial Reporting Standards ◗ Valuation Standards augmented by the NZ Depreciation and Valuation Guidelines	◗ A reliable physical inventory of assets at both an individual asset level and at a network level. This would include: – Physical attributes such as location, material, age etc.	LCM					Physical attributes including age, condition, location, material, performance, length etc have been outlined in the LCM section of the plan in detail for all asset groups. The assets are described in financial and physical terms in alignment with IAS and the NZ Valuation and Depreciation
		– Systematic monitoring and analysis of physical condition.	LCM					
		– Systematic measurement of asset performance (including utilisation / capacity).	LCM					

Key AMP Criteria	Key points for achieving "Core" Criteria	Key points for achieving "Advanced" Criteria	Covered In AMP Section ….	In Development	Basic	Intermediate	Advanced	Comments
	◗ A financial description of the assets that is linked to the physical description and meets the requirements of NZIAS 16. Augmented by the NZ Depreciation and Valuation Guidelines		LCM			■		guidelines. Last valuation under IAS16
Financial Forecasts / Recognise Depreciation (Loss of Service Potential)	AM Planning should translate the physical aspects of planned maintenance, renewal and new work into financial terms for at least the ensuing 10 years and in a manner that is fair, consistent and transparent. The forecasts should include sufficient information to enable decline in service potential (depreciation) of an asset to be measured. Guidance on depreciation is included in the NZ Valuation and Depreciation Guidelines.	◗ AM Planning should translate the physical aspects of planned operational, maintenance, renewal and new works into financial terms; – Generally over the timeframe in which the asset network must deliver services.	LCM, Projects and Financial Forecasts			■		10 year Financial forecasts appear both in the LCM and projects and Financial Forecasts sections.
		– In more specific terms, over the period for which the organisation has a strategic plan.	Projects and Financial Forecasts			■		Financial forecasts Align with Councils LTP
		◗ The assumptions underpinning financial forecasts should be disclosed in the organisations strategic plans and AM plans.	Projects and Financial Forecasts				■	
		◗ The compilation of financial forecasts should be consistent, reliable and provable.	Projects and Financial Forecasts				■	
Planning Assumptions & Confidence Levels	AM Planning should: ◗ List all assumptions and provisos under which the plan and financial forecasts are prepared. ◗ Indicate the degree of confidence of the reliability of data underpinning the AM Plan, particularly: – Data on asset condition – Data on asset performance – Accuracy of asset inventory – Demand/growth forecasts ◗ On the basis of the preceding assumptions and confidence of underlying data, provide a level of precision or confidence on the expenditure forecasts for the asset network	As for 'core' plus: ◗ List all the assumptions and provisos in the AM Plans, and note key assumptions regarding AM Planning in the organisations strategic plans.	Introduction, Projects and Financials				■	Physical attributes including age, condition, location, material, performance, length etc are all contained within RAMM.
		◗ Have degrees of confidence on the reliability of data as follows: ◗ Inventory data – Grade 1 (critical assets) – Grade 2 (non critical assets)	LCM			■		Assumptions have been outlined within the Introduction and the Projects and financial forecasts sections. These align with the LTP
		◗ Condition data – Grade 1 or 2 (critical assets) – Grade 1, 2 or 3 (non critical assets)	LCM			■		Confidence in Inventory condition and performance has been outlined in the lifecycle management section. Confidence in the main is good.
		◗ Performance data – Grade 1 or 2 (critical assets) – Grade 1, 2 or 3 (non critical assets)	LCM			■		

Key AMP Criteria	Key points for achieving "Core" Criteria	Key points for achieving "Advanced" Criteria	Covered In AMP Section ….	In Development	Basic	Intermediate	Advanced	Comments
Outline Improvement Programmes	◗ AM Planning should state what needs to be done to improve AM processes and techniques ◗ Improvement programmes should outline: – The weak areas and how these will be addressed – The timeframe over which the improvements will occur and – The resources (human and financial) needed	As for 'core' plus: ◗ Improvement programmes should outline key performance indicators (KPI's) for monitoring AM improvement.	Business processes & Improvement Plan				■	The improvement plan and business processes sections both cover this extensively. Improvements are based on an extensive Gap analysis with three year improvements outlined.
		◗ The improvement plan should comment generally on achievements against the previous plan, and formally report against KPI's.	Improvement Plan			■		
		As for 'core' AM Plan criteria.	Improvement Plan				■	
Planning by Qualified Persons	◗ AM Planning must be undertaken by a suitably qualified person. A suitable qualification would be a Level 6 (Tactical) or Level 7 (Strategic) National Diploma in Asset Management or equivalent skill level.	As for 'core' AM Plan criteria.	Team Page				■	Undertaken by suitably qualified Asset Management Consultants and conjunction with WDC staff and Opus Consultants.
	◗ If plans are prepared by persons not suitably qualified, the plans should be independently assessed by a qualified person.	As for 'core' AM Plan criteria.	Team Page				■	
	◗ The planning process should be peer reviewed.	As for 'core' AM Plan criteria.	Team Page				■	
Commitment	◗ The Asset AM Plan must be approved and adopted by the governing body, Board or Council. This includes approval of the improvement element of the plan.	As for 'core' AM Plan criteria.	Team Page Improvement Plan				■	This AMP will be adopted by council in conjunction with the LTP.
	◗ AM Plans must be seen as the key planning tool for infrastructure assets and/or significant physical assets which provide the inputs for Council's strategic plans (LTP).	As for 'core' plus: ◗ The organisation must demonstrate that AM plan requirements are being implemented through operational plans and formally report discrepancies	LCM			■		WDC staff have been involved in the development of this plan, including workshops around key sections. There is a high level of commitment to improvement up skilling and knowledge.
Updating	◗ AM plans must be regularly updated to reflect the most current future plans for the assets (it is expected that 'core' AM planning will be significantly revised in the light of action under improvement programme. In the first few years annual revisions of AM plans are likely).	◗ AM Planning is seen as a constantly evolving process, with underpinning AM systems constantly providing better information.	Improvement Plan,			■		Strong awareness and ownership that is an ongoing process, working towards the improvements documented in this plan.
		◗ It is expected that formal asset management plans and overarching asset management strategies will be formally revised every three years, with the timing of revisions linked to the organisation's strategic planning cycles.				■		
Risk Management	Risk management to identify critical assets and associated risks and risk management strategies.	Management of assets must include recognition and application of the principles of integrated risk management. Specifically; ◗ Risk management should be consistent with AS/NZS4360, and industry good practice such as the NZ Local Government Handbook for risk management.	Risk				■	This AMP includes for the first time a Risk section compliant with AS/NZ4360 and includes management options actions and monitoring/reports for key

Key AMP Criteria	Key points for achieving "Core" Criteria	Key points for achieving "Advanced" Criteria	Covered In AMP Section ….	In Development	Basic	Intermediate	Advanced	Comments
		◗ Risk management for assets should be integrated with other corporate risk management processes.	Risk					risks. Corporate risk policy is currently being developed. A detailed risk register for critical assets has not been completed but is planned for 2012. Lifelines risk has been undertaken as part of the CDEM processes described earlier in this section for the region
		◗ Asset risk management should encompass: – Identification and risk management strategies for critical assets	Risk					
		– The link to maintenance and replacement strategies.	LCM & Sustainability					
		– Engineering lifelines based risk assessments and mitigation plans including reference to the organisations disaster recovery and business continuity plans	Business Processes, & Sustainability					
Lifecycle (Optimised) Decision-Making	◗ Identify gaps between current service capability and the required service capability to meet future demand and target service levels and reflect these gaps in an asset development programme. ◗ Evaluation and ranking based on suitable criteria of options for significant capital investment decisions.	The ability to predict robust and defensible options for asset treatments that can assist in achieving optimal costs over the life cycle of the asset or network including:	Sustainability – MCA					Multi criteria assessment (MCA) has been developed based on community outcomes. Traffic Modelling is being undertaken as part of the Transport Strategy which is planned for 2011/12.
		◗ Applying appropriate economic evaluation tools (or other organisation endorsed prioritisation systems) in developing short term project lists.	LCM					
		◗ Using predictive modelling techniques to provide defensible long term financial forecasts.	LCM, Growth & Demand					
Managing Growth	◗ Demand forecasts for each network or facility for a 10 year period are based on latest growth forecasts. ◗ Demand management strategies and demand drivers are understood and documented	◗ Demand forecasts include analysis of the different factors that comprise demand.	Growth & Demand					Factors that drive growth and demand have been well documented within the growth section. Traffic count projections etc are being completed as part of the Transport Study...
		◗ The sensitivity of asset development (capital works) programmes to demand changes is understood.	Growth & Demand					

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Improvement Plan

Asset Management Improvement Process

Overview

Council has adopted a strategic management approach to improvement planning, continually developing Asset Management plans, and implementing improvement processes & practices. This Improvement Plan is integral to that approach, quantifying current business practice and measuring progress toward an identified future position.

The purpose of the Improvement Plan is to:

- Identify and develop implementation of Asset Management planning processes. This includes
  - The cycle of asset management plan monitoring, review, revision and audit to improve the effectiveness of asset management plan outputs and compliance with audit criteria, legislative requirements and best appropriate practice
  - The definition of service standards reflecting community outcomes through public consultation. The asset management plan is used to identify service level options and costs, and the delivery of services is a key objective of asset management planning.
  - Identify and prioritise ways to cost-effectively improve the quality of the AMP, and therefore decision making and service delivery.
  - Identify indicative time-scales, priorities, human and financial resources required to achieve Asset Management planning objectives.

The development of this AMP is based on existing levels of service, the best available current information and the knowledge of WDC staff. It is intended that the development of this plan is part of an ongoing process and that the document will be reviewed and updated regularly. This review process involves using improved knowledge of customer expectations (community consultation) and information from Asset Management Systems and databases. This will enable WDC to optimise decision-making, review outputs, develop strategies, improve risk management and extend the planning horizon.

In 2007, WDC completed a full gap analysis, which is included in the Appendices of this asset management plan.

Action Plan

Table 1 following lists all the improvement projects or tasks that WDC are planning to complete in the next two years. These are primarily drawn from the 2007 gap analysis, but have been updated in 2011. As actions are completed they should be moved to **Error! Reference source not found.** with any relevant comment in order to retain a comprehensive list of projects achieved. This will ensure clarity (for future AMPs) of what improvements have been achieved and what tasks are still outstanding.

Table 1: Transportation Improvement Plan Action Plan

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
Processes and Practices											
Demand Analysis											
	1.01.05	**Trend Predictions**	◗ Once demand drivers are established and monitored over time this can be linked to the Forward Works Programmes and form part of the decision making process (ORDM)	Manager Transportation	2	10	10,000		Funding		
	1.01.03	**Customer and Stakeholder Surveys**	◗ Develop a Communications strategy to inform the community about projects and improvements that the council is implementing. This needs to be across the entire council using good news stories via the appropriate media channel ◗ Develop a Consultation Strategy to determine how the community and stakeholders will be engaged to obtain feedback on new Levels of Service targets (as outlined in this asset management plan), including – Consultation – Performance Measurement and Monitoring – Reporting – Development of Options and Costs to be presented to the community	All	3	5	8,000		Resources, Funding		
	1.01.04	**Levels of Service**	◗ Input into the questions asked in the next annual residents survey or develop a Customer Questionnaire Survey to establish benchmarks for understanding current satisfaction levels with service delivery for the ***Recreation*** Activity	Manager Transportation	1	2	2,000		Resources, Funding		
			◗ Undertake the above survey	All	5	15	15,000		Resources, Funding		
			◗ Analyse results of the survey and review service levels and options verses costs to align with community outcomes (costs and options to be included in 2009 LTCCP)	Manager Transportation	3	15	15,000		Resources, Funding		

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
Asset Accounting and Costing											
	1.03.01	**Valuations**	◗ Undertake a revaluation every three years including an assessment of the completeness and accuracy of the data, review of useful lives and unit rates, with fair value assessments undertaken in intervening years to ensure no material movement in values.	Manager Transportation	2	15	18,000		Resources, Funding Data Capture Project		
			◗ Develop and implement a database to track and record unit rates obtained through contracts (this information will be utilised for determining the unit rates for the revaluations)	Manager Transportation	3				Funding Resource Systems		
	1.03.02	**Depreciation and Effective Lives**	◗ Review asset effective and remaining useful lives for each asset type, and audit construction date in SPM Property	Manager Transportation	3	3	3,500		Funding Resources		
Strategic Planning											
	1.04.04	**Life Cycle Costing**	◗ Develop the Pavement Surfacings Policy	Manager Transportation	2	5	5,000		Resources, Funding		
	1.04.05	**Improvement Programmes**	◗ Move the improvement programme into an excel data base and actively manage the improvement initiatives noted in this plan over the next two years ◗ Hold an Asset Management Steering Team meeting monthly to review progress against improvement plan.	All	5	2	2,000		Resource, Funding		
Capital Expenditure Evaluation											
	1.05.01	**Capital Expenditure Corporate Policy**	◗ Implement MCA process for Capital Expenditure projects over $20,000 ◗ Utilise risk analysis, pairwise ratings of activities and the MCA to prioritise projects across council	All	5				Resources, Funding		
	1.05.02	**Cause of Expenditure**									
	1.05.03	**Risk Based / Stepped Evaluation Process**									

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
	1.05.04	Demand Analysis									
	1.05.05	Supply/Program									
	1.05.06	Operations and Maintenance (Opex Quality)									
	1.05.07	Multiple Solution options									
	1.05.08	Economic Evaluation Process									
Asset Maintenance Processes											
	1.10.08	Strategy	◗ Develop a Footpath Maintenance Intervention Strategy, which will follow on from the condition inspections and the development of the Forward Works Programme	Manager Transportation	2	10	10,000		Funding		
			◗ Priortise remedial works for the Whakatane Airport	Manager Transportation		2	2,000		Funding		
Asset Management Information Systems (Support)											
Primary Applications											
	2.01.03	Request for Service Management/ Enquiries System	◗ Ozone implementation completed. Need to review and improve management of data.	All	5				Resources, IT		
	2.01.09	Work Management (Job / Resource) System	◗ Training in the use of Ozone	All					Resources		
Tertiary Applications											
	2.03.08	Performance Monitoring Applications	◗ Review the current performance information in relation to the other asset groups in RAMM (i.e. Bridges & Structures, Footpaths, Streetlights)	Manager Transportation		5	5,000		Funding		

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
General Overall Information Systems Issues / Performance											
	2.04.01	**User Friendliness**	◗ Job costing module – investigate need to set up resource code for rework in Hansen.	Manager Transportation					Resources, Funding , IT		
	2.04.02	**Integration of Systems**									
	2.04.03	**Access/Response Times**									
	2.04.04	**System Strategy**									
Data and Knowledge											
Primary Applications											
	3.01.01	**Asset Categories**	◗ Clarify the distinctive asset groups incuding Cycleways, Bus Shelters and Traffic Controls in RAMM (Refer **1.03.01 Valuations**)	Manager Transportation							
	3.01.04	**Primary Physical Asset Attributes**	◗ Clarify the ownership of car parks (some are associated with Port assets) and update the inventory to include all assets from around the district. (Refer **1.03.01 Valuations**)	Manager Transportation	2	2	2,000				
	3.01.05	**Valuation Data**	◗ Review the current methods used to calculate formation and basecourse valuations to ensure they account for the full extent of each asset at the next valuation (Refer **1.03.01 Valuations**)	Manager Transportation							
			◗ Consider pavement construction methods to establish whether Council should be valuing at subgrade layer to the reduce the depreciation attributed to basecourse. In determining the construction method this will also establish a valuation method for subbase in terms of depreciating the layer or not (Refer **1.03.01 Valuations**)	Manager Transportation	1	1	1,000				

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
Secondary Data											
	3.02.02	**Condition and Performance Data**	◗ Implement the Falling Weight Deflectometer programme	Manager Transportation		20	20,000		Resources, Funding		
			◗ Validate the remaining 50% of the RAMM database	Manager Transportation		25	25,000		Funding		
			◗ Undertake condition assessment of the footpath assets and enter data into RAMM	Manager Transportation		15	15,000		Funding		
Tertiary Data											
	3.03.01	**Risk Assessment**	◗ Undertake detailed risk assessments on critical transportation assets (Route Security). Could also relate to response times for certain assets identified in service levels and Emergency Response Plans: – Consideration to be taken as part of an overall network strategy – Review and maintain the risk register – Implement management options/strategies to reduce risk if necessary – Rank the key risks via B/C using NPV calculations – Report regularly to the CEO	Manager Transportation	5	25	30,000		Resources, Funding		
Commercial Tactics											
	4.05	**Contract Supervision (Performance Monitoring)**	◗ Review the current Roading Maintenance Contract in terms of structure and value	Manager Transportation		10	10,000		Resources		
Organisational Issues / Performance											
	5.07	**AM Sustainability**	◗ Develop a communication strategy for Council (includes new Councillors). Induction pack to present to new community board members and councillor	All	5				Resources		

Project Number	Gap Ref Number	Process	Improvement Project/Tasks	Responsibility (Who)	Resource Time (Days)		Costs $	Expenditure Type (eg Ops, Capital)	Dependencies (IT, Funding)	Rank	Timeline
					Internal	External					
People Issues / Performance											
	6.01 **6.04**	**Skills and Age Profiles** **Appropriate Skills**	◗ Develop Family/Lifestyle friendly policies	All	5				Resources		
	6.05	**Appropriate Level of Resources**	◗ Individual development plan for all AM managers	All	5				Resources		
	6.03	**Change Management Activities**	◗ Develop a Change Management Process and nominate "champions" to provide primary assistance and support	All	5				Resources		
			◗ Develop a regular communications forum for staff	All	3				Resources		

Glossary of Terms

Annual Plan	The Annual Plan provides a statement of the direction of Council and ensures consistency and coordination 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 Management (AM)	The combination of management, financial, economic, engineering and other practices applies 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 Register	A record or asset information considered worthy of separate identification including inventory, historical, financial, condition, construction, technical and financial information about each.
Asset Renewal	Major work, which restores an existing asset to its original capacity or the required condition (re-roofing, re-painting, replace heating)
Auditor General	The Auditor General of the New Zealand Audit Office.
Benefit Cost Ratio (BCR)	A ratio which compares the benefits accruing to customers and the wider community from constructing a project with at projects costs.
Road Assessment and Maintenance Management (RAMM)	The computerised utilities asset management software system used to record and report on transport assets with the network
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.
Community Outcomes	Outcomes developed with the community, which outline the communities vision.
Components	Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.
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 preventative or remedial action
Condition Rating Survey	Survey carried out to assess the condition of assets.
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.
Depreciated Replacement Cost	The replacement cost of an asset spread over the expected lifetime of the 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 the by historical cost (or re-valued amount) of the asset less its residual value over its useful life.
Disposal	Activities necessary to dispose of decommissioned assets.

Emergency Work	The restoration work required to restore a transport asset damaged by a sudden and unexpected event (e.g. storm event).
Geographic Information System (GIS)	Software which provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.
Life Cycle Management	A process of managing an asset from initial construction through to disposal
Net Present Value (NPV)	The value of an asset to the organisation, derived from the continued use and subsequent disposal in present monetary values. It is the new amount of discounted total cash inflows arising from the continued use and subsequent disposal of the asset after deducting the value of the discounted total cast outflows.
Optimised Renewal Decision Making	An optimisation process for considering and prioritising all options to rectify performance failures of assets. The process encompasses NPV analysis and risk assessment.
Stakeholder	A person or organisation who has a legitimate interest in an activity e.g. community, Iwi, etc
Sustainability	The process of meeting the needs of the present community without compromising the ability of future generations to meet their own needs