

## **APPENDICES**

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

### A.1 Introduction

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

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

Coastal structures provide many public benefits including provision of access to the coastal environment and coastal protection structures. The Council has a responsibility as a Regional Authority to manage coastal structures that it owns or that have no other identifiable owner or operator. It is therefore necessary that Council undertakes the planning, implementation and maintenance of coastal structures within the district in accordance with its respective legislation requirements and responsibilities.

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

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

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

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

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

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

#### Acts

- The Local Government Act 2002 – especially Schedule 10 and the requirement to consider all options and to assess the benefits and costs of each option, and the consultation requirements
- The Local Government Act (Rating) 2002
- The Local Government Act 1974 (Retained sections)
- The Biosecurity Act 1993
- The Building Act 2004.
- The Bylaws Act 1910
- The Civil Defence Emergency Management Act 2002 (Lifelines)
- The Climate Change Response Act 2002
- The Construction Contracts Act 2002
- The Electricity Act 1992
- The Health and Safety in Employment Act 1992
- The Land Drainage Act 1908
- The Land Transport Act 1998

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- The Land Transport Management Act 2003
  - The Maritime Transport Act 1994
  - The Public Works Act 1981
  - The Railways Act 2005
  - The Reserves Act 1927
  - The Resource Management Act 1991
  - The Soil Conservation and River Control Act 1941
  - The Summary Offences Act 1981
  - The Telecommunications Act 1987
  - Transport Act 1962
  - Utilities Access Act 2010

#### **National Policies, Regulations and Strategies**

- Ministry for Environment 2004 – Preparing for Climate Change
- The New Zealand Coastal Policy Statement 1994 <http://www.rma.co.nz>
- The National Energy Efficiency and Conservation Strategy <http://www.eeca.govt.nz>
- The Building Regulations <http://www.legislation.govt.nz/>
- The Local Government (Financial Reporting) Regulations 2011 <http://www.legislation.govt.nz/>
- The New Zealand Transport Strategy <http://www.transport.govt.nz>
- Ministry of Transport Statement of Intent <http://www.transport.govt.nz>
- The Government's Sustainable Development Programme of Action <http://www.beehive.govt.nz>
- NAMS Manuals and Guidelines <http://www.nams.org.nz>
- Office of the Auditor General's Publications <http://www.oag.govt.nz>

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

- AS/NZS ISO 31000:2009 Risk Management Principals and Guidelines
- NZS 4404:2010 Land Development and Subdivision Infrastructure
- AS/NZS ISO 9001:2008 Quality Management Systems
- AS/NZS 4801:2001 Occupational Health and Safety Management Systems
- SNZ HB 2002:2003 Code of Practice for Working in the Road

#### **Local Policies, Regulations, Standards and Strategies**

- Council's District Plan – Tasman Resource Management Plan (TRMP) <http://www.tasman.govt.nz>
- Tasman Regional Policy Statement (TRPS) <http://www.tasman.govt.nz>
- Tasman District Council Engineering Standards and Policies 2008 <http://www.tasman.govt.nz>
- NIWA – Climate Change and Variability for Tasman District 2008
- Council's Procurement Strategy
- Any existing established policies of the Council (outside those contained in this Activity Management Plan itself) regarding this activity

Some of the legislative requirements that the Council must act within which are discussed in more detail are as follows.

#### A.2.1. NZ Coastal Policy Statement 1994

The purpose of the New Zealand Coastal Policy Statement is to state national policies in order to achieve the purpose of the Resource Management Act (RMA) in relation to the coastal environment of New Zealand. The purpose of the RMA is to promote the sustainable management of natural and physical resources including, “avoiding, remedying, or mitigating any adverse effects of activities on the environment”. Also some matters are considered of national importance and include.

- The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes, and rivers and their margins, and the protection of them from inappropriate subdivision use and development.
- The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers.
- The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. In addition to provide for the special context of the coastal environment.

Council is required to have regard to a number of general principles particular to this activity including.

- Some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to ‘the social, economic and cultural well-being’ of ‘people and communities’. Functionally, certain activities can only be located on the coast or in the coastal marine area.
- The protection of the values of the coastal environment need not preclude appropriate use and development in appropriate places.
- The coastal environment is particularly susceptible to the effects of natural hazards.
- Cultural, historical, spiritual, amenity and intrinsic values are the heritage of future generations and damage to these values is often irreversible.
- The tangata whenua are the kaitiaki of the coastal environment.
- It is important to maintain biological and physical processes in the coastal environment in as natural a condition as possible, and to recognise their dynamic, complex and interdependent nature.
- The ability to manage activities in the coastal environment sustainably is hindered by the lack of understanding about coastal processes and the effects of activities. Therefore, an approach which is precautionary but responsive to increased knowledge is required for coastal management.

#### A.2.2. Resource Management Act

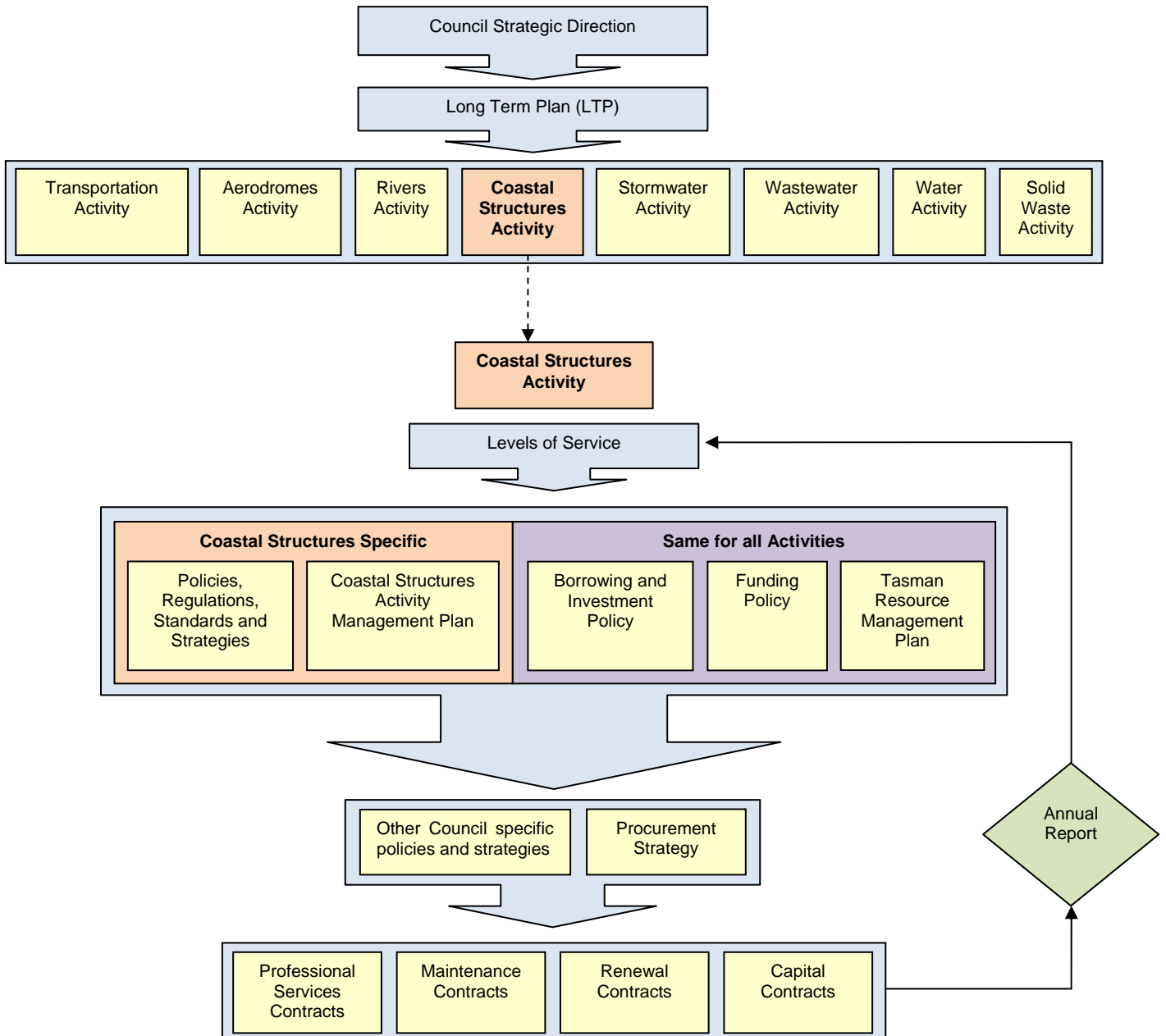
Council has several statutory planning documents implementing its responsibilities under the RMA. Those which impact on the provision of Council Coastal Activities are.

- Tasman Regional Policy Statement (TRPS) – An overview of significant resource management issues with general policies and methods to address these. In particular under Section 9 Coastal Environment, Council has developed specific objectives and policy statements for a number of areas including:
  - Navigation and Safety
  - Effects of Activities in the Coast Marine Area
  - Private and Public Rights of Access to Coastal Space
  - Identifying and Maintaining the Natural Character of the Coastal Environment
  - Public Interest in Access to and Along the Coast.
- Tasman Resource Management Plan (TRMP) – A combined Regional and District Plan with statements of issues, objectives, policies, methods and rules addressing the use of land, water, coastal marine area and discharges into the environment.
- Tasman District Council Engineering Standards and Policies.
- Council Harbour Bylaws and Policy Resolutions relating to Coastal Structures (a file of District Council resolutions relating to the coastal structures are held by Council).

### A.3 Links with Other Documents

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

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



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



## A.4 Strategic Direction

Council's strategic direction is outlined in the Vision, Mission and Objectives of the Council.

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

**Mission:** To enhance community wellbeing and quality of life.

**Objectives:** *Objective 1:*

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

*Objective 2:*

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

*Objective 3:*

- To sustainability manage infrastructural assets relating to Tasman district.

*Objective 4:*

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

*Objective 5:*

- To promote sustainable economic development in the Tasman district.

Table A-1 outlines the strategic documents utilised by the Council as part of the planning process.

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

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

### A.4.1. Our Goal

Coastal infrastructure is developed to achieve the visions of both Council and the community.

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## **APPENDIX B. OVERVIEW OF THE COASTAL STRUCTURES IN THE DISTRICT**

### **B.1 Introduction**

This activity comprises the provision and maintenance of some of the district wharves, jetties and associated buildings, as well as navigation aids, boat ramps, road access and parking that provide safe access to significant parts of the district's coastal facilities for recreation and commercial users. The provision of some of the structures for coastal protection also forms part of this activity. Some previously Council owned structures have been transferred to other parties such as the wharf at Motueka to Talley's Industries and other minor structures such as wharves/jetties at Collingwood, Milnethorpe, Waitapu and Mangarakau, which currently belong to the Department of Conservation (DoC).

To date the collection and recording of coastal asset data has been poor. Some work has been done recently to identify Council owned assets and this information has been updated in the Confirm database, this can also be shown as a GIS layer in Explore Tasman. Further work is required to improve the data in Confirm and collect data which is yet to be captured, specifically coastal protection assets.

There are a number of wharves/jetties which are not owned or maintained by Council, and are no longer used commercially. In some instances these assets are in derelict condition and have no clear owner. As these pose a threat to public safety, Council have planned to divest these assets and remove as appropriate.

Key coastal structures are:

- wharves
- jetties
- coastal protection
- boat ramps
- aids to navigation (structures).

There are a number of work activities excluded from this AMP which relate to coastal structures as they are managed by Community Services. This includes regulatory activities such as the management and maintenance of:

- moorings
- buoys
- aids to navigation (non-structures).

### **B.2 Port Motueka**

#### **B.2.1. Overview**

Port Motueka first started operating around the turn of the century from the old wharf on Motueka Quay. The wharf was moved to its existing location to the main Moutere inlet in 1916.

The original port authority was the Motueka Harbour Board which was constituted in 1905 and was endowed in lands surrounding the area. They handed their authority and lands to the Waimea County Council in 1968, but the Nelson Harbour Board fought the decision and was empowered to act as Harbour Authority (though Waimea County Council retained control over the endowment land). The Nelson Harbour Board invested very little in the Motueka Wharf during their period of authority from 1968 to 1989 and it was in poor condition when it was handed over to Tasman District Council in 1989.

Talley's have been the major operator in Port Motueka since the early 1970s. They own part of the port area south of Everett Street (where their office buildings and processing factory is located) and lease further land for staff car parking.

In 1994 the Council embarked on the Port Motueka Improvement Project aimed to improve access through the harbour to the port. A groyne was constructed to protect the main channel and dredging of the channel completed. The groyne is no longer operational.

The Motueka Yacht Club constructed a jetty in the estuary in 1994 and in 1997 the Motueka Power Boat Club received a resource consent to reclaim land for development of a boat ramp/car parking area. Council holds further consents for jetty and other area development works.

These recent developments caused concern that the port area was being developed in a piecemeal fashion and a Task Force of Councillors and Council staff was set up to determine a future development concept and improve port management. The Task Force prepared a 10 year development plan which described in more detail the history, current land uses/zonings and set out a future development plan for the port area.

Council have transferred the ownership of the wharf and its facilities to Talley's. Council are no longer responsible for the maintenance of this asset. Sections of the Harbour Bylaw relating to navigational safety are managed by Council's Harbour Master. Endowment land is managed through the Council's Manager Property Services.

As part of the ownership agreement a fishing platform was constructed by Talley's next to the main wharf for public use. This structure was divested to Council and Council is responsible for its maintenance.

#### **B.2.2. Asset Condition**

Council does not undertake inspections of the structures at Port Motueka due to all the ownership and management having been transferred to other parties, with the exception of the public fishing platform. There has been no recent inspection of the public fishing platform; this will be undertaken in 2014/15.

#### **B.2.3. Key Issues and Strategic Management**

The primary issue at the port is the lack of draught that is affected by the build up from the littoral drift process. Talley's, as owners of the wharf and primary operators through the port, are continuing attempts to manage these processes. For Council the issue is the need to ensure navigational aids are properly located and adequately maintained so recreational users have the appropriate notice and guidance.

The Council will continue to manage the navigation aids, moorings, fishing platform and general safety by the port users through its Harbour Bylaws and the Tasman Resource Management Plan for specific activities and structures.

### **B.3 Port Tarakohe**

#### **B.3.1. Overview**

Port Tarakohe was originally constructed by the Golden Bay Cement Company who ceased operating in the area in 1989. Council became involved when the Golden Bay community requested assistance to develop and maintain this asset. Council purchased the rights to operate the port in June 1994 and initiated a Local Members bill which gave Tasman District Council port ownership. All activities relating to Port Tarakohe have been excluded from this activity management plan as a separate Port Tarakohe Activity Management Plan has been prepared; please refer to this for further details.

### **B.4 Mapua Wharf**

#### **B.4.1. Overview**

The Mapua Wharf is now predominantly used for activities associated with tourism and recreation.

The Mapua Wharf includes a timber wharf structure and floating pier and wharf buildings which are leased and include restaurants and boat club facilities. There are also concrete boat ramps with associated parking.

A partial re-piling and re-decking was completed in 1997/98 and the balance of the wharf was re-piled and re-decked in 2003/04. Some upgrade of piles and sub-floor members under the existing buildings were also included.

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#### B.4.2. Compliance with Levels of Service

There are no levels of service specific to Mapua Wharf.

#### B.4.3. Asset Condition

The wharf and floating jetty was last inspected during the Coastal Structures Inspections undertaken in 2009; refer to 2008/2009 Coastal Structures Inspection report dated September 2009.

Since the inspections were completed, the floating jetty was accidentally damaged and removed in February 2010. Following the incident it was discovered that the jetty was constructed by the Mapua Boat Club. Council has applied for a resource consent to re-establish the floating jetty as a Council owned and maintained asset.

The areas of the wharf that have been replaced are in good condition. The 2004 works replaced most of the wharf outside the footprint of the buildings. Under the buildings themselves, only some piles were strengthened. Some of the old steel and concrete infill piles are in very poor condition. There are also a few bearers and joists at the north west corner of the wharf which have decayed and caused the deck to sag. The concrete seawall next to the wharf was repaired in 2011 due to undermining at the base which had removed support for the concrete pad above the wall; this will continue to be monitored.

Further inspections are planned to be undertaken at five yearly intervals with the next inspection in 2014/15.

The Council owned buildings are in reasonable condition. The remainder of the roof replacement is planned for Year 1. Exterior and infrastructural maintenance is undertaken by the Council and leaseholders are responsible for interior maintenance.

#### B.4.4. Resource Consents

Resource consents are not required for the on-going management of the Mapua Wharf structures. Resource consent would be required for any new or replacement works. Council have applied for resource consent for the floating jetty mentioned above.

#### B.4.5. Current and Future Demand

The wharf is mostly used for recreational activities and has high recreational value. The current demand is not well recorded; however it appears to meet demand.

The Council have recently supported the construction of the Taste Tasman Trails, which includes a cycle loop throughout the district and will likely result in significant tourism and recreation use growth. The cycle loop utilises the wharf as a part of a ferry between the wharf and Rabbit Island.

#### B.4.6. Key Issues and Strategic Management

Mapua Wharf is planned to be a key hub on the cycle trail and it is expected tourism numbers and activities will increase. A wharf streetscape project is planned for the wharf area which will cater for the increase in recreational and tourism activity in the area.

There is likely in the medium term to be the need to upgrade further piling under the existing building on the wharf, this is planned for 2017/18.

The navigational aids and moorings are managed through the Council Harbour Bylaws, by the Council's Harbour Master.

Upgrades and renewals are programmed on an as required basis with regular inspections to set priorities.

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## **B.5 Waitapu Wharf**

### **B.5.1. Overview**

The Waitapu Wharf and access causeway are believed to have been constructed in the late 19<sup>th</sup> century with extensions to the seaward end in the late 1970s. The wharf is predominantly timber structure except for the deck on the seaward end which has been overlaid with concrete.

Council carried out some maintenance on the sea wall and wharf during the early 1990's. This included laying new cables to the lead lights which were being damaged by marine vessels. Otherwise little maintenance has been carried out for many years and the wharf is in a poor condition.

There is no significant activity by users at the wharf. The wharf itself is currently the responsibility of Department of Conservation (DoC).

Council receives income from lease of the land on the causeway, which may be a legal road. There is no provision for wharf maintenance under this activity plan.

There are generally no issues for Council, as the wharf is the responsibility of the DoC. However, Council may need to consider public safety as discussed below in Section B.7 - Other Wharves.

## **B.6 Riwaka Wharf**

### **B.6.1. Overview**

The wharf consists of an earth-filled concrete retaining wall which now has a solely recreational value. The west wall was reconstructed in 1995. The walls are in relatively poor condition.

The structure is very rarely used by the public as a wharf and is typically used as a parking area for recreational use and access to the coastal area. Considering the change in use of this structure, it is to be managed as a transportation asset; therefore this asset is no longer included as a coastal structure.

## **B.7 Other Wharves**

### **B.7.1. Overview**

Some previously Council owned structures have been transferred to other parties such as wharves/jetties at Collingwood, Milnethorpe and Mangarakau, which currently belong to the DoC. These structures are in significantly poor condition and pose a risk to public safety. Although Council are not the owners of these assets they have a responsibility to ensure the assets are safe as they are in the public arena. Council have started consultation with the owners of the assets with the aim to improve their condition or remove. Some funding has been allowed for to remove the assets where a suitable resolution cannot be achieved or there is no clear owner.

## **B.8 Jetties**

### **B.8.1. Overview**

A summary of the Council owned jetties is listed below in Table B-1. The Marahau jetty is maintained by Council and the Torrent Bay jetty is maintained and funded by the local residents with some financial support from Council.

There is a seawall and landing adjacent to the jetty at Torrent Bay.

**Table B-1: Inventory of Jetties**

Coastal Area	Location Description	Type	Condition
Marahau	Next to boat ramp	Timber	Very Good
Torrent Bay	South end of Lagoon Street	Timber	Poor

**B.8.2. Compliance with Levels of Service**

There are no levels of service specific to boat ramps.

**B.8.3. Asset Condition**

Both jetties were last inspected in 2009. A summary of their condition is included in Table B-1 above. The Marahau jetty was constructed in 2004 and was well designed and built with good materials. Overall the Torrent Bay jetty is in poor condition, the piles are very poor condition and the hanging joists and deck are in average condition. The seawall is in average condition and the concrete landing is in reasonable condition.

Further inspections are planned to be undertaken at five yearly intervals with the next inspection in 2014/15.

**B.8.4. Resource Consents**

Resource consents are not required for the on-going management of the jetties. Resource consent would be required for any new or replacement works.

**B.8.5. Current and Future Demand**

The Marahau jetty has high use due to tourism operators using the boat ramp and jetty. The demand for the jetty is not expected to grow significantly and therefore no projects have been identified to address growth.

The primary use of Torrent Bay jetty is recreational, and is used by the local residents of Torrent Bay and visitors to the area. There is no growth expected.

**B.8.6. Key Issues and Strategic Management**

The Torrent Bay jetty will have a detailed inspection and agreement of its future levels of service with the local community.

**B.9 Coastal Protection**

**B.9.1. Overview**

There are significant lengths of coastal protection works in Tasman. Some of these are private works constructed with or without the appropriate consents, usually with the intent to protect built environments such as housing. Others are protecting the adjoining road asset that provides necessary access along the coast and therefore included in the transportation activity. It is noted that a substantial portion of these works are above Mean High Water Spring (MHWS) and not in the Tasman Coastal Marine Area.

Council, in conjunction with the local community, has (2003-2007) completed substantial coastal protection at Marahau and Ruby Bay (Broadsea Avenue and Old Mill Way). These have been constructed to protect existing urban development and built to a higher standard than earlier works. Earlier protection works are yet to be included in the Confirm database.

The asset data relating to coastal protection has been poorly captured until now. Council plans to address this issue by identifying all coastal protection assets and recording them in the Confirm database. The only sites listed in Confirm at this stage are on the Ruby Bay/Mapua coast.

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#### B.9.2. Compliance with Levels of Service

Council owned coastal protection is to be maintained to its original design standard at Marahau and Ruby Bay (Broadsea Avenue and Old Mill Way). There are no expected issues related to compliance with this level of service.

#### B.9.3. Asset Condition

The Ruby Bay and Marahau coastal protection is in fairly good condition due to the age of the assets. The seawalls were inspected in 2009 and both were in good condition. These assets will be inspected five yearly along with other coastal assets, the next inspection is planned for 2014/15.

Earlier protection works were not generally to a high standard. Continued renewal of the protection works will be required especially as storm events and other natural coastal processes change.

#### B.9.4. Resource Consents

Consents are required for any new coastal protection works.

#### B.9.5. Current and Future Demand

Coastal protection may be required during the development of subdivisions to protect the new built environment. Council will manage the standard of protection provided via the TRMP. It is expected the maintenance of these assets will be the responsibility of the private parties involved.

A recent decision by the Environment Court requires Council to install and maintain coastal protection on Jakkett Island. The initial work is planned for 2011.

#### B.9.6. Key Issues and Strategic Management

Council has set out its objective and policies (refer Appendix A) which provides guidance to manage the conflicts of the need to protect and enhance the natural coastal environment while allowing and protecting existing and possibly some future built development adjacent to the coast.

The natural coastal processes are complex and not well understood. Protection works to mitigate erosion need to be carefully designed and located to mitigate adverse effects from the structures themselves. Council is continuing to research and monitor the dynamics of its coast line so as to provide appropriate solutions and whether to protect or leave areas to the natural processes.

### **B.10 Boat Ramps**

#### B.10.1. Overview

Boat ramps include concrete and gravel construction and vary considerably in user demand. A summary of the boat ramps is below in Table B-2. This summary has been compiled from information from the Confirm database, the Coastal Structures Inspections Report completed in September 2009, and the Harbour Master.

Nine are concreted, the balance are gravel/unformed. There are other boat ramps within the district however these are privately owned and operated; this includes the Kaiteriteri Beach boat ramp which is under management of the Kaiteriteri Beach Domain Board, and the Port Motueka boat ramp which is under management of the Motueka Power Boat Club.



**Table B-2: Inventory of Boat Ramps**

Coastal Area	Location Description	Type	Condition
Mapua	Beside main wharf.	Concrete	Good
Mapua	Grossi Point.	Gravel	Reasonable
Marahau	Foreshore opposite 193 Sandy Bay-Marahau Road.	Concrete	Good
Murchison	At Riverview Holiday Park.	Concrete	Unknown
Pohara	Boat ramp 1 – opposite the Pohara Tennis Club.	Concrete	Average
Pohara	Boat ramp 2 – at the Pohara Camping Ground.	Concrete	Average
Rabbit Island	End of Boat Ramp Road.	Concrete	Good
Riwaka	End of peninsula off Green Tree Road.	Concrete	Average
Rough Island	Hunter Brown Reserve.	Gravel	Reasonable
Port Tarakohe	Southern seawall.	Concrete	Good
Tata Beach	Foreshore at the end of Peterson Road.	Concrete	Reasonable

**B.10.2. Compliance with Levels of Service**

There are no levels of service specific to boat ramps.

**B.10.3. Asset Condition**

Coastal Structures Inspections were undertaken in 2008/09 which included structural inspections of Council owned wharves, jetties and boat ramps, a summary of the condition is included above in Table B-2. Assets which have unknown condition were not included in these inspections due to a poor asset database at the time. The report highlighted that there has historically been very little maintenance, and what maintenance was undertaken appeared to be reactive.

Structural inspections of formed boat ramps are planned to continue at five yearly intervals with the next inspection due in 2014/15. Unformed boat ramps will be routinely inspected by the Harbour Master in conjunction with his other duties.

**B.10.4. Resource Consents**

There are no consents relating to boat ramps.

**B.10.5. Current and Future Demand**

The current and future demand for boat ramps within the district is not well known as there is no record of use for any of the above ramps. Council plans to reconstruct a number of existing formed ramps over the next 20 years, the scope will be defined following consultation with potential users.

**B.10.6. Key Issues and Strategic Management**

The boat ramps provide necessary access to the coastal marine area. The primary issue is safety and management of the demand at the ramps. While management could be funded by user pay this will not be practicable for most locations.

Council will continue to maintain the existing ramps at their current level of service and review the need for any substantial upgrades through inspections.

No new ramps are programmed in the next 10 years.



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## **B.11 Aids to Navigation**

### **B.11.1. Overview**

As a Harbour Authority, Tasman District Council is responsible for navigational safety and the provision of navigational aids for access into local ports. The Maritime Safety Authority provides navigational aids marking significant geographical features for coastal navigation and to mark more significant dangers to regional navigation.

There are formal lease arrangements for some navigational aids located on private property. There have been some minor issues to date with access to those navigational aids on properties where no formal easement or agreement of entry has been negotiated.

Council own and maintain a number of lead lights and marker buoys. Recently Council has undertaken work to develop an asset register which is held in the Confirm database. The information is still incomplete and requires further updating.

### **B.11.2. Compliance with Levels of Service**

There are no levels of service specific to aids to navigation.

### **B.11.3. Asset Condition**

Since Tasman District Council inherited the Harbour Authority role in 1992, inspections have been ad hoc and maintenance or renewals on navigational aid structures is generally in response to failure.

Inspections are generally undertaken by the Harbour Master and repairs are generally undertaken in a reactive manner. The aids are in fair to good condition.

### **B.11.4. Resource Consents**

The TRMP classifies installation of aids to navigation as a permitted activity, therefore resource consents are not required. Installation or removal of any aid to navigation requires permit from MaritimeNZ.

### **B.11.5. Current and Future Demand**

Council will continue to maintain or renew using new technology on an as required basis and to meet the appropriate MaritimeNZ requirements for safety in the ports and bays.

### **B.11.6. Key Issues and Strategic Management**

Safety within the Coastal marine area and in particular the safety of users of the ports, bays and coastal areas is a responsibility of Council.

The demand for recreational use of the coastal area is increasing. There are also continuing changes in natural coast processes.

Council will continue to monitor the aids and safety practices of the users at the ports and bays.

The lead lighting for Collingwood, Mapua, Riwaka and Waitapu are now situated incorrectly due to winding and changing channels. The leads will either need relocation or removal. Due to the cost of relocating the leads, Council intends to remove them as there is no legal requirement to have them in place.

## **APPENDIX C. PRIVATE ASSETS**

### **C.1 General**

The Tasman Resource Management Plan and the resource consent process define the acceptable standards for Council privately owned coastal structures.

There are a number of private coastal protection structures within the district which Council do not maintain. The exact extent is unknown as Council does not currently hold a register of private assets. It is intended to capture these assets whilst updating the existing database.

## APPENDIX D. ASSET VALUATIONS

### D.1 Background

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

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

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

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

The valuations summarised below have been completed in accordance with the following standards and are suitable for inclusion in the financial statements for the year ending June 2009.

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

#### D.1.1. Depreciation

Depreciation of assets must be charged over their useful life.

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

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

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

#### D.1.2. Revaluation

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

- (a) The lives are generally based upon NZ Infrastructure Asset Valuation and Depreciation Guidelines – Edition 2. In specific cases these have been modified where in our, and Council's opinion a different life is appropriate. The changes are justified in the valuation report.

- (b) The component level of the data used for the valuation is sufficient to calculate depreciation separately for those assets that have different useful lives.

## D.2 Overview of Asset Valuations

Assets were previously valued every three years, but Council has now moved to a two year revaluation cycle. Historic asset valuations reports are held with Council.

Council was due to revalue their assets as at end June 2011, however the small number of changes made to the networks since the 2009 valuations, the decision was made to defer the valuation until the end of June 2012.

## D.3 2009 Valuation – Ports / Wharves / Coastal Structure

The ports/wharves/coastal structure assets were last re-valued in June 2009 and are reported under separate cover<sup>1</sup>. Key assumptions in assessing the asset valuations are described in detail in the valuation report.

### D.3.1. Asset Data

The majority of information for valuing the assets was obtained from Council's Confirm database. This is the first time the database has been used to revalue Council's assets. In the past, asset registers based on excel spreadsheets have been used. The data confidence is detailed in Table D-1 below.

**Table D-1: Data Confidence**

Asset Description	Confidence	Comments
Ports/Wharves/Coastal Structures Assets	B/C – Reliable/Uncertain	All assets are listed; however condition assessment of structures should be captured to provide a more reliable asset valuation. Approximately half of the assets do not have recorded installation dates. MWH New Zealand Ltd has assumed that these assets are half way through their design lives.

*Based on NZ Infrastructure Asset Valuation and Depreciation Guidelines – Edition 2, Table 4.3.1: Data confidence grading system.*

### D.3.2. Asset Lives

The *Base Useful Lives* for each asset type as published in the NZ Infrastructure Asset Valuation and Depreciation Guidelines Manual were used as a guideline for the lives of the assets in the valuation. Generally lives are taken as from the mid-range of the typical lives indicated in the Valuation Manual where no better information is available. Lives used in the valuation are presented in Table D-2 below.

**Table D-2: Asset Lives**

Item	Life (years)	Minimum Remaining Life (years)
<b>Ports/Wharves/Coastal Structure Assets</b>		
Wharf structure, breakwaters (some assets have an indefinite life and therefore not depreciated)	Variable dependant on specific asset	5
Jetty, ramp (concrete)	50	5
Navigational aids	25	2

### D.3.3. 2009 Valuation

The Optimised Replacement Value, Annual Depreciation and Optimised Depreciated Replacement Value of the ports/wharves/coastal structure assets are summarised in Table D-3.

<sup>1</sup> Infrastructural Asset Revaluation, June 2009 – MWH New Zealand Ltd report for Tasman District Council

**Table D-3: Ports / Wharves / Coastal Structures Asset Valuation Summary**

	Optimised Replacement Value (\$)	Optimised Depreciated Replacement Value (\$)	Total Depreciation to Date (\$)	Annual Depreciation (\$/yr)
Marine Structures 2007	22,470,644	12,158,071	10,312,573	194,813
<b>Marine Structures 2009</b>	<b>17,802,145</b>	<b>11,909,039</b>	<b>5,893,105</b>	<b>281,384</b>
% Increase	-20.78%	-2.05%	-42.86%	44.44%

The Optimised Replacement Value has decreased by 20.78%. This is due to the audit of Tarakohe Wharf assets which reduced the valuation by approximately \$5m, since the 2007 valuations.

Annual depreciation has increased by 44.44%. This is due to the change in average design lives.

An item has been included in the Improvement Plan (Appendix V) to list the replacement value and depreciation for each asset group.

## APPENDIX E. MAINTENANCE AND OPERATION

### E.1 Overview

The Council has management and operational roles as a Harbour Authority, Regional Authority and Local Territorial Authority.

The Council carries out the following roles in the management of coastal assets.

#### *Engineering Services*

- Management of coastal structures owned by Council.

#### *Community Services*

- Management of physical structures on coastal reserves (for example boat ramps at Rabbit and Rough Islands and the reserves themselves).
- Routine maintenance of regulatory assets such as moorings, buoys and aids to navigation (excluding the structures which the aids are mounted on).
- Management of Council owned property on wharves.
- Port Tarakohe.

#### *Environment and Planning*

- Implementing aspects of the Harbour bylaw relating to navigational safety, designated marine activities, and commercial operators.
- Implementing the Resource Management Act (TRMP and TRPS) including setting coastal planning policy and processing resource consents.

#### *Corporate Services*

- Implementing aspects of the Harbour bylaw relating to collection of wharfage/berthage fees.

#### E.1.1. Structures

Routine maintenance of structures (eg. wharves, jetties and light towers) is not currently undertaken on a programmed basis. Reactive maintenance of these assets is undertaken on an as required basis. The work may be negotiated with Council's existing contractors (eg. transportation and/or bridging maintenance contractors). Significant works will be tendered as individual contracts in accordance with the Procurement Strategy.

Council have allocated funds to allow for heavy maintenance of formed boat ramps, this work is yet to be procured.

Maintenance of coastal rock protection is undertaken in a reactive manner. Council engage an experienced contractor for site specific works as required.

#### E.1.2. Regulatory Assets

Regulatory assets such as signs and aids to navigation are routinely maintained by Council's Harbour Master.

### E.2 Maintenance Standards

All work is undertaken in accordance with best practice, site specific design, site specific resource consents where applicable, and the TRMP. Suppliers are selected on their proven ability to provide best practice.

E.2.1. Deferred Maintenance

Deferred maintenance is:

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

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

E.2.2. Increase in Network Size through Development

Coastal protection may be required during the development of subdivisions to protect the new built environment. Council will manage the standard of protection provided via the TRMP. It is expected the maintenance of these assets will be the responsibility of the private parties involved, therefore no additional maintenance expenditure associated with this private coastal protection is allowed for.

E.2.3. Database

The coastal structures contracts are not managed using a database, and therefore live updating is not undertaken. It is likely to be a requirement of future contracts (where applicable) to collect asset data to enable updating of the Confirm database.

**E.3 Engineering Studies**

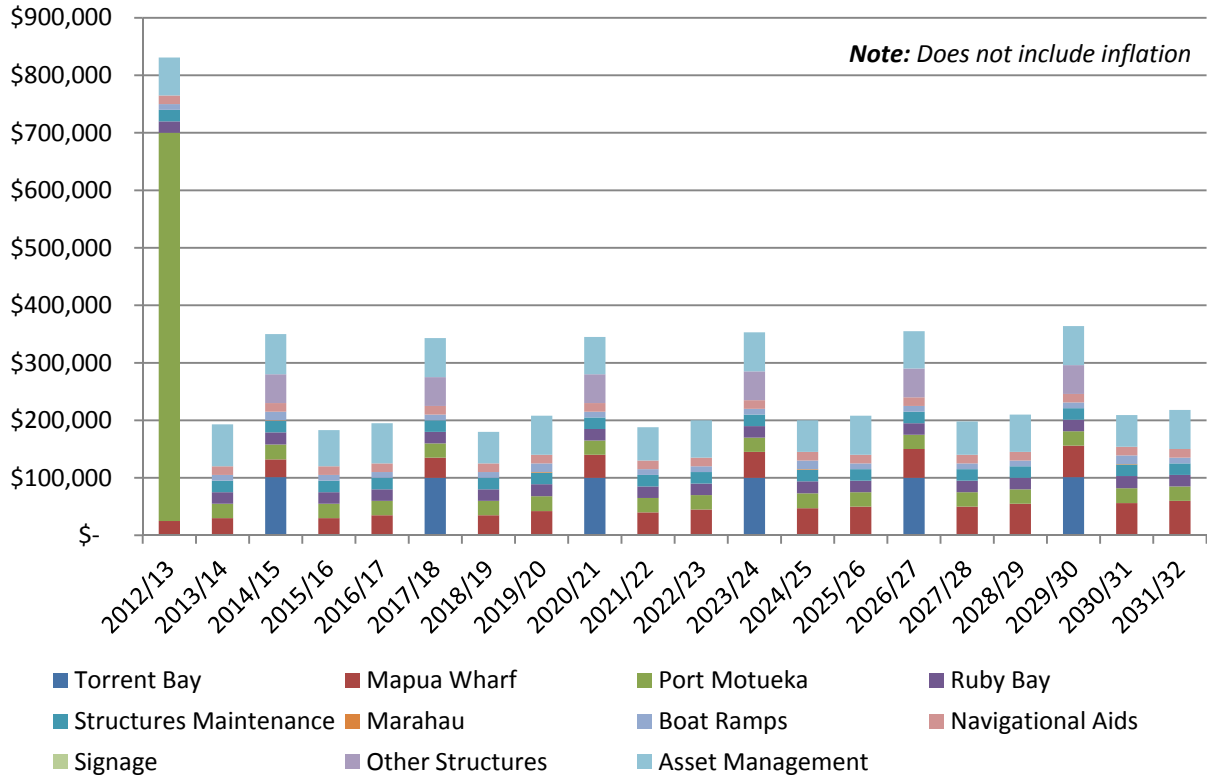
The studies which have been allocated to the Operations and Maintenance budget are summarised in Table E-1 below.

**Table E-1: Summary of Engineering Studies included in this AMP**

Study Name	Brief Description
Coastal Process Study	Study of coastal processes Ruby Bay environs.

### E.4 Forecast Operations and Maintenance Expenditure

Figure E-1 and Table E-2 detail the project operations and maintenance expenditure for the next 20 years.



**Figure E-1: 2012 – 2032 Coastal Structures Operating and Maintenance Expenditure**



**Table E-2: 2012 – 2032 Coastal Structures Operations and Maintenance Expenditure**

Item	Scheme	Project Name	GL Code	Total Project Cost	Total O&M	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
						Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
1	Asset Management	AMP Update	1002220301	130,000	130,000	0	10,000	10,000	0	10,000	10,000	0	10,000	10,000	0	10,000	10,000	0	10,000	10,000	0	10,000	10,000	0	10,000
2	Asset Management	Asset Revaluation	1002220304	30,000	30,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000	0	3,000
3	Asset Management	Coastal process study	1008220301	25,000	25,000	5,000	5,000	5,000	5,000	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Asset Management	Professional services	10022203	1,086,000	1,086,000	60,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000
6	Asset Management	Improvement Plan	1002220305	20,000	20,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
9	Boat Ramps	Inspections	1002240103	20,000	20,000	0	0	5,000	0	0	0	0	5,000	0	0	0	0	5,000	0	0	0	0	0	5,000	0
10	Boat Ramps	Routine maintenance	1002240108	200,000	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
11	Mapua Wharf	Building maintenance	10032401	100,000	100,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
12	Mapua Wharf	Building management	10032203	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
15	Mapua Wharf	Inspections	1003240103	4,000	4,000	0	0	1,000	0	0	0	0	1,000	0	0	0	0	1,000	0	0	0	0	0	1,000	0
17	Mapua Wharf	Streetscape maintenance	10032408	350,000	350,000	0	5,000	5,000	5,000	10,000	10,000	10,000	15,000	15,000	15,000	20,000	20,000	20,000	25,000	25,000	25,000	30,000	30,000	30,000	35,000
20	Marahau	Inspections	1015240103	4,000	4,000	0	0	1,000	0	0	0	0	1,000	0	0	0	0	1,000	0	0	0	0	0	1,000	0
22	Navigational Aids	Aids to navigation maintenance	1002240105	300,000	300,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
24	Other Structures	Structures removal	1002240110	300,000	300,000	0	0	50,000	0	0	50,000	0	0	50,000	0	0	50,000	0	0	50,000	0	0	50,000	0	0
25	Port Motueka	Inspections	1013240103	4,000	4,000	0	0	1,000	0	0	0	0	1,000	0	0	0	0	1,000	0	0	0	0	0	1,000	0
26	Port Motueka	Jackett Island	1013240101	650,000	650,000	650,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Port Motueka	Rates	10132508	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
28	Ruby Bay	Inspections	1008240103	4,000	4,000	0	0	1,000	0	0	0	0	1,000	0	0	0	0	1,000	0	0	0	0	0	1,000	0
29	Ruby Bay	Seawall maintenance	10082401	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
31	Structures Maintenance	Structures maintenance	10022509	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
32	Torrent Bay	Beach replenishment	1004240101	600,000	600,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0
33	Torrent Bay	Inspections	1004240103	4,000	4,000	0	0	1,000	0	0	0	0	1,000	0	0	0	0	1,000	0	0	0	0	0	1,000	0
35	Port Motueka	Legal fees	10132202	70,000	70,000	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
36	Port Motueka	Professional services	10132203	30,000	30,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
<b>TOTALS</b>				<b>9,803,850</b>	<b>5,531,000</b>	<b>831,000</b>	<b>193,000</b>	<b>350,000</b>	<b>183,000</b>	<b>195,000</b>	<b>343,000</b>	<b>180,000</b>	<b>208,000</b>	<b>345,000</b>	<b>188,000</b>	<b>200,000</b>	<b>353,000</b>	<b>200,000</b>	<b>208,000</b>	<b>355,000</b>	<b>198,000</b>	<b>210,000</b>	<b>364,000</b>	<b>209,000</b>	<b>218,000</b>

Note: Does not include inflation

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## **APPENDIX F. DEMAND AND FUTURE NEW CAPITAL REQUIREMENTS**

### **F.1 Growth Demand and Supply Model (GDSM)**

#### **F.1.1. Model Summary**

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

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

Population growth does not have a direct effect on the coastal structures activity. Therefore the model outputs are not relevant to this activity.

### **F.2 Projection of Demand for Coastal Structures Services**

#### **F.2.1. Effect of Population Growth on Coastal Structures**

The link between population growth and the demand for coastal activities is not as direct as it is for say water supply or transportation, however generally population growth leads to intensification of the use of existing facilities for recreation and demand for further housing development close to the coast. The potential effects of this on the coastal activities are:

- increased use of port, wharf, mooring, marina and boat ramp facilities for recreation
- possible need for further coastal protection of properties if not fully allowed for in assessing the suitability of development.

Council has encouraged the use of the coastal wharves and boat ramp facilities together with the opportunity to lease buildings for associated activities (boat clubs) and commercial users.

Council will continue to allow the use of the assets for coastal related activities and other compatible uses in a manner that minimises conflict with the local community and the coastal environment, serves the needs of the district and is self-supporting.

No additional boat ramps are currently programmed.

Coastal protection work will be programmed as required and affordable to the community. Currently there is no new coastal protection programmed.

Mapua wharf area and facilities is the only coastal area with growth related projects programmed.

#### **F.2.2. Implications of Changes in Community Expectations**

Community expectations vary geographically and over time key trends in community expectations that the Council recognises include:

- environmental awareness is leading to demand for more sustainable development and use of the district coastlines and environs
- the effects of climate change could be very significant
- increasing demand for higher levels of coastal protection as property values increase
- increasing expectation that Council should take a greater role in control of coastal development
- changes in the aquaculture and fishing industries could affect the demand for facilities at Port Motueka.

A coastal process study has been programmed to help better understand some of these issues. No new assets are identified at this stage to address the above.

Council has to date facilitated and assisted the improvements at the ports, with the provision of boat ramps and coastal protection. Each proposal has been considered on its merits. Council will continue to meet the reasonable customer needs subject to its management objectives.

Ownership of wharf structures and associated facilities will continue to be reviewed as changes in the required Level of Service occur.

#### F.2.3. Implications of Technological Change

Technology change has the ability to impact on the demand for a service. There is no predicted technological changes that will have a significant effect on the assets in the medium term. A possible lesser example is changes in navigational aids to better, more reliable systems, it is likely this change would be addressed through the renewals process.

#### F.2.4. Implications of Legislative Change

Changes to coastal activity policies may be driven from a number of directions. They could be internally driven with greater emphasis on the objective of self-supporting, or externally (eg. changes driven by national organisations such as the MaritimeNZ and Government Policy Statements.)

Council will continue to monitor these factors when reviewing and developing forecasts and strategies. Currently no financial allowance has been made for any legislative changes.

### F.3 Assessment of New Capital Works

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

New works were identified by:

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

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

The project estimate template includes:

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

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

#### F.4 Determination of Project Drivers and Programming

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

- Operation and Maintenance: operational activities which have no effect on asset condition but are necessary to keep the asset utilised appropriately and on-going day-to-day work required to keep assets operating at required service levels<sup>2</sup>.
- Renewals: significant work that restores or replaces an existing asset towards its original size, condition or capacity<sup>3</sup>.
- Increase Level of Service: works to create a new asset to upgrade or improve an existing asset beyond its original capacity or performance to improve the level of service provided to existing customers.
- Growth: works to create a new asset to upgrade or improve an existing asset beyond its original capacity or performance to provide for the anticipated demands of future growth.

This is necessary for two reasons as follows.

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

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

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

The projects have been scheduled out across the 20 year period, primarily based on their drivers. They were then loaded into Mapinfo along with projects from all other engineering activities to allow programme managers to assess any programme clashes or optimisation opportunities.

#### F.5 Project Prioritisation

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

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

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

<sup>2</sup> Definition from International Infrastructure Management Manual – Version 3.0, 2006, pg 3.114

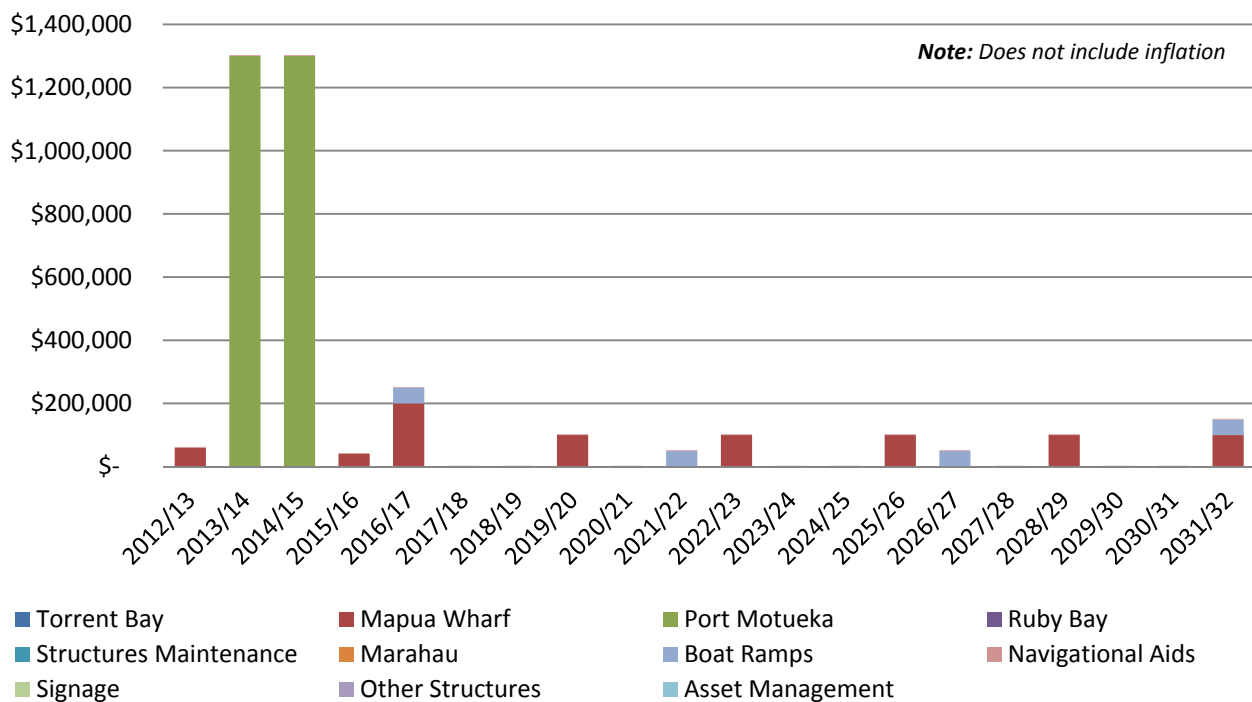
<sup>3</sup> Definition from International Infrastructure Management Manual – Version 3.0, 2006, pg 3.114

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

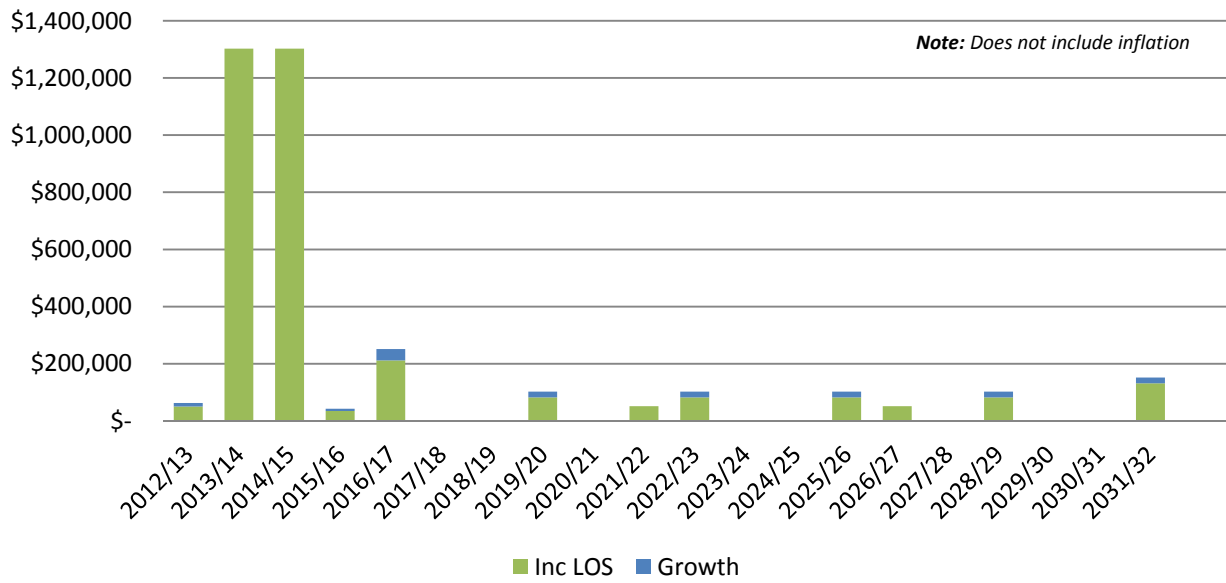
Council is currently reviewing the way that they prioritise their work programmes; the outcome of this review will be further developed over the coming year to be implemented for the next AMP update.

### F.6 Forecast of New Capital Work Expenditure

The capital programme that has been forecast for this activity for the next 20 years where the primary driver is classed as new works (ie. growth or levels of service) is shown in Figure F-1, Figure F-2 and Table F-1.



**Figure F-1: 2012 – 2032 Coastal Structures New Capital Expenditure by Scheme**



**Figure F-2: 2012 – 2032 Coastal Structures New Capital Expenditure by Driver**

**Table F-1: 2012 – 2032 Coastal Structures New Capital Works Expenditure**

Item	Scheme	Project Name	Description	GL Code	Total Project Cost	Total New Capital	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10	2022/23 Year 11	2023/24 Year 12	2024/25 Year 13	2025/26 Year 14	2026/27 Year 15	2027/28 Year 16	2028/29 Year 17	2029/30 Year 18	2030/31 Year 19	2031/32 Year 20
8	Boat Ramps	Boat ramp reconstruction	Renewal and upgrading of formed boat ramps	10026210004	400,000	196,000	0	0	0	0	49,000	0	0	0	0	49,000	0	0	0	0	49,000	0	0	0	0	49,000
16	Mapua Wharf	Mapua Wharf Area Devpt Plan	Professional service fees for development plan, consultation and design	10036210071	60,000	60,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Mapua Wharf	Streetscape wharf area	Upgrade to wharf area including lighting and street furniture	1003621007	740,000	740,000	0	0	0	40,000	200,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0	100,000	0	0	100,000
23	Navigational Aids	Installation of new aids	Installation of new fixed aids to navigation	10026210005	100,000	51,000	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550
37	Port Motueka	Jacket Island	Jackett Island Remediation - capital only	10136210001	2,600,000	2,600,000	0	1,300,000	1,300,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>					<b>9,803,850</b>	<b>3,647,000</b>	<b>62,550</b>	<b>1,302,550</b>	<b>1,302,550</b>	<b>42,550</b>	<b>251,550</b>	<b>2,550</b>	<b>2,550</b>	<b>102,550</b>	<b>2,550</b>	<b>51,550</b>	<b>102,550</b>	<b>2,550</b>	<b>2,550</b>	<b>102,550</b>	<b>51,550</b>	<b>2,550</b>	<b>102,550</b>	<b>2,550</b>	<b>2,550</b>	<b>151,550</b>

Note: Does not include inflation

## **APPENDIX G. DEVELOPMENT CONTRIBUTIONS / FINANCIAL CONTRIBUTIONS**

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

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

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

There are no specific development contributions applicable to the coastal structures activity.

Coastal development is considered on a case by case basis with appropriate consents and consultation which will include the basis of funding requirements.



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## **APPENDIX H. RESOURCE CONSENTS AND PROPERTY DESIGNATIONS**

### **H.1 Introduction**

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

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

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

### **H.2 Resource Consents**

The register in NM2 of Council's active resource consents is still under development. At present there is no complete record of resource consents relating to coastal structures assets, the completion of this work is identified in the Improvement Plan in Appendix V. Further development of the register will allow the accurate programming of all actions required by the consents including renewal prior to consent expiry. NM2 will also drive the annual monitoring programme.

Consents are required for coastal protection works. They have been obtained for planned works such as at Mapua (Broadsea Avenue and Old Mill Walkway), and at Marahau.

Coastal structures for the protection of other infrastructure adjacent to the coastline (such as roads) are managed under the transportation activity, including any required consents. Resource consents for structures, occupation or activities in the coastal marine area are known as coastal permits. Short-term consents are required from time to time for construction activities.

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

Generally there is no monitoring of resource consent conditions undertaken at present with the Council intending to initiate a programme of monitoring.

### **H.3 Resource Consent Reporting and Monitoring**

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

#### **H.3.1. Environmental Reporting and Monitoring**

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

### H.3.2. NM2

Once the consent information for coastal structures is included in NM2 it will be used to report on and monitor consents. MWH New Zealand Ltd has developed a database (NM2) of all refuse, rivers, transportation, stormwater, water and wastewater resource consents. The management of this database allows the accurate programming of all actions required by the consents including renewal prior to consent expiry. NM2 is actively updated to ensure all consent conditions are complied with and that all relevant reporting requirements are adhered to.

### H.3.3. Council's Annual Report

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

## **H.4 Property Designations**

There are no current designations in place for coastal structures.

## **APPENDIX I. CAPITAL REQUIREMENTS FOR FUTURE RENEWALS**

### **I.1 Introduction**

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

### **I.2 Renewal Strategy**

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

The renewal programme has been developed by.

- Taking asset age and remaining life predictions from the valuation database, calculating when the remaining life expires and converting that into a programme of replacements based on valuation replacement costs.
- Reviewing and justifying the renewals forecasts using the accumulated knowledge and experience of asset operations and asset management staff. This incorporates the knowledge gained from tracking asset failures through the Customer Services System.
- Undertaking an optimising review to identify opportunities for bundling projects across assets, optimised replacement, timing across assets and smoothing of expenditure.

The renewal programme is reviewed in detail during each AMP update (ie. three yearly), and every year the annual renewal programme is reviewed and planned with the input of the consultant.

### **I.3 Delivery of Renewals**

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

### **I.4 Renewal Standards**

The work is undertaken in accordance with best practice, site specific design, site specific resource consents where applicable, and the TRMP. Contractors are selected on their proven ability to provide best practice on an as required basis.

Regulatory assets such as signs and aids to navigation are renewed by Council's Harbour Master on an as required basis.

### **I.5 Deferred Renewals**

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

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

#### **I.5.1. Assessment of Deferred Renewals**

The extent of deferred renewals can be identified by comparing the accumulated investment in renewals with accumulated annual depreciation. This information then forms the basis of a renewals strategy. Council is yet to complete the process for this activity and hence it has been included in the improvement plan.

I.5.2. Management and Mitigation of Deferred Renewals

Whilst the exact extent of deferred renewals is not identified, Council can manage potential effects on levels of service by routinely undertaking condition rating and reviewing the renewals programme.

I.6 Forecast of Renewals Expenditure

Figure I-1 and Table I-1 shows the projected renewal costs for the next 20 years.

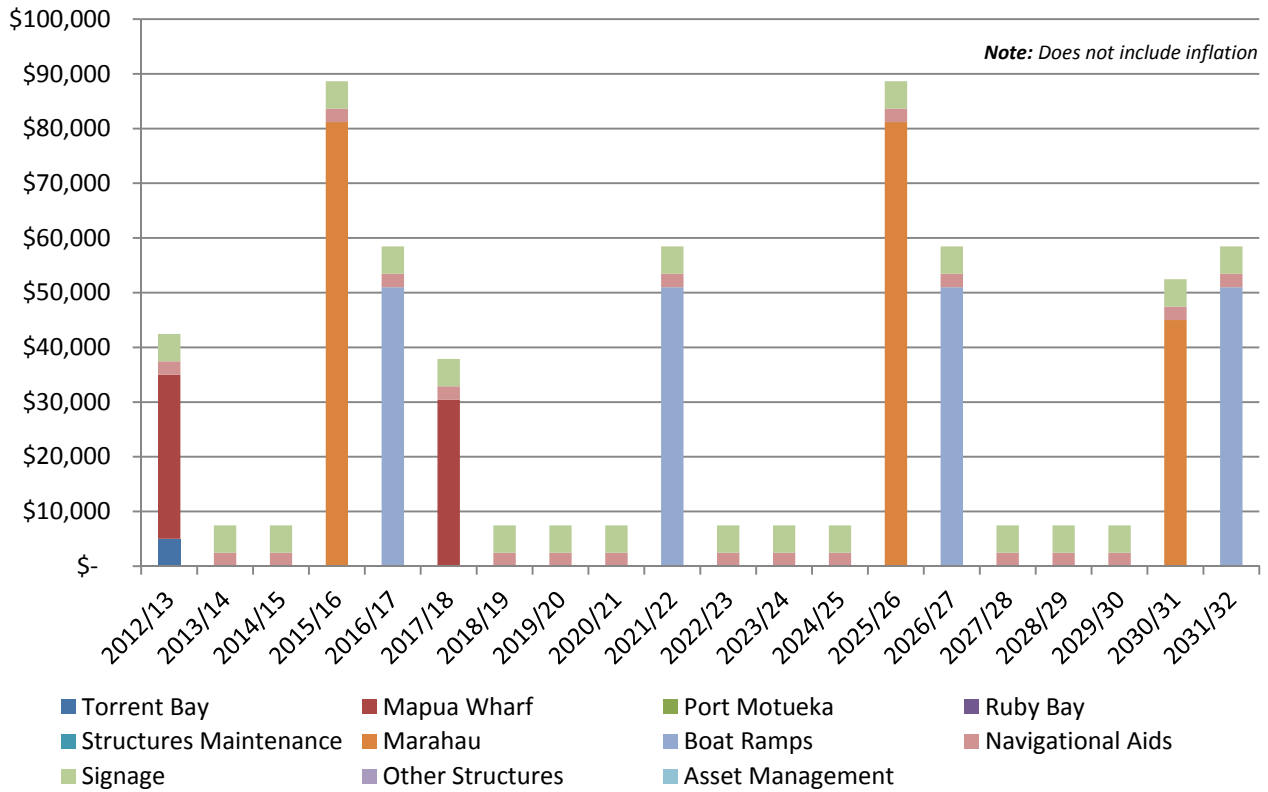


Figure I-1: 2012 – 2032 Coastal Structures Renewal Expenditure

**Table I-1: 2012 – 2032 Coastal Structures Renewal Expenditure**

Item	Scheme	Project Name	GL Code	Total Project Cost	Total Renewals	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
						Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
8	Boat Ramps	Boat ramp reconstruction	10026210004R	400,000	204,000	0	0	0	0	51,000	0	0	0	0	51,000	0	0	0	0	51,000	0	0	0	0	51,000
13	Mapua Wharf	Building renewals	10036210003R	30,000	30,000	30,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Mapua Wharf	Deck and pile replacements	10036210001R	30,450	30,450	0	0	0	0	0	30,450	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Marahau	Coastal protection	10156210002R	162,400	162,400	0	0	0	81,200	0	0	0	0	0	0	0	0	0	81,200	0	0	0	0	0	0
21	Marahau	Jetty renewal	10156210003R	45,000	45,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45,000	0	
23	Navigational Aids	Installation of new aids	10026210005R	100,000	49,000	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
30	Signage	Sign renewal	1002621005R	100,000	100,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
34	Torrent Bay	Jetty renewal	1004621002R	5,000	5,000	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>				<b>9,803,850</b>	<b>625,850</b>	<b>42,450</b>	<b>7,450</b>	<b>7,450</b>	<b>88,650</b>	<b>58,450</b>	<b>37,900</b>	<b>7,450</b>	<b>7,450</b>	<b>7,450</b>	<b>58,450</b>	<b>7,450</b>	<b>7,450</b>	<b>7,450</b>	<b>88,650</b>	<b>58,450</b>	<b>7,450</b>	<b>7,450</b>	<b>7,450</b>	<b>52,450</b>	<b>58,450</b>

Note: Does not include inflation

## **APPENDIX J. DEPRECIATION AND DECLINE IN SERVICE POTENTIAL**

### **J.1 Depreciation of Infrastructural Assets**

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

The total useful lives for coastal structures infrastructure has been summarised in Appendix D – Asset Valuations.

### **J.2 Decline in Service Potential**

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

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

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

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

## APPENDIX K. FUTURE DEBT REQUIREMENTS FOR THE ACTIVITY

### K.1 General Policy

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

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

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

The Council raises debt for the following primary purposes.

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

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

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

### K.2 Loans

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

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

Coastal Structures	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10
	311	1,420	1,468	46	238	0	0	134	0	0
	5,523	5,478	6,501	7,527	7,094	6,846	6,355	5,862	5,523	5,052

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

### K.3 Cost of Loans

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

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

Coastal Structures	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10
Loan Interest (x 1,000)	330	365	442	483	474	762	452	404	386	352
Loan Principal	357	398	441	479	486	492	492	473	471	469

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



## **APPENDIX L. SUMMARY OF FUTURE OVERALL FINANCIAL REQUIREMENTS**

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

**Table L-1: Summary of Projected Costs and Income for the Next 10 Years**

<b>Coastal Assets</b>	<b>2011/2012</b>	<b>2012/2013</b>	<b>2013/2014</b>	<b>2014/2015</b>	<b>2015/2016</b>	<b>2016/2017</b>	<b>2017/2018</b>	<b>2018/2019</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>
	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>	<b>Budget \$</b>
<b>SOURCES OF OPERATING FUNDING</b>											
General rates, uniform annual general charges, rates penalties	416,045	547,814	444,340	724,017	762,827	798,232	774,006	642,855	631,137	670,820	697,056
Targeted rates (other than a targeted rate for water supply)	131,204	134,129	136,042	123,773	125,766	127,928	130,138	132,397	134,705	137,065	139,477
Subsidies and grants for operating purposes	-	-	-	-	-	-	-	-	-	-	-
Fees, charges and targeted rates for water supply	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads recovered	-	-	-	-	-	-	-	-	-	-	-
Local authorities fuel tax, fines, infringement fees, and other receipts	797,430	784,100	870,566	898,093	928,258	959,490	989,975	1,021,456	1,055,945	1,093,682	1,132,819
<b>TOTAL OPERATING FUNDING</b>	<b>1,344,679</b>	<b>1,466,043</b>	<b>1,450,948</b>	<b>1,745,883</b>	<b>1,816,851</b>	<b>1,885,650</b>	<b>1,894,119</b>	<b>1,796,708</b>	<b>1,821,787</b>	<b>1,901,567</b>	<b>1,969,352</b>
<b>APPLICATIONS OF OPERATING FUNDING</b>											
Payments to staff and suppliers	311,930	1,086,358	401,105	647,502	426,756	454,539	650,041	471,863	522,794	726,866	539,638
Finance costs	499,485	330,027	365,339	441,877	482,510	473,989	462,037	452,032	404,201	386,005	351,667
Internal charges and overheads applied	90,795	157,661	160,220	175,892	176,282	183,500	195,361	193,192	202,222	215,678	214,224
Other operating funding applications	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL APPLICATIONS OF OPERATING FUNDING</b>	<b>902,210</b>	<b>1,574,046</b>	<b>926,664</b>	<b>1,265,271</b>	<b>1,085,548</b>	<b>1,112,028</b>	<b>1,307,439</b>	<b>1,117,087</b>	<b>1,129,217</b>	<b>1,328,549</b>	<b>1,105,529</b>
<b>SURPLUS (DEFICIT) OF OPERATING FUNDING</b>	<b>442,469</b>	<b>(108,003)</b>	<b>524,284</b>	<b>480,612</b>	<b>731,303</b>	<b>773,622</b>	<b>586,680</b>	<b>679,621</b>	<b>692,570</b>	<b>573,018</b>	<b>863,823</b>

Coastal Assets	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$
Subsidies and grants for capital expenditure	-	-	-	-	-	-	-	-	-	-	-
Development and financial contributions	-	-	-	-	-	-	-	-	-	-	-
Increase (decrease) in debt	(135,325)	(45,467)	1,022,838	1,026,676	(432,925)	(247,795)	(491,976)	(491,976)	(339,218)	(471,257)	(469,487)
Gross proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-
Lump sum contributions	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL SOURCES OF CAPITAL FUNDING</b>	<b>(135,325)</b>	<b>(45,467)</b>	<b>1,022,838</b>	<b>1,026,676</b>	<b>(432,925)</b>	<b>(247,795)</b>	<b>(491,976)</b>	<b>(491,976)</b>	<b>(339,218)</b>	<b>(471,257)</b>	<b>(469,487)</b>
<b>APPLICATIONS OF CAPITAL FUNDING</b>											
Capital expenditure											
- to meet additional demand	-	-	-	-	-	-	-	-	-	-	-
- to improve the level of service	89,495	378,870	1,426,243	1,473,307	51,739	244,181	6,182	6,429	140,820	7,008	7,330
- to replace existing assets	340,000	41,520	5,382	5,560	99,108	125,069	43,830	6,429	6,706	7,007	153,926
Increase (decrease) in reserves	(122,351)	(573,860)	115,497	28,421	147,531	156,577	44,692	174,787	205,826	87,746	233,080
Increase (decrease) in investments	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL APPLICATIONS OF CAPITAL FUNDING</b>	<b>307,144</b>	<b>(153,470)</b>	<b>1,547,122</b>	<b>1,507,288</b>	<b>298,378</b>	<b>525,827</b>	<b>94,704</b>	<b>187,645</b>	<b>353,352</b>	<b>101,761</b>	<b>394,336</b>
<b>SURPLUS (DEFICIT) OF CAPITAL FUNDING</b>	<b>(442,469)</b>	<b>108,003</b>	<b>(524,284)</b>	<b>(480,612)</b>	<b>(731,303)</b>	<b>(773,622)</b>	<b>(586,680)</b>	<b>(679,621)</b>	<b>(692,570)</b>	<b>(573,018)</b>	<b>(863,823)</b>
<b>FUNDING BALANCE</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

N.B. Figures do include inflation.

## APPENDIX M. FUNDING POLICY PLUS FEES AND CHARGES

### M.1 Funding Strategy

The focus of the AMPs has been on identifying the optimum (lowest life cycle) cost for operating, maintaining, renewing, developing and disposing of the assets necessary to produce the desired level of service.

Funding sources available for coastal structures include:

- leases and rents
- fee recovery
- loans raised
- general rate
- separate rate
- sundry income.

Major capital projects may be loan funded. When loans are made, the loan is taken for a fixed period, usually 20-30 years, with a fixed annual principal repayment as a capital expense on the account, and interest payments as an operating expense. For the purpose of the financial forecasts, all new works and renewal work has been assumed to be loan funded.

### M.2 Schedule of Fees and Charges

Table M-1 shows the targeted rates that Council has set for the coastal structures activities. The properties or rating units that the various rates will be applied are defined by the various Rating Areas (eg. The Ruby Bay Stopbank Rate applies to all rating units in the Ruby Bay Stop Bank Rating Area).

**Table M-1: Targeted Rates for Coastal Structures**

Rate	2011/2012	2012/2013
Torrent Bay Replenishment A (dollars per rating unit)	\$1,533.33	\$1,573.30
Torrent Bay Replenishment B (dollars per rating unit)	\$460.00	\$496.83
Ruby Bay Stopbank (dollars per rating unit)	\$1,072.31	\$1,072.31
Mapua Stopbank (dollars per rating unit)	\$108.81	\$108.81

Table M-2 below details the current fees and charges.

**Table M-2: Wharfage and Berthage**

Wharfage for Ports of Tarakohe and Mapua		
Type of Cargo	Charges proposed from 1 July 2012 incl GST	
Fish and shellfish	Includes all marine animals	\$10.00 per tonne
Mussel and spat	Alternative backbone levy	Subject to negotiation with aquaculture farmers but not less than \$1.05/m for mussels and 31c/m for spat
Ring road	Alternate to wharfage	
Other, including cargo	Rates for large bulk by negotiation	\$3.80 per tonne
Fuel (other than use of fixed facility)	Fuel transfer only	1.0 cents per litre

Note: Backbone line and ring road levies are an alternative annual levy to payment of wharfage and will be subject to annual negotiation to ensure levies are comparable to relevant wharfage charges. If these levies are not agreed, berthage and wharfage charges will apply. These charges may be amended at any stage during the year by Council resolution.

Commercial Operator's Licence (GST inclusive)	Charges proposed from 1 July 2012 incl GST
<b>Application fee</b> Payable on initial application and in addition to the annual fee. (plus reimbursement of any reasonable and necessary additional costs incurred by Council in assessing an application, eg. evaluation of seaworthiness, qualifications and experience).	\$207.00
<b>Annual Fee</b> For each multiple of, one power-driven vessel and/or up to a total of 15 kayaks, rafts, waka or similar vessels that are not power-driven with greater than 10hpw.	\$269.00
<b>Late Payment Fee</b>	Additional 20%

Fuel Facilities	Charges proposed from 1 July 2012 incl GST
Pump sited on Council wharf, or property at Tarakohe. The lump sum charge is in lieu of wharfage.	\$3,680 per year
Elsewhere and excluding wharfage.	\$50 per year
Boat Storage Compound	\$21 per week \$73.00 per month \$620.00 per annum

Berthage of a Vessel at a Council Owned Wharf	
Commercial vessels and private recreational vessels (including fishing vessels, marine farming vessels, commercial passenger and/or cargo vessels)	Charges proposed from 1 July 2012 incl GST
Passengers over the wharf (where no vessel berthed)	\$5.00 per person, over 5 years of age
Casual (daily)	\$3.60 per metre or 30 cents per gross registered tonnage, which ever is the greater, plus port charges (security, line party etc.)

Note: the charges may be varied by the Chief Executive where special circumstances exist.

Berthage of a Vessel at a Council Owned Facility other than a Wharf		
Type of Berth and Vessel	Minimum Length Charged	Charges Proposed from 1 July 2012 incl GST
Marina: recreational	8 metres	\$255.00 per metre
Piled walkway, commercial	8 metres	\$230.00 per metre
Floating up to 15 metres, commercial	10 metres	\$280.00 per metre
Floating over 15 metres, commercial	16 metres	\$325.00 per metre
Restricted Access	8 metres	\$195.00 per metre
Recreational visitor on mooring or marina berth, vessel 15 metres or less		\$18.00 per day
Recreational visitor on mooring or marina berth, vessel more than 15 metres		\$23.00 per day
Fore and aft mooring: outer arm		\$1,130.00
Live aboard		\$65.00 per month plus outgoings
Pohara Boat Club Members (fees collected and paid by Pohara Boat Club prior to issue of card plus \$10 for each access card)		\$65.00 per annum

Trans-shipping of Cargo at Sea	Charges proposed from 1 July 2012 incl GST
Cargo, Goods, Merchandise or other Material	\$0.25 per tonne

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## **APPENDIX N. DEMAND MANAGEMENT**

### **N.1 Introduction**

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

- optimise utilisation/performance of existing assets
- reduce or defer the need for new assets
- meet the organisation's strategic objectives
- delivery of a more sustainable service
- respond to customer needs.

As a Harbour Authority, Council has a statutory obligation to manage the activities within the ports. As a Regional Authority, Council is obligated to undertake its responsibilities within the coastal marine area. As a Local Authority, Council works with its community to provide safe and reasonable access to the coast and, where applicable, to protect public or private assets on or along the coast.

### **N.2 Council's Approach to Demand Management**

The coastal activities have significant impact on the district, local communities and the coastal environment. As demand for use of the coastal area increases, Council will use its objectives and policies (refer Appendix A) to provide guidance to manage the conflicts of the need to protect and enhance the coastal environment along with allowing and protecting existing (eg. wharf and harbour activities) and possibly some future built development adjacent to the coast. Council recognises that the natural coastal processes are complex and not well understood and Council will continue to research and monitor the dynamics of its coast line so as to make appropriate decisions whether to protect or leave areas to the natural processes.

Council will also continue to manage activities by others through its bylaws and the TRMP to ensure activities are undertaken in a sustainable manner which is affordable to the community.

#### **N.2.1. Demand Management Measures**

Council will use a number of measures to assist in the management of demand for access to and use of the coastal area as well as reducing the demand for coastal protection works including:

- education of users of the coastal areas for recreational and commercial activities
- management of coastal development through bylaws and TRMP
- management of moorings and possible restrictions of use
- fees and charges where practical and affordable
- land use planning to reduce conflicts with protection of the natural coastline
- new technology for navigational safety aids to improve effectiveness and efficiency.

### **N.3 Climate Change**

#### **N.3.1. Changing Climatic Patterns**

The RMA 1991 states, in Section 7, that a local authority shall take account of the effects of climate change when developing and managing its resources. To assist local authorities, the Ministry for the Environment (MfE) prepared a report<sup>4</sup> to support councils' assessing expected effects of climate change, and to help them prepare appropriate responses when necessary.

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

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

### N.3.2. Temperature Change

Table N-1 shows that the mean annual temperatures in Tasman-Nelson are expected to increase in the future.

**Table N-1: Projected Mean Temperature Change (Upper and Lower Limits) in Tasman-Nelson (in °C)**

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

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

It is the opinion of NIWA<sup>5</sup> scientists that the actual temperature increase this century is very likely to be more than the 'low' scenario given here. Under the mid-range scenario for 2090, an increase in mean temperature of 2.0°C would represent annual average temperature in coastal Tasman in 2090.

### N.3.3. Rainfall Patterns

Table N-2 shown an expected increase in mean annual precipitation in Tasman-Nelson from 1990 to 2090.

**Table N-2: Projected Mean Precipitation Change (Upper and Lower Limits) in Tasman-Nelson (in %)**

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

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

### N.3.4. Heavy Rainfall

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

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

### N.3.5. Evaporation, Soil Moisture and Drought

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

### N.3.6. Climate Change and Sea Level

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

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

- A base mean sea-level rise of 0.5m relative to the 1980-1999 average.
- An assessment of the sensitivity of the issue under consideration to possible higher mean sea-levels taking account of possible additional contributions. This level is currently under discussion, but is likely to be no less than 0.8m.

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

<sup>5</sup> Climate Change and Variability – Tasman District (NIWA, June 2008)



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

N.3.7. Potential Impacts on Council's Infrastructure and Services

Table N-3 lists the potential impacts on Council's infrastructure and services.

**Table N-3: Local Government Functions and Possible Climate Change Outcomes**

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

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

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

**APPENDIX O. NOT RELEVANT TO THIS ACTIVITY**

## APPENDIX P. SIGNIFICANT EFFECTS

### P.1 Significant Negative Effects

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

**Table P-1: Potential Significant Negative Effects**

Effect	Council's Mitigation Measure
The construction of structures that appear out of character with the coastal environment.	Council controls this through bylaws and the TRMP, and may impose conditions on lessees to improve the amenity value of existing buildings.
Increased traffic and noise from both commercial and recreational users of coastal facilities.	Council controls the use of coastal areas and facilities through Bylaws, the TRMP, restriction of access, and education.
The cost of providing the services.	Council uses competitive tendering processes to achieve best value for money for works it undertakes. It also uses priority matrices to prioritise funding allocations.
Potential changes to the natural coastal process due to placement of structures. This may include loss of natural sand dunes.	Council mitigates/minimises changes to the natural environment through bylaws and the TRMP.
Potential to affect wahi tapu sites relating to the local iwi.	Council undertakes consultation with affected parties prior to undertaking works. Council also maintains a record of known cultural heritage sites.

### P.2 Significant Positive Effects

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

**Table P-2: Potential Significant Positive Effects**

Effect	Description
Economic development	Provision and maintenance of coastal structures allows for the development of commercial businesses, therefore, contributing to economic growth and prosperity in the district.
Safety and personal security	Provision and maintenance of coastal protection schemes improves protection for some residents and the built environment.
Community value	Coastal structures contribute to community well-being by providing assets for recreational use of residents and visitors to the area.
Environmental sustainability	Council aims to achieve environmental sustainability whilst managing the coastal structures activity.
Economic efficiency	Council's management of the coastal structures activity uses best practice and competitive tendering to provide value for money for the ratepayers and provides jobs for contractors.

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## **APPENDIX Q. SIGNIFICANT ASSUMPTIONS, UNCERTAINTIES, AND RISK MANAGEMENT**

### **Q.1 Assumptions and Uncertainties**

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

#### **Q.1.1. Financial Assumptions**

The following assumptions have been made:

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

#### **Q.1.2. Asset Data Knowledge**

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

Council considers these assumptions and uncertainties constitute a medium risk to the financial forecasts because:

- significant amounts of asset data is unknown
- asset performance for the significant structures is not well known
- changes in the coastal environment are adversely affecting the level of service for Port Motueka, and the mitigation measures are currently not well known.

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

- no development adjacent to the coastline other than that programmed at Ruby Bay will require protection in the 20 year period
- the existing asset condition is such that further deterioration will not require renewal or maintenance beyond that currently allowed for.

#### **Q.1.3. Growth Forecasts**

Growth forecasts are inherently uncertain and involve many assumptions. The growth forecasts also have a very strong influence on the financial forecasts, especially in the Tasman district where population growth has been so high. The growth forecasts underpin and drive:

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

For the coastal structures activity the growth forecasts in tourism, recreation and coastal related industry affect the demands on the coastal assets. Thus the financial forecasts are sensitive to the assumptions made in the growth forecasts.

The significant assumptions in the growth forecasts are covered in the explanation in Appendix F.

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#### Q.1.4. Major Events

The financial forecasts have been prepared under the assumption that no major storm events will occur above the coastal protection assets ability to cope with. If a major storm event does occur it may have a major effect on the operations and maintenance budgets due to the extent of reinstatement required and associated costs. Council will need to prioritise expenditure if a situation such as this arises, the risk of which is high.

#### Q.1.5. Timing of Capital Projects

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

- obtaining resource consent
- obtaining the community consent for projects like the construction of a new seawall where community input is necessary
- securing land purchase and/or entry agreements.

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

#### Q.1.6. Funding of Capital Projects

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

Funding assumptions are made about:

- whether projects will qualify for subsidies
- whether major beneficiaries of work will contribute to the project
- whether Council will subsidise the development of the project.

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

Some decisions have been made to remove some projects from the 20 year forecast. These decisions will mean that some problems may continue to exist. No remedial works or other financial provisions have been made to address these consequences.

#### Q.1.7. Accuracy of Capital Project Cost Estimates

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

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

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

- a project estimating template has been developed that provides a consistent means of preparing estimates
- where practical, a common set of rates has been determined
- specific provisions have been included to deal with non-construction costs like contract preliminary and general costs, engineering costs, Council staff costs, resource consenting costs and land acquisition costs
- specific provisions have been included to deal with estimate accuracy.

These are described as follows.

A 15% provision has been included to get a “Base Project Estimate” to reflect the uncertainties in the unit rates used. A further provision has been added to reflect the uncertainties in the scope of the project – ie. is the solution adopted the right solution? Often detailed investigation will reveal the need for additional works over and above that initially expected. The amount added depends on the amount of work already done on the project. Each project has been assessed as being at the project lifecycle stage as detailed in Table Q-1 below, and from this estimate accuracy assessed. The estimate accuracy is added to the Base Project Estimate to get the Total Project Estimate – the figure that is carried forward into the financial forecasts.

**Table Q-1: Life Cycle Estimate Accuracies**

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

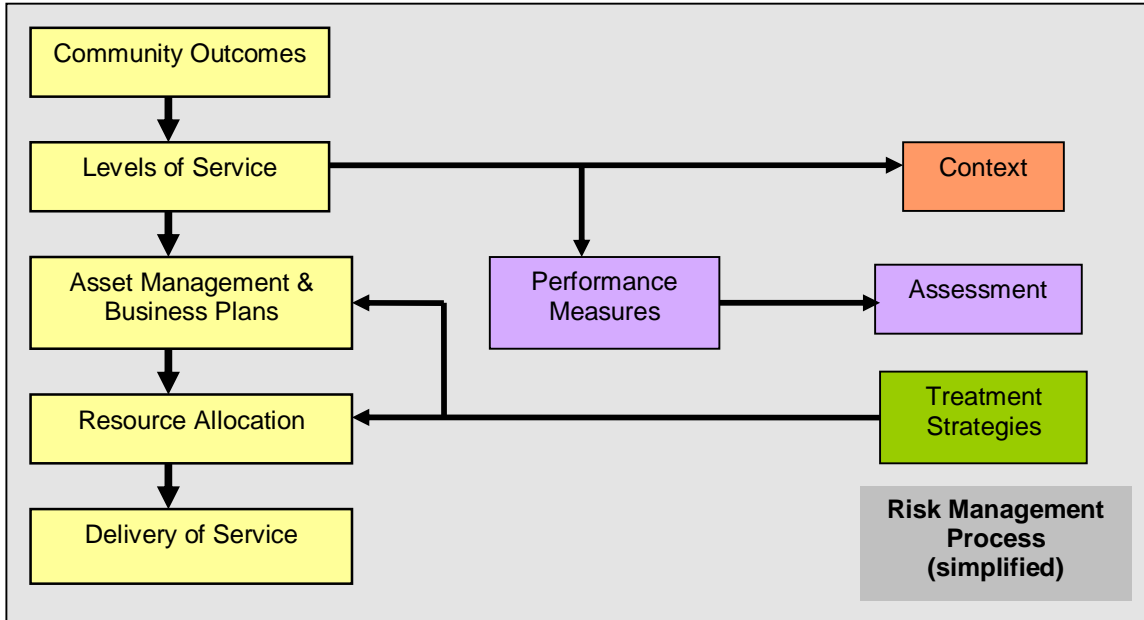
**Q.1.8. Changes in Legislation and Policy**

The legal and planning framework under which local government operates is ever changing. This can significantly affect the feasibility of projects, how they are designed and constructed and how they are funded.

## Q.2 Risk Management

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

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



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

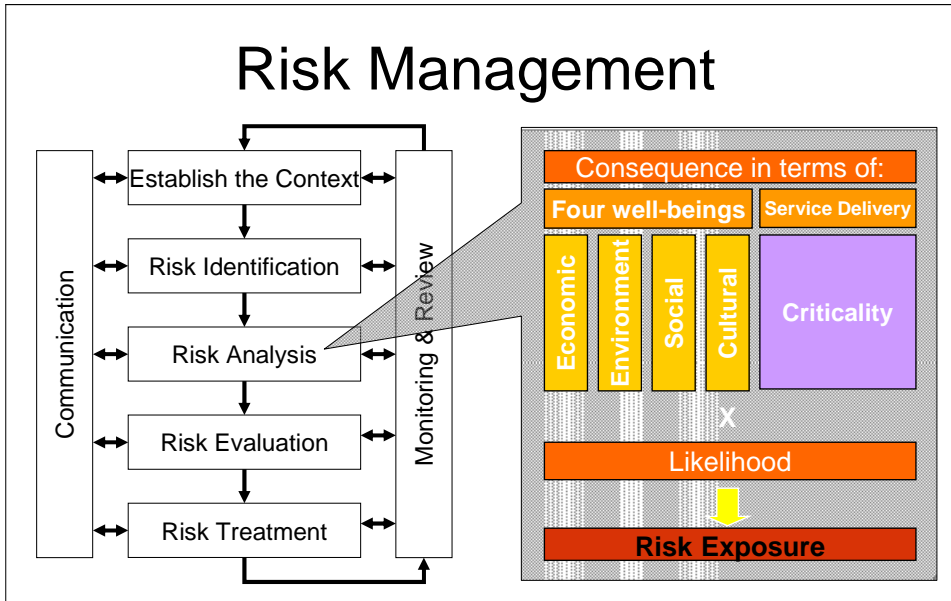
The IRM process and framework is intended to:

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

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

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





**Figure Q-2: Integrated Risk Management Process**

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

**Table Q-2: Consequence Categories**

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

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

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

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

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

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

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

**Q.2.1. Level 1 - Organisational Risk Assessment**

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

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

Q.2.2. Level 2 – Activity Management Risk Assessment

Level 2 risk assessment was carried out at the same time as the Level 1 assessment due to the small number of assets managed within the activity.

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

Q.2.3. Level 3 - Critical Assets Risk Assessment

Critical assets and those assets considered to be significant have been identified. Individual risk assessments have not been carried out for each of the assets, however they have been assessed against the set of mitigation measures.

Table Q-3 lists the critical and significant assets, where a mitigation measure is felt to be necessary, a capital or operational project has been identified and included in the financial forecasts.

**Table Q-3: Significant Assets Level 3 Risk Assessment**

	Mitigation Measures	Key		Measure to be considered					
		Emergency Response Plan	Communication Plan	Vulnerability Checks	Structural Checks	Maintenance Regime	Increase size of Sea Wall	Improve Profile of Sea Wall	Re-direction Capabilities
Wharves									
Jetties									
Boat Ramps									
Navigational Aids									
Coastal Protection / Sea Walls									
Project Name					Structures Maintenance				Structures Removal
ID					31				24

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#### Q.2.4. Projects to Address Risk Shortfalls

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

- an allowance for routine maintenance of structures
- routine structural inspections.

#### Q.2.5. Asset Insurance

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

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

#### Q.2.6. Civil Defence Emergency Management

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

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

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

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

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

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#### Q.2.7. Engineering Lifelines

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

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

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

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

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

- earthquake
- landslide
- coastal / flooding.

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

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

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

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

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

#### Q.2.8. Recovery Plans

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

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

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

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

Q.2.9. Business Continuance

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

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

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

### R.1 Introduction

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

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

- the Council's statutory and legal obligations
- the Council's policies and objectives
- the Council's understanding of what the community is able to fund.

### R.2 How Do Our Coastal Structures Activities Contribute to the Community Outcomes?

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

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

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

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

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

**Community Wellbeing - Economic**

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

**Table R-2: How Coastal Structures Activities Contribute to Community Outcomes**

Community Outcomes	How Our Activity Contributes to the Community Outcome
Our unique natural environment is healthy and protected.	Coastal structures can be managed so their impact does not affect the health and cleanliness of the receiving environment.
Our urban and rural environments are pleasant, safe and sustainably managed.	The coastal structures activity ensures our built environments are functional, pleasant and safe by ensuring the coastal structures are operated without causing public health hazards and by providing attractive recreational and commercial facilities.
Our infrastructure is safe, efficient and sustainably managed.	The coastal structures activity provides commercial and recreational facilities to meet the community needs at an affordable level. The facilities are also managed sustainably.



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### R.3 Levels of Service

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

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

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

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

#### R.3.1. Industry Standards and Best Practice

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

#### R.3.2. Prioritisation related to available resources

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

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

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

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

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

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

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

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

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

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

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

### **R.5 What Plans Have Council Made to Meet The Levels of Service?**

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

Council is making a capital works investment of \$3.5 million over the 20 year period to upgrade existing coastal structures assets and improve levels of service. This includes the following projects:

- boat ramp reconstruction
- Mapua Wharf area development plan
- streetscaping of Mapua Wharf area
- installation of new aids to navigation
- Jackett Island remediation project.

In addition to the capital works, Council has allocated a budget of \$5.3 million over the 20 year period for the operation and maintenance of its current and future coastal structures assets. This allocation includes for professional services and for investigation work and studies such as:

- coastal process study
- asset inspections.

### **R.6 Levels of Service Linked to Legislation**

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

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

ID	Levels of Service (we provide)	Performance Measure (We will know we are meeting the level of service if...)	Current performance (as at end Year 2 2010/11)	Future Performance			Future Performance (targets) in Years 4 - 10
				Year 1	Year 2	Year 3	
<b>Community Outcome: Our unique natural environment is healthy and protected.</b>							
1	<b>Our works are carried out so that the impacts on the natural coastal environments are minimised to a practical but sustainable level.</b>	<i>Resource consents are held and complied with for works undertaken by Council or its contractors on Council owned coastal protection.</i>	<b>Actual = 100%</b>	<i>No abatement notices issued</i>	<i>No abatement notices issued</i>	<i>No abatement notices issued</i>	<i>No abatement notices issued</i>
2		<i>As measured by the number of abatement notices issued to Council.</i>					
		Council owned coastal protection is maintained to its original design standard at: Marahau; Broadsea (Ruby Bay), Old Mill (Ruby Bay).	<b>Actual = 75%</b>	100%	100%	100%	100%
		As measured by routine inspections.					
<b>Community Outcome: Our infrastructure is safe, efficient and sustainably managed.</b>							
3	<b>Faults in the coastal assets are responded to and fixed promptly.</b>	We are able to respond to Customer Service Requests in our coastal assets within the timeframes we have agreed with our suppliers and operators, and within the available funding.	<b>Actual = 100%</b>	100%	100%	100%	100%

## APPENDIX S. COUNCIL'S DATA MANAGEMENT, ASSET MANAGEMENT PROCESSES AND SYSTEMS

### S.1 Introduction

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

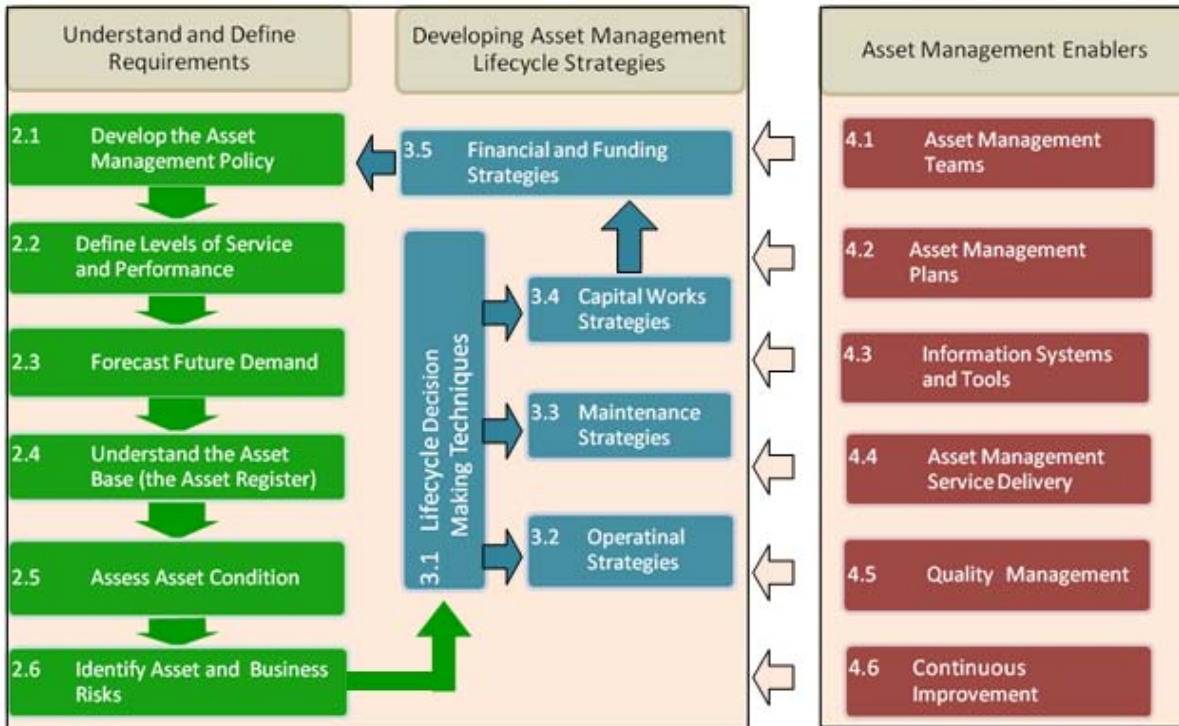


Figure S-1: The Asset Management Process

### S.2 Understanding and Defining Requirements

#### S.2.1. Develop the Asset Management Policy

##### S.2.1.1 Selecting the Appropriate Level of Asset Management

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

- district and community populations
- issues affecting the district and each activity
- the costs and benefits to the community
- legislative requirements
- the size, condition and complexity of the assets
- the risk associated with failures
- the skills and resources available to the organization
- customer expectation.

IIMM (2006) identified two levels of asset management; Core and Advanced. Waugh Infrastructure Management Ltd classed the transition between the two as being Core Plus, renamed as Intermediate in the 2011 IMM. Core Plus is above Core asset management but below being fully compliant with Advanced asset management and can vary between Core with one or two Advanced categories, through to being substantially or fully compliant with most of the Advanced categories.

Upon completion of the process, Council have set **Core** as the target level at which they want to be managing the Coastal Structures Activity. The detail of required category compliance is under separate cover (Selecting the Appropriate Asset Management Level, Waugh August 2010).

#### S.2.1.2 Performance Review of Coastal Structures Activity Management Practices

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

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

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

**Table S-1: Analysis of Asset Management Reviews**

	Coastal Structures		
	CORE	Compliance Status	Compliance Gaps to address to meet CORE
<b>Description of Assets</b>	Advanced (minus the systematic monitoring of performance)	Partially Compliant	<b>Action:</b> Resolve understanding of ownership. <b>Action:</b> Identify assets not performing to standard.
<b>Levels of Service</b>	Core	Substantially Compliant	<b>Action:</b> Include Activity in Communitrak™ surveys.
<b>Managing Growth</b>	Core	Partially Compliant	<b>Action:</b> Translate demand analysis into asset and non-asset solutions.
<b>Risk Management</b>	Core	Partially Compliant	Compliance will improve with implementation of IRM.
<b>Lifecycle Decision Making</b>	Core (plus identification of options for asset maintenance)	Does not Comply	<b>Action:</b> Develop a renewals and capital programme based on a risk based decision support tool.
<b>Financial Forecasts</b>	Advanced (with the exception of sensitivity testing of forecasts)	Substantially Compliant	
<b>Planning Assumptions and Confidence Levels</b>	Core (plus assumptions listed)	Partially Compliant	<b>Action:</b> Detail in AMP the strengths and weakness of systems used.
<b>Outline Improvement Programmes</b>	Advanced	Partially Compliant	<b>Action:</b> Identify timeframes, priorities and resources for Improvement Plan actions.
<b>Planning by Qualified Persons</b>	Core	Substantially Compliant	<b>Action:</b> Issues around management and operation of activity to be resolved.
<b>Commitment</b>	Advanced	Substantially Compliant	<b>Action:</b> More emphasis and commitment needed to Improvement Plan.

S.2.2. Defined Level of Service and Performance

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

S.2.3. Forecast Future Demand

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

Demand Management has been undertaken as described in Appendix N.

S.2.4. Understand the Asset Base

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

**Table S-2: Asset Data Accuracy and Completeness Grades**

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

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

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

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

Council’s Confirm system is the primary asset management system and data management tool for the engineering activities. Confirm is a modular system and is a powerful tool used for the storage, interrogation and reporting of asset data.



**Table S-3: Data Types and Source**

Information System	Data Type	Management Strategy	Data Confidence	
			Accuracy	Completeness
Confirm	Asset Location (point data)	Point data is provided in Confirm. All spatial data will be migrating to GIS in 2011/12 so will no longer be held in Confirm.	2	2
	Asset Description	Council's Asset Register is held in Confirm. It contains information on asset extent, age, remaining life, condition etc. Asset hierarchy capability is available in Confirm but Council do not see the need to implement this function at this stage.	3	3
	Customer Service	All customer enquiries and service requests are logged and can be assigned, tracked and analysed. The Customer Service Requests help drive the day to day reactive maintenance programme.	2	2
	Asset Condition data	Condition data is held in Confirm and is collected when first installing assets and then during routine inspections or fault repairs.	2	2
	Historical data	Confirm holds data on jobs and maintenance for approximately five years. This allows the interrogation of the system for historical data on specific assets.	2	2
	Critical Assets	The critical assets have been identified as part of the AMP process and are shown in Appendix Q. These assets have not yet been separately identified within Councils Confirm system. There is an item in the Improvement Plan to ensure that the critical assets are separately identified with Confirm to allow easier assessment and reporting.	n/a	0
	Valuation	Council now undertakes it Asset Valuations through the Confirm system	2	2
	Maintenance Information	All newly collected maintenance information is recorded in Confirm. The contractor is now able to collect and record all maintenance information in the field through the use of mobile devices which link to Confirm. Historical information sits with CMS and also with the Contractor's SETI system. Council intend to migrate this historical data into a SQL database accessible from Confirm. Tracking repairs and response times is carried out and reported to ensure key performance measures are being achieved.	3	3
NM2	Resource Consents	NM2 is owned and managed by Council's consultants, MWH New Zealand Ltd. It holds all resource consents for water, wastewater, stormwater, solid waste and roading. NM2 is used to manage the accurate programming of actions required by the consents. There are currently no coastal structures consents in the NM2 database.	2	2



Information System	Data Type	Management Strategy	Data Confidence	
			Accuracy	Completeness
NCS	Financial Information	Council Accounting and Financial systems are based on Napier Computer Systems (NCS) software and GAAP Guidelines. Long term financial decisions are based on the development of 20-year financial plans.	2	2
GIS	Asset location	GIS is compiled from as-built information and should be the first port of call for asset location. However, there is a short time delay with importing the data into GIS so it is sometimes necessary to refer to the as-builts.	2	2
SilentOne	As BUILTS	As-builts are the primary source of asset location data. As-built plans of all new assets are scanned and incorporated into SILENTONE. This allows digital retrieval of as-builts from the GIS system. Early as-builts are to a lesser quality, however in recent years as-builts quality has been significantly improved and are now prepared to specific standards and reviewed/audited on receipt.	2	2
Growth Model Database	Growth and Demand Supply Model (GDSM)	The GDSM underpins Council's long term planning. It is not an isolated tool that calculates a development forecast, it is a number of linked processes that involve assessment of base data, expert interpretation and assessment, calculation and forecasting.	2	2
Tenderlink	Tenders	Council upload all Request for Tender documents onto the Tenderlink system which allows contractors to download for tender. The system also holds key information for tenderers. Tenderlink is a national database.	1	1
Various	Other Data Types	A large amount of information is not yet stored centrally within Council and is held and updated by Council's consultants or contractors. Council are moving towards Confirm being the primary source for all asset information, so these data sources will eventually migrate to Confirm.	3	3
Various	Asset Photos	Council's intention is that a library of asset photos will be stored within Confirm. At present however, electronic asset photographs are held by MWH New Zealand Ltd (with the exception of Streetlight which are stored in SilentOne).	2	2

### S.2.5. Assess Asset Condition

The condition rating process for coastal structures assets is discussed in Appendix B.

### S.2.6. Identify Asset and Business Risks

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

## S.3 Developing Asset Management Strategies

There are many different types of decision making techniques that have been applied by Council during the development of the management plans. These are better described in relevant appendices, but are summarised here in Table S-4.

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

**Table S-4: Asset Management Strategies Summary**

Strategy	Processes and Systems
1	<ul style="list-style-type: none"> <li>• Renewals first identified from the Confirm data base – when remaining life expires.</li> <li>• Forecast renewals then field justified by reviewing with operations staff and asset management staff to confirm renewal requirements from valuation information and add to where there is specific knowledge of additional renewal requirements.</li> <li>• On an annual basis renewal work is programmed for implementation and managed as a programme through specific tendered contracts.</li> </ul>
Asset Creation Management (Appendix F)	<ul style="list-style-type: none"> <li>• Asset creation forecasts are developed every three years when updating this AMP.</li> <li>• The 10 year forecast from the last update of the AMP is taken as a starting point, and then the outcomes of growth and demand forecasts, level of service and performance review, the risk management and a workshop with asset managers are used to identify upgrade projects needed.</li> <li>• All capital projects identified are listed and a cost estimate developed. For consistency, a cost estimating spreadsheet has been developed and a series of base rates developed after consultation with suppliers and recent contract prices for the more common work elements. The cost estimating spreadsheets require:               <ul style="list-style-type: none"> <li>○ assessment of construction and non-construction costs (ie. engineering, consenting costs, land costs)</li> <li>○ an assessment of contingency needed – on a consistent basis between estimates</li> <li>○ an evaluation of the project drivers – increased level of service, growth or renewal.</li> <li>○ an evaluation of a programme of implementation – spanning years to ensure appropriate time allowed for developing the project</li> <li>○ a statement of the scope of the upgrade and a statement of risks and assumptions made in preparing the estimate.</li> </ul> </li> <li>• Once estimated the forecasts are combined in a capital expenditure forecast database that records the outcomes of the estimate in a manner that allows summation of the work value against various criteria – scheme, project driver (growth, increased LOS or renewal), year or project. It is also used as an input into Council's financial system.</li> </ul>

Strategy	Processes and Systems
	<ul style="list-style-type: none"> <li>The funding of the capital forecast is modelled in Council's financial system NCS, and the implications for the forecast review at Council officer level and Councillor level. Any changes made to the projection in terms of deferring, adding or deleting projects is recorded and the implications on risk, growth or level of service stated.</li> <li>The records of the individual project estimate sheets and the overall capital forecast spreadsheet are filed and retained.</li> </ul>
Operational and Maintenance (Appendix E)	<ul style="list-style-type: none"> <li>Includes Strategic Studies such as coastal process studies.</li> </ul>

#### S.4 Asset Management Enablers

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

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

## APPENDIX T. BYLAWS

The following bylaws have been adopted by Council:

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

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

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

## APPENDIX U. STAKEHOLDERS AND CONSULTATION

### U.1 Stakeholders

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

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

**Table U-1: Stakeholders**

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

### U.2 Consultation

#### U.2.1. Purpose of Consultation and Types of Consultation

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

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

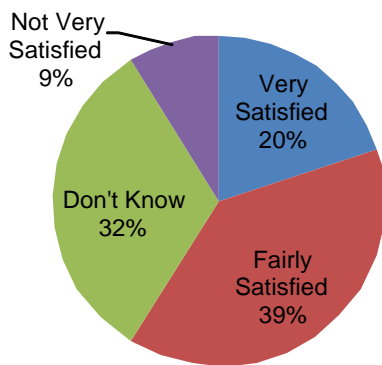
- feedback from surveys
- public meetings
- feedback from elected members, advisory groups and working parties
- analysis of customer service requests and complaints
- consultation via the Annual Plan and LTP process.

Council commissions customer surveys on a regular basis, usually every three years, from the National Research Bureau Ltd<sup>6</sup>, but more recently on an annual basis. These Communitrak™ surveys assess the levels of satisfaction with key services, including Coastal Structures, and the willingness across the community to pay to improve services.

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

#### U.2.2. Consultation Outcomes

The most recent NRB Communitrak™ survey was undertaken in May/June 2011. This asked residents if they were satisfied with the management of Coastal Structures, the results of which are as shown in Figure U-1. This question was not asked prior to 2010 so showing trends in satisfaction is not yet possible. There are also no comparative Peer Group and National Averages for this reading.



**Figure U-1: Satisfaction with Management of Coastal Structures**

The survey showed that 59% of residents are satisfied with the management of coastal structures.

The main reasons residents are not very satisfied with the management of coastal structures are:

- wharves / wharf areas lack maintenance / need more work
- cost issues
- rock protection / groyne not working / sand build up in harbour
- coastal erosion.

Of the respondents, 78% said they would like to see the same or more spent on the management of coastal structures.

<sup>6</sup> Communitrak™: Public Perceptions and Interpretations of Council Services / Facilities and Representation, NRB Ltd May/June 2011.

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## APPENDIX V. IMPLEMENTATION AND IMPROVEMENT PROGRAMME

### V.1 Process Overview

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

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

The continuous improvement process includes:

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

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

### V.2 Strategic Improvements

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

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

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

### V.3 Training

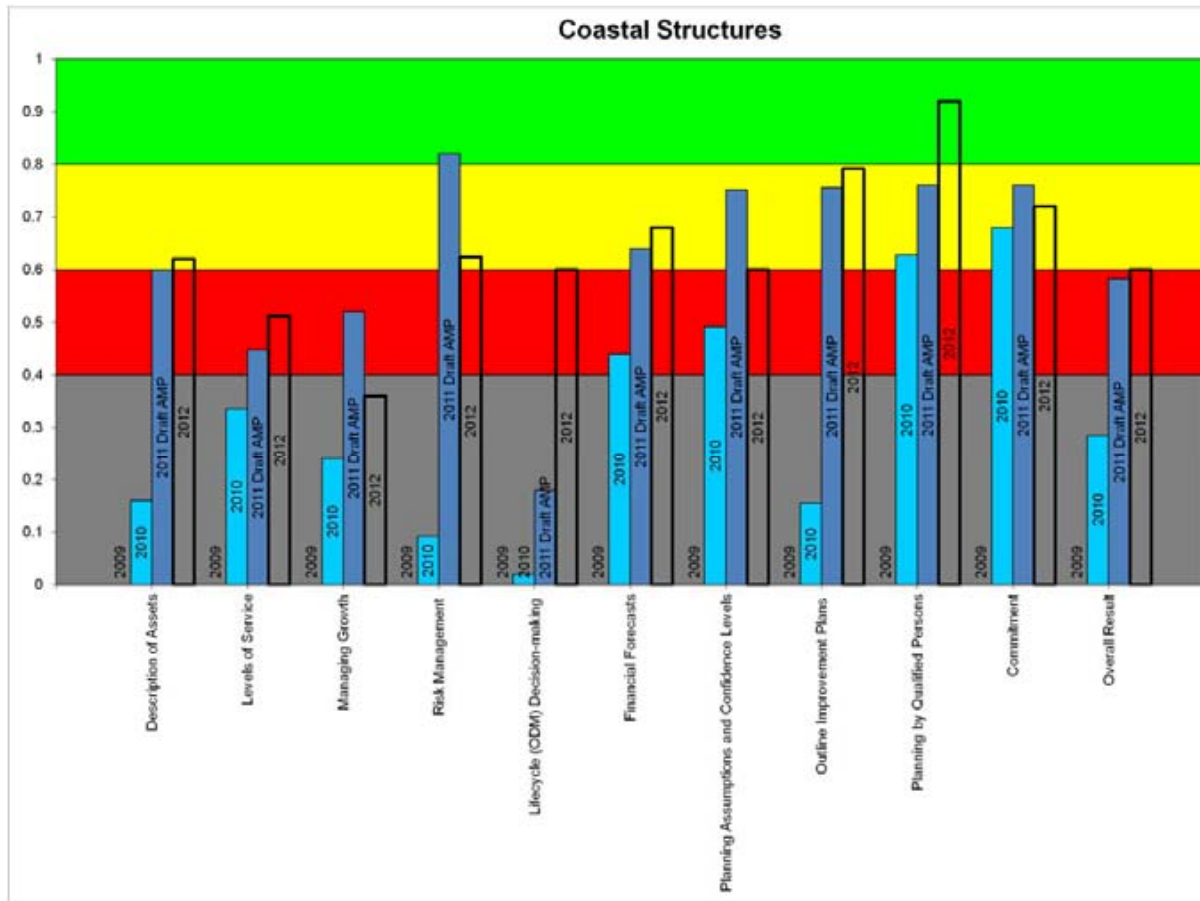
Council do not have a formal schedule of required training, however both Council's staff and its consultants participate in training on a regular basis to ensure that best practice is maintained. This also helps to maintain a good asset management culture.

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

### V.4 Asset Management Practice Reviews

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

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



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

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

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

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

## V.5 Peer Review

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

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

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



## V.6 Improvement Programme Status

A summary on the status of all improvement items related to this activity are shown in Table V-1 below, and are split by the year that they were identified.

**Table V-1: Status of Improvement Items**

Row Labels	In Progress	Not Started	Complete	Not Relevant	Grand Total
<b>2009</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>12</b>
1 - Description of Assets				1	1
2 - Levels of Service		2	1		3
3 - Managing Growth				1	1
4 - Risk Management			2		2
5 - Lifecycle (Optimised) Decision-making	1	1			2
6 - Financial Forecasts		1			1
9 - Planning by Qualified Persons		1			1
10 - Commitment			1		1
<b>2010</b>	<b>5</b>	<b>4</b>	<b>37</b>		<b>46</b>
1 - Description of Assets			10		10
2 - Levels of Service			5		5
3 - Managing Growth			1		1
4 - Risk Management		2	7		9
5 - Lifecycle (Optimised) Decision-making	1	2	3		6
6 - Financial Forecasts	1		2		3
7 - Planning Assumptions & Confidence Levels			2		2
8 - Outline Improvement Programmes	3		1		4
9 - Planning by Qualified Persons			5		5
10 - Commitment			1		1
<b>2011</b>	<b>1</b>	<b>26</b>			<b>27</b>
1 - Description of Assets		3			3
2 - Levels of Service		1			1
3 - Managing Growth		3			3
4 - Risk Management		4			4
5 - Lifecycle (Optimised) Decision-making		8			8
6 - Financial Forecasts		2			2
7 - Planning Assumptions & Confidence Levels		3			3
8 - Outline Improvement Programmes	1	1			2
9 - Planning by Qualified Persons		1			1
<b>Grand Total</b>	<b>7</b>	<b>35</b>	<b>41</b>	<b>2</b>	<b>85</b>

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

## V.7 Improvement Actions Completed

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

**Table V-2: Improvement Actions Completed**

Amp Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
A.001	<b>AMP Update:</b> Review and update AMP on a 3 year cycle. Next due in 2011.	May no longer be necessary. Will be combined with other AMPs as one Project	Complete	2009
A.002	<b>Business Continuity Plan:</b> Establish targets for cargo and revenue over Port Tarakohe.	Driven by Jim Frater	Not Relevant	2009
A.003	Show clear <b>linkages to other relevant AMP's.</b>		Complete	2010
B.001	<b>AMP Coverage:</b> Make sure the AMP encompass the full breadth of the network.		Complete	2010
B.002	<b>AMP Coverage:</b> Make sure the AMP adequately describe each asset area.		Complete	2010
B.003	<b>Condition and Performance Monitoring:</b> Discuss which assets are not performing to standards.		Complete	2010
B.004	<b>Condition and Performance Monitoring:</b> Detail how is asset condition data collected.		Complete	2010
D.002	<b>Valuations:</b> Show the latest valuations including useful lives, reliability, depreciation, and replacement costs.		Complete	2010
E.001	<b>Asset Management Operational Plan:</b> Develop operation and maintenance plan for all Port Tarakohe assets.	Project - Jim Frater to lead. AMP produced for Port Tarakohe, review if follow up needed.	Not Relevant	2009
E.003	<b>Maintenance:</b> Outline maintenance strategies.		Complete	2010
E.004	<b>Maintenance:</b> Outline maintenance standards and specifications.		Complete	2010
F.001	<b>New Capital:</b> Detail the selection criteria for ranking projects.		Complete	2010
I.002	<b>Renewals:</b> Indicate basis for renewals.		Complete	2010
I.003	<b>Renewals:</b> Discuss the extent of deferred renewals.		Complete	2010
I.004	<b>Renewals:</b> Detail how renewals are delivered.		Complete	2010
M.001	<b>Funding:</b> Detail funding requirements.		Complete	2010
N.001	<b>Demand Management:</b> Robustly translate the analysis into non-asset solutions (demand reduction).		Complete	2010

Amp Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
Q.001	<b>Risk Management:</b> Council intends to apply a consistent approach to risk management across all asset groups. Three levels of risk assessment will be carried out; Organisation, Asset Group and Critical Assets.	At Activity Level	Complete	2009
Q.002	<b>Risk Management:</b> Council intends to apply a consistent approach to risk management across all asset groups. Three levels of risk assessment will be carried out; Organisation, Asset Group and Critical Assets.	Combined project for Organisational IRM, also need to develop at Ops level per activity	Complete	2009
Q.003	<b>Risk Management Development:</b> Discuss the risk management programme.		Complete	2010
Q.004	<b>Risk Management Development:</b> Discuss the policy and context.		Complete	2010
Q.005	<b>Risk Management Development:</b> Identify and list all risks.		Complete	2010
Q.006	<b>Risk Management Analysis:</b> Analyse all risks (include documented criteria for evaluation).		Complete	2010
Q.007	<b>Risk Management Analysis:</b> Evaluate all risks.		Complete	2010
Q.008	<b>Risk Management Analysis:</b> Identify, cost and prioritise all treatment options.		Complete	2010
Q.009	<b>Risk Management Implementation:</b> Programme all treatment projects.		Complete	2010
Q.012	<b>Assumptions:</b> Discuss if the forecast assumptions appear reasonable.		Complete	2010
R.001	<b>Coastal Structures Services Assessments:</b> Identify areas where the community and users would benefit from a higher level of service. Include Coastal Structures in the next district wide survey and conduct specific survey with users and stakeholders.	Level of Service project. TDC are reviewing Community Outcomes and LoS across the board	Complete	2009
R.003	<b>Gap Analysis:</b> Show the extent of the gap between existing practice and best appropriate practice.		Complete	2010
R.004	<b>Status of LoS:</b> Make sure the LOS are consistent between LTCCP, AMP and Technical standards.		Complete	2010
R.005	<b>Status of LoS:</b> Make sure the LOS cover the full spectrum of use value.		Complete	2010
R.006	<b>Performance Measures:</b> Make sure measures exist for all LOS.		Complete	2010
R.007	<b>Gap Analysis:</b> Detail the gap between existing LOS and desired LOS.		Complete	2010
R.008	<b>Gap Analysis:</b> State how this gap is being addressed.		Complete	2010
S.002	<b>Decision Making and Prioritisation:</b> Detail how renewals are prioritised.		Complete	2010
S.003	<b>Decision Making and Prioritisation:</b> Outline maintenance decision making processes.		Complete	2010
S.007	<b>ODM Integration:</b> Show the link between ODM decisions in other 'cross-infrastructure' work planning.		Complete	2010

Amp Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
S.008	<b>Asset Systems:</b> Discuss the strengths and weaknesses of the systems and how they interrelate.		Complete	2010
Z.001	<b>AMP Development:</b> Provide evidence of wide input to the plan internally and externally.		Complete	2010
Z.002	<b>AMP Development:</b> Provide evidence of a good balance / blend of input internally and externally.		Complete	2010
Z.003	<b>Quality Assurance:</b> Discuss any external QA's.		Complete	2010
Z.004	<b>Guidance and Upskilling:</b> Indicate if staff are keeping up to date with modern / innovative practices.		Complete	2010
Z.005	<b>Guidance and Upskilling:</b> Discuss previous technical and procedural audits.		Complete	2010

## V.8 Current Improvement Actions

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

**Table V-3: Current Improvement Actions**

Amp Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
B.005	<b>Asset Description:</b> Include information on entire range of assets in next AMP (Coastal Structures, Aerodromes).		H	Not Started	2011	2014	In-house with consultant support	Gary Clark	
D.001	<b>Asset Valuations:</b> Review and update the Asset Valuation on a 3 yearly cycle. Next review due in 2010.	Likely to be driven by Jim Frater	H	Not Started	2009		Consultant	Gary Clark	
E.002	<b>Coastal Structures Management Plans and Guidelines:</b> Develop guidelines for the ongoing management of existing coastal structures.	Driven by Jim Frater	H	Not Started	2009	30-Jun-14	In-house with consultant support	Gary Clark	
G.001	<b>Financial Assessment:</b> Collate historic and new information on Development Contributions to allow analysis of DCs paid vs forecasts and trending.		M	Not Started	2011	2014	In-House	Peter Thomson	
H.001	<b>Resource consent Database:</b> Expand the database to include all resource consents and designations related to coastal structures.	Review current status and develop further	M	Not Started	2009	30-Jun-13	In-house with consultant support	Gary Clark	
H.002	<b>Resource consent monitoring:</b> Development and implement a programme of monitoring to ensure coastal structures comply with resource consents.	Review current status and develop further	M	Not Started	2009	30-Jun-13	In-house with consultant support	Gary Clark	
I.001	<b>Robust Renewals and Capital Programmes:</b> Develop renewals and capital programmes for coastal protection. Based on targeted areas with a risk based decision support tool.		M	Not Started	2009	31-Oct-14	In-house with consultant support	Gary Clark	
K.001	<b>Financial Assessment:</b> Explore if Councils policy around debt funding is specific enough		M	Not Started	2011	2014	In-House	Peter Thomson	
L.001	<b>Funding:</b> Provide confidence that the local share is reasonable and affordable		H	In Progress	2010	31-Oct-14	In-house	Gary Clark	
N.002	<b>Demand Management:</b> Collate historical information on demand to enable demand trending and analysis		M	Not Started	2011	2014	Consultant	Gary Clark	
N.003	<b>Demand Management:</b> Provide greater detail on the effects of changing demographics rather than population growth.		L	Not Started	2011	2014	Consultant	Gary Clark	
N.004	<b>Demand Management:</b> Undertake sensitivity analysis on growth and demand and the effect on activity requirements.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
P.001	<b>Sustainability:</b> Explore the need to develop a Council-wide sustainability Policy.		M	Not Started	2011	2014	In-House	Peter Thomson	
P.002	<b>Sustainability:</b> Expand detail on sustainability for the activity. Develop KPIs for environmental, economic and social aspects of sustainable development.		M	Not Started	2011	2014	In-house with consultant support	Peter Thomson	
Q.013	<b>Cost/Benefit Analysis:</b> Detail and demonstrate the level of cost/benefit analysis undertaken for projects within the activity.		M	Not Started	2011	2014	Consultant	Gary Clark	
Q.014	<b>Risk Management:</b> Implement IRM across Council. Currently being used within individual activities.		M	Not Started	2011	2014	In-House	Peter Thomson	
Q.015	<b>Risk Management:</b> Detail and demonstrate how asset criticality and risk analysis is used to develop maintenance strategies.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.016	<b>Risk Management:</b> Detail and demonstrate how asset criticality and risk analysis is used to develop renewals strategies.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.017	<b>Lifecycle Decision Making:</b> Further develop and detail process for decision making with regards to O&M, renewals, capex and disposals		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.018	<b>Assumptions and Uncertainties:</b> Identify the uncertainty level of the more significant assumptions and detail the possible effects.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.019	<b>Asset Data:</b> Identify and document process for updating/reporting on confidence levels of asset condition and performance.		M	Not Started	2011	2014		Gary Clark	
Q.020	<b>Assumptions and Uncertainties:</b> Identify and state the confidence levels for the growth/demand forecasts.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.010	<b>Risk Management Implementation:</b> Detail the monitoring programme.		M	Not Started	2010	31-Oct-14	Consultant	Gary Clark	

Amp Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
Q.011	<b>Risk Management Implementation:</b> Discuss the communication and consultation plan.		M	Not Started	2010	31-Oct-14	Consultant	Gary Clark	
R.009	<b>Levels of Service:</b> Develop and incorporate sustainability strategies and operations into Levels of Service and performance measures.		M	Not Started	2011	2014	In-house with consultant support	Peter Thomson	
R.002	<b>Gap Analysis:</b> Record all weaknesses / issues in all aspects of AM.		M	In Progress	2010	31/10/2014	In-house with consultant support	Gary Clark	
S.009	<b>Description of Assets:</b> - consider adding asset hierarchy into the Confirm system. The capabilities are there, but not yet used by Council.		M	Not Started	2011	2014	In-House	Peter Thomson	
S.010	<b>Description of Assets:</b> Improve information on the level of recording, monitoring and reporting of asset information.		H	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.011	<b>Critical Assets:</b> Create ability to separately identify Critical Assets in Confirm. Be able to report on this information easily.		M	Not Started	2011	2014	In-house	Gary Clark	
S.012	<b>Asset Information:</b> Collate and provide information on how asset condition is monitored.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.013	<b>Asset Condition Data:</b> Detail how asset condition is monitored and reported for key asset types.		H	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.014	<b>Asset Performance Data:</b> Detail how asset performance is monitored and reported for key asset types.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.015	<b>Lifecycle Decision Making:</b> detail and demonstrate how trade-offs are made between renewals and maintenance expenditure.		M	Not Started	2011	2014	Consultant	Gary Clark	
S.016	<b>Lifecycle Decision Making:</b> show alignment with maintenance plan for auditing, supervision and performance measures.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.001	<b>Asset Management System Development:</b> Continue to develop Council's Asset Management System and integration with its related asset information systems, GIS, Silent One etc.	To be reviewed and progressed by the Asset Information System department	H	In Progress	2009	30-Jun-12	In-house	Gary Clark	
S.004	<b>ODM Approach:</b> Provide a transparent and robust rationale for future treatment decisions and forecast expenditure.		M	Not Started	2010	31-Oct-14	In-house	Gary Clark	
S.004	<b>ODM Approach:</b> Provide a transparent and robust rationale for future treatment decisions and forecast expenditure.		M	Not Started	2010	31-Oct-14	In-house	Gary Clark	
S.005	<b>ODM Tools and Techniques:</b> Indicate the tools and techniques used and applied for deciding on treatment options.		M	In Progress	2010	31-Oct-14	Consultant	Gary Clark	
Z.003	<b>Quality Assurance:</b> Discuss any external QAs.		M	In Progress	2011	2014	In-house with consultant support	Gary Clark	
Z.004	<b>Guidance and Upskilling:</b> Indicate if staff are keeping up to date with modern / innovative practices.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
				In Progress	2010	31-Oct-14	In-house	Gary Clark	
Z.005	<b>Guidance and Upskilling:</b> Discuss previous technical and procedural audits.		L	In Progress	2010	31/10/2014	In-house with consultant support	Gary Clark	

**V.9 AMP Peer Review**



*Infrastructure Management*

**Tasman District Council**

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

**October 2011 & May 2012**



**WAUGH**

ideas | analysis | solutions





# WAUGH

## Quality Record Sheet

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

### Issue Information

Issue Purpose	Final
Issue Date	8 <sup>th</sup> May 2012
Version Number	1.1

### Authorisation

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

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## 1.0 EXECUTIVE SUMMARY

### 1.1 Introduction

The purpose of this report is to:

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

### 1.2 Methodology

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

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

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

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

### 1.3 Overall Conclusion of Asset Management Plans Assessment

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

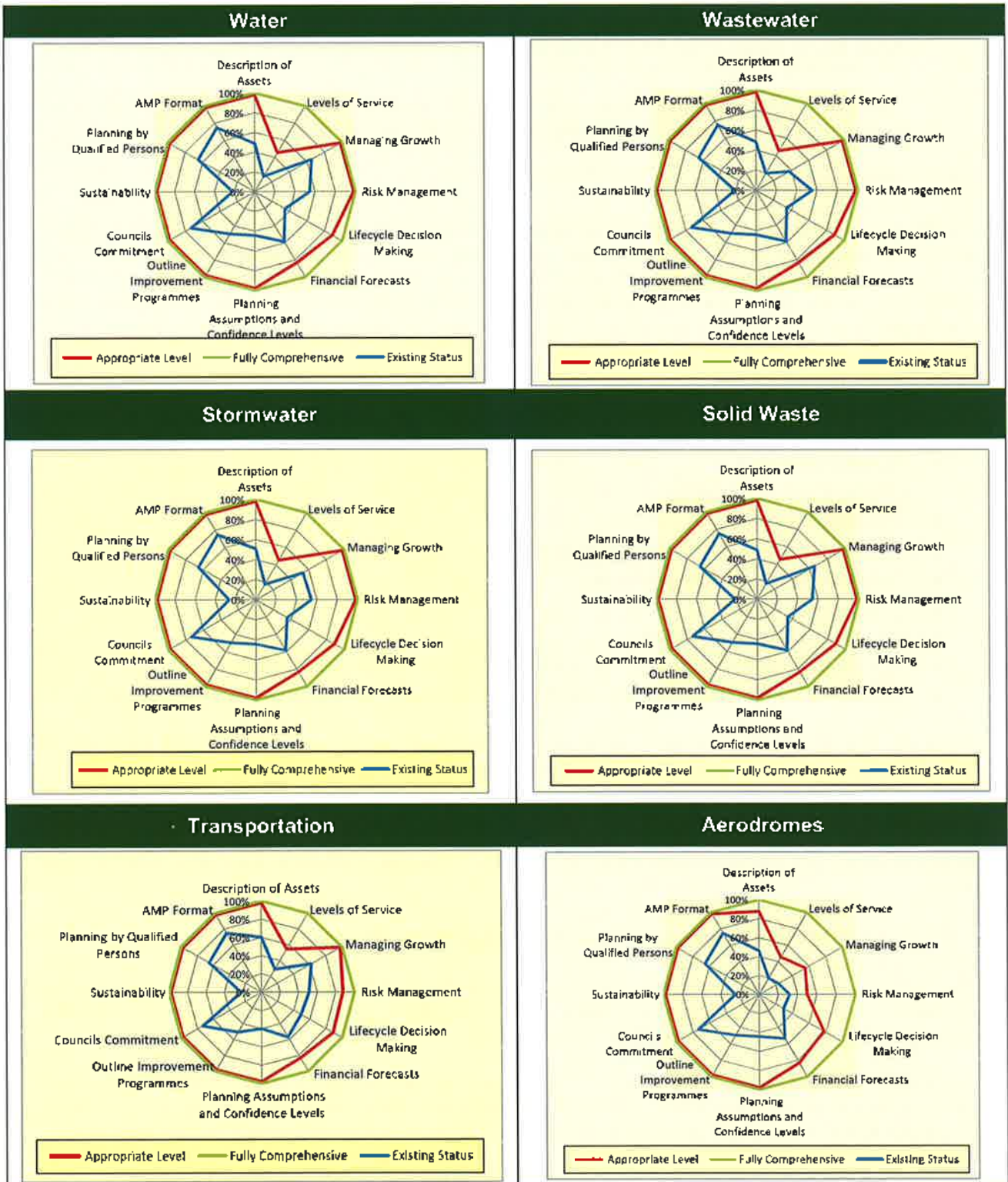
The AMP's provided in May 2012 indicates that many of the issues raised in the October review have been addressed in the subsequent version of the AMPs as amendments or improvement plan items. Completion of these actions would assist to achieve the Councils targeted asset management level.

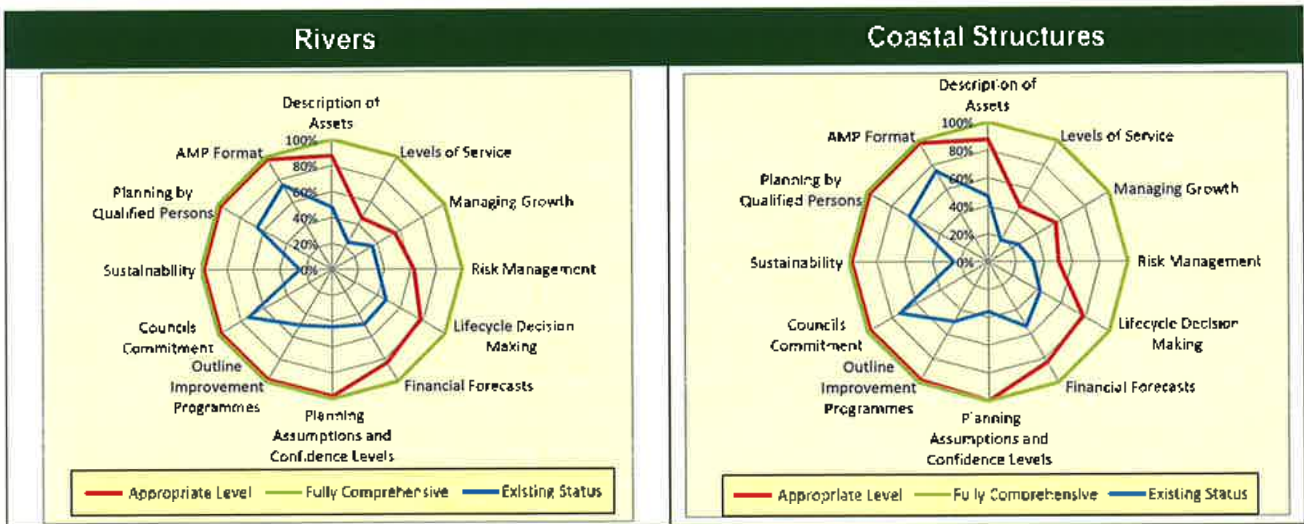
The AMPs assessed in May 2012 do provide Council with an adequate basis on which to make decisions between competing priorities for infrastructure funding and to understand the impact on

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

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

**Figure 1-1: AMP Compliance Status Graphs**





### 1.4 Peer Review Limitations and Disclaimer

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

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

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

## 2.0 RECORD OF PEER REVIEW ENGAGEMENT

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

### **3.0 SCOPE AND USE OF PEER REVIEW**

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

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

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

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

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



## 4.0 ASSESSMENT METHODOLOGY

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

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

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

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

### 4.1 Scoring Methodology

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

**Table 4-1: Scoring Methodology**

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

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

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

## 4.2 Appropriate Practice for Tasman District Council Asset Management

### Objective of the Asset Management Policy

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

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

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

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

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

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

**Table 4-2: Utilities Asset Management Appropriate Practice Assessment**

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

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

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



## 5.0 OUTCOMES AND RESULTS OF REVIEW

### 5.1 Compliance Status Key Findings

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

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

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

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

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

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

### 5.2 General Comments

#### Water, Wastewater and Stormwater

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

#### Solid Waste

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

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

### **Transportation**

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

### **Aerodromes**

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

### **Rivers**

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

### **Coastal Structures**

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

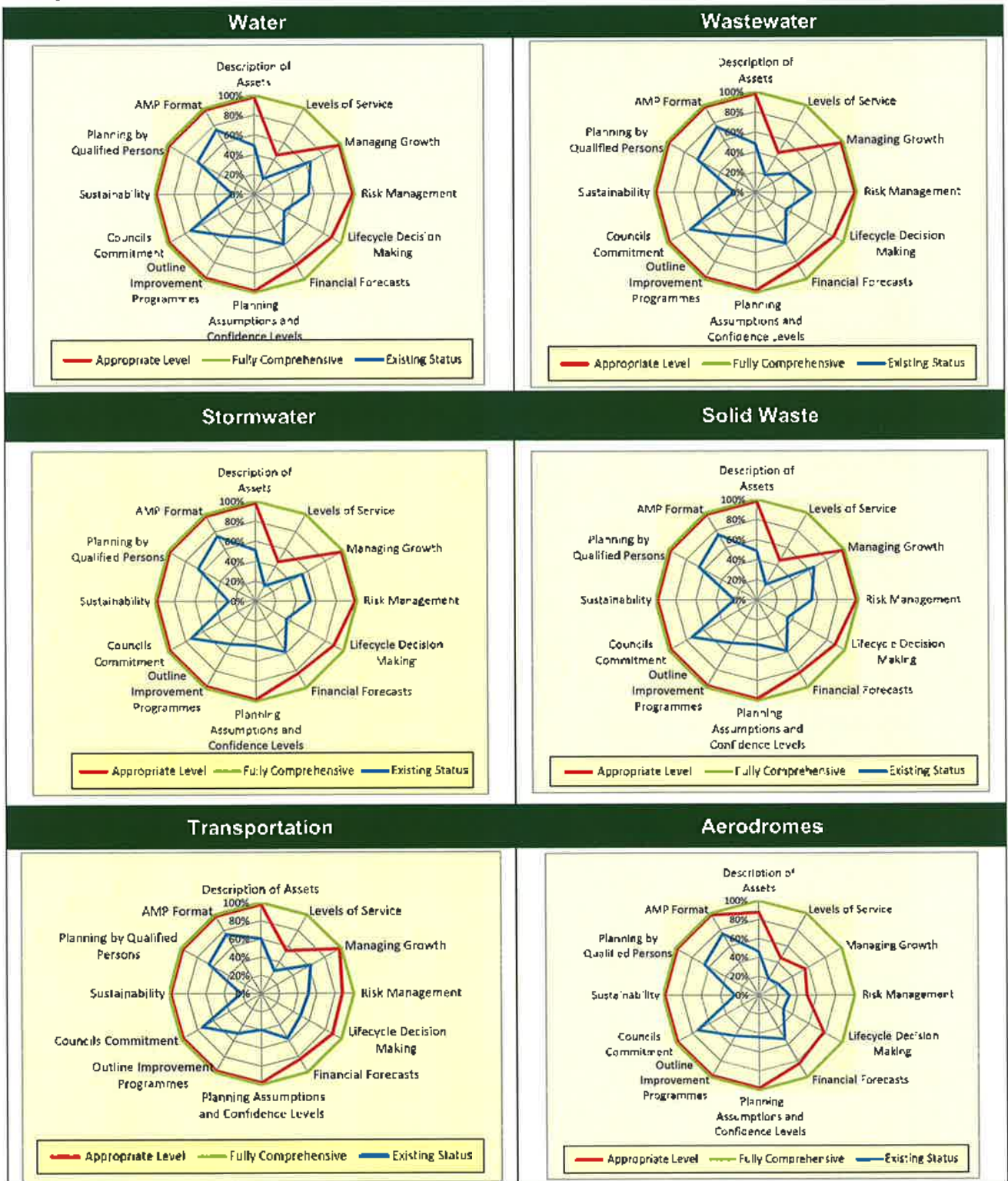
Table 5-1: AMP Compliance Status

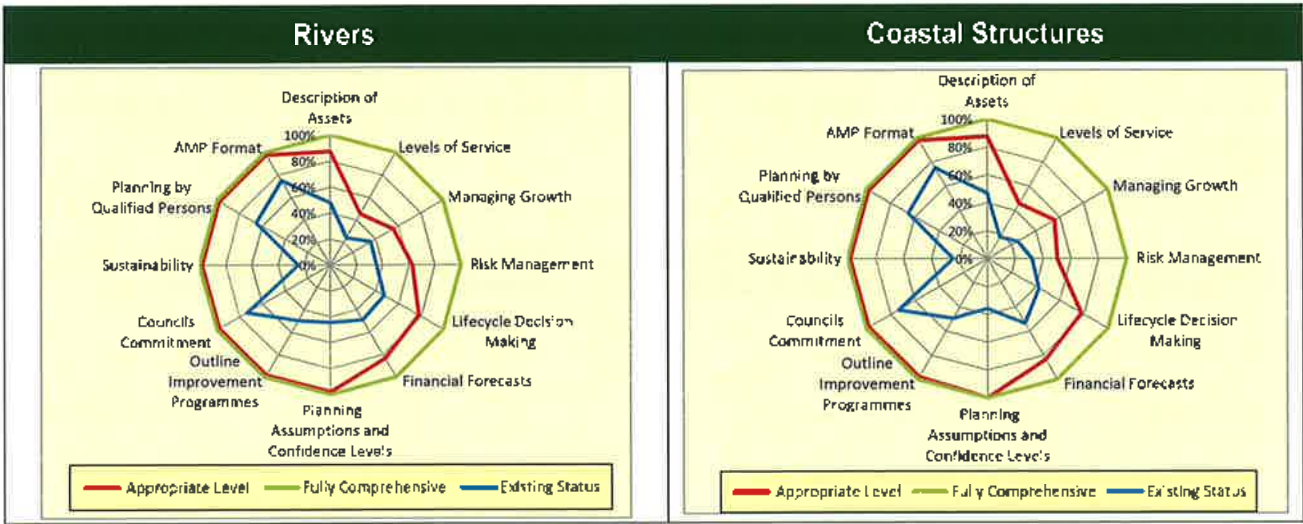
Service		Description of Assets	Levels of Service	Managing Growth	Risk Management	Lifecycle Decision making	Financial Forecasts	Planning Assumptions & Confidence Levels	Outline Improvement Programmes	Councils Commitment	Sustainability	Planning by Qualified Persons	AMP Format
Water	Existing Status	49%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

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



Figure 5-1: AMP Compliance Status Graphs





## 6.0 ASSESSMENT OF LINKAGES AND IMPLEMENTATION OF PLAN

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

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

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

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

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

## **7.0 RECORD OF METHODOLOGY OF PEER REVIEW**

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

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

## 8.0 STATEMENT OF CODE OF ETHICS

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

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

### **INGENIUM Code of Ethics**

#### Clause 2 PROFESSIONALISM AND INTEGRITY

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

Guidelines - Members need to:

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

### **IPENZ Code of Ethics**

Obligations owed to other engineers:

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

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

## **9.0 APPENDICES**

### **9.1 Appendix A – Statement of Experience of Reviewers**

#### **Andrew Iremonger**

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

#### **Ross Waugh**

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

#### **Grant Holland**

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

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

## 10.0 GLOSSARY OF TERMS

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





## APPENDIX W. ASSET DISPOSAL

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

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

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

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

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

Council has identified a number of historic wharf and jetty structures, which Council do not own (Department of Conservation is understood to be the owner). These structures are typically in derelict condition and public access is not restricted. As this poses a threat to public safety, Council intends to reduce the risk by isolating or removing these assets. Funding has been allowed for consultation and physical works if required to achieve this. A process is to be developed to address this issue.

## APPENDIX X. GLOSSARY OF ASSET MANAGEMENT TERMS

### Acronyms and Abbreviations

AMP	Activity Management Plan
LGA	Local Government Act
LTP	Long Term Plan
RMA	Resource Management Act
TRMP	Tasman Resource Management Plan
MHWS	Mean High Water Springs

<b>Activity</b>	An activity is the work undertaken on an asset or group of assets to achieve a desired outcome.
<b>Activity Management Plan (AMP)</b>	Activity Management Plans are key strategic documents that describe all aspects of the management of assets and services for an activity. The documents feed information directly in the Council's LTP, and place an emphasis on long term financial planning, community consultation, and a clear definition of service levels and performance standards.
<b>Advanced Asset Management</b>	Asset management which employs predictive modelling, risk management and optimised renewal decision making techniques to establish asset lifecycle treatment options and related long term cashflow predictions. (See Basic Asset Management).
<b>Annual Plan</b>	The Annual Plan provides a statement of the direction of Council and ensures consistency and co-ordination in both making policies and decisions concerning the use of Council resources. It is a reference document for monitoring and measuring performance for the community as well as the Council itself.
<b>Asset</b>	A physical component of a facility which has value, enables services to be provided and has an economic life of greater than 12 months.
<b>Asset Management (AM)</b>	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.
<b>Asset Management System (AMS)</b>	A system (usually computerised) for collecting analysing and reporting data on the utilisation, performance, lifecycle management and funding of existing assets.
<b>Asset Management Plan</b>	A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the asset in the most cost effective manner to provide a specified level of service. A significant component of the plan is a long term cashflow projection for the activities.

<b>Asset Management Strategy</b>	A strategy for asset management covering, the development and implementation of plans and programmes for asset creation, operation, maintenance, renewal, disposal and performance monitoring to ensure that the desired levels of service and other operational objectives are achieved at optimum cost.
<b>Asset Register</b>	A record of asset information considered worthy of separate identification including inventory, historical, financial, condition, construction, technical and financial information about each.
<b>Basic Asset Management</b>	Asset management which relies primarily on the use of an asset register, maintenance management systems, job/resource management, inventory control, condition assessment and defined levels of service, in order to establish alternative treatment options and long term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than risk analysis and optimised renewal decision making).
<b>Benefit Cost Ratio (B/C)</b>	The sum of the present values of all benefits (including residual value, if any) over a specified period, or the life cycle of the asset or facility, divided by the sum of the present value of all costs.
<b>Business Plan</b>	A plan produced by an organisation (or business units within it) which translate the objectives contained in an Annual Plan into detailed work plans for a particular, or range of, business activities. Activities may include marketing, development, operations, management, personnel, technology and financial planning.
<b>Capital Expenditure (CAPEX)</b>	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.
<b>Condition Monitoring</b>	Continuous or periodic inspection, assessment, measurement and interpretation of resulting data, to indicate the condition of a specific component so as to determine the need for some preventive or remedial action.
<b>Critical Assets</b>	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.
<b>Current Replacement Cost</b>	The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.
<b>Deferred Maintenance</b>	The shortfall in rehabilitation work required to maintain the service potential of an asset.
<b>Demand Management</b>	The active intervention in the market to influence demand for services and assets with forecast consequences, usually to avoid or defer CAPEX expenditure. Demand management is based on the notion that as needs are satisfied expectations rise automatically and almost every action taken to satisfy demand will stimulate further demand.
<b>Depreciated Replacement Cost (DRC)</b>	The replacement cost of an existing asset after deducting an allowance for wear or consumption to reflect the remaining economic life of the existing asset.

<b>Depreciation</b>	The wearing out, consumption or other loss of value of an asset whether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the historical cost (or revalued amount) of the asset less its residual value over its useful life.
<b>Disposal</b>	Activities necessary to dispose of decommissioned assets.
<b>Economic Life</b>	The period from the acquisition of the asset to the time when the asset, while physically able to provide a service, ceases to be the lowest cost alternative to satisfy a particular level of service. The economic life is at the maximum when equal to the physical life however obsolescence will often ensure that the economic life is less than the physical life.
<b>Facility</b>	A complex comprising many assets (eg. swimming pool complex, etc.) which represents a single management unit for financial, operational, maintenance or other purposes.
<b>Geographic Information System (GIS)</b>	Software which provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.
<b>Infrastructure Assets</b>	Stationary systems forming a network and serving whole communities, where the system as a whole is intended to be maintained indefinitely at a particular level of service potential by the continuing replacement and refurbishment of its components. The network may include normally recognised 'ordinary' assets as components.
<b>I.M.S.</b>	Infrastructure Management System - Computer Database.
<b>Level of Service</b>	The defined service quality for a particular activity (ie. water) or service area (ie. water quality) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.
<b>Life</b>	A measure of the anticipated life of an asset or component; such as time, number of cycles, distance intervals etc.
<b>Life Cycle</b>	Life cycle has two meanings: <ul style="list-style-type: none"> <li>• The cycle of activities that an asset (or facility) goes through while it retains an identity as a particular asset ie. from planning and design to decommissioning or disposal.</li> <li>• The period of time between a selected date and the last year over which the criteria (eg. costs) relating to a decision or alternative under study will be assessed.</li> </ul>
<b>Life Cycle Cost</b>	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
<b>Life Cycle Maintenance</b>	All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal.

<b>Long Term Plan (LTP)</b>	<p>The Long Term Plan (LTP) is the primary strategic document through which Council communicates its intentions over the next 10 years for meeting community service expectations and how it intends to fund this work. The LTP is a key output required of Local Authorities under the Local Government Act 2002.</p> <p>The LTP replaces the Long Term Council Community Plan (LTCCP).</p>
<b>Maintenance Plan</b>	Collated information, policies and procedures for the optimum maintenance of an asset, or group of assets.
<b>NPV</b>	Net Present Value – Standard method for evaluating long-term projects in capital budgeting.
<b>Objective</b>	An objective is a general statement of intention relating to a specific output or activity. They are generally longer-term aims and are not necessarily outcomes that managers can control.
<b>Operation</b>	The active process of utilising an asset which will consume resources such as manpower, energy, chemicals and materials. Operation costs are part of the life cycle costs of an asset.
<b>Optimised Renewal Decision Making (ORDM)</b>	An optimisation process for considering and prioritising all options to rectify performance failures of assets. The process encompasses NPV analysis and risk assessment.
<b>Performance Measure (PM)</b>	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance measures commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
<b>Performance Monitoring</b>	Continuous or periodic quantitative and qualitative assessments of the actual performance compared with specific objectives, targets or standards.
<b>Planned Maintenance</b>	<p>Planned maintenance activities fall into 3 categories :</p> <p>Periodic – necessary to ensure the reliability or sustain the design life of an asset.</p> <p>Predictive – condition monitoring activities used to predict failure.</p> <p>Preventive – maintenance that can be initiated without routine or continuous checking (eg. using information contained in maintenance manuals or manufacturers’ recommendations) and is not condition-based.</p>
<b>Recreation</b>	Means voluntary non-work activities for the attainment of personal and social benefits, including restoration (recreation) and social cohesion.
<b>Rehabilitation</b>	Works to rebuild or replace parts or components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. Generally involves repairing the asset using available techniques and standards to deliver its original level of service without resorting to significant upgrading or replacement.
<b>Renewal</b>	Works to upgrade, refurbish, rehabilitate or replace existing facilities with facilities of equivalent capacity or performance capability.

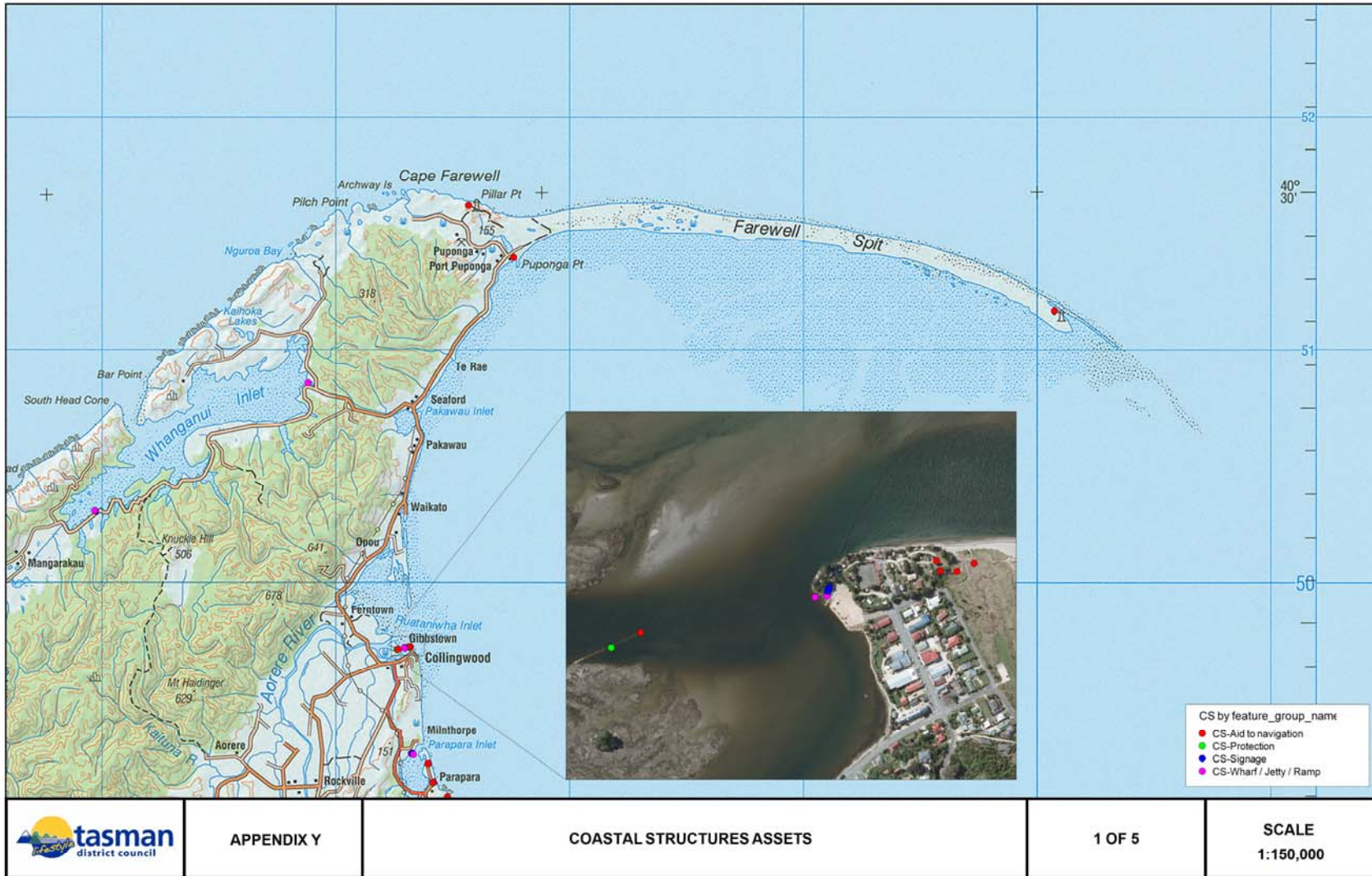
<b>Renewal Accounting</b>	A method of infrastructure asset accounting which recognises that infrastructure assets are maintained at an agreed service level through regular planned maintenance, rehabilitation and renewal programmes contained in an AMP. The system as a whole is maintained in perpetuity and therefore does not need to be depreciated. The relevant rehabilitation and renewal costs are treated as operational rather than capital expenditure and any loss in service potential is recognised as deferred maintenance.
<b>Repair</b>	Action to restore an item to its previous condition after failure or damage.
<b>Replacement</b>	The complete replacement of an asset that has reached the end of its life, so as to provide a similar, or agreed alternative, level of service.
<b>Remaining Economic Life</b>	The time remaining until an asset ceases to provide service level or economic usefulness.
<b>Risk Cost</b>	The assessed annual cost or benefit relating to the consequence of an event. Risk cost equals the costs relating to the event multiplied by the probability of the event occurring.
<b>Risk Management</b>	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
<b>Routine Maintenance</b>	Day to day operational activities to keep the asset operating (replacement of light bulbs, cleaning of drains, repairing leaks, etc.) and which form part of the annual operating budget, including preventative maintenance.
<b>Service Potential</b>	The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset.
<b>Strategic Plan</b>	Strategic planning involves making decisions about the long term goals and strategies of an organisation. Strategic plans have a strong external focus, cover major portions of the organisation and identify major targets, actions and resource allocations relating to the long term survival, value and growth of the organisation.
<b>Unplanned Maintenance</b>	Corrective work required in the short term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.
<b>Upgrading</b>	The replacement of an asset or addition/ replacement of an asset component which materially improves the original service potential of the asset.
<b>Valuation</b>	Estimated asset value that may depend on the purpose for which the valuation is required, ie. replacement value for determining maintenance levels or market value for life cycle costing.

## **APPENDIX Y. LOCATION PLANS**

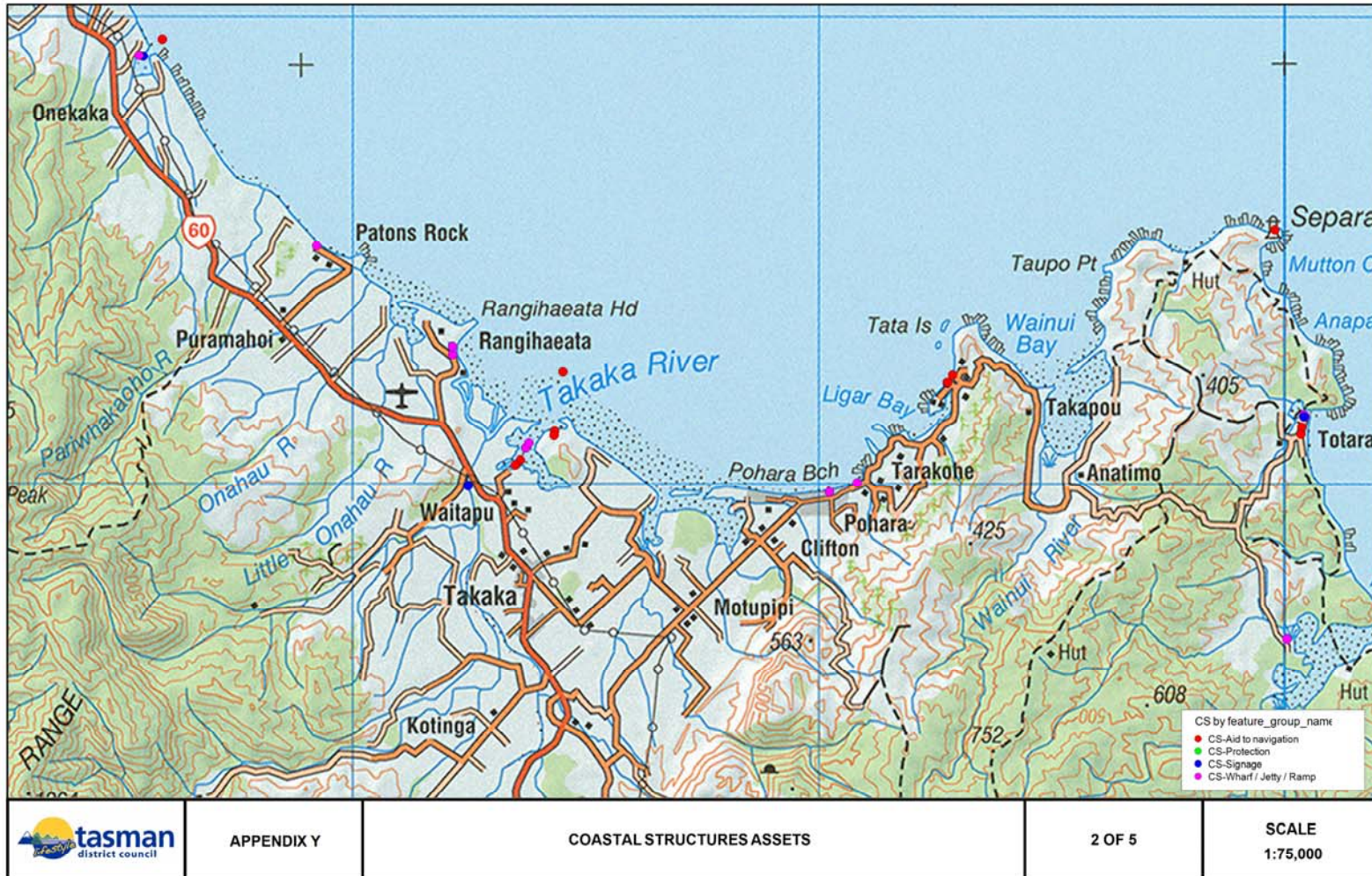
This appendix includes the following maps.

- Puponga to Parapara
- Parapara to Separation Point
- Separation Point to Marahau
- Marahau to Mapua
- Mariri to Nelson.














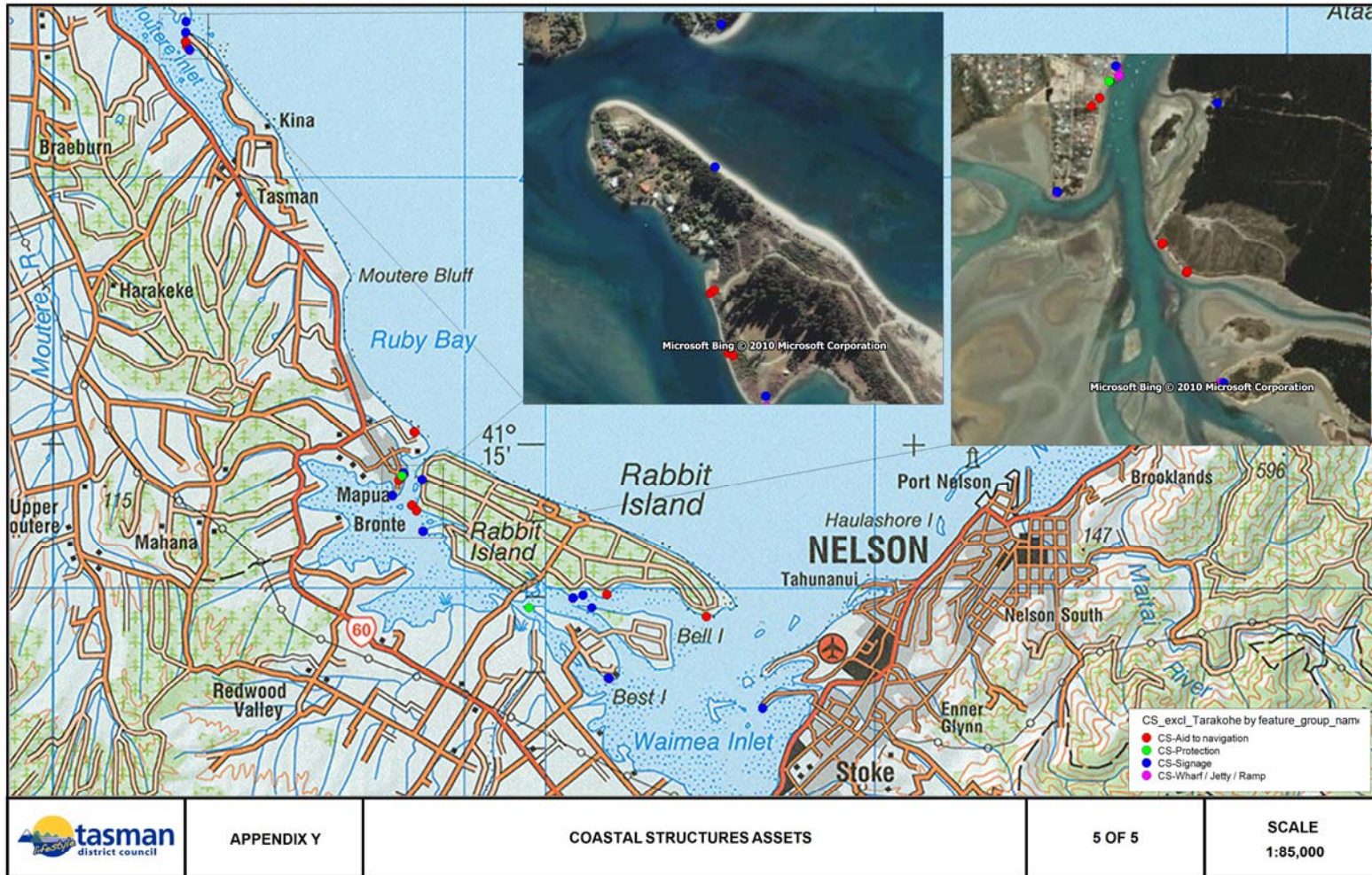
	APPENDIX Y	COASTAL STRUCTURES ASSETS
SCALE 1:75,000	3 OF 5	






	<p>APPENDIX Y</p>	<p>COASTAL STRUCTURES ASSETS</p>
<p>SCALE 1:80,000</p>	<p>4 OF 5</p>	





## APPENDIX Z. AMP STATUS AND DEVELOPMENT PROCESS – COASTAL STRUCTURE

### Z.1 AMP Status

Version	Status	Document Approval	Signature	Date
1	Working Draft			
2	Draft for Council Officer Review	Name: Becky Marsay Authority: Project Technical Lead		17 Feb 2012
3	Draft for Council Review	Name: Gary Clark Authority: Asset Manager		
4	Draft for Public Consultation through LTP	Name: Peter Thomson Authority: Engineering Manager		
5	Final Plan Adopted by Council Council Resolution	Name: Richard Kempthorne Authority: Mayor Reference: _____		

### Z.2 AMP Development Process

Project Sponsor: Peter Thomson  
 Asset Manager: Gary Clark  
 Project Manager: Stephen Sinclair  
 Project Technical Lead: Becky Marsay  
 AMP Author: Jenna Voigt  
 Project Team: Gary Clark, Jim Frater, Steve Hainstock, Selwyn Steedman  
 Ray Firth, Jenna Voigt

### Z.3 Quality Plan

This quality plan comprises three parts.

1. Quality Requirements and Issues – identification of the quality standards required and the quality issues that might arise.
2. Quality Assurance – the planned approach to ensure quality requirements are pro-actively met – ie. get it right first time.
3. Quality Control – the monitoring of the project implementation to ensure quality outcomes are met.

#### Z.4 Quality Requirements and Issues

	Issues and Requirements	Description
1	Fitness for Purpose	The AMP has to be “fit for purpose”. It has to comply with Audit NZ expectations of what an AMP should be to provide them the confidence that the Council is adequately managing the Council activities.
2	AMP Document Consistency	Council want a high level of consistency between AMPs so that a reader can comfortably switch between plans.
3	AMP Document Format	The documents need to be prepared to a consistent and robust format so that the electronic documents are not corrupted (as happens to large documents that have been put together with a lot of cutting and pasting) and can be made available digitally over the internet.
4	AMP Text Accuracy and Currentness	The AMPs are large and include a lot of detail. Errors or outdated statements reduce confidence in the document. The AMPs need to be updated to current information and statistics.
5	AMP Readability	The AMPs in their current form have duplication – where text is repeated in the “front” section and the Appendices. This needs to be rationalised so that the front section is slim and readable and the Appendix contains the detail without unnecessary duplication.
6	Completeness of Required Upgrades/Expenditure Elements	The capital expenditure forecasts and the operations and maintenance forecasts need to be complete. All projects and cost elements need to be included.
7	Accuracy of Cost Estimates	Cost estimates need to be as accurate as the data and present knowledge allows, consistently prepared and decisions made about timing of implementation, drivers for the project and level of accuracy the estimate is prepared to.
8	Correctness of Spreadsheet Templates	The templates prepared for use need to be correct and fit for purpose.
9	Assumptions and Uncertainties	Assumptions and uncertainties need to be explicitly stated on the estimates.
10	Changes Made After Submission to Financial Model	If Council makes decisions on expenditure after they have been submitted into the financial model, the implications of the decisions must be reflected in the financial information and other relevant places in the AMP – eg. Levels of service and performance measures, improvement plans etc.
11	Improvement Plan Adequate	Improvements identified, costed, planned and financially provided for in financial forecasts.





## Z.5 Quality Assurance

	Issues and Requirements	Quality Assurance Approach	Responsible Person
1	Fitness for Purpose	Conduct various reviews of critical elements up front and plan to upgrade the plans to specific requirements: <ol style="list-style-type: none"> <li>1. Scoping of AMP Upgrade Project</li> <li>2. Review of Levels of Service</li> <li>3. Review of Document Upgrade Needs.</li> </ol>	Becky Marsay
		Conduct a Peer Review.	Peter Thomson
2	AMP Document Consistency	Review documents in advance and prepare instructions to authors on how to upgrade.	Becky Marsay
3	AMP Document Format	Central review of AMP document deliverables.	Becky Marsay
4	AMP Readability		
5	AMP Text Accuracy and Currentness	Authors to review each AMP in detail.	Jenna Voigt
6	Completeness of Required Upgrades/Expenditure Elements	AMP authors to workshop with relevant project team members to ensure all projects/cost elements covered.	Jenna Voigt
		Central list of issues (called a "Parking Lot") that need to be considered in each AMP.	Jenna Voigt
7	Accuracy of Cost Estimates	Independent review of all cost estimates.	Jenna Voigt
8	Correctness of Spreadsheet Templates	Independent review of all templates.	Becky Marsay
9	Assumptions and Uncertainties and Risk Assessments	Independent review of all cost estimates.	Jenna Voigt
10	Changes Made After Submission to Financial Model	Protocol prepared to ensure Teamsite is used and all parties follow instructions on how changes are made.	Becky Marsay
		Ensure there is a place in the AMP documents to record any changes made and the implications of changes.	Becky Marsay
		AMP authors to manage a change log for changes after submission.	Jenna Voigt
11	Improvement Plan Adequate	Prepare template in advance to ensure consistent approach.	Becky Marsay
		Central review of Improvement Plans.	Becky Marsay

## Z.6 Quality Control

Quality control checks and reviews are scheduled on the attached table. These shall be progressively completed as the AMP is developed and incorporated in the final AMP Plan in Appendix Z.



Check or Review	Person Responsible	Authority	Signature	Date
Scope of AMP Upgrade Project complete	Peter Thomson	Engineering Manager		
Levels of Service prepared to instructions	Becky Marsay	Project Technical Lead		17 Feb 2012
Levels of Service Asset Manager acceptance	Gary Clark	Asset Manager		
AMP document prepared to instructions	Becky Marsay	Project Technical Lead		17 Feb 2012
AMP text accuracy and currentness	Jenna Voigt	AMP Author		
Capital Upgrade List complete	Ray Firth	Programme Manager		
Capital Upgrade List complete - Asset Manager acceptance	Gary Clark	Asset Manager		
All issues on "Parking Lot" addressed	Jenna Voigt	AMP Author		
Capex Expenditure spreadsheet template reviewed	Becky Marsay	Project Technical Lead		17 Feb 2012
Project Estimate spreadsheet template reviewed	Ray Firth	Programme Manager		
All Capex Estimates reviewed and including assessment of Programme, Project Drivers, Levels of Accuracy and assumptions/uncertainty	Jenna Voigt	AMP Author		
Opex Costs spreadsheet arithmetic review	Jenna Voigt	AMP Author		
Opex Cost forecast – fitness for purpose	Peter Thomson	Engineering Manager		
Improvement Plan prepared to instructions	Becky Marsay	Project Technical Lead		17 Feb 2012
Improvement Plan Asset Manager acceptance	Gary Clark	Asset Manager		
Capital Forecast accepted for input to NCS	Gary Clark	Asset Manager		
Change log complete and changes appropriately dealt with – after Council review	Jenna Voigt	AMP Author		
Change log complete and changes appropriately dealt with – after Public consultation	Gary Clark	Asset Manager		
Peer Review completed	Peter Thomson	Engineering Manager		