

# **Coastal Assets Activity Management Plan 2018**



## Quality Assurance Statement

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# 1 Executive Summary

The sea and people using it has shaped the District in the past and will continue to do so well into the future. The coastal environment, is a major attraction for residents and visitors alike, and generates significant benefits for the District.

## 1.1 What We Do

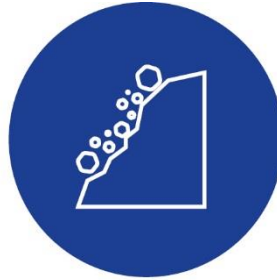
The following graphics provide an overview of this activity.



Provision and maintenance of water access facilities around the District



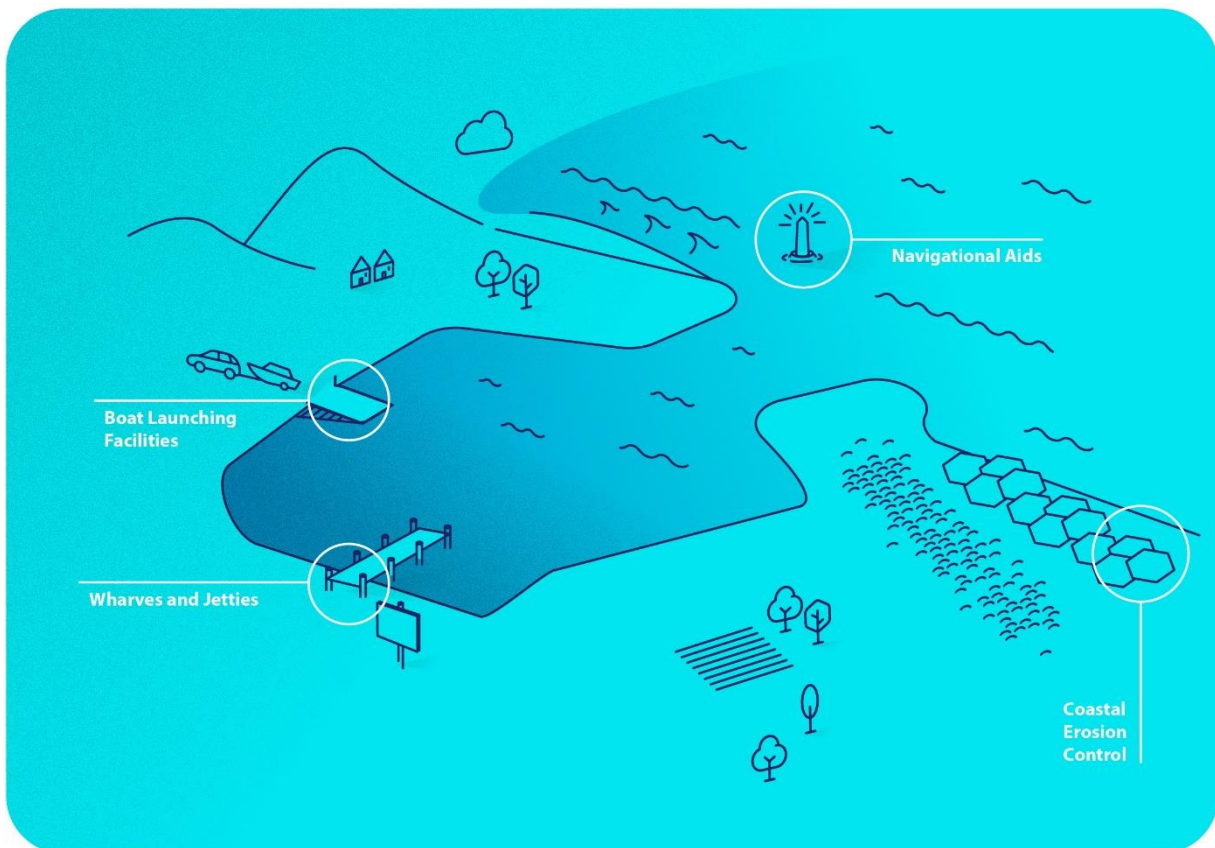
Provision and maintenance of wharf and jetty facilities around the District



Protection of Council Property and working with the Community on Private Property



Provision and maintenance of navigational aids to help the use of coastal waters



## 1.2 Why We Do It

Council aims to ensure access to the sea can be enjoyed by all whilst managing the effects of the sea on property.

## 1.3 Levels of Service

“Our communities are protected from natural hazard events.”

“Our structures are safe for the public to use.”

“Our coastal assets are maintained to an appropriate level that satisfies the community’s expectations.”

A new levels of service measures have been added to ensure that the safety of public using the assets are considered. The levels of service are not changing, but added the new level of service may improve the overall condition of the assets.

## 1.4 Key Issues

### PROBLEM



Disaggregation of coastal assets across different departments with Council



Boat users needs are changing and the demand for access to the sea is diversifying



Limited knowledge of assets in the district with large amount of outdated data



Increased demand for protection of private property

### RESPONSE



Consolidation of Coastal Asset Management within Council



Create a new regional facility in the Tasman Bay to meet recreational boating growth and expectations



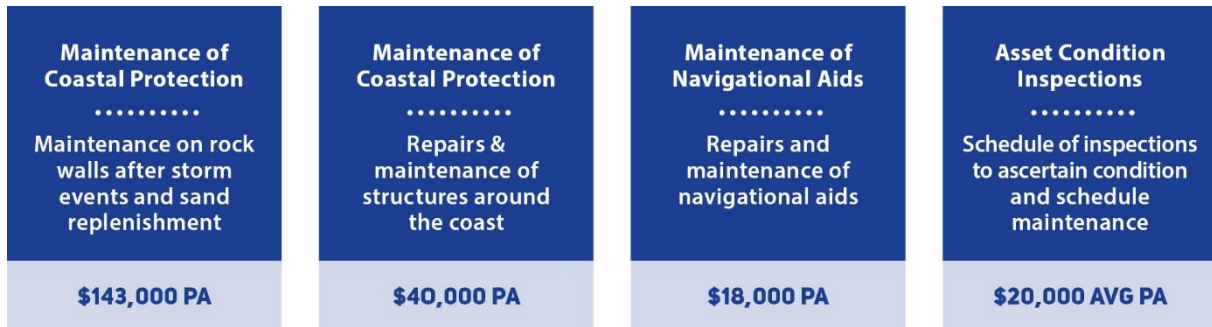
Coastal Asset and Condition Inspections



Develop a coastal policy based on long term view for climate change

## 1.5 Operational Programme

The operational programme has been developed to maintain a good level of service to meet targets. Addition funds will be spent on asset condition inspections.



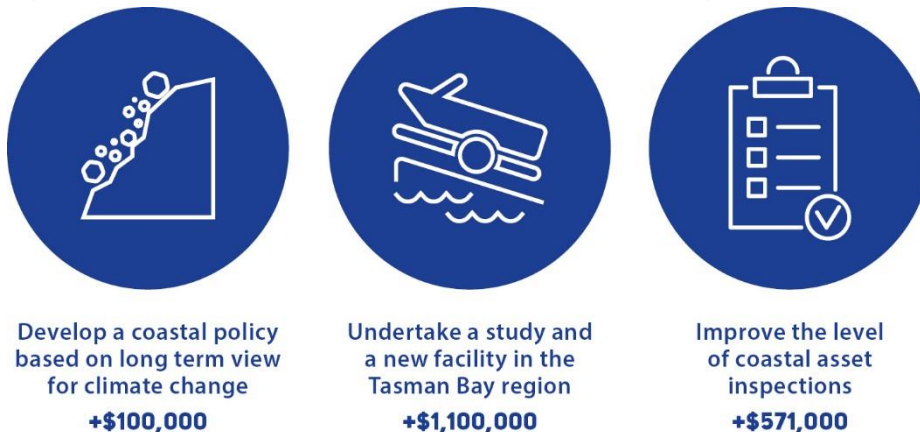
## 1.6 Capital Programme

Council has developed a capital programme of works that shows the key programmes of capital improvements expenditure.



## 1.7 Key Changes

Key changes for the management of this activity since the 2015 Activity Management Plan are summarised below.



## 1.8 Key Risks and Assumptions

There are factors outside of Council's control that can change having an impact on Council's ability to do what it planned. Sometimes the impact can be significant. There is always uncertainty in any planning process but the key to good quality planning is to make clear assumptions to help address this uncertainty. This section sets out the key risks and assumptions that relate to this activity:

- Sea level rise or climate change have significant impact on this activity. This AMP assumes there will not significantly step change in natural hazard events or sea level over the next three years.
- Improvements in the coastal assets knowledge will not require significant investment in renewal and maintenance outside of the normal historic budgets.

## 2 Introduction

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

### 2.1 Rationale for Council Involvement

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

### 2.2 Description of Assets & Services

Key coastal assets are:

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

The coastal assets activity comprises the provision and maintenance of 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 the Talley's Group and other minor structures such as wharves/jetties at Collingwood, Milnthorpe, 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 with most data being outdated. Some work has been done to identify Council-owned assets and this information has been updated in the Confirm database. It is also shown as a GIS layer in Explore Tasman. Further work is being undertaken 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 assets pose a threat to public safety, Council has to decide on how they will be managed.





This AMP includes coastal assets from Community Development and Corporate Services. This is done to ensure all coastal assets are recorded in one place. Engineering Services has now taken over Corporate Services coastal assets, whilst Community Development will continue to manage the small number of coastal assets.

Assets that Engineering Services have taken responsibility from Corporate Services are:

- The two lane boat ramp and timber jetty in Collingwood adjacent to the camps ground
- The rock revetment surrounding most of the campground and other property
- The Murchison boat ramp into the Buller River on road reserve near the camp ground
- The dinghy boat ramp in the Motueka channel
- The coastal retaining wall adjacent to the Talley's factory
- The Motueka fishing platform

The only exception is the assets that make up Port Tarohe which have been explicitly excluded as they constitute the commercial operation itself.

Table 1: Assets Overview

Coastal Assets	Replacement Value	Depreciated Value
	2 Wharfs	
	4 Jetties	\$0.728M
	20 water access Ramps	\$1.624M
	40 individual permanent coastal protection sites protecting 27 km of coastline	\$4.487M
	Navigational Aids	\$0.151M
TOTAL VALUE OF COASTAL ASSETS AS AT 1 APRIL 2017		\$6.273M



## 2.3 Ports

### 2.3.1 Port Motueka

Port Motueka (Location shown in Figure 1), first started operating in the early 1900s 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.

The Talley's Group has 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 and processing factory is located) and lease further land for staff car parking. In 1994, 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 was removed in 2012.

The Motueka Yacht Club constructed a jetty in the estuary in 1994 and in 1997 the Motueka Power Boat Club received resource consent to reclaim land for development of a boat ramp/car parking area. Council holds further consents for the 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 has transferred the ownership of the wharf and its facilities to the Talleys Group. Council is no longer responsible for the maintenance of this asset. Sections of the Navigation Safety Bylaw relating to navigational safety are managed by Council's Harbourmaster. Endowment land is managed through Council's Property Services Manager.

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

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.

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

### 2.3.2 Port Mapua

Port Mapua (Location shown in Figure 1), first started operating in the early 1900s in line with many of the other ports around Tasman Bay and Golden Bay. It was first established as the primary route for transporting goods (predominately apples) for export or distribution. The goods were commonly shipped straight to Wellington, but there was some movement around the regions. By 1912, the first cool store was built and growth in fruit export from the port continued until 1950, when transportation and export through Port Nelson became the norm.

The port was then used by predominately recreational craft, but the channel and wharf were left to deteriorate. Community intervention stepped in from 1980's to repair the wharf and ensure its survival. In 1989, Council took over the former Apple and Pear Board chemical factory site and measures were put in place to prevent contaminated soil leaching into the adjoining Waimea inlet. Since 1990's the area has steadily improved with a number of restaurant, commercial and retail operations establishing to make the area an attractive destination for holiday makers and residents alike.

In 1999, Council started remediation of the former chemical factory site which was completed in 2007. The land is now a recreational area and additional carparking.

In recent years the establishment of Tasman's Great Taste Trail through the Mapua Port has established a small ferry to create a link between Mapua and Rabbit Island.

### 2.3.3 Port Tarakohe

Port Tarakohe (Location shown in Figure 1), is a port and marina owned and operated by Council as a commercial operation. Due to its nature as a commercial operation, the asset is administered by Corporate Services and as such included in the Commercial Activity Management Plan.



**Figure 1: Location of Ports in Tasman**

**2.4 Wharfs**

**2.4.1 Riwaka Wharf**

The wharf at the end of Wharf Road 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 vehicle parking area for recreational use and access to the coastal area. Considering the use of this structure, maintenance is more for the benefit of the road and less to do with water access.

**2.4.2 Mapua Wharf**

The wharf (which is part of Port Mapua) consists of a timber structure with a timber deck. The wharf has ‘cool store’ buildings that have been developed into community and commercial facilities. The buildings on the wharf are administered by Corporate Services and included in the Commercial Activity Management Plan.

The wharf has a plastic floating jetty at the eastern end connected with an aluminum truss gangway.



**Figure 2: Mapua Wharf**

**2.4.3 Other Wharves**

Some previously Council-owned structures have been transferred to other parties such as wharves/jetties at Collingwood, Milnethorpe and Mangarakau, which currently belong to DOC. These structures are in very poor condition and pose a risk to public safety. Although Council is not the owner of these assets they have an interest to ensure the assets are safe as they are in the public arena.

**Table 2: Council Administered Wharves**

Wharf	Location	Length	Materials	Condition
Mapua	Main Wharf	44.0 m	Timber	Moderate
Riwaka	Wharf Road	16.0 m	Concrete	Poor



Figure 3: Location of Wharves

## 2.5 Jetties

A summary of Council-owned jetties is listed in Table 3 and locations shown in Figure 4 below.

Table 3: Council Administered Jetties

Jetty	Location	Length	Materials	Condition
Best Island	South eastern corner by Best Island	12.5 m	Timber	Moderate
Marahau	Main Beach	19.0 m	Timber	Very Good
Mapua	Eastern end of wharf	20.1 m	Plastic/Aluminum	Good
Motueka	Moutere Inlet	15.0 m	Timber	Good

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.



**Figure 4: Location of Jetties**

## 2.6 Coastal Protection

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 are therefore included in the Transportation activity. A substantial portion of these works are above Mean High Water Spring (MHWS) and not in the Tasman Coastal Marine Area.

Between 2003 and 2007, Council, in conjunction with the local community, completed substantial coastal protection at Marahau and Ruby Bay (Broadsea Avenue and Old Mill Walkway). These have been constructed to protect existing urban development and built to a higher standard than earlier works. Earlier constructed protection works have little to no design details and therefore maintenance to the design standard is challenging. There are also rock revetments that are known but are yet to be included in the Confirm database.

Coastal protection asset data 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.



**Figure 5: Marahau Sea Wall**

A list of Council's coastal protection assets is in Table 4 and approximate locations are shown in Figure 6 below.

**Table 4: Council Administered Coastal Protection**

Location	Length	Materials	Condition
Mapua – In front of Waterfront Park	62.0 m	Rock / Concrete	Good
Marahau – Road frontage	65.0 m	Rock	Good
Torrent Bay – West of Torrent Bay Jetty	22.0 m	Timber	NA
Collingwood – Puponga Main Road, south of Manuka Creek	227.0 m	Rock	Good
Collingwood – North of Taupata Stream Bridge on Collingwood-Puponga Main Road	132.0 m	Rock	Poor
Collingwood – 200m South of Taupata Stream Bridge on Collingwood-Puponga Main Road	163.0 m	Rock	Moderate
Collingwood – 1735 Collingwood Puponga Main Road	145.0 m	Rock	Moderate
Collingwood - 500m north of 1653 Collingwood-Puponga Main Road	314.0 m	Rock	Very Poor
Collingwood - 100m north of Onetaua Bridge	43.0 m	Rock	Good

Location	Length	Materials	Condition
Collingwood – 1004 to North of 911 Collingwood-Puponga Main Road	760.0 m	Rock	Good
Collingwood – 1312 Collingwood-Puponga Main Road	84.0 m	Rock	Moderate
Collingwood - 1312 Collingwood-Puponga Main Road	112.0 m	Rock	Good
Collingwood - 1224 - 1228 Collingwood-Puponga Main Road	160.0 m	Rock	Moderate
Collingwood - Opposite 1215 Collingwood-Puponga Main Road	11.0 m	Rock	Moderate
Collingwood - 3 to 65 Totara Avenue	1,180.0 m	Rock	Good
Collingwood - 553 to near 758 Collingwood-Puponga Main Road	45.0 m	Rock	Moderate
Collingwood - 300m North of Mt Burnett Road on Collingwood-Bainham Main Road	37.0 m	Rock	Moderate
Collingwood – Puponga Main Road, opposite Mt Burnett Road	58.0 m	Rock	Moderate
Collingwood - 130m South of Mt Burnett Road on Collingwood-Bainham Main Road	75.0 m	Rock	Moderate
Collingwood - Collingwood-Bainham Main Road at Marble Creek	27.0 m	Rock	Poor
Collingwood - Gorge Creek Bridge on Collingwood-Bainham Main Road	15.0 m	Rock	Poor
Collingwood - Haven Road / Tasman Street / Boat Park - Boat Park	61.0 m	Rock	Moderate
Collingwood - From boat ramp following Aorere River on N side of Collingwood motor camp	250.0 m	Rock	Moderate
Pohara - 823 - 866 Abel Tasman Drive	280.0 m	Rock	Good
Takaka - West side of causeway on Waitapu Wharf Road at entrance to Waitapu Wharf	360.0 m	Rock	Very Poor

Location	Length	Materials	Condition
Takaka - East side of causeway on Waitapu Wharf Road at entrance to Waitapu Wharf	310.0 m	Rock	Poor
Ruby Bay – Old Mill Seawall Stage 1	778.0 m	Rock	Very Good
Ruby Bay – Old Mill Seawall Stage 2	505.0 m	Rock	Very Good
Ruby Bay – Ruby Bay Seawall	416.0 m	Rock	Very Good
Motueka - beach in front of 93 Trewavas Street	10.0 m		NA
Mapua - near wharf, close to where Fairy picks up passengers	15.0 m	Concrete	Good
Mapua – Leisure park south facing	94.0 m	Rock	Moderate
Mapua – Leisure park southern point to under the cafe	205.0 m	Rock	Moderate
Mapua – Leisure park inlet mouth to concrete seawall	1,050.0 m	Rock	Very Good
Riwaka - Eastern side of Green Tree Lane	107.0 m	Concrete/Rock	Moderate
Puponga - Main Road Puponga	410.0 m	Rock	Good
Collingwood - Starts opposite 1397 Collingwood-Puponga Road	30.0 m	Rocks	Very Poor
Pohara - Beach front of Pohara top 10 holiday park	611.0 m	Rocks	Good
Collingwood - Beach Road Northeast end. Starting western side of 49 Beach Road	516.0 m	Rocks	Moderate
Milninthorpe - West of derelict wharf	25.0 m	Rocks	Moderate





**Figure 6: Location of Coastal Protection Assets**

## 2.7 Boat Ramps

Boat ramps include concrete and gravel constructions and vary considerably in user demand. A summary of the boat ramps is below in Table 5. This summary has been compiled from information from the Confirm database, the Coastal Structures Inspections Report completed in September 2009, and the Harbourmaster.

Nine boat ramps 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 Domain Board, and the Port Motueka boat ramp which is under management of the Motueka Power Boat Club.

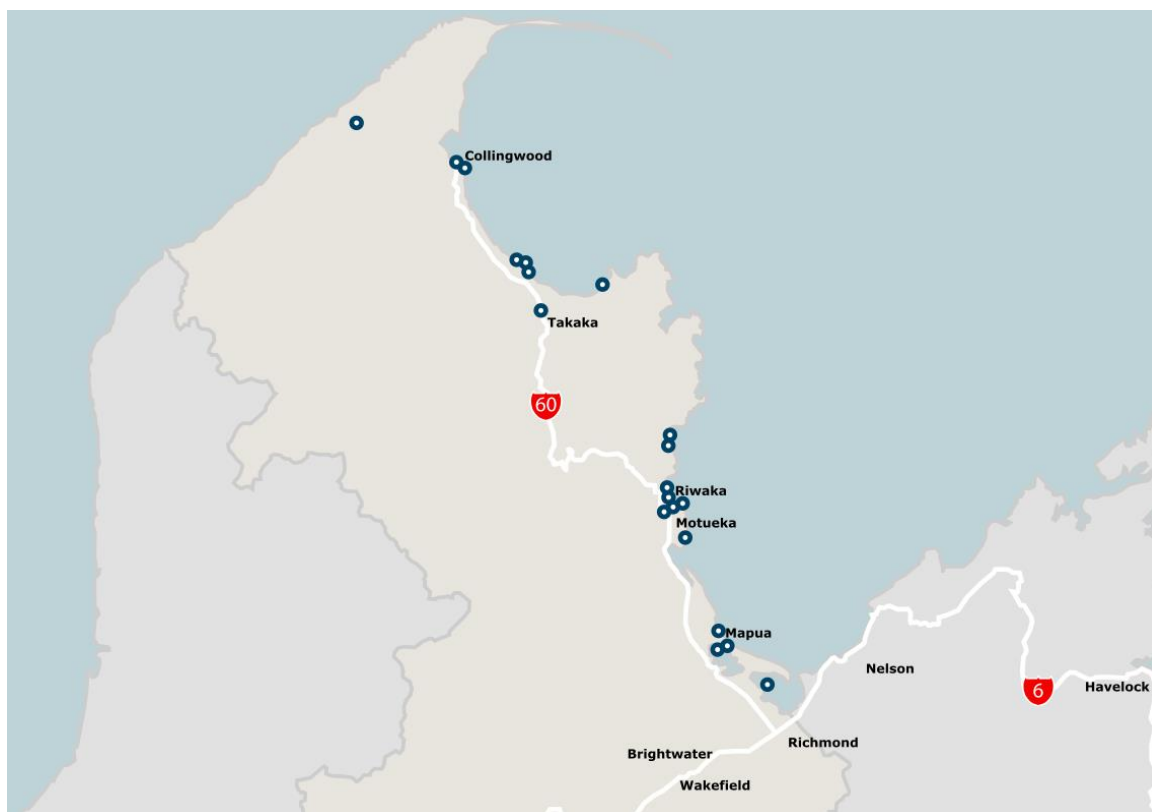


**Figure 7: Marahau Boat Ramp**

**Table 5: Council Administered Boat Ramps**

Location	Length	Lanes	Surface	Condition
Best Island – Adjacent to jetty on eastern side of island	16.0 m	1	Concrete	Poor
Mapua – Adjacent to wharf	20.0 m	1	Concrete	Moderate
Mapua – Grossi Point	Undefined	Undefined	Unformed	Moderate
Marahau - Waterfront	27.0 m	2	Concrete	Very Good
Marahau - Estuary	8.0 m	1	Concrete	Moderate
Murchison – at Riverview Holiday Park	10.0 m	1	Concrete	NA
Rakopi - Dry Road Westhaven Inlet	5.0 m	1	Sand & Gravel	Very Poor
Motueka – In front of 111 Trewavas Street	9.0 m	1	Timber / Concrete	Poor
Mapua - leisure camp inlet in front of cafe.	20.0 m	1	Concrete	Moderate
Ruby Bay – Chaytor Reserve, Broadsea Avenue	30.0 m	1	Concrete	Good
Motueka - South of Motueka bridge off Main Road Riwaka	25.0 m	1	Unformed	Poor
Motueka - north of Motueka Bridge	20.0 m	1	Unformed	Poor
Motueka - 100 metres north of Motueka bridge	50.0 m	1	Unformed	Moderate
Riwaka - West of two boat sheds on Wharf Road	20.0 m	Pedestrian	Concrete	Poor
Riwaka - 20 metres East of Wharf	10.0 m	1	Concrete	Moderate
Riwaka – End of Green Tree Road	16.0 m	1	Concrete	Good
Ligar Bay - 200 metres North from the road	20.0 m	1	Concrete	Poor
Collingwood - Easter boat ramp at William Street southern carpark	50.0 m	2	Concrete	Good

Location	Length	Lanes	Surface	Condition
Collingwood - 50 metres West from 49 Beach Road	5.0 m	1	Unformed	Moderate
Patrons Rock – Opposite 216 Patons Rock Road	20.0 m	1	Sand	Moderate
Patrons Rock – Battery Road	50.0 m	1	Unformed	Moderate
Rangihaeata Head - Keoghan Road end	100.0 m	1	Unformed	Moderate
Takaka - Takaka River freedom camping space adjacent to SH60 Bridge	30.0 m	1	Gravel	Good



**Figure 8: Location of Boat Ramps**

## 2.8 Aids to Navigation

As a Harbour Authority, 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 owns and maintains 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 has been updated and is summarised in Table 6 and shown in Figure 9 below.

**Table 6: Council Administered Navigational Aids**

Area	Feature	Type	Number	Location	Description
Rough Island	Post	Transit	4	Hunter Brown - North end (Mapua end)	Black and faded orange bands
Kina	Post	Reservation	4	Kina - South and North end	Black and white bands
St Arnaud	Post	Ski Lane	2	Lake Rotoiti	Orange and black bands
Motueka	Post	Beacon	2	Marking the channel and training wall	Green and red reflective tape band
Motueka	Buoy	Marker	1		
Motueka	Post	Sign	8	On marina	Combination of railway irons and piles with signs and cones
Onekaka	Mark	Cardinal	1	End of derelict wharf	EC top mark on white post
Rabbit Island	Post	Transit	3	Marking ski lane limits	Black & White bands
Riwaka	Buoy	Fairway	1	Marks landfall to tidal flats	Green retroreflective tape
Tata Beach	Post	Transit	2	North and South end of transit lane	Orange and black bars with sign
Totaranui	Post	Transit	2	North and South end of transit lane	Orange and black bars with sign
Collingwood	Buoy	Lateral	5	Entrance to Collingwood and Aorere River	Green and Red Spar Shape
Collingwood	Buoy	Special	2	Entrance to Collingwood / Aorere River	'5 knot sign'

Area	Feature	Type	Number	Location	Description
Riwaka	Buoy	Lateral	1	Riwaka Fairway Buoy 2800m from Riwaka Jetty	TDC sticker and engraved "03 543 8400" and "179". Green tape strips vertical around top.
Motueka	Buoy	Lateral	1	Motueka River Fairway Beacon	Green Spar Shape
Mapua	Buoy	Lateral	2	Mapua Fairway Buoy	TDC sticker and engraved "03 543 8400" and "178". Green tape strips vertical around top.
Mapua	Post	Lateral	2	Mapua Outer Starboard Pile	700m high panel of reflective tape. 4.5m ladder. Pole unpainted. No top mark.
Collingwood	Buoy	Fairway	1	Entrance to Collingwood / Aorere River	Black Mussel Float
Ligar Bay	Post	Lateral	2	Golden Bay Ligar Bay	Steel pole



Figure 9: Location of Aids to Navigation

## 3 Strategic Direction

Strategic direction provides overall guidance to Council and involves specifying the organisation's objectives, developing policies and plans designed to achieve these objectives, and then allocating resources to implement the plans.

### 3.1 Our Goal

Council aims to ensure access to the sea can be enjoyed by all whilst managing the effects of the sea on property.

### 3.2 Contribution to Community Outcomes

Council operates, maintains and improves the coastal assets on behalf of its ratepayers. Council undertakes the activity to meet the level of service that is required to enhance community well-being by improving access to the sea and managing the interaction of the coast on property.

The coastal activity contributes to the community outcomes as detailed in Table 7 below.

**Table 7: Community Outcomes**

Community Outcomes	Does Our Activity Contribute to the Community Outcome	Discussion
Our unique natural environment is healthy, protected and sustainably managed.	Yes	We manage our assets so that they do not impact the health and cleanliness of the receiving environment.
Our urban and rural environments are people-friendly, well-planned, accessible and sustainably managed.	Yes	We ensure our coastal structures are operated without causing public health hazards and by providing attractive recreational and commercial facilities.
Our infrastructure is efficient, cost effective and meets current and future needs.	Yes	We provide access for commercial and recreational activities that meets the community needs at an affordable level.
Our communities are healthy, safe, inclusive and resilient.	Yes	Coastal assets provide recreational opportunities to improve health and wellbeing. Coastal protection assets and services improve our community's resilience to storm events and climate change.
Our communities have opportunities to celebrate and explore their heritage, identity and creativity.	Yes	Seafaring and marine transportation are a large part of the history of the district. Many of the remaining coastal assets have a connection with our history of moving people and goods between the sea and land. This activity preserves many of these historical structures.
Our communities have access to a range of social, cultural, educational and recreational facilities and activities.	Yes	Coastal protection seeks to preserve reserves and other recreational activities from erosion for the benefit of the whole community.

Community Outcomes	Does Our Activity Contribute to the Community Outcome	Discussion
Our Council provides leadership and fosters partnerships, a regional perspective, and community engagement	No	
Our region is supported by an innovative and sustainable economy.	Yes	Tourism is and will continue to play a large part in the district. Access to the water for recreational and commercial activities will be key to its continued growth.

### 3.3 Infrastructure Strategy

Council's Infrastructure Strategy covers the assets needed to support Council's water supplies, stormwater, wastewater, rivers and flood control, and transportation activities.

The purpose of the Strategy is to identify the significant infrastructure issues for Tasman over the next 30 years, and to identify the principal options for managing those issues and the implications of those options.

When setting out how Council intends to manage the District's infrastructure assets and services, it must consider how:

- to respond to growth or decline in demand;
- to manage the renewal or replacement of existing assets over their lifetime;
- planned increases or decreases in levels of service will be allowed for;
- public health and environmental outcomes will be maintained or improved; and
- natural hazard risks will be addressed in terms of infrastructure resilience and financial planning.

There are three parts to the Strategy; the Executive Summary, the Strategic Direction, and the Activity Summaries. The Strategic Direction section sets the direction for infrastructure management and outlines the key priorities that Council will focus on when planning and managing its infrastructure. The Activity Summaries section provides an overview of each activity and is largely a summary of the relevant activity management plan.

The four key infrastructure priorities included in the Strategy are:

- Providing infrastructure services that meet the needs of our changing population
- Planning, developing and maintaining resilient communities
- Providing safe and secure infrastructure and services
- Prudent management of our existing assets and environment

These priorities have been used to determine and prioritise what is required to be included in the programmes of work for each activity management plan.

### 3.4 Financial Strategy

The Financial Strategy outlines Council's financial vision for the next 10–20 years and the impacts on rates, debt, levels of service and investments. It will guide Council's future funding decisions and, along with the Infrastructure Strategy, informs the capital and operational spending for the Long Term Plan 2018-2028.

Three key financial limits are established in the Financial Strategy that set Council's overall financial boundaries for its activities. These include:

- Rates Income - limited to \$65 million per annum and targeted rates to \$60 million per annum.
- Rates Increases - limited to a maximum of 3% per annum, plus an allowance for annual growth in rateable properties.
- Debt - net external debt limited to a maximum of \$200 million

Infrastructure expenditure forms a large proportion of Council's spending being 39% of operational expenditure and 80% of capital expenditure over the next 10 years. Because of this, the Infrastructure Strategy and Financial Strategy are closely linked to ensure the right balance is struck between providing the agreed levels of service within the agreed financial limits. Often these financial limits will influence how Council manages and develops existing and new assets. This is especially so for the next 10 years.

Over the next 10 years, forecast rate income increases and debt levels are projected to be near Council's limits. Council has had to work hard to prioritise and plan a work programme which addresses key issues while staying within these limits. Given Council's debt is projected to peak at \$199.6m in Year 2020/21 there is very little scope to add further work programmes in the next five years.

## 3.5 Key Issues

### 3.5.1 Disaggregated Management

Coastal Assets are spread amongst different departments and teams within Council. Additionally, there is a number of coastal assets that ownership is unclear with many believing that Council has ultimate responsibility. This has meant that management of these assets has varied. The departments that have coastal assets are:

- Transportation (Engineering Services) – Looks after council and community coastal protection structures, jetties, boat ramps markers and signs;
- Commercial (Corporate Services) – Managers Port Tarakohe and a number of smaller coastal assets that are on the property of commercial facilities;
- Reserves and Facilities (Community Development) – Managers parks and reserves with the associated facilities which includes, seawall and beach access points.

In addition, there are a number of coastal assets to which ownership is ambiguous. In some cases, this is due to a third party building it and now they no longer exist or an assumption of Council management by the community.

### 3.5.2 Boat Ramps

The connection to the sea is one of the features that defines Tasman District. Beaches, estuaries and islands are enjoyed by almost everyone. Access to the water has been difficult, in part due to the high tidal range (3.5 – 4.0 metres) and in part due to the relatively shallow bays that define the majority of the coast. There are over 67 boat access locations along the coast. Of these 50% are unformed, 50% are beach access only, 75% are suitable for dinghy and small boats only. No ramps have additional supporting facilities such as wash down facilities or toilets.

In recent years recreational boating has changed in the Tasman District. There has been an increase in the size of new boats making the unformed ramps difficult to use for a growing portion of boats. Good launching facilities at Nelson, Motueka and Kaiteriteri are busy and have car parking issues. This is predominately due to fine weather and availability for recreational activities coinciding for many users of the facilities. Queuing time for boat ramp use in Nelson can be up to an hour long and people can have to walk up to 1km after finding a car park. Likewise, parking is an issue in Kaiteriteri, but to a lesser extent.

### 3.5.3 Asset Knowledge

Not enough is known about the coastal assets in the District. There are a number of assets that are not recognised in Council records. This has led to lack of maintenance and in some cases premature failure. Many of the assets that are recognised by Council have incomplete records and a lack of accurate condition rating. This means that the only way of scheduling maintenance is reactive, to Customer Service Requests and Council staff observed problems.

There are a number of derelict structures around the region that have been abandoned, most have not been identified. Legal advice is that Department of Conservation should have responsibility for the structures. The structures are still highly valued by the public, either as a vessel mooring or due to aesthetic or photographic opportunities. Over the years, the timber structures have deteriorated to a point that they pose a navigational or safety hazard to the public.

### 3.5.4 Coastal Protection

Urban development along coastal margins, coastal erosion and potential sea level inundation associated with climate change all increase the demand for coastal protection works. Council is planning to maintain existing Council-owned coastal protection works and recreational assets, but will not provide any increased levels of protection to properties or new recreational assets. Council is also developing resource management policies to manage growth in coastal hazard areas to reduce the likelihood of further areas being developed that could be at risk from inundation from the sea and the need for coastal protection work for these areas. Modelling of the Tasman coastline is occurring and a full review of coastal polices is expected in the next three years. In the meantime, an interim coastal policy has been developed explaining Council's priorities for maintenance of existing coastal structures.



### 3.6 Prioritisation

Council cannot afford to undertake all work at once due to financial and resource constraints. This means that Council needs to prioritise what work it undertakes first, and what work can wait until later.

There are multiple factors that affect the priority of individual works. These include:

- The need to protect public health & safety
- Statutory compliance
- Meeting the needs of tomorrow's population
- Readiness to implement works
- Co-funding opportunities
- Enabling pleasant community environments
- Benefits and risks
- District distribution
- Strategic fit

Council has taken all of the above into consideration when planning its programme of work. Generally, mandatory requirements such as statutory compliance take priority, and discretionary activities have been programmed second to this.

### 3.7 Interim Coastal Position

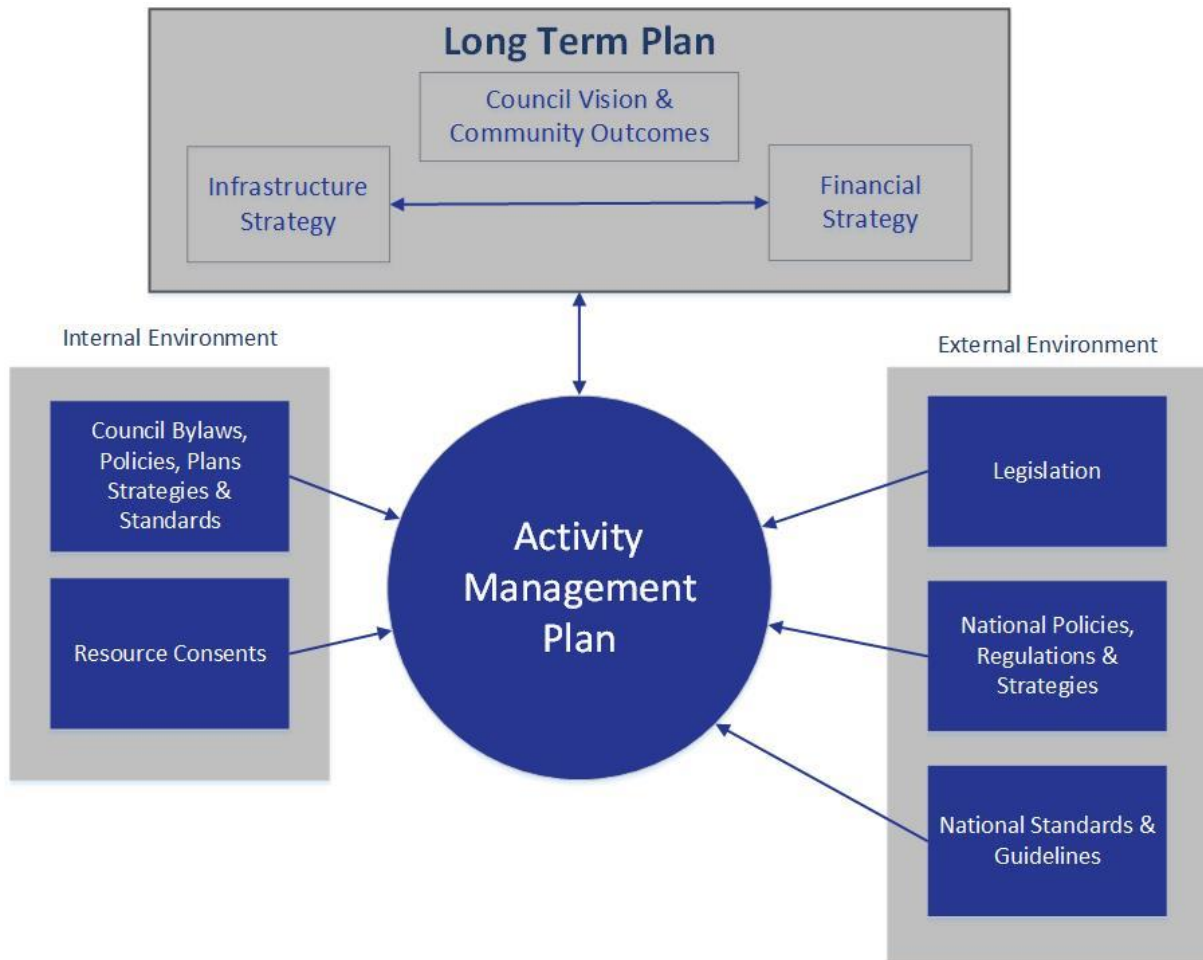
An increasing number of storm events in the district have caused considerable damage and erosion along parts of the Tasman coastline. Community expectations for the Council to protect private property is unaffordable, so an interim position statement was developed while further modelling and investigation work into the effects of climate change and sea level rise on the Tasman district are assessed.

The interim position statement is:

- The Council will maintain or repair only existing Council-owned coastal protection structures (subject to a review of economic benefit and affordability and compliance with NZCPS and TRMP)
- The Council will consider new investment in coastal protection works only where there are substantial Council-owned capital works, assets or infrastructure at risk and it is impracticable to relocate Council assets (subject to compliance with the NZCPS and the TRMP)
- The Council will not invest in or maintain any new Council-owned coastal structures or works to protect private property, nor will it accept responsibility for repair or maintenance of existing private coastal works
- The Council will only give consideration to allow any privately funded construction of shoreline protection structures on Council-owned land, for the purposes of protecting Council-owned land or private property, where a proposal is substantially compliant with the objectives and policies of the NZCPS and objectives, policies and rules of the TRMP, and Council's Reserves General Policies document. In any event the Council retains complete discretion regarding authorisation of private structures on Council-owned land.

## 4 Key Linkages

There are multiple factors that influence how Council manages this activity. They can be internal or external and include legislation, policies, regulations, strategies and standards. This section summarises these key linkages.



**Figure 10: Coastal Assets AMP and Relationship with other Documents**

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
- Industry Guidelines and Standards
- 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.

### 4.1 Key Legislation

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/>.

**Figure 11: Summary of Key Legislation that Relates to this Activity**

Legislation	Effect on this Activity
The Local Government Act 2002	The Local Government Act requires local authorities to prepare a ten-year Long Term Plan and 30-year Infrastructure Strategy, which are to be reviewed every three years. The Act requires local authorities to be rigorous in their decision-making by identifying all practicable options and assessing those options by considering the benefits and costs in terms of the present and future well-being of the community. This activity management plan provides information to support the decisions considered in the Long Term Plan.
The Biosecurity Act 1993	This act defines, pest surveillance, prevention and management.
The Civil Defence Emergency Management Act 2002 (Lifelines)	This Act promotes the management of hazards. This includes mitigating flood risk which includes planning for emergencies, response and recovery from an event.
The Resource Management Act 1991	This Act sets out obligations to protect New Zealand's natural resources such as land, air, water, plants, ecology, and stream health. Resource consents draw their legal authority from the Resource Management Act 1991.
The Maritime Transport Act 1994	This Act sets our Councils obligations as a unitary authority for ports, harbours and waters where marine related activities are undertaken.

## 4.2 Key Planning, Policies and Strategies

### 4.2.1 National Policies, Regulations and Strategies

**Table 8: Summary of National Documents that Relates to this Activity**

Documentation	Effect on this Activity
The New Zealand Coastal Policy Statement 2010	The policy statement informs the Tasman Regional Management Plan and Council must give consideration the policy statement during consent consideration on anything around the coast.
NAMS Manuals and Guidelines	International best practice guideline to asset management practice; covering a wide range of asset and infrastructure related topics, including detailed advice on how to improve asset management.
Maritime Rules, Part 91 – Navigational Safety Rules	This rule describes the requirements around marking of on water access lanes.

### 4.2.2 New Zealand Standards

**Table 9: Summary of Standards that Relates to this Activity**

Standard	Effect on this Activity
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AS 3962 2001 Guideline for design of marinas	Provides guidance on marine facilities for vessels up to 50m in length.
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#### 4.2.3 Local Policies, Regulations, Standards and Strategies

**Table 10: Summary of Local Documents that Relates to this Activity**

Documentation	Effect on this Activity
Tasman District Council District Plan – Tasman Resource Management Plan (TRMP)	The plan is the guiding document for all activities undertaken in the district. This dictates and shapes the forward works and capital programmes but also influence the consent and permissions required when undertaking any construction.
Tasman Regional Policy Statement (TRPS)	An overview of significant resource management issues with general policies and methods to address these. Part 9 Coastal Environment outlines the occupation and use of the coastal marine area as well as water borne navigation and safety.
Tasman District Council Procurement Strategy	The procurement strategy dictates the process for all procurement at Council. The strategy does cater for scale and size of the acquisition.

# 5 Levels of Service

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

Levels of service can be strategic, tactical, operational or implementational 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 bylaws 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.
- 

## 5.1 Our Levels of Service

Table 11 summarises the levels of service and performance measures for this activity. The light blue shaded rows show those that are included in the Long Term Plan and reported in the Annual Plan. Unshaded white rows are technical measures that are only included in the activity management plan.

**Table 11: Levels of Service**

Levels of Service (we provide)	Performance Measure (we will know we are meeting the level of service if ...)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	Year 10
			2018/19	2019/20	2020/21	2028/29
<p>Protection</p> <p>Our communities are protected from natural hazard events</p>	<p>Council owned coastal protection is maintained to its original constructed standard.</p> <p>Council has a detailed inventory of coastal assets and condition</p> <p>As measured by routine inspections after storm events.</p>	Actual = New measure	100%	100%	100%	100%
<p>Safety</p> <p>Our structures are safe for the public to use</p>	<p>Council structures are maintained to a safe level to allow general public to use.</p> <p>Measure percentage of structures deemed 'safe' through annual safety audit.</p>	Actual = New measure	100%	100%	100%	100%
<p>Amenity</p> <p>The coastal assets are maintained to an appropriate level and satisfies the community's expectations</p>	<p>Residents are satisfied with Council's coastal assets in the district.</p> <p>As measured through the annual Communitrak survey.</p>	Actual = New measure	≥ 70%	≥ 70%	≥ 70%	≥ 70%

## 5.2 Level of Service Changes

Council reviews its levels of service every three years, as part of the Long Term Plan development. Table 12 below summaries the key changes Council has made during development of the Long Term Plan 2018 – 2028.

**Table 12: Summary of areas where we made changes to our levels of service**

Performance Measure	Summary of change
Structures Safety	Added new performance measure to ensure that coastal assets are fit for public use.
Structures Safety	Removed council response performance measure which will be reported on my Support Services
Amenity	New performance measure added to measure residents satisfaction with the coastal assets.

## 5.3 Levels of Service Analysis and Performance

### 5.3.1 Protection

There are a small number of coastal protection works that have good design intent information, they are also the largest protection structures and therefore important to maintain. All other coastal structures have little or no design information, but this shows that they are not critical assets. If any of the protection structures do become critical assets, a higher degree of scrutiny will be undertaken with retrospective engineering design review.

The level of service measure requiring compliance with resource consents has been removed. Compliance with the consents should be implied, and not used as a measure of performance for this activity.

### 5.3.2 Safety

The public safety level of service measure is new. It is to ensure that coastal assets are suitable for public use and maintained in a condition that would not provide undue risk to those using them. This is particularly important given the number of poor or derelict structures within the District.

This level of service also ties into the additional asset condition inspections that will be undertaken as part of this AMP. Previously, the safety level of service focussed on the response of Council to customer service requests. This previous measure has been removed from this activity, is still applied to Council through the Support Services performance measures.

### 5.3.3 Amenity

A new amenity performance measure has been added to ensure this activity has a customer focus. This uses the Communitrak survey to measure resident's satisfaction with coastal assets. This measurement of resident's satisfaction has not been measured consistently in the past with the question asked sporadically over the last 20 years. However, there has been a question that asks whether residents think more, about the same or less should be spent of different asset categories. Coastal assets is commonly high for the assets that residents want more money spent on. This measure will track Council's progress with customer expectations.

## 6 Our Customers and Stakeholders

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.

### 6.1 Stakeholders

There are many individuals and organisations that have an interest in the management and/or operation of Council's assets. Council has a Stakeholder and Engagement Policy which is designed to guide the expectations with the relationship between Council and the Tasman community. Council has made a promise to seek out opportunities to ensure the communities and people it represents and provides services to have the opportunity to:

- be fully informed;
- provide reasonable time for those participating to come to a view;
- listen to what they have to say with an open mind;
- acknowledge what we have been told;
- inform contributors how their input influenced the decision that Council made or is contemplating.

Engagement or consultation:

- is about providing more than information or meeting a legal requirement;
- aids decision-making;
- is about reaching a common understanding of issues;
- is about the quality of contact not the amount;
- is an opportunity for a fully informed community to contribute to decision-making.

The key stakeholders Council consults with about the Coastal Structures activity are:

- Elected members (Community Board members);
- Iwi (Council's Treaty Partners);
- Regulatory (Consent compliance);
- Fisheries organisations;
- Heritage New Zealand;
- Service providers / suppliers;
- Civil Contractors (Nelson-Marlborough);
- Affected or interested parties (when applying for resource consents);
- Neighbours.

### 6.2 Consultation

#### 6.2.1 Purpose 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 meets the community's needs.

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

- feedback from residents' surveys;
- other customer/user surveys, such as Yardstick visitor measures;
- levels of service consultation on specific issues;
- feedback from staff customer contact;
- ongoing staff liaison with community organisations, user groups and individuals;
- public meetings;
- feedback from elected members, advisory groups and working parties;
- analysis of customer service requests and complaints;



- consultation via the Annual Plan and Long Term Plan processes; and
- consultation on Strategies and Reserve Management Plans.

Council commissions residents’ surveys on a regular basis (the National Research Bureau Ltd has provided this service since 2008). These NRB Communitrak™ surveys assess the levels of satisfaction with key services, including provision of community facilities, and the willingness across the community to pay to improve services. Other informal consultation is undertaken with community and stakeholder groups on an issue by issue basis, as required.

### 6.2.2 Consultation Outcomes

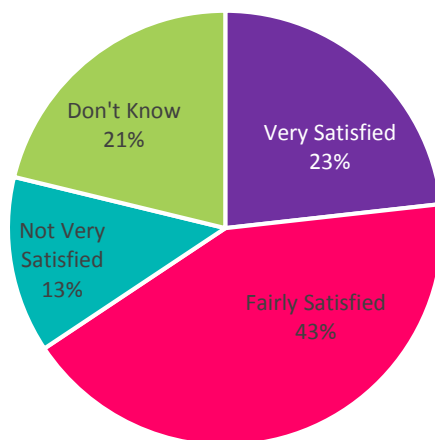
The most recent NRB Communitrak™ survey was undertaken in May 2017. This asked whether residents were satisfied with the District’s recreational facilities, multi-purpose public halls and community buildings and public toilets.

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.

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

Council commission’s customer surveys on a regular basis (since 2008) from the National Research Bureau Ltd. These Communitrak surveys assess the levels of satisfaction with key services and the willingness across the community to pay to improve services.

From time to time Council undertakes focused surveys to get information on specific subjects or projects. The most recent NRB Communitrak survey was undertaken in May 2015. This asked whether residents were satisfied with the management of Coastal Structures. The results from this survey are summarised in Figure 12.



**Figure 12: Satisfaction with Management of Coastal Structures**

The survey showed that 65% of residents are satisfied with Council’s management of coastal structures. The main reasons residents are not very satisfied with Council’s management of coastal structures are:

- coastal protection/foreshore/sea frontages/rock walls,
- needs improvement/not enough being done/take too long,
- financial issues,
- erosion issues,
- need to listen/communicate.

Of the 13% showing dissatisfaction, 31% resided in Golden Bay and 24% in Motueka.

Twenty one percent of residents surveyed were unable to comment on their satisfaction with Council’s coastal structures. This is probably owing to the distance they live from the coast like Lakes-Murchison which 51% that didn’t know.

# 7 Current and Future Demand

The ability to predict future demand for services enables Council to plan ahead and identify the best way of meeting that demand. That may be through a combination of demand management and investing in improvements. This section provides an overview of key drivers of demand and what demand management measures Council has planned to implement.

## 7.1 Demand Drivers

The future demand for coastal assets will change over time in response to a wide range of influences, including:

- Population Growth;
- Tourism Growth;
- Community Expectations;
- Climate Change and sea level rise.

Council has not previously quantified actual usage of assets to determine actual changes in demand. Council will establish a process to assess boat ramp usage as an indicator for use of other coastal assets and establish trends.

## 7.2 Assessing Demand

### 7.2.1 Population Growth

The link between population growth and the demand for coastal assets is not direct. Population growth does lead to the 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 this activity are:

- increased use of port, wharf, mooring, marina and boat ramp facilities for recreation;
- increased community expectation to provide coastal protection.

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.

Nelson, Motueka and Golden Bay ramps and marine facilities have reported significant growth in the number of recreational boats using their ramps. This demand isn't even but relates to hours of work, weather and marine events (such as pre-snapper spawning and oyster cycles) creating peaks in demand. Queuing, waiting to launch, parking significant distances from the boat ramp and illegal parking have become more common.

All Nelson, Motueka and Tarakohe marina operators have indicated that they have waiting lists for securing a berth in their marinas, with waiting lists of 80, 50 and 15 respectively. Operators have also indicated that they turn away 5 - 6 new enquiries for berths per week.

Currently there is no new coastal protection programmed. No further work will be programmed until the modelling of the Tasman coastline has been completed and a formal policy on coastal hazard protection has been developed.

The overall population of Tasman is expected to increase by 4,420 residents between 2018 and 2028, to reach 55,690. The District will experience ongoing population growth over the next 30 years, but the rate of growth will slow over time.

The median age in the Tasman District in 2013 was 44. This is expected to increase to 53 (high projection) /54.1 (medium projection) by 2043. The proportion of the population aged 65 years and over is expected to increase from 18% in 2013 to 36% (high projection)/ 37% (medium projection) by 2043.

The key demographic assumptions affecting future growth are:

- ongoing population growth over the next 30 years with the rate of growth slowing over time
- higher growth in Richmond, Motueka, Mapua, Brightwater, and Wakefield for 2018-2028
- an ageing population, with population increases in older age groups
- a decline in average household size, mainly due to the ageing population with an increasing number of people at older ages who are more likely to live in one or two-person households.

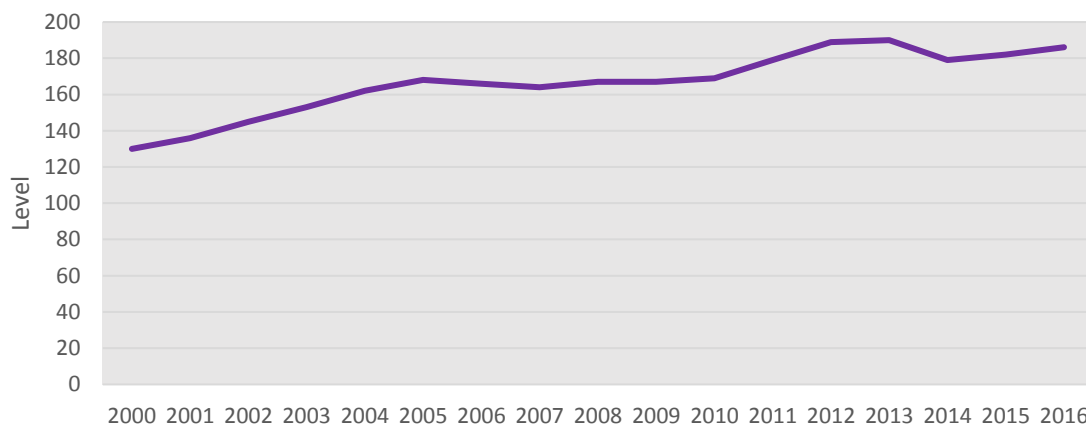
After considering recent estimated population and dwelling growth rates, Council has used Statistics New Zealand's high growth projections for Richmond, Brightwater, Wakefield, Motueka, and Mapua/Ruby Bay and medium growth projections for the rest of the District, for 2018-2028. Medium growth projections have been used for the whole District for 2028-2048.

Residential growth is measured in the number of new dwellings. Council has estimated demand for 2,955 new dwellings over the next ten years, and a further 3,040 dwellings between 2028 and 2048. This is based on population and household size projections, and also allow for demand for dwellings for non-residents, such as holiday houses or temporary worker accommodation. The growth model projects demand for new dwellings to be an average of 365 a year for Years 1-3 (2018-2021), dropping to 266 a year for 2021-2028. In recent years, Tasman has experienced increased growth in the number of new dwellings, with an average annual increase in the last three years of 365 new dwellings. The average over the last ten years was 291 new dwellings a year.

Business growth is measured in the number of new business lots. Council has estimated demand for 243 new business lots in our settlements over the next ten years, and a further 212 new lots between 2028 and 2048. This is based on a business land forecasting model from Property Economics using medium population projections, national and regional economic trends, employment projections and employment to land ratios.

### 7.2.2 Tourism Growth

Nelson Tasman tourism has grown over the last 16 years as shown in Figure 13 below. This growth has been predominately in domestic tourism with a share over international tourism of 62.4% compared to the national average of 57.9%.



**Figure 13: Tourism GDP Growth in Nelson Tasman**

Almost all tourists that visit the Tasman district interact with the sea, but domestic tourists tend to make greater use of public facilities along the coast. Domestic tourist will often bring boats, kayak and over water activities.

### 7.2.3 Community Expectations

Community expectations vary geographically and over time key trends in community expectations that 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.

Marina operators, boat builders and boat yards have indicated that there is a trend for purchase and use of larger boats. Sales and use of boats 7 metres and longer has increased in the last 15 years and they are currently outselling smaller boats. These boats tend to require larger vehicles to pull and require launching facilities to accommodate the draft with good surfaces to facilitate pulling the boat out of the water. Additionally, these boats tend to use a floating berth for loading and unloading people, instead of running the boat up on the beach. This trend has been confirmed with marina operators indicating that of the 150 boat on a waiting list to secure a berth, the demand is for larger vessels (up to 18 metres). One such marina has berths available, but they are too small for the demand.

#### 7.2.4 Climate Change and Sea Level

Urban development along coastal margins, coastal erosion and potential sea level inundation associated with climate change all increase the demand for coastal protection works. Council is planning to maintain existing Council-owned coastal protection works and recreational assets, but will not provide any increased levels of protection to properties or new recreational assets. Council is also developing resource management policies to manage growth in coastal hazard areas to reduce the likelihood of further areas being developed that could be at risk from inundation from the sea and the need for coastal protection works for these areas. Modelling of the Tasman coastline is occurring and a full review of coastal polices is expected in the next three years. In the meantime, an interim coastal policy has been developed explaining Council's priorities for maintenance of existing coastal structures.

The Ministry for the Environment, Coastal Hazards and Climate Change report provides guidance for local government that sea level rise of 1.0 metres over the next 100 years is used for planning controls in existing coastal development. A lesser scenario of 0.65 metres can be used for non-habitable assets close to the coast. New infrastructure, subdivision and greenfield developments should use a more conservative scenario of 1.35 metres over the next 100 years.

### 7.3 Demand Management

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.

#### 7.3.1 Council's Approach to Demand Management

As a Harbour Authority, Council has a statutory obligation to manage the activities within the ports. As a regional 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.

# 8 Lifecycle Management

Lifecycle cost is the total cost to Council of an asset throughout its life including, creation, operations and maintenance, renewal, and disposal. Council aims to manage its assets in a way that optimises the balance of these costs. This section summarises how Council plans to manage each part of the lifecycle for this activity.

Council carries out the following roles in the management of coastal assets. Coastal structures management is provided for “in-house” by Council staff. Occasionally, there is the need to engage consultants to provide specialist professional services when the scope of the work exceeds Council’s available resources.

- 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).
- Environment and Planning
  - Implementing aspects of the Navigation Safety 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.
  - Routine maintenance of regulatory assets such as moorings, buoys and aids to navigation (excluding the structures which the aids are mounted on).
- Corporate Services
  - Implementing aspects of the Navigation Safety bylaw relating to the collection of wharfage/berthage fees.
  - Management of Council-owned property on wharves.
  - Port Tarakohe.

## 8.1 Asset Condition and Performance

Council needs to understand the current condition of its assets. Monitoring programmes should be tailored to consider how critical the asset is, how quickly it is likely to deteriorate, and the cost of data collection. An inspection of wharves, jetties and ramps was performed in 2009 and again in 2015. Condition was assessed, and this resulted in some remedial works being performed.

From 2018, the inspection regime will be changed to ensure that every asset is inspected every three years, but every jetty, wharf and boat ramp is inspected annually due to the risk of public injury. This new inspection regime will improve the information that Council has on the assets, and should also assist in confirming ownership of assets that have historically been ambiguous.

Condition is assessed for all the different components that make up the asset and then an overall condition rating using NZQQA Infrastructure Asset Grading Guidelines and shown in Table 13 below.

**Table 13: Condition Rating Scale**

Grade	Condition
1	Very Good
2	Good
3	Moderate
4	Poor
5	Very Poor

### 8.1.1 Port Motueka

Council does not undertake inspections of the structures at Port Motueka due to 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 2018.

### 8.1.2 Mapua Wharf

Up until recently, the condition of the wharf has been deteriorating. With improvements in amenity of the area and the dedication of local residents, the wharf condition was improved and maintained. In 2012, the plastic floating pontoon was added to the wharf. More recently with construction of Shed 4, landscaping of the area and renovation of Jellyfish Café has all contributed to improvements to the wharf and the general area. During the Jellyfish upgrade, several deck structural issues were discovered and remediated. In 2017, Council released the Mapua Waterfront Strategy recommending that the status quo remains. The condition is evaluated as Good which is in line with the high level of public use.

### 8.1.3 Riwaka Wharf

The wharf is largely constructed from concrete with an asphalt concrete capping. It is situated in a tidal zone with minimal use from boats. A majority of use is from pedestrians fishing or sightseeing. The condition of the wharf is moderate.

### 8.1.4 Jetties

The jetties are generally in good condition as they are some of the newer coastal assets. Motueka fishing wharf has not undergone a condition inspection, but given its age, the condition is expected to be fine. For the list of jetties and their condition refer to Table 3 in Section 2.4.

Jetties were last inspected in 2015. A summary of their condition is included in Table 3 above. The Marahau jetty was constructed in 2004 and was well designed and built with good materials.

Torrent Bay jetty was reported in 2009 as being in very poor condition but has since undergone improvements.

The Mapua pontoon was installed in 2012, and in 2017 an aluminum prow was added to the end of the pontoon to divert swimmers and kayaks around the pontoon instead of under in a strong incoming tidal flow. After this addition, and some other maintenance work the condition is good.

Best Island Jetty was identified as being the responsibility of Council in 2010. A report identified that the jetty is in good condition, but some of the timbers were undersized. A sign has been erected indicating the maximum allowable load.

The Motueka fishing platform has not yet been inspected, but will be undertaken in 2018 along with all other jetties, but basic visual inspection has determined that the condition is satisfactory.

There are a number of jetties that ownership has to be determined. It is intended that this will happen in 2018 and if the jetties are found to be Council responsibility, they will be added to the asset database and included in the inspection and maintenance schedule.

Inspections of all jetties will be undertaken on an annual basis from 2018.

### 8.1.5 Coastal Protection

The coastal protection assets are generally in two groups. The first are the newer rock revetments at Ruby Bay and Marahau that are in good or very good condition. These are the assets that Council has good engineering and design information and are able to maintain them to an agreed standard. These assets are visually inspected annually, and after significant storm events as required in the resource consent. The remainder of coastal protection works are scattered along the coast with a majority located around Collingwood. These assets are generally in very poor to good condition. A full list with associated condition rating can be found at Table 4 in Section 2.6.

All coastal assets will be inspected three-yearly along with other coastal assets; the next inspection is planned for 2018.

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.

### 8.1.6 Boat Ramps

Boat ramps have a mix of conditions, including boat ramps with the condition has not been recorded. Most of the ramps are in moderate or better. The ramps with a poor condition rating either unformed, or the concrete having severe cracking, but all are able to be used. For a complete list of the ramps, including condition rating see Table 5 in Section 2.7.



**Figure 14: Grossi Point Boat Ramp**

### 8.1.7 Navigation Aids

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

Inspections are generally undertaken by the Harbourmaster and repairs are generally undertaken in a reactive manner. The aids are in fair to good condition. A complete list of navigational aids can be found at Table 6 in Section 2.8.

## 8.2 Operations and Maintenance

### 8.2.1 Key Maintenance and Operational Themes

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 Council's procurement strategy.

Council has allocated funds to allow for heavy maintenance of formed boat ramps. This work is yet to be procured. Council is putting together an updated and detailed inventory of coastal structures including ownership details and the physical condition of the structure. It is hoped that this will lead to the development of a regular maintenance and inspection routine that is aligned with budgets for this activity. Maintenance of coastal rock protection is undertaken in a reactive manner. Council engages an experienced and approved contractor for site specific works as required. Regulatory assets such as signs and aids to navigation are routinely maintained by Council's Harbourmaster.

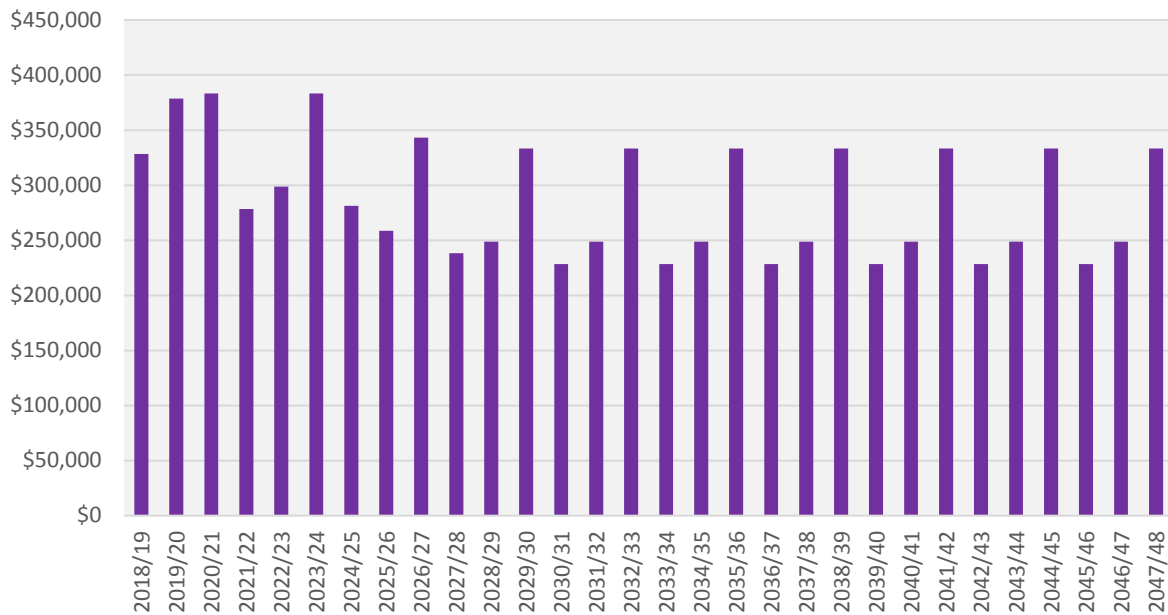
### 8.2.2 Maintenance Strategies

The current budget levels are believed to be just sufficient to provide the agreed levels of service and therefore no maintenance work has been deferred. However, with the new inspection regime, it is likely that a greater number of maintenance issues will be identified. Additionally, the levels of service have been modified to include a public safety measure. Some 'non-critical' maintenance may be deferred to ensure that safety is maintained.

An interim coastal structure policy statement has been adopted by Council in 2014 stating that only existing Council-owned coastal structures will be maintained by Council.

### 8.2.3 Forecast Operations & Maintenance Expenditure

Figure 15 details the project operations and maintenance expenditure for the next 30 years.



**Figure 15: Direct Operating and Maintenance Expenditure Excluding Inflation**

## 8.3 Asset Renewal/Replacement

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. Funding of work over and above restoring an asset to its original capacity is considered to be new capital works expenditure.

### 8.3.1 Key Renewal Themes

All of the assets in the coastal environment are prone to storm damage and corrosion. Despite prudent specification of materials, maintenance and ultimately renewals of the assets is part of the life cycle management. There are no renewal themes, but it is recognised that materials in a marine environment are prone to higher than usual rates of corrosion and erosion.

### 8.3.2 Renewals Strategies

Assets are considered for renewal when:

- they near the end of their effective useful life;
- the cost of maintenance becomes uneconomical and the whole-of-life costs are less to renew the asset than keep up maintenance;
- the risk of failure of critical assets is unacceptable.

The renewal programme has generally been developed by the following:

- Taking asset age and remaining life predictions, 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 and performance through the asset management system.
- The renewal programme is reviewed in detail every three years, by planning advisors, asset engineers and engineering management; and crossed referenced with other activities to determine if other projects are occurring in the same location. Timings may be tweaked to optimise overall programme to minimise disruptions to the public and realise potential costs saving in the reinstatement and preliminary and general works where possible.
- Every year the annual renewal programme is reviewed and planned with the input of the maintenance contractor.



Currently, there is a lack of information on the assets that prevents robust renewal planning. At present only, the signage and one jetty has scheduled renewal works. The life cycle of signs is well understood, and therefore a reliable timeframe for renewal can be determined. Marahau jetty has provision for renewal because of the reliability of information of the asset. Almost all other assets have significant data gaps. Over the next three years much of the data quality issues on the wharves, jetties and boat ramps will be resolved and allow a robust renewal programme to be created.

The renewal programme is reviewed in detail during each AMP update (ie, every three years), and every year the annual renewal programme is reviewed and planned with the project team.

### 8.3.3 Delivery of Renewals

Minor renewal projects are typically carried out by a relevant maintenance contractor. Contracts for larger value renewal projects are tendered in accordance with the procurement strategy. Prior to the asset being renewed, a 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.

### 8.3.4 Deferred Renewals

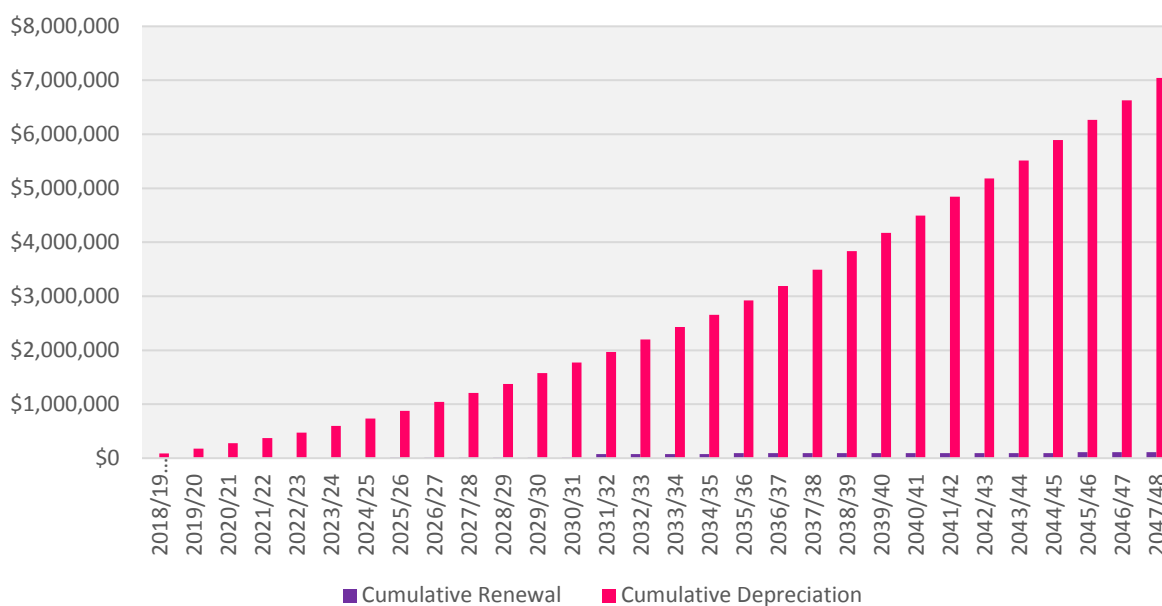
Deferred renewal is the shortfall in renewals required to maintain the service potential of the assets. This can include:

- renewal work that is scheduled but not performed when it should have been, and which 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.

Figure 16 above shows that Cumulative Depreciation is significantly in excess of cumulative investment. Reasons for this discrepancy are:

- many Coastal Assets have a very long life and renewal is required due to specific damaging events rather than progressive deterioration;
- the appropriate level of renewal investment is not fully understood and studies during this AMP period will allow future AMPs to better reflect the required level of investment.

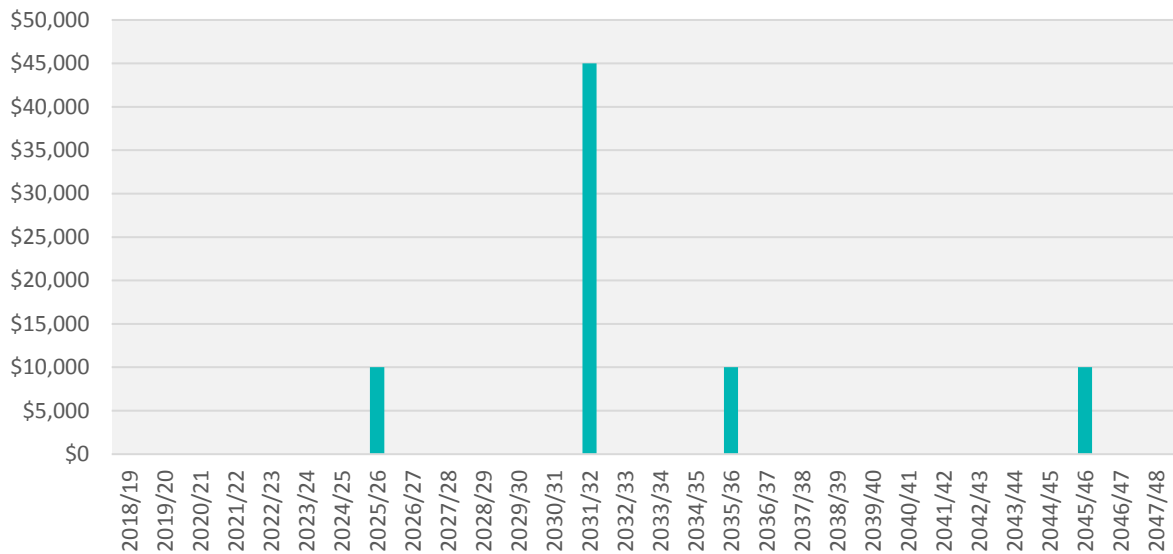
Whilst the exact extent of deferred renewals is not identified, Council can manage potential effects on levels of service by routinely undertaking condition rating and reviewing the renewals programme.



**Figure 16: Comparison of Accumulative Renewal Expenditure versus Annual Depreciation Including Inflation**

### 8.3.5 Forecast of Renewals Expenditure

Figure 17 show the projected renewal costs for the next 30 years.



**Figure 17: Coastal Assets 30 Year Renewal Expenditure Excluding Inflation**

## 8.4 Asset Development

New capital expenditure is used to create new assets, expand or upgrade existing assets, or increase the capacity of existing assets beyond their original design capacity or service potential. This section summarises future new capital work requirements for this activity.

### 8.4.1 Key Asset Development Themes

#### 8.4.1.1 Water Access Demand

In 2017, Council undertook a study into the Mapua Waterfront. The study investigated the options to improve different areas around the Waterfront Park that included Grossi Point, the wharf, the commercial facilities and remediated land for commercial and residential development. One of the major areas of community concern, was the lack of access to the boat ramp adjacent to the main wharf. The Mapua Boat Club favored a new boat ramp occupying a portion of Waterfront Park, but other options included developing Grossi point or developing a regional facility. The Grossi Point upgrade was indicated in previous AMP's, but was not favored by the Mapua community, iwi or Council. Council decided that the option of a regional facility be adopted to address boat access, not only in Mapua but the entire Tasman Bay area.

The facility will be scoped as part of the Tasman Bay boat access study, and will ensure that public demand for high quality facilities is met.

#### 8.4.1.2 Marahau Coastal Erosion

The beach at the northern end of Marahau has suffered coastal erosion for a number of years. The land behind the beach has been protected by replenishing the sand on the beach. There is a small section of land owned by Council which is part of the road reserve and a larger proportion owned by Wakatu Corporation. It is intended that, the sand will continue to be replenished for the next seven years to allow an agreement between Council and Wakatu to provide permanent protection in 2025/26.

### 8.4.2 Projects to Support Increasing Levels of Service

Council is planning h following key projects to increase level of service:

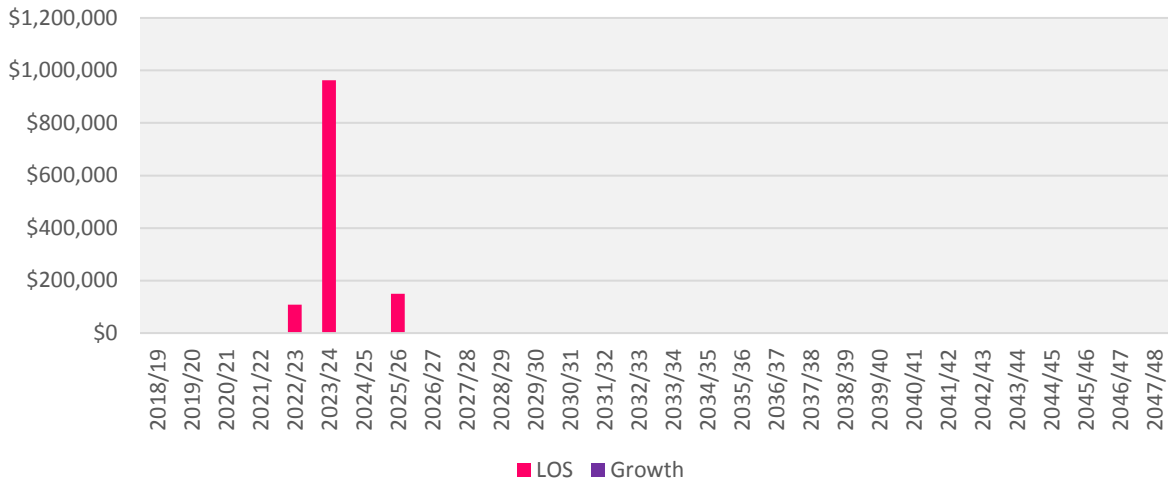
- Tasman Bay – Boat Access Facility
- Marahau – Extension to Marahau Seawall

### 8.4.3 Projects to Support Growth

There are no projects to support growth.

### 8.4.4 Forecast of New Capital Work Expenditure

The forecast new capital programme for this activity for the next 30 years is shown in Figure 18.



**Figure 18: Coastal Assets 30 year Capital Expenditure Excluding Inflation**

## 8.5 Asset Disposal

Council does not have a formal strategy on asset disposal. It will treat each asset individually on a case-by-case basis when the asset reaches a state that disposal needs to be considered.

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

Assets may become redundant for any of the following reasons:

- under-utilisation;
- obsolescence;
- provision of the asset exceeds the required level;
- uneconomic to upgrade or operate;
- policy change;
- the service is provided by other means (e.g. private sector involvement);
- potential risk of ownership (financial, legal, social, vandalism).

Depending on the nature, location, condition and value of an asset it is either:

- made safe and left in place;
- removed or disposed of;
- removed and sold;
- ownership is transferred to other stakeholders by agreement.

In most situations, assets are replaced at the end of their useful life and are generally in poor physical condition. In some situations, an asset may require removal or replacement prior to the end of its useful life. In this circumstance, Council may hold the asset in stock for reuse elsewhere. If this is not appropriate, the asset could be sold off, transferred or disposed of.

When asset sales take place, Council aims to obtain the best available return from the sale and any net income will be credited to that activity. Council follows practices that comply with the relevant legislative requirements for local government when selling assets.

# 9 Financials

Council has planned a prudent financial approach to managing its assets and services. This section provides a summary of the total value of the activity and the investment that Council has planned to make over the next 30 years.

## 9.1 Funding Sources

The Coastal Assets activity is currently funded through a mixture of sources. The sources and their proportion of contribution is shown in Figure 19 below.

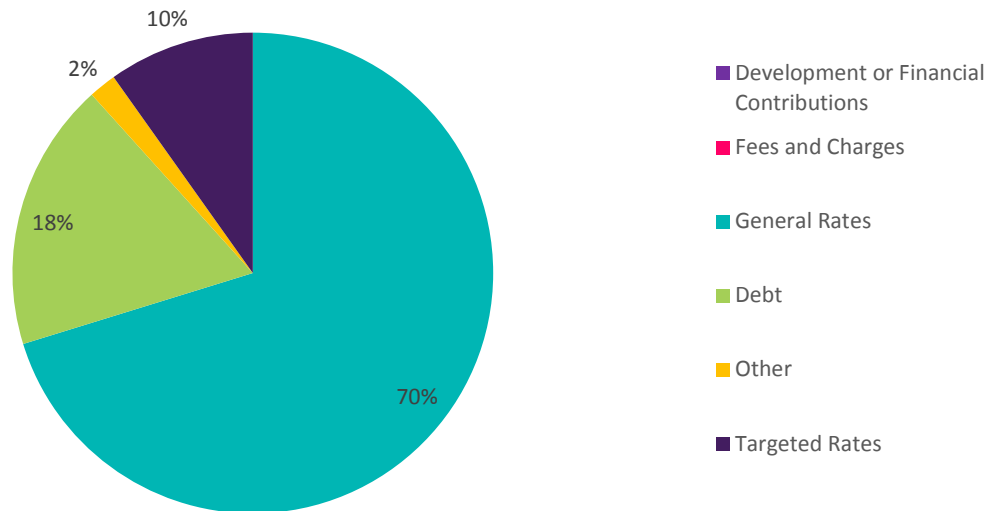


Figure 19: Sources of Coastal Asset Funding

## 9.2 Asset Valuation and Depreciation

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

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 2017.

- NAMS Group Infrastructure Asset Valuation Guidelines – Edition 2.0;
- New Zealand International Public Sector Accounting Standard 17; Property, Plant and Equipment (PBE IPSAS 17) and PBE IPSAS 21 (Impairment of Non Cash Generating Assets). D.1.1. Depreciation

### 9.2.1 Latest Asset Valuation

Assets are valued every three years. Historic asset valuations reports are held with Council.

The ports/wharves/coastal structure assets were last re-valued in June 2017 and are reported under separate cover. Key assumptions in assessing the asset valuations are described in detail in the valuation report.

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 14 below. For the 2017 valuation, the confidence in coastal asset data with B – Good. When preparing this AMP, staff identified that the coastal asset data is incomplete or unsupported in some instances meaning it should have been ranked as C – Poor. It is expected that this rating will improve over time as on-going asset data collection is undertaken on an annual basis.

**Table 14: Data Confidence**

Asset Description	Confidence	Comments
Coastal Assets	B - Good	All assets are listed with condition assessments which were last assessed in 2015. However, the condition assessment was by engineering students and there is significant ambiguity as to the ownership of many of the assets, which calls into question there the list is accurate.

The Base Useful Lives for each asset type as published in the NZ Infrastructure Asset Valuation and Depreciation Guidelines Manual was 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 15 below.

**Table 15: Asset Lives**

Attribute	Useful Life (Years)	Minimum Remaining Useful Life (Years)
Buoy	25	2
Buoy - fairway	25	2
Floating structure	30	5
Jetty	50	5
Landing	25	2
Lateral	25	2
Lateral - informal	25	2
Mark	15	2
Mark - cardinal	15	2
Other	15	2
Post - beacon	25	2
Post - Reservation	25	2
Post - ski lane	25	2
Post - transit	25	2
Ramp	50	5
Rock revetment / protection	No Depreciated	
Rock work	No Depreciated	
Seawall - wood	50	5

Attribute	Useful Life (Years)	Minimum Remaining Useful Life (Years)
Seawall - rock	No Depreciated	
Steps	50	5
Wharf	100	5

### 9.2.2 Depreciation

The Optimised Replacement Value, Annual Depreciation and Optimised Depreciated Replacement Value of the ports/wharves/coastal structure assets are summarised in Table 16.

**Table 16: Ports / Wharves / Coastal Structures Asset Valuation Summary**

	Optimised Replacement Value (\$)	Optimised Depreciated Replacement Value (\$)	Total Depreciation to Date (\$)
Coastal Structures 2015	5,620,713	3,690,382	109,240
Coastal Assets 2017	6,273,234	5,295,163	30,315
% Increase	11.61%	43.49%	-72.25%

The cost of rock protection has increased 20% in the latest contract. Other rates were indexed from 2015.

The life for wharves was reduced from 100 years to 70 years which is more realistic for a marine environment.

The depreciation has reduced, and the depreciated replacement cost increased compared to 2015. This is because previously rock protection work was depreciated. This has been changed, in line with other activities eg Rivers, as rock work is maintained indefinitely rather than replaced.

## 9.3 Financial Summary

### 9.3.1 Funding Impact Statement

Council's Funding Impact Statement (FIS) for this activity is included in Table 17 below. It summarises in one place how this activity will be funded and how those funds will be applied over the next 10 years.

**Table 17: Funding Impact Statement**

	2017/18 AP \$000	2018/19 Budget \$000	2019/20 Budget \$000	2020/21 Budget \$000	2021/22 Budget \$000	2022/23 Budget \$000	2023/24 Budget \$000	2024/25 Budget \$000	2025/26 Budget \$000	2026/27 Budget \$000	2027/28 Budget \$000
<b>SOURCES OF OPERATING FUNDING</b>											
General rates, uniform annual general charges, rates penalties	429	470	538	460	466	507	565	616	606	632	620
Targeted rates	93	90	87	86	85	75	73	71	69	67	65
Subsidies and grants for operating purposes	0	0	0	0	0	0	0	0	0	0	0
Fees and charges	0	0	0	0	0	0	0	0	0	0	0
Internal charges and overheads recovered	0	0	0	0	0	0	0	0	0	0	0
Local authorities fuel tax, fines, infringement fees, and other receipts	18	16	15	15	15	14	14	14	14	14	13
<b>TOTAL OPERATING FUNDING</b>	<b>540</b>	<b>576</b>	<b>640</b>	<b>561</b>	<b>566</b>	<b>596</b>	<b>652</b>	<b>701</b>	<b>689</b>	<b>713</b>	<b>698</b>
<b>APPLICATIONS OF OPERATING FUNDING</b>											
Payments to staff and suppliers	377	350	409	423	319	349	453	344	326	439	318
Finance costs	41	34	28	25	21	20	43	63	58	48	33
Internal charges and overheads applied	79	65	66	68	67	65	68	71	70	74	76
Other operating funding applications	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL APPLICATIONS OF OPERATING FUNDING</b>	<b>497</b>	<b>449</b>	<b>503</b>	<b>516</b>	<b>407</b>	<b>434</b>	<b>564</b>	<b>478</b>	<b>454</b>	<b>561</b>	<b>427</b>
<b>SURPLUS (DEFICIT) OF OPERATING FUNDING</b>	<b>43</b>	<b>127</b>	<b>137</b>	<b>45</b>	<b>159</b>	<b>162</b>	<b>88</b>	<b>223</b>	<b>235</b>	<b>152</b>	<b>271</b>
<b>SOURCES OF CAPITAL FUNDING</b>											
Subsidies and grants for capital expenditure	0	0	0	0	0	0	0	0	0	0	0
Development and financial contributions	0	0	0	0	0	0	0	0	0	0	0
Increase (decrease) in debt	10	(86)	(94)	(107)	(115)	(5)	940	(180)	2	(228)	(227)
Gross proceeds from sale of assets	0	0	0	0	0	0	0	0	0	0	0
Lump sum contributions	0	0	0	0	0	0	0	0	0	0	0
Other dedicated capital funding	0	0	0	0	0	0	0	0	0	0	0

	2017/18 AP \$000	2018/19 Budget \$000	2019/20 Budget \$000	2020/21 Budget \$000	2021/22 Budget \$000	2022/23 Budget \$000	2023/24 Budget \$000	2024/25 Budget \$000	2025/26 Budget \$000	2026/27 Budget \$000	2027/28 Budget \$000
<b>TOTAL SOURCES OF CAPITAL FUNDING</b>	<b>10</b>	<b>(86)</b>	<b>(94)</b>	<b>(107)</b>	<b>(115)</b>	<b>(5)</b>	<b>940</b>	<b>(180)</b>	<b>2</b>	<b>(228)</b>	<b>(227)</b>
<b>APPLICATIONS OF CAPITAL FUNDING</b>											
Capital expenditure											
- to meet additional demand	0	0	0	0	0	0	0	0	0	0	0
- to improve the level of service	83	0	0	0	0	120	1,098	0	180	0	0
- to replace existing assets	41	0	0	0	0	0	0	0	12	0	0
Increase (decrease) in reserves	(71)	41	43	(62)	44	37	(70)	43	45	(76)	44
Increase (decrease) in investments	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL APPLICATIONS OF CAPITAL FUNDING</b>	<b>53</b>	<b>41</b>	<b>43</b>	<b>(62)</b>	<b>44</b>	<b>157</b>	<b>1,028</b>	<b>43</b>	<b>237</b>	<b>(76)</b>	<b>44</b>
<b>SURPLUS (DEFICIT) OF CAPITAL FUNDING</b>	<b>(43)</b>	<b>(127)</b>	<b>(137)</b>	<b>(45)</b>	<b>(159)</b>	<b>(162)</b>	<b>(88)</b>	<b>(223)</b>	<b>(235)</b>	<b>(152)</b>	<b>(271)</b>
<b>FUNDING BALANCE</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



### 9.3.2 Project Drivers

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

- Operation and Maintenance: operational activities that do not involve the renewal or upgrade of assets, or work that is necessary in order to provide on-going services at the agreed levels.
- Renewals: significant work that restores or replaces an existing asset towards its original size, condition or capacity.
- Increase Level of Service: works to create a new asset, or to upgrade or improve an existing asset, beyond its original capacity or performance.
- Growth: works to create a new asset, or 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.

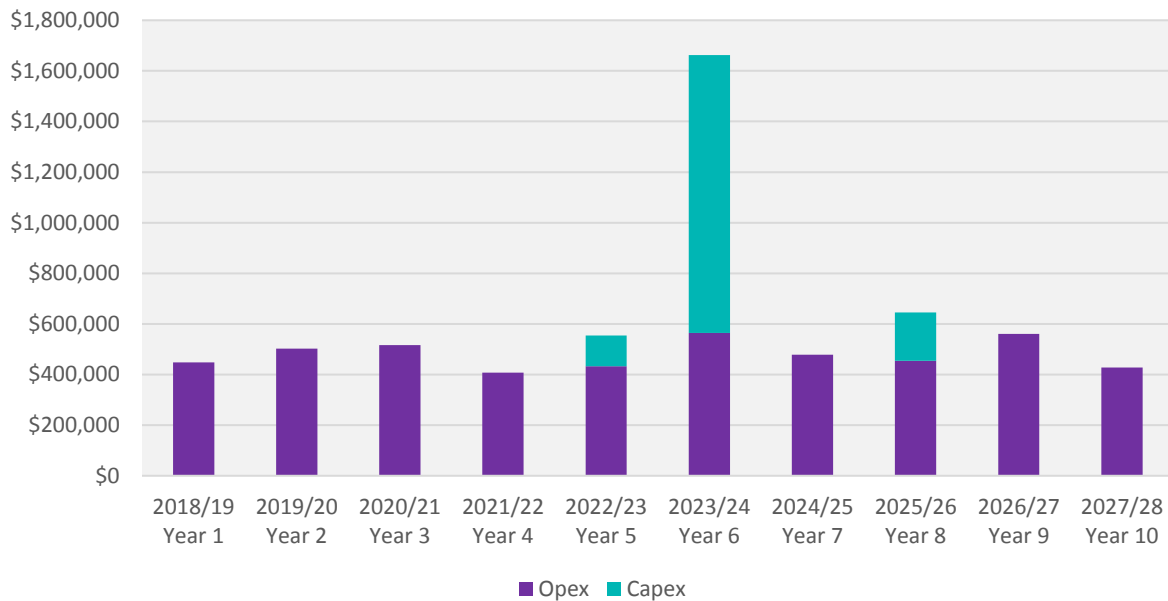
- Schedule 13(1) (a) and section 106 of the Local Government Act require Council to identify the total costs it expects to have to meet relating to increased demand resulting from growth when intending to introduce a Development Contributions Policy.
- Schedule 10(2)(1)(d)(i)-(iv) of the Local Government Act requires Council 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.

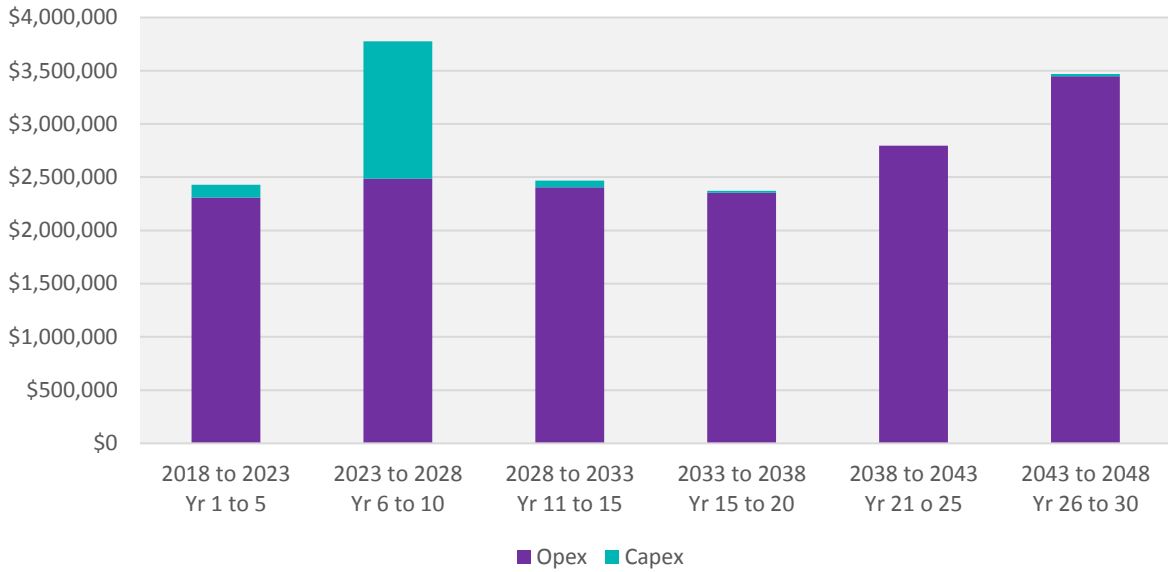
### 9.3.3 Total Expenditure

Figure 20 and Figure 21 show the total expenditure for the coastal structures activity for the first 10 and 30 years respectively.

Year 6 is almost the only capital expenditure owing to the Tasman Bay access facility.



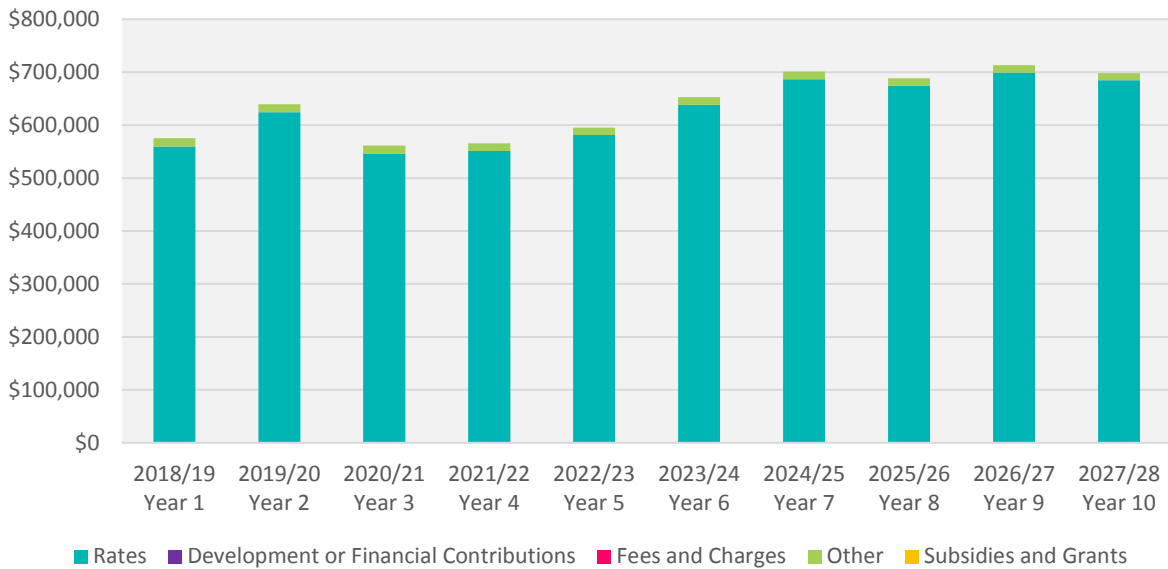
**Figure 20: Total Annual Expenditure Years 1 to 10 Includes Inflation**



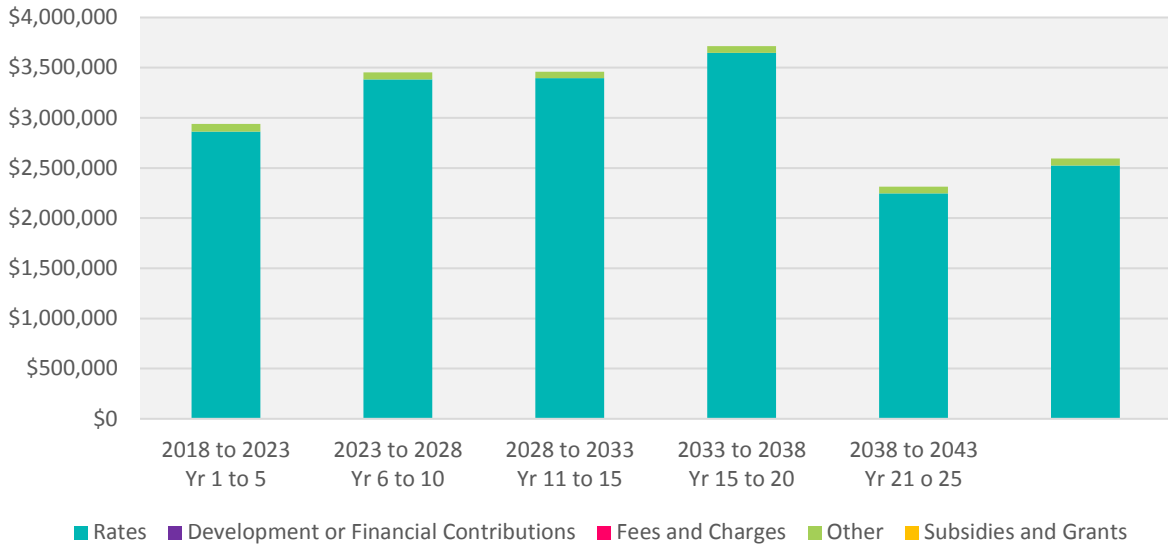
**Figure 21: Five Yearly Total Expenditure Years 1 to 30 Includes Inflation**

### 9.3.4 Total Income

Figure 22 and Figure 23 show the total income for the coastal structures activity for the first 10 and 30 years respectively. Income matches total expenditure over the first ten years and is predominately funded from general rates



**Figure 22: Total Annual Income Years 1 to 10 Includes Inflation**

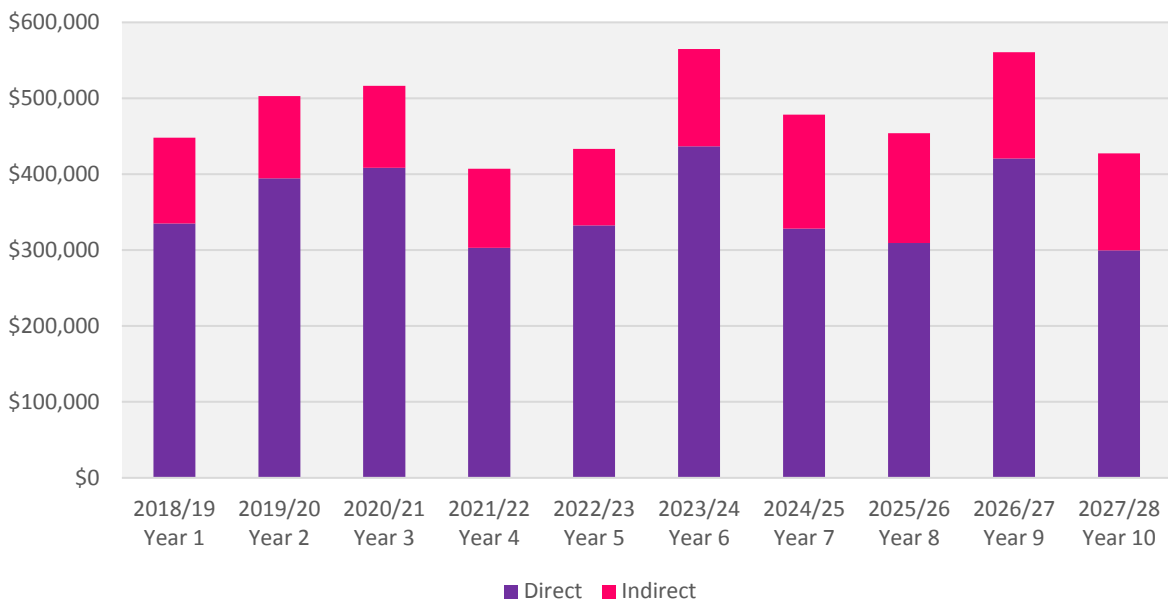


**Figure 23: Five Yearly Total Income Years 1 to 30 Includes Inflation**

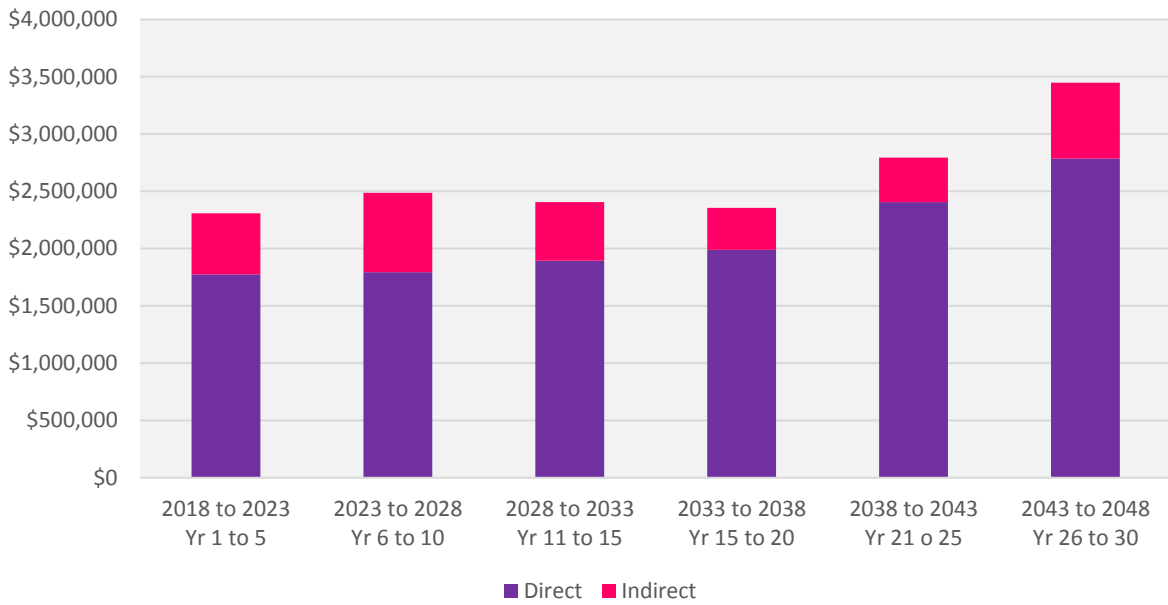
### 9.3.5 Operating Expenditure

Figure 24 and Figure 25 show the total operating expenditure for the coastal structures activity for the first 10 and 30 years respectively.

Operating costs increase with inflation with 3 yearly peaks coinciding with condition assessment on all coastal assets.



**Figure 24: Annual Operating Costs Years 1 to 10 Includes Inflation**

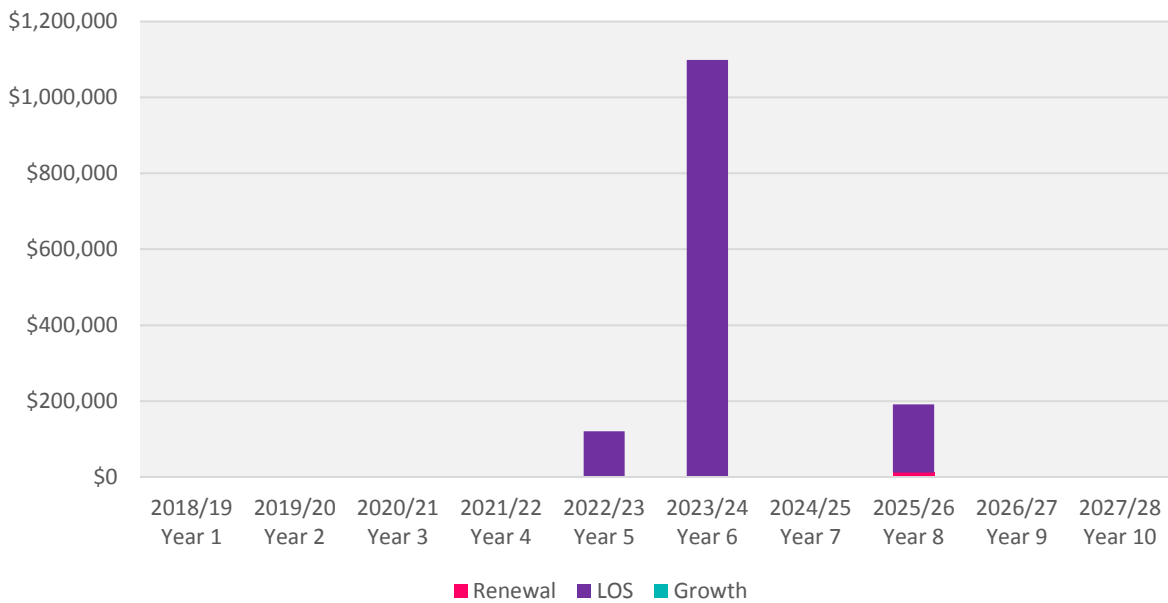


**Figure 25: Five Yearly Operating Costs Years 1 to 30 Includes Inflation**

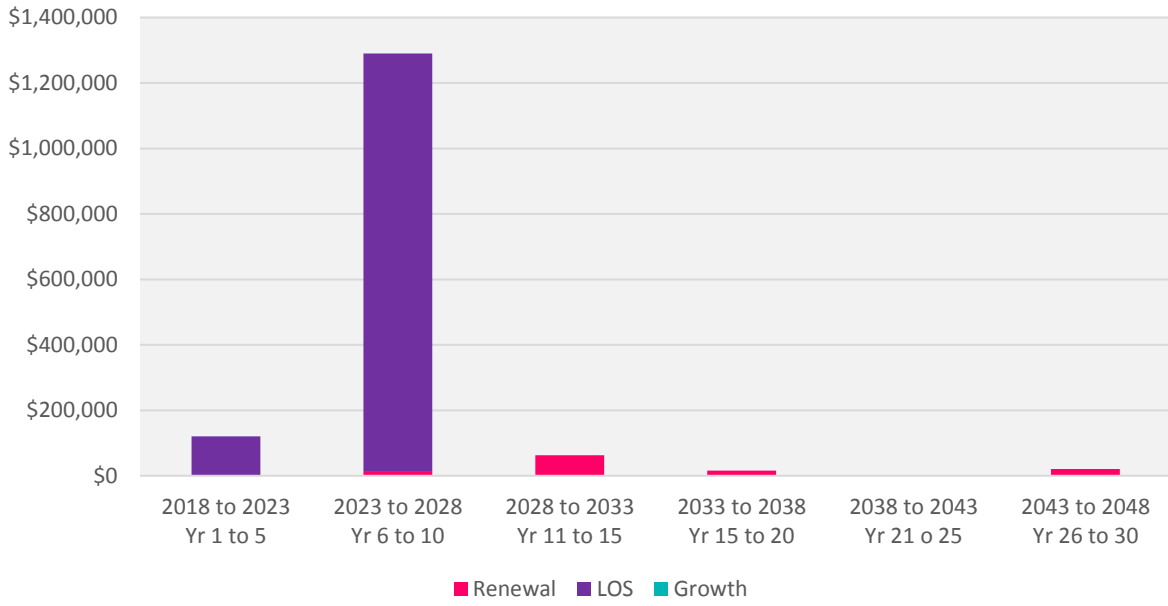
### 9.3.6 Capital Expenditure

Figure 26 and Figure 27 show the total capital expenditure for the coastal structures activity for the first 10 and 30 years respectively.

Capital expenditure relates to the upgrade of boat access in the Tasman Bay in Year 6 and the Marahau seawall in Year 9. Other capital expenditure is related minor renewal works.



**Figure 26: Annual Capital Expenditure Years 1 to 10 Includes Inflation**



**Figure 27: Five Yearly Capital Expenditure Years 1 to 30 Includes Inflation**

# 10 Sustainability

Sustainability means that we effectively balance the needs of present and future communities. From an asset management perspective, sustainability is critical, as many assets have a long lifespan and must be 'future-proofed'. Council has a responsibility to manage this activity in way that supports the environmental, social, cultural and economic well-being of current and future generations. This section focuses on social, cultural and environmental sustainability.

The Local Government Act 2002 requires local authorities to take a sustainable development approach while conducting their business, taking into account the current and future needs of communities for good-quality local infrastructure, and the efficient and effective delivery of services.

Sustainable development is a fundamental philosophy that is embraced in Council's Vision, Mission and Objectives, and is reflected in Council's community outcomes. The levels of service and the performance measures that flow from these inherently incorporate the achievement of sustainable outcomes.

Sustainability is measured against the triple bottom line framework that aims to create a balance between the three dimensions of performance, often referred to as people, planet and profit (3P's).

## People – The effects of the activity on the social and cultural wellbeing of our community

Council is guided by the Community Outcomes to assist in determining how our decisions affect the social wellbeing of our community. The activity is undertaken to meet the level of service that is required to enhance community well-being by reducing the risk of inundation as well as integrating community values such as accessibility, amenity and biodiversity. Council engage with mana whenua iwi and other community groups with regards to enhancing our coastlines and provide educational programmes.

## Planet – The effects of the activity on the environment

Coastal assets in themselves have little impact of the environment, but the users of the assets can have significant affect. Council minimise public effect on the environment through good design and public education.

## Profit – The financial and overall long-term economic viability of the activity

Council operates, maintains and improves the coastal assets on behalf of its ratepayers. Council uses its Financial Strategy to guide the development of an affordable work programme. Council's finances are managed within the set debt limits and rates income rises to ensure economic viability for current and future generations.

## 10.1 Potential Negative Effects

Schedule 10 of the Local Government Act (LGA) requires an outline of any significant negative effects that an activity may have on the local community. Potential negative effects associated with this activity are outlined in Table 18.

**Table 18: Negative Effects**

Effect	Description	Mitigation Measures
Visual pollution of coastal structures	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.
Noise pollution from recreational users	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.
Cost of coastal structures	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.

Effect	Description	Mitigation Measures
Environmental impact of coastal structures	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.
Cultural impact of coastal structures	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.

## 10.2 Potential Positive Effects

Potential positive effects are listed below in Table 19.

**Table 19: 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.

## 10.3 Resource Management

### 10.3.1 Resource Consents

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991. The RMA is administered locally by Council, a Unitary Authority, through the Tasman Resource Management Plan (TRMP).

Resource consents for structures, occupation or activities in the coastal marine area held by Engineering Services are listed in Table 20 below. Please note that the list may not be exhaustive and is subject to change. Short-term consents are required from time to time for construction activities and are not included in Table 20.

**Table 20: Resource Consents relating to Coastal Structures**

Consent No	Consent Type	Description	Expiry Date
NN950365	Coastal Occupation	Seawall, Ward St, Port Motueka	31/12/2030
NN990189	Coastal Occupation	CST 1358 - fishing platform, Port Motueka	1/10/2034
NN010293	Coastal Structure	CST 1200 - seawall & groyne, Marahau	8/02/2037
NN010295	Coastal Occupation	CST 1071 & 1193 - boat ramp/jetty, Marahau	8/02/2037

Consent No	Consent Type	Description	Expiry Date
030917	Coastal Disturbance	CST 1272 & 1273 - seawall, Able Tasman Drive, Pohara	10/05/2039
030973	Coastal Occupation	CST 1272 & 1273 - seawall, Able Tasman Drive, Pohara	10/05/2039
030974	Coastal Discharge	CST 1272 & 1273 - seawall, Able Tasman Drive, Pohara	10/05/2039
031345	Coastal Discharge	CST 1272 & 1273 - seawall, Able Tasman Drive, Pohara	10/05/2039
060842	Coastal disturbance	rock protection, Kina Peninsula Road	11/12/2041
070172	Coastal Occupation	CST 1314 - seawall, Old Mill walkway, Ruby Bay	8/05/2042
070321	Land Use	CST 1314 - seawall, Old Mill walkway, Ruby Bay	unlimited
080885	Coastal Disturbance	rock protection, Kina Peninsula Road	11/12/2041
080893	Coastal Occupation	CST 1315 - seawall, Old Mill Walkway, Ruby Bay	20/03/2044
080953	Coastal Disturbance	CST 1315 - seawall, Old Mill Walkway, Ruby Bay	23/03/2044
080954	Land Use	CST 1315 - seawall, Old Mill Walkway, Ruby Bay	unlimited
090265	Coastal Disturbance	CST-1263 & 1264 - rock protection, Collingwood	unlimited
110062	Coastal Occupation	CST 1297 - floating pontoon, Mapua Wharf	14/11/2046
110937	Coastal Occupation	CST 1175 - jetty, Torrent Bay	22/12/2046
110943	Land Use	CST 1175 - jetty, Torrent Bay	unlimited

CST = Coastal Structure register reference

Coastal structures for other infrastructure adjacent to the coastline (such as roads and stormwater) are managed under their respective activity management plan, including any required consents.

Council aims to achieve compliance with all consents and/or operating conditions.



The use of a monitoring database allows for the accurate programming of all actions required by the consents including renewal prior to consent expiry. The database is actively updated to ensure all consent conditions are complied with and that all relevant reporting requirements are adhered to.

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

### 10.3.2 Resource Consent Reporting and Monitoring

A detailed register of coastal resource consents is held in Council's consents databases BraveGen. Where permits for coastal discharge, occupation or disturbance, the RMA restricts many of those consents to a maximum term of 35 years only. Hence there needs to be an ongoing programme of "consent renewals" for those components of Council's coastal activities, as well as a monitoring programme for compliance with the conditions of permitted activities or resource consents. Consent renewals have been programmed in the operational programme.

### 10.3.3 Property Designations

There are no current designations in place for coastal structures.

# 11 Risk Management and Assumptions

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 considers could have a significant effect on the financial forecasts, and discusses the potential risks that this creates.

## 11.1 Our Approach to Risk Management

A risk is any event that has the potential to impact on the achievement of Council’s objectives. The potential impact of a risk is measured by a combination of the likelihood it could occur, and the magnitude of its consequences on objectives. Council adopted a Risk Management Policy in November 2017 and is in the process of improving our risk management processes. The main purpose of these improvements is to support better planning and decision-making, and to increase the chance of achieving Council’s objectives.

Council’s Risk Management Framework is still being developed but key components will be:

- a) Risk Categories:
  - Service delivery
  - Financial
  - Governance and Leadership
  - Strategic
  - Reputation
  - Legal
  - Regulatory
  - Health & Safety
  - Security
  - Business Continuity
- b) Table of Consequences which help set the Risk Appetite
- c) Enterprise Risk Register
  - identifying risks
  - measuring likelihood, consequence and severity
  - documenting controls, actions and escalation
- d) Monitoring and Reporting, including to Senior Management and Audit and Risk Committee as appropriate

Council has adopted an approach to risk management following the Australian/New Zealand Standard ISO 31000:2009 Risk Management – Principles and guidelines.

Refer to Council’s Risk Management Policy for further information.

## 11.2 Activity Risks and Mitigation

### 11.2.1 Coastal Structures Risks

The key risks relevant to the coastal structures activity are summarised in Table 21 below.

**Table 21: Key Risks**

Risk Event	Mitigation Measures
Catastrophic failure of a coastal structure.	<p>Current:</p> <ul style="list-style-type: none"> <li>• routine maintenance is included in the coastal structures budgets;</li> <li>• reactive inspection following extreme weather events.</li> </ul> <p>Proposed:</p> <ul style="list-style-type: none"> <li>• develop a complete inventory of Council owned coastal structures and their current condition.</li> </ul>

Risk Event	Mitigation Measures
Premature deterioration or obsolescence of an asset.	<p>Current:</p> <ul style="list-style-type: none"> <li>• routine inspections.</li> </ul> <p>Proposed:</p> <ul style="list-style-type: none"> <li>• increase number of routine inspections and scheduling of maintenance programme.</li> </ul>
Failure to adequately prepare for climate change and failure to respond to changing coastline.	<p>Current:</p> <ul style="list-style-type: none"> <li>• reactive inspections and maintenance/repairs following extreme weather events;</li> <li>• introduction of an interim coastal policy statement which states what Council is prepared to protect.</li> </ul> <p>Proposed:</p> <ul style="list-style-type: none"> <li>• ongoing coastal hazard modelling will provide Council with a clearer picture of where issues may exist and prepare for sea level change;</li> <li>• development of a coastal hazard policy which includes the fundamentals of NZCPS 2010.</li> </ul>
Customer perception of Council not doing enough to protect private property and public assets.	<p>Current:</p> <ul style="list-style-type: none"> <li>• introduction of the interim coastal policy statement;</li> <li>• regular contact with communities at risk from coastal inundation;</li> <li>• management of resource consents and CSRs.</li> </ul>
Failure to manage coastal erosion of public land.	<p>Current:</p> <ul style="list-style-type: none"> <li>• routine inspections;</li> <li>• resource consent management;</li> <li>• application of NZCPS 2010.</li> </ul> <p>Proposed:</p> <ul style="list-style-type: none"> <li>• ongoing coastal hazard modelling will provide Council with a clearer picture of where issues may exist and prepare for sea level change;</li> <li>• increase number of routine inspections and scheduling of maintenance programme.</li> </ul>

### 11.3 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. Table 22 documents the uncertainties and assumptions that Council consider could have a significant effect on the financial forecasts, and discusses the potential risks that this creates.

**Table 22: Generic Assumptions and Uncertainties**

Type	Uncertainties	Assumption	Discussion
Financial	Unless stated it can be unclear whether financial figures include inflation or not, as well as whether GST has been included or not.	That all expenditure has been stated in 1 July 2017 dollar values and no allowance has been made for inflation and all financial projections exclude GST unless specifically stated.	The LTP will incorporate inflation factors. This could have a significant impact on the affordability of each activity if inflation is higher than allowed for. Council is using the best information practically available from Business and Economic Research Limited (BERL) to reduce this risk.
Growth Forecasts	Growth forecasts are inherently uncertain and involve many assumptions. Council uses Stats NZ projections as the basis for its growth planning, but these will vary depending on actual birth and death rates as well as net migration.	That the district will grow or decline as forecast in its Growth Model.	Growth forecasts are used to determine infrastructure capacity and when that capacity will be required. If actual growth varies significantly from what was projected, it could have a moderate impact on Council's plans. If higher, new or additional infrastructure may be required quicker than anticipated. If lower, Council may be able to defer the delivery of new or additional infrastructure.
Project Timing	Multiple factors affect the actual timing of projects e.g.: <ul style="list-style-type: none"> <li>• Consents</li> <li>• Access to land</li> <li>• Population growth</li> <li>• Timing of private developments</li> </ul>	That projects will be undertaken when planned.	The risk of the timing of projects changing is high due to factors like resource consents, third party funding, and land acquisition and access. Council tries to mitigate these issues by undertaking the investigation, consultation and design phases sufficiently in advance of when construction is planned. If delays occur, it could have an impact on the levels of service and Council's financing arrangements.
Project Funding	Council cannot be certain that it will receive the full amount of anticipated subsidy or contribution. It depends on the funder's decision-making criteria and their own ability to raise funds.	That projects will receive subsidy or third-party contributions at the anticipated levels.	The risk of not securing funding varies and depends on the third party involved. If the anticipated funding is not received it is likely that the project will be deferred which may impact levels of service.

Type	Uncertainties	Assumption	Discussion
Accuracy of Cost Estimates	Project scope is often uncertain until investigation and design work has been completed, even then the scope can change due to unforeseen circumstances. Even if the scope has certainty there can be changes in the actual cost of work due to market competition or resource availability.	That project cost estimates are sufficiently accurate enough to determine the required funding level.	The risk of large underestimation is low; however, the importance is moderate as Council may not be able to afford the true cost of the project. Council tries to reduce this risk by undertaking reviews of all estimates and including an allowance for scope risk based on the complexity of the project.
Land Access and Acquisition	Land access and acquisition is inherently uncertain. Until negotiations commence, it is difficult to predict how an owner will respond to the request for access or transfer.	That Council will be able to secure land and/or access to enable completion of projects.	The risk of delays to projects or changes in scope is high due to the possibility of delays in obtaining access. Where possible, Council undertakes land negotiations well in advance of construction to minimise delays and scope change. If delays do occur, they may affect the level of service that Council provides.
Legislation Changes	Often Central Government changes legislation in response to events where the need for change is identified. It is difficult to predict what events may occur and the associated response. Election of a new Government also introduces uncertainty as to what policies they will implement.	That there will be no major changes in legislation or policy.	The risk of major change is high due to the changing nature of the Government and its policies. If major changes occur, it is likely to have an impact on the required expenditure. Council has not planned expenditure to specifically mitigate this risk.
Emergency Reserves	It is impossible to accurately predict when and where a natural hazard event will occur. Using historic trends to predict the future provides an indication but is not comprehensive.	That the level of funding reserves combined with insurance cover will be adequate to cover reinstatement following emergency events.	Funding levels are based on historic requirements. The risk of requiring additional funding is moderate and may have a moderate effect on planned works due to reprioritization of funds.

Type	Uncertainties	Assumption	Discussion
Climate change	Continued emissions of greenhouse gases will cause further warming and changes in all parts of the climate system. The International Panel on Climate Change (IPCC) has developed four scenarios named RCPs (Representative Concentration Pathways). They represent different climate change mitigation scenarios with varying levels of CO <sub>2</sub> emission (low – medium – high). The likelihood of any of the scenarios occurring as predicted is uncertain and depends on many different factors.	<p>Council uses the latest climate predictions that have been prepared by NIWA for New Zealand and more specifically for the Tasman District.</p> <p>The anticipated effects from climate change in Tasman District include:</p> <ul style="list-style-type: none"> <li>• An increase in seasonal mean temperature and high temperature extremes</li> <li>• An increase in rainfall in winter for the entire district and varying increases of rainfall in other seasons in different areas.</li> <li>• Rising sea levels, increased wave height and storm surges.</li> </ul> <p>Floods, landslides, droughts and storm surges are likely to become more frequent and intense</p>	<p>It is likely that risk of low lying land being inundated from the sea, and damage to Council property and infrastructure from severe weather events, will increase.</p> <p>Council will need to monitor the level of sea level rise and other impacts of climate change over time and review its budgets, programme or work and levels of service accordingly.</p>

**Table 23: Coastal Assets Specific Assumptions and Uncertainties**

Type	Uncertainties	Assumption	Discussion
Climate Change	There is a long term trend of greater occurrence and more severe weather events.	The number and severity of the weather events are similar to those experienced in the last few years and will be in line with advice from Ministry for the Environment.	If there is a step change in the number of storm events or the severity of the events, the funds to remedy the damage may be insufficient. We have an emergency fund for this, but it might not cater for two severe events in quick succession or an event that requires significant rectification of the property prior to repairing the asset itself.
Poor Asset Knowledge	Coastal asset knowledge is poor.	Additional investment into improving the information Council has on asset information will not require significant investment in maintenance funding.	Historically, actual investment in maintenance of coastal assets has been below budget. The maintenance budget has remained steady with an expectation that additional maintenance identified while improving asset knowledge will be within historic budgets norms.

# 12 Asset Management Processes and Practices

Good quality data and asset management processes are the heart of effective planning. This section outlines our approach to asset management, our processes, and provides an overview of our data management systems and strategies that underpin this activity.

## 12.1 Appropriate Practice Levels

The Office of the Auditor General (OAG) has chosen to use the International Infrastructure Management Manual (IIMM) as the benchmark against which New Zealand councils measure their activity management practices. There are five maturity levels in the IIMM; Aware, Basic, Core, Intermediate and Advanced. The IIMM sets out what the requirements are for each level against each area of the activity management system.

In 2017, Council reviewed its Activity Management Policy and adopted an updated version. The Policy sets out Council's activity management objectives and appropriate levels of practice. For this activity Council has determined that the appropriate level of practice is core with intermediate practice identified for asset management policy and asset register data.

## 12.2 Service Delivery

### 12.2.1 Activity and Asset Management Teams

Council has an organisational structure and capability that supports effective asset management planning. Multiple teams across Council are responsible for the different aspects of activity and asset management. The focus of the teams ranges from a strategic focus at the Long-Term Plan/Infrastructure Strategy level which involves a cross-Council team, through to detail/operational focus at the Operational team level.

Within the Engineering Services department, the asset management planning function is managed by the Activity Planning team. Operations are the responsibility of the Utilities and Transportation teams, while Projects and Contracts are managed by the Programme Delivery team.

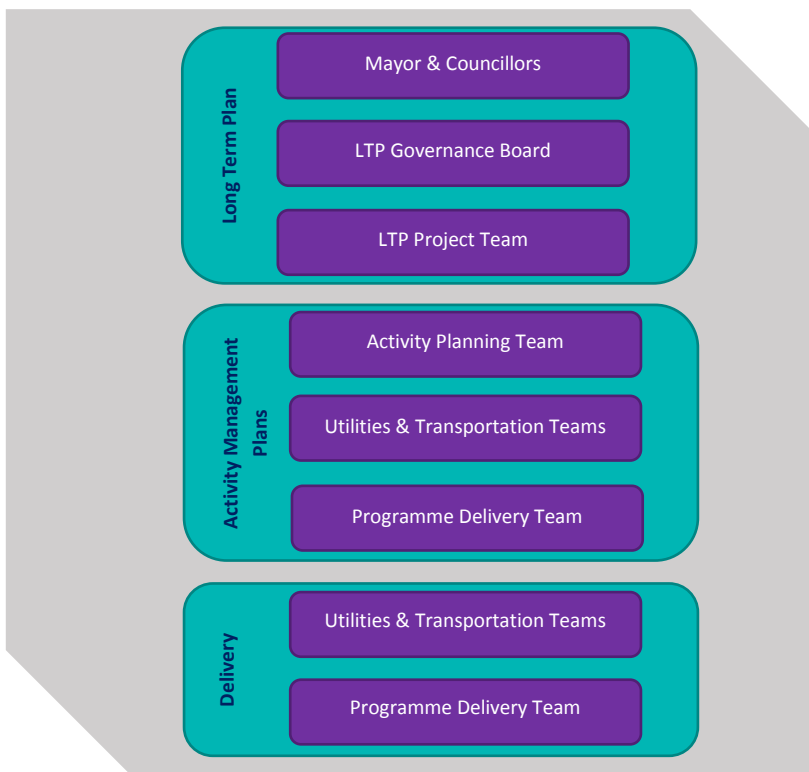


Figure 28: Teams Involved in Activity and Asset Management

The Activity Planning Team is responsible for the update of the activity management plans every three years, as well as implementation of the improvement plan. Each plan is assigned to the respective Activity Planning Advisor who is responsible for updating it. The Activity Planning Advisor works in with the activity's Asset Engineer to ensure that the current and future operating and maintenance aspects of the activities are adequately incorporated into the document. All activity management plans are reviewed by the Activity Planning Programme Leader who holds a National Diploma in Infrastructure Asset Management. The quality assurance process for the Engineering Services activity management plans is provided below.

- Preparation Activity Planning Advisor
- Check Utilities or Transportation Manager, and relevant Asset Engineer
- Review Activity Planning Programme Leader
- Approve Engineering Services Manager
- Adopt Full Council

### 12.2.2 Staff Training

Council maintains an annual budget for staff training that is managed by the Engineering Services Manager for the Engineering Services department. This budget allows for continued development of staff to ensure that best practice is maintained and that Council retains the skills needed to make improvements in asset management practices. This includes on-going technical and professional training as well as specific asset management training.

### 12.2.3 Professional Support

The Engineering Services Department has a need to access a broad range of professional service capabilities to undertake investigation, design and procurement management in support of its significant transport, utilities, coastal management, flood protection and solid waste capital works programme, as well as support with activity management practice. There is also a need to access specialist skills for design, planning and policy to support the in-house management of Council's networks, operations and maintenance.

To achieve this Council went to the open market in late 2013 for a primary professional services provider as a single preferred consultant to undertake a minimum of 60% in value of Council's infrastructure professional services programmes. The contract was awarded to MWH New Zealand Ltd (now Stantec NZ), beginning on 1 July 2014 with an initial three-year term and two three-year extensions to be awarded at Council's sole discretion. In 2017, the first of these discretionary three-year extensions was granted, with the proportion of Council's professional services programmes reduced to 50%. In addition to this, a secondary professional service panel was also appointed through an open market tender process for a period of three years, to provide professional services that will not be supplied by Stantec.

### 12.2.4 Procurement Strategy

Council has a formal Procurement Strategy that it follows in order to engage contractors and consultants to assist the Engineering Services department. This strategy has been prepared to meet NZ Transport Agency's requirements for expenditure from the National Land Transport Fund, and it describes the procurement environment that exists within the Tasman District. It was developed following a three-year review of the strategy and was approved in November 2013. It principally focuses on Engineering Services activities but is framed in the NZ Transport Agency procurement plan format, which is consistent with whole-of-government procurement initiatives. A review of the strategy was commenced in 2017/18.

### 12.2.5 Service Delivery Reviews

Given there is no service agreements in place, this activity has not undertaken a Section 17A review.

The Engineering Services department reviewed its current capability and capacity against the requirements of the future programmes of work set out in its activity management plans. To enhance the department's ability to deliver the capital works programme the following actions have been taken:

- undertaken a detailed review of the capital programme for the next five years to better understand project complexities and delivery requirements;
- implemented Planview a new project management system to track and report project delivery progress;
- increased the number of Project Managers from 4 to 5.5 full time equivalent staff resources;
- introduced enhanced performance requirements for our lead technical consultant for delivery of technical advice and engineering design;
- tendered for a new supporting professional services panel with enhanced performance requirements.



## 12.3 Asset Management Systems and Data

### 12.3.1 Information Systems and Tools

Council has a variety of systems and tools that support effective operation and maintenance, record asset data, and enable that data to be analysed to support optimised life-cycle management. These are detailed below in Figure 29. There is a continual push to incorporate all asset data into the core asset management systems where possible; where not possible, attempts are made to integrate or link systems so that they can be easily accessed.

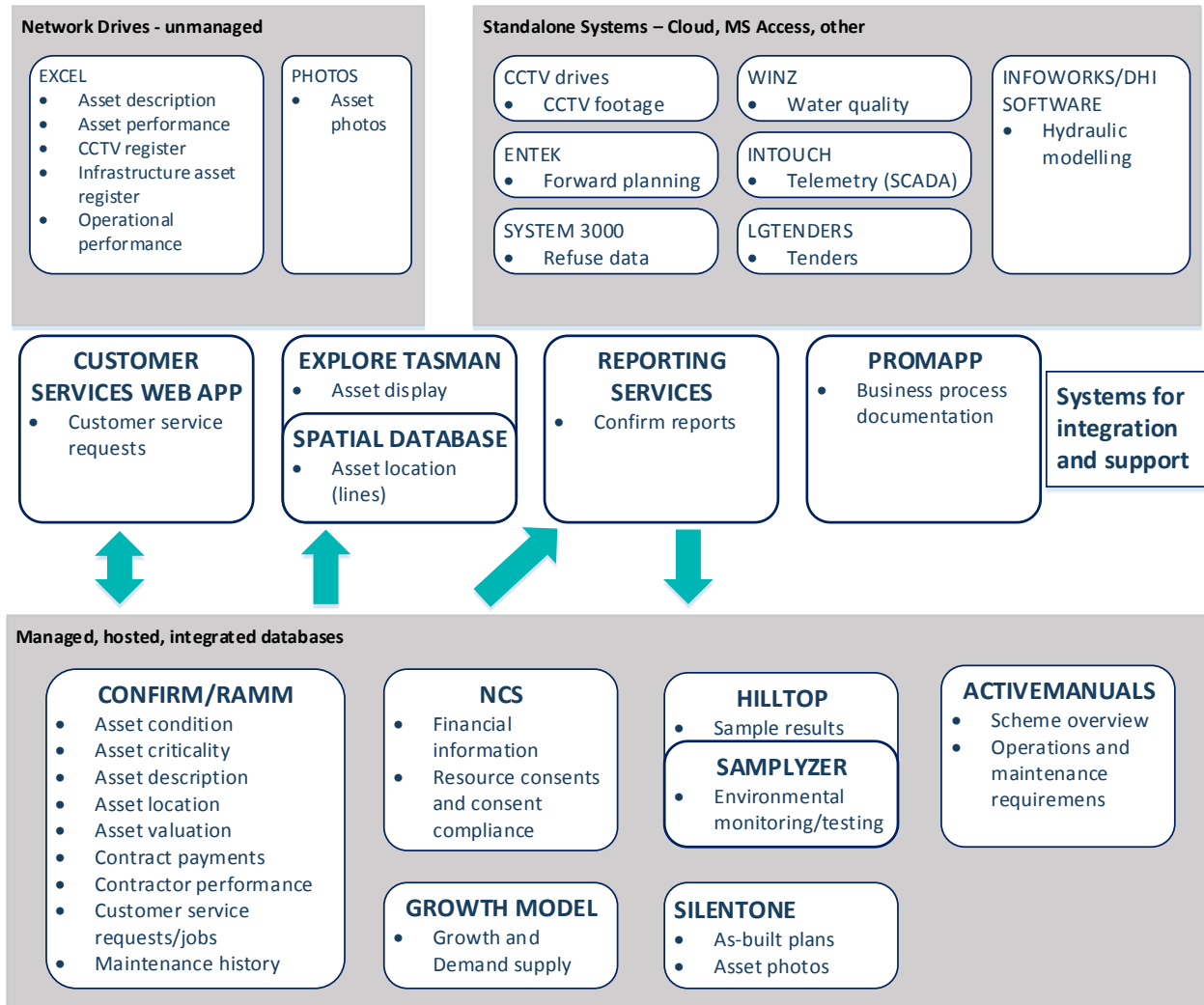


Figure 29: Systems Used for Asset Management

### 12.3.2 Asset Data

Table 24 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.

**Table 24: Data Types and Information Systems**

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
As-built plans	SilentOne	As-built plans are uploaded to SilentOne, allowing digital retrieval. Each plan is audited on receipt to ensure a consistent standard and quality.	2	2
Asset condition	Confirm	Assets are inspected by a consultant or staff and the inspection information is entered directly into Confirm using the Connect mobile application.	3	3
Asset criticality	Confirm	When a new asset is created, the activity planner and engineer will make an assessment on criticality. Criticality of asset can be modified by authorized users should circumstances change.	3	2
Asset description	Confirm / spreadsheets	All assets are captured in Confirm's Site and Asset modules, from as-built plans and maintenance notes. Hierarchy is defined by Site and three levels of Asset ID (whole site, whole asset or asset). Assets are not broken down to component level except where required for valuation purposes. It is also possible to set up asset connectivity, but this hasn't been prioritised for the future yet.  Detail on some datasets held in spreadsheets relating to Utilities Maintenance Contract 688; work is in progress to transfer this detail to Confirm as resourcing allows.	2	2
Asset location	Confirm (point data) / GIS (line data)	Co-ordinates for point data completely (NZTM) describe spatial location. Line data links to GIS layers that describe the shape.	2	2
Asset valuation	Confirm	Valuation of assets done based on data in Confirm and valuation figures stored in Confirm.	2	2
Contract payments	Confirm	All maintenance and capital works contract payments are done through Confirm. Data on expenditure is extracted and uploaded to NCS.	N/A	N/A
Contractor performance	Confirm	Time to complete jobs is measured against contract KPIs through Confirm's Maintenance Management module.	N/A	N/A
Corporate GIS browser	Explore Tasman	Selected datasets are made available to all Council staff through this internal GIS browser via individual layers and associated reports.	N/A	N/A
Customer service requests	Customer Services Application / Confirm	Customer calls relating to asset maintenance are captured in the custom-made Customer Services Application and passed to Confirm's Enquiry module or as a RAMM Contractor Dispatch.	N/A	N/A
Environmental monitoring / testing	Hilltop / spreadsheet	Laboratory test results performed on monitoring and testing samples (from treatment plants and RRCs) are logged direct into Hilltop via an electronic upload from the laboratories. Due to historical difficulties in working with Hilltop data, it is duplicated in spreadsheets.	2	2

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Financial information	NCS	Council's corporate financial system is NCS, a specialist supplier of integrated financial, regulatory and administration systems for Local Government. Contract payment summaries are reported from Confirm and imported into NCS for financial tracking of budgets.  NCS also holds Water billing information, while asset details and spatial component are recorded in Confirm and cross-referenced.	N/A	N/A
Infrastructure Asset Register	Spreadsheet	High level financial tracking spreadsheet for monitoring asset addition, disposals and depreciation. High level data is checked against detail data in the AM system and reconciled when a valuation is performed.	2	2
Forward planning	Spreadsheets , GIS Mapping	Forward programmes for Council's activities are compiled in excel, These are loaded onto GIS based maps for information and in order to identify clashes and opportunities.	N/A	N/A
Growth, Demand and Supply	Growth Model	A series of linked processes that underpin Council's long-term planning, by predicting expected development areas, revenues and costs, and estimating income for the long term.	2	2
Maintenance history	Confirm	Contractor work is issued via Confirms Maintenance Management module. History of maintenance is stored against individual assets. Prior to 2007 it was logged at a scheme level.	2	2
Photos	Network drives / SilentOne	Electronic photos of assets are mainly stored on Council's network drives. Coastal Structures and Streetlight photos have been uploaded to SilentOne and linked to the assets displayed via Explore Tasman.	N/A	N/A
Processes and documentation	Promapp	Promapp is process management software that provides a central online repository where Council's process diagrams and documentation is stored. It was implemented in 2014 and there is a phased uptake by business units.	2	5
Resource consents and consent compliance	NCS	Detail on Resource Consents and their compliance of conditions (e.g. sample testing) are recorded in the NCS Resource Consents module.	2	2
Reports	Confirm Reports	Many SQL based reports from Confirm and a few from RAMM are delivered through Confirm Reports. Explore Tasman also links to this reported information to show asset information and links (to data in SilentOne and NCS).	N/A	N/A
Tenders	LGTenders	Almost all New Zealand councils use this system to advertise their tenders and to conduct the complete tendering process electronically.	N/A	N/A

**Table 25: Data Accuracy and Completeness Grades**

Grade	Description	% Accurate
1	Accurate	100
2	Minor Inaccuracies	+/- 5
3	50 % Estimated	+/- 20
4	Significant Data Estimated	+/- 30
5	All Data Estimated	+/- 40

Grade	Description	% Complete
1	Complete	100
2	Minor Gaps	90 – 99
3	Major Gaps	60 – 90
4	Significant Gaps	20 – 60
5	Limited Data Available	0 – 20

## 12.4 Critical Assets

Knowing what’s most important is fundamental to managing risk well. By knowing this, Council can invest where it is needed most, and it can tailor this investment at the right level. This will avoid over investing in assets that have little consequence of failure, and will ensure assets that have a high consequence of failure are well managed and maintained. For infrastructure, this is knowing Tasman’s critical assets and lifelines. These typically include:

- Arterial road links including bridges
- Water and wastewater treatment plants
- Trunk mains
- Main pump stations
- Key water reservoirs
- Stopbanks
- Detention dams

During 2016, Council in partnership with Nelson City Council, the Regional Civil Defence Emergency Management Group and other utility providers, prepared the Nelson Tasman Lifelines Report. This report summarises all lifelines within Nelson and Tasman. Within the report there was a number of actions identified to improve the Region’s infrastructure resilience.

Over the next three years, as part of Council’s risk, resilience and recovery planning work, it will focus on the identification, planning and management of its critical assets and lifelines. This will help to ensure that the appropriate level of effort is being made to manage, maintain and renew them, and will extend to ensuring that Council has adequate asset data to enable robust decisions to be made regarding the management of those assets.

## 12.5 Quality Management

Council has not implemented a formal Quality Management system across the organisation. Quality is ensured by audits, checks and reviews that are managed on a case by case basis. Table 26 outlines the quality management approaches that support Council’s asset management processes and systems.

**Table 26: Quality Management Approaches**

Activity	Description
Process documentation	Council uses Promapp software to document and store process descriptions. Over time, staff are capturing organisational knowledge in an area accessible to all, to ensure business continuity and consistency. Detailed documentation, forms and templates can be linked to each activity in a process. Processes are shown in flowchart or swim lane format, and can be shared with external parties.

Activity	Description
Planning	The Long-Term Plan and associated planning process are formalised across Council. There is a LTP project team, LTP governance team, and AMP project team that undertakes internal reviews prior to Council approval stages. Following completion of the AMPs, a peer review is done, and the outcomes used to update the AMP improvement plans.
Programme Delivery	This strictly follows a gateway system with inbuilt checks and balances at every stage. Projects cannot proceed until all criteria of a certain stage have been completely met and formally signed off.
Subdivision Works	Subdivision sites are audited for accuracy of data against the plans submitted. CCTV is performed on all subdivision stormwater and wastewater assets at completion of works and again before the assets are vested in Council. If defects are found, Council requires that they are repaired before it will accept the assets.
Asset Creation	As-built plans are reviewed on receipt for completeness and adherence to the Engineering Standards and Policies. If anomalies are discovered during data entry, these are investigated and corrected. As-built information and accompanying documentation is required to accompany maintenance contract claims.
Asset Data Integrity	Monthly reports are run to ensure data accuracy and completeness. Stormwater, water, wastewater, coastal structures, solid waste and streetlight assets are shown on the corporate GIS browser, Explore Tasman, and viewers are encouraged to report anomalies to the Activity Planning Data Management team.
Operations	Audits of a percentage of contract maintenance works are done every month to ensure that performance standards are maintained. Failure to comply with standards is often linked to financial penalties for the contractor.
Levels of Service	Key performance indicators are reported annually via Council's Annual Report. This is audited by the Office of the Auditor General.
Reports to Council	All reports that are presented to Council by staff are reviewed and approved by the Senior Management Team prior to release.

# 13 Improvement Planning

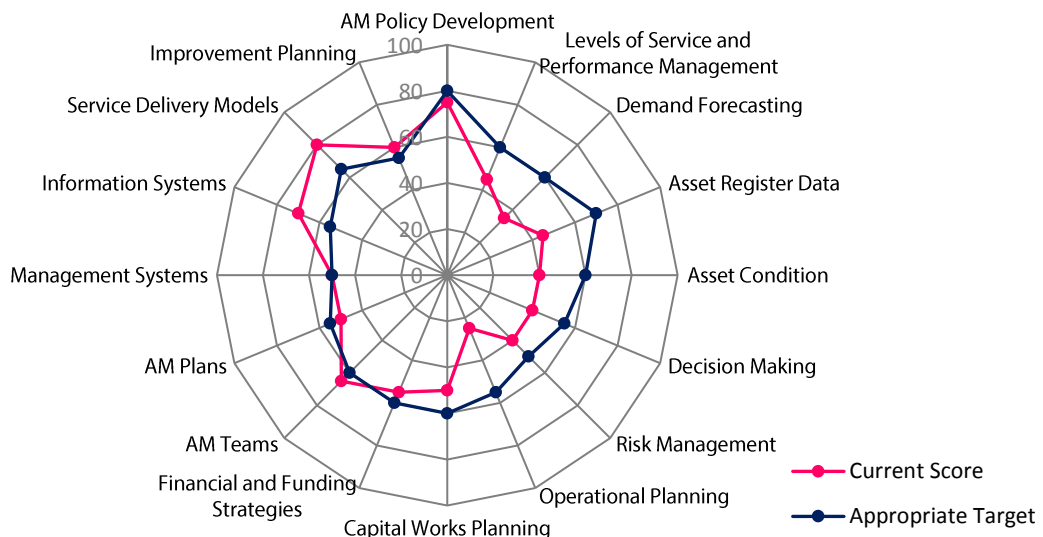
The activity management plans have been developed as a tool to help Council manage their assets, deliver on the agreed levels of service and identify the expenditure and funding requirements of the activity. Continuous improvements are necessary to ensure Council continues to achieve the appropriate level of activity management practice along with delivering services in the most appropriate way while meeting the community's needs.

## 13.1 Assessment of our Activity Management Practices

In 2017, Council undertook an assessment of its current asset management practices for this activity. This was a self-assessment with the targets developed in consultation with Waugh Infrastructure Management Ltd to ensure they were appropriate for the activity given:

- Criticality of the Assets;
- Value of the Assets;
- Value spent on maintaining the assets.

The maturity levels were based on the International Infrastructure Management Manual descriptions to maturity.



**Figure 30: Coastal Assets Maturity Levels**

Figure 30 shows that there are some gaps between where Council's current practice is and where it is desired to be. Focus areas for improvements are Asset Register Data, Asset Condition, Decision Making, and Operational Planning. The actions required to close these gaps have been included in the Improvement Plan.

## 13.2 Peer Reviews

In early 2018, Council engaged Waugh Infrastructure Management Ltd to undertake a peer review on the consultation version of this activity management plan. The peer review considered all Engineering Services activities and included the following analysis:

- Overview analysis and consideration of AMP progress completed since the Waugh Infrastructure detailed 2011 AMP Compliance Report (in summary not detail)
- Review of AMPs against general industry practice as observed by Waugh Infrastructure in the past 12 months
- Review and commentary on the adequacy of the AMP structure against current industry practice and requirements, as set out in IIMM 2015, ISO 55000
- Analysis of AMP individual section strengths and emphasis, including analysis of overall AMP 'message' verses issues identified

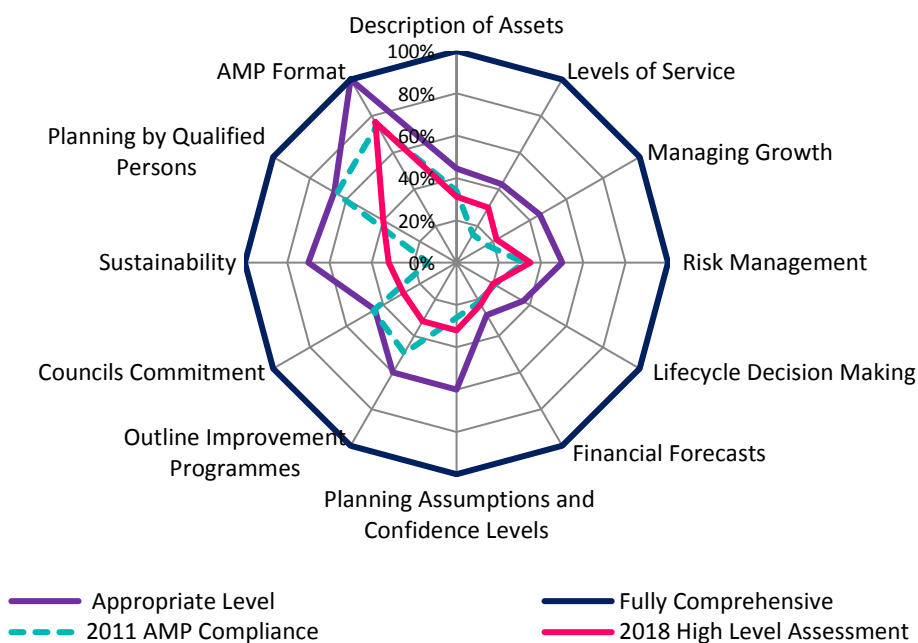
- Overview analysis of AMP status against appropriate asset management practice levels adopted in Council's Activity Management Policy (summary not detail)
- Analysis of the AMPs against Local Government Act 2002 amendment requirements, both 2012, and 2014 – identification of any issues or 'misses'
- Provide review comments of AMP strengths and weaknesses identified, with commentary on any suggested priority changes to be completed before LTP 2018

It is important to note that the peer review only considered what was included in the consultation version of this activity management plan. There are aspects of the Council's asset management processes that are not discussed in this activity management plan and are therefore not incorporated into the scoring.

The overall findings of the Peer Review were that the Council's AMPs are well developed to support the Council's Long Term Plan. Some of the AMPs had sections that required completion, but overall missing elements noted were relatively minor.

The AMP template has been updated to incorporate recent Local Government Act changes. The AMP template developed and used by Council has allowed clear, concise presentation of information in a logical manner.

**The overall compliance status is shown below in**



**Figure 31: 2018 Peer Review Compliance Status Summary**

Council staff have reviewed and prioritised the feedback received in the peer review report. Improvements that could be made immediately have been incorporated into the final version of this activity management plan. Other improvements have been ranked and included in the Improvement Plan.

There has been a noticeable decrease in scores for Outline Improvement Programmes, Council's Commitment, and Planning by Qualified Persons. This is not due to a change in Council's practice or performance, but due to a change in the activity management plan template. After receiving the peer review feedback, additional discussion has been included in Section 12 and Section 13 to address these issues.

### 13.3 Improvement Plan

Establishment of a robust, continuous improvement process ensures that Council is making the most effective use of resources to achieve the 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 Engineering Services activities and is managed by the Activity Planning Programme Leader. In this way opportunities to identify and deliver cross-activity or generic improvements can be managed more efficiently, and overall delivery of the improvement programme can be monitored easily.

### 13.3.1 Summary of Recent Improvements

Based on the peer review by Waugh Infrastructure Management Ltd and internal evaluations and reviews, Council has made improvements to its activity management plan and specific asset management processes. The key improvements and areas of strengths of the current activity management plan include our asset descriptions, Levels of Service, financial forecasting and Council's Infrastructure Strategy.

Some of Council's key achievements in the asset management processes over the previous three years include:

- Identification of a need to understand and improve the performance of the assets
- Clear identification of key issues and responses to address the issues

### 13.3.2 Summary of Planned Improvements

A list of the planned improvement items for this activity is provided in Table 27 below.



**Table 27: Coastal Assets Improvement Items**

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost / Resource Type
Asset Description and Data Management: Improve accuracy of asset information, condition and ownership;  Improve asset monitoring and reporting.	Reporting and monitoring programmes to be linked to Confirm.	High	In progress	June 2019	Activity Planning and Transportation	Staff time and budget
Levels of Service: use improved asset data to develop appropriate levels of service and incorporate mandatory performance measures.	Refer to Council-wide project on coastal hazard modelling.  Develop a LOS Gap Analysis.	Medium	Not started	June 2021	Activity Planning	Staff time
Consolidate management of Coastal Assets	Facilitate a coastal asset working group with an aim of resolving asset management issues across the Council	High	In Progress	June 2019	Activity Planning	Staff Time
Tasman Bay Boat Access	Review boat launching and jetty services around Tasman and identify potential solutions	Medium	Not Started	June 2020	Activity Planning	Staff Time
Assets Usage process	Establish a method to determine coastal asset usage around the district	Medium	Not started	December 2019	Activity Planning/Transportation	Staff and Consultant Time

Improvement Item	Further Information	Priority	Status	Expected Completion Date	Team Responsible	Cost / Resource Type
Create Critical Asset Framework	Describe in AMP how it is used to prioritise asset information and condition assessments, adjust economic lives (renewal profiles) prioritise renewals and expenditure, operation and maintenance	High	In Progress	Jun-20	Engineering	Staff Time
Provide data confidence ratings for groups of assets within the valuation for each activity.	In the valuation reports data confidence is only assessed across the activity and not for the different types of asset groups. It is likely that data confidence varies considerably between buried assets and above ground assets and this is not reflected in the reports.	Medium	Not started	Jun-20	Data Analyst – Utilities	Consultants and staff time Budget \$33,500 in 2019/20
Consider how levels of service options are presented to the community	Consider how to better engage the community in agreeing appropriate levels of service through specific work streams (e.g. Risk, Resilience, Recovery Planning).	Medium	Not started	2021	Activity Planning	Staff time

# Appendix A: Detailed Operating Budgets

ID	Name	Description	Total Budget	Financial Year Budget (\$)										Total Budget	
			2018-48	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028-38	2038-48
12001	Activity Management Plan	Activity Management Plan update	150,000	0	10,000	5,000	0	10,000	5,000	0	10,000	5,000	0	55,000	50,000
12002	Marahau Protection	Address new erosion and erosion of existing wall	280,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	0	0	0	0	0
12003	Coastal Asset Information Improvement	Ongoing asset data collection	571,000	15,600	25,900	15,600	15,600	25,900	15,600	15,600	25,900	15,600	15,600	197,200	186,900
12004	Professional Service Fees	Professional service fees	600,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000	200,000
12005	Coastal Management Strategy	Undertake a study on current and future management of coastal assets	100,000	50,000	50,000	0	0	0	0	0	0	0	0	0	0
12006	Coastal Asset Insurance		276,000	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	92,000	92,000
12007	Routine Maintenance of Navigation Aids	Routine maintenance of navigation aids	540,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	180,000	180,000
12008	Coastal Process Monitoring	Monitoring the sand spit at Jackett Island	100,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	0	0
12009	Routine Maintenance and Renewal of Rock Walls	Routine maintenance and renewal of rock walls	2,100,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	700,000	700,000
12010	Operations and Maintenance of Existing Coastal Structures	Operation and maintenance of existing coastal structures	1,200,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	400,000	400,000
12011	Coastal Structures Reactive Maintenance	Reactive maintenance and repairs	1,500,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	500,000
12012	Torrent Bay Sand Replenishment and Planting	Sand replenishment and plantings at Torrent Bay	1,000,000	0	0	100,000	0	0	100,000	0	0	100,000	0	300,000	400,000
12013	Ruby Bay / Mapua Seawall Insurance	Insurance	164,940	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498	54,980	54,980
16003	Tasman Bay Boat Access Study	Review boat launching and jetty services around Tasman and identify potential solutions	30,000	0	30,000	0	0	0	0	0	0	0	0	0	0
	Feasibility Studies	Feasibility Studies	3,000	0	0	0	0	0	0	3,000	0	0	0	0	0

# Appendix B: Detailed Capital Budgets

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget (\$)										Total Budget		
			Growth	IncLOS	Renewals	2018-48	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028-38	2038-48	
16002	Marahau Jetty Renewal	Undertake renewal works on the Marahau jetty	0	0	100	45,000	0	0	0	0	0	0	0	0	0	0	0	45,000	0
16004	District Wide Sign Renewals	District wide sign renewals	0	0	100	30,000	0	0	0	0	0	0	0	10,000	0	0	0	10,000	10,000
16005	New Tasman Bay Boat Access Facility	Create a new boat launching facility as identified in the strategy	0	100	0	1,071,000	0	0	0	0	108,000	963,000	0	0	0	0	0	0	0
16006	Marahau Sea Wall	Construct a seawall to protect the footpath from coastal erosion	0	100	0	150,000	0	0	0	0	0	0	0	150,000	0	0	0	0	0