

Coastal Assets Activity Management Plan 2021-2051



Quality Assurance Statement

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1 Executive Summary

The sea and how people access 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

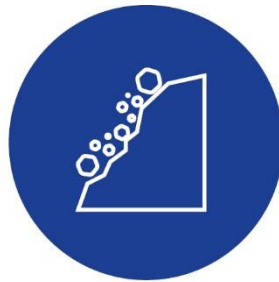
The following graphics provide an overview of this activity.



Provision and maintenance of water access facilities around the District



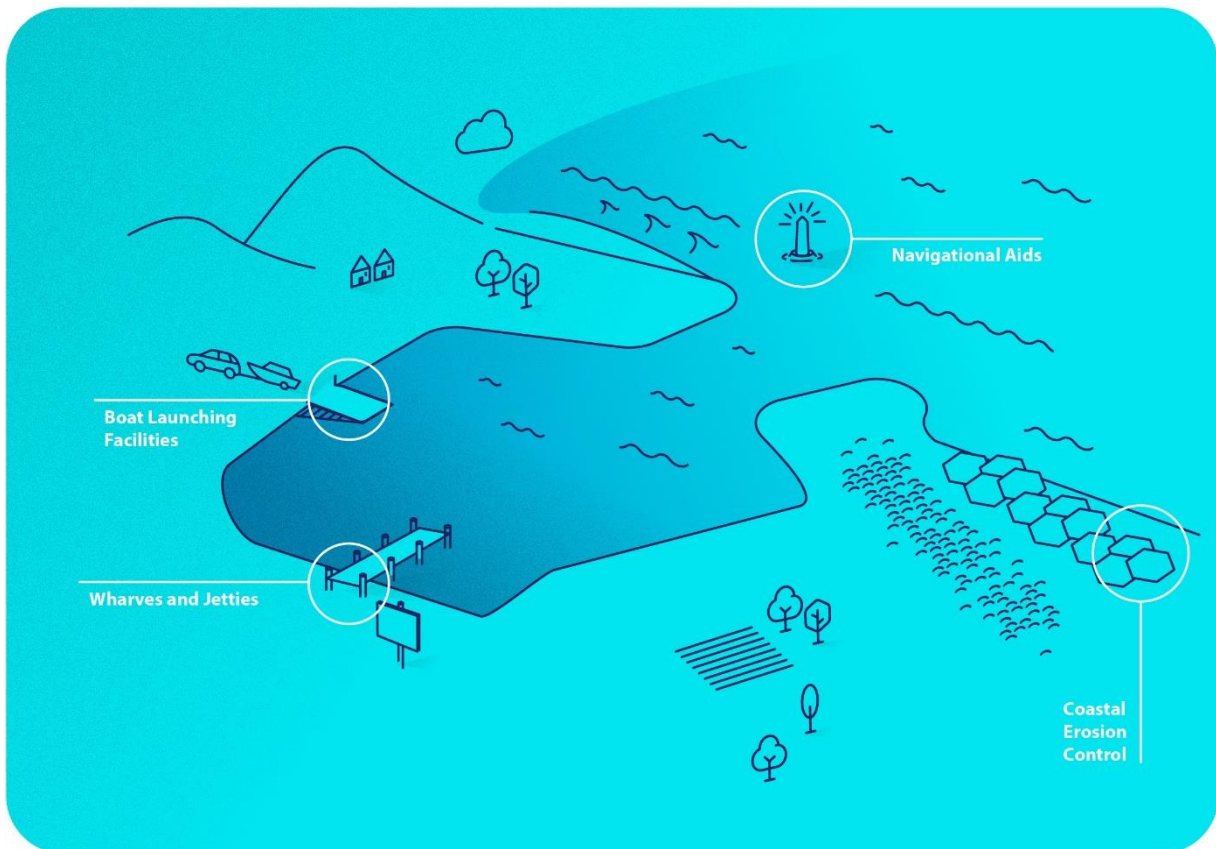
Provision and maintenance of wharf and jetty facilities around the District



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

Activity Goal

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

1.3 Levels of Service

“Our communities are protected from coastal erosion.”

“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 the additional new level of service may improve the overall condition of the assets.

1.4 Key Issues

Key issues facing the Coastal Structures activity are summarised below.

1.4.1 Protection Structures

There have been an increase in requests for new and upgraded structures which do not align with national guidance on coastal management. Demand on coastal protection works is influenced by urban development, coastal erosion, and potential sea level rise/coastal inundation associated with climate change. Tasman District 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. Policy and planning teams are developing resource management policies to manage growth in coastal hazard areas to reduce the likelihood of further development that could be at risk from inundation from the sea, and the need for coastal protection work for these areas.

1.4.2 Boat Facilities

Access to the water is difficult, in part due to the high tidal range (3.5 – 4.0 metres) and to the relatively shallow bays along the Tasman coast. There are over 67 boat access locations along our coast. Of these, 50% are unformed, and 50% are beach access only; 75% are suitable for dinghy and small boats only. There has been an increase in new boats, making the unformed ramps difficult to use for a growth portion of boats. Good launching facilities at Nelson, Motueka, and Kaiteriteri are busy and have car parking issues.

1.4.3 Public Safety

Tasman has a number of non-Council owned marine structures which pose a safety risk to the general public, but are of high interest to parts of our community (as a vessel mooring, or aesthetic or photographic opportunities). There are a number of derelict structures around our Region that have been abandoned, and most have not been identified. Legal advice is that Department of Conservation should have responsibility for the structures. Over the years, the timber structures have deteriorated to a point that they pose a navigational or safety hazard to the public.

1.5 Operational Programme

The operational programme covers all day to day activities that are required to manage the Coastal Assets activity. The Council has planned to spend approximately \$7 million (inflated) over the next 30 years. Key activities are included in the table below.

Activity	Total Budget for 30 Years
Maintenance of seawalls, wharves and jetties	\$1,600,000
Maintenance of Navigational Aids	\$913,000
Torrent Bay sand replenishment and planting	\$2,900,000

1.6 Capital Programme

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



1.7 Key Changes

Key changes in the management of this activity since the 2018 Activity Management Plan are summarised below.

Key Change	Reason for Change
Advance the funding for New Tasman Bay Boat Access Facility to year 3, for the purpose of providing a new boat ramp facility at Waterfront Park in Māpua.	During deliberations following public consultation, Council resolved to bring the funding to implement the outcome of the study forward and construct a boat ramp in Māpua at the Waterfront Park. Council will complete the Tasman Regional Boat Access study to investigate whether additional facilities are required elsewhere.
Increased frequency of Torrent Bay sand replenishment from every three years to every two years.	This increase is necessary to keep up with the actual rate of sand depletion.

1.8 Key Risks and Assumptions

The Council has made a number of assumptions in preparing the Activity Management Plan. The most significant assumptions and uncertainties for coastal assets are:

- Extreme weather events and associated flood and erosion impacts can happen at any time and their occurrence may differ from what is expected. When large events happen more frequently, this may trigger higher expectations from our community to provide a higher level of service. This requires more funding than has been budgeted for.
- The Council cannot predict when and where extreme weather events will occur, or the damage that may be done. During large events, there is a risk that coastal structures could be damaged. The annual budgets allow for clean-up and repair which should be sufficient for most events. The Council also has an emergency fund to cover the costs associated with more significant damage. The Council has assumed that if damaging events occur, there will be enough funds available to undertake repairs, whether it is through accessing budgeted funds, reprioritisation of other maintenance activities, or increasing borrowing.

2 Introduction

The purpose of this Activity Management Plan (AMP) is to outline and to summarise in one place the Council's strategic management and long-term approach for the provision and maintenance of coastal asset activities.

2.1 Rationale for Council Involvement

Coastal assets provide many public benefits including provision of access to the coastal environment and coastal protection structures. The Council is responsible as a regional authority for the management of the coastal assets that it owns or that have no other identifiable owner. It is therefore necessary that the Council undertake 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 and Services

Key coastal assets are:

- Wharves
- Jetties
- Coastal protection
- Boat ramps
- Aids to navigation (structures).

The coastal assets activity is comprised of 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 the 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 the Council-owned assets and this information has been updated in the Confirm database. It is also visible 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 the Council, and are no longer used commercially. In some instances, these assets are in derelict condition and have no clear owner. Some of these are owned by DoC such as those in Abel Tasman National Park, but DoC is hesitant to renew or replace them. As these assets pose a threat to public safety, the Council has to decide on how they will be managed.




This Activity Management Plan 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 campground
- 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 Tarakohe which have been explicitly excluded, as they constitute the commercial operation in itself.

Table 1: Assets Overview

Coastal Assets	Replacement Value	Depreciated Value
	2 Wharfs	
	4 Jetties	\$1.624M
	20 water access Ramps	\$0.728M

Coastal Assets		Replacement Value	Depreciated Value
	40 individual permanent coastal protection sites protecting 27 km of coastline	\$4.498M	\$4.487M
	Navigation Aids	\$0.151M	\$0.080M
TOTAL VALUE OF COASTAL ASSETS AS AT 1 APRIL 2017		\$6.273M	\$5.295M

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, the Council embarked on the Port Motueka Improvement Project aimed to improve access through the harbour to the port. A groyne was constructed to protect the main channel and dredging of the channel completed. The groyne 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. The 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 the Councillors and the 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 and current land uses/zonings, and set out a future development plan for the port area.

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

As part of the ownership agreement, a fishing platform was constructed by the Talley's Group next to the main wharf for public use. This structure was divested to the Council and who 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 coastal drift process. Talley's, as owners of the wharf and primary operators through the port, are continuing attempts to manage these processes.

For the Council, the issue is the need to ensure navigational aids are properly located and adequately maintained so recreational users have the appropriate notice and guidance.

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

2.3.2 Port Māpua

Port Māpua (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 mostly recreational craft, but the channel and wharf were left to deteriorate. Community intervention stepped in from the 1980's to repair the wharf and ensure its survival. In 1989, the Council took over the former Apple and Pear Board chemical factory site and measures were put in place to prevent contaminated soil from leaching into the adjoining Waimea inlet. Since the 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 tourists and residents alike.

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

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

2.3.3 Port Tarakohe

Port Tarakohe (Location shown in Figure 1), is a port and marina owned and operated by the 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 Council Enterprises Activity Management Plan.



Figure 1: Location of Ports in Tasman

2.4 Wharfs

2.4.1 Riuwaka 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 Māpua Wharf

The wharf (which is part of Port Māpua) 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: Māpua 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 Department of Conservation. These structures are in very poor condition and pose a risk to public safety. Although the 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. Several coastal assets have been remedially upgraded in the last 2017-2020 Activity Management Plan period. Additional information about wharves in the Tasman region can be accessed on the Council database Confirm.



Figure 3: Location of Wharves

2.5 Jetties

There are four Council administered wharves and jetties recorded in the Tasman region. They range in material from timber, to plastic and aluminum. They range in condition status from poor to very good. If more information is required, a summary of the Council-owned jetties is available on the Council database Confirm.

The Mārahau jetty is maintained by the Council and the Torrent Bay jetty is maintained and funded by the local residents with some financial support from the 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 and are not in the Tasman Coastal Marine Area.

Between 2003 and 2007, the Council, in conjunction with the local community, completed substantial coastal protection at Mārahau and Ruby Bay (Broadsea Avenue and Old Mill Walkway). These have been constructed to protect existing urban development and are 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 being identified and registered in the Confirm database.

Coastal protection asset data has been poorly captured until now. The Council has addressed this issue by identifying all coastal protection assets and recording them in the Confirm database.



Figure 5: Mārahau Sea Wall

A list of the Council’s coastal protection assets is available on the Council’s coastal asset database on Confirm. There are now 83 registered coastal protection structures in the Tasman region. Some of these are grouped next to each other in clusters, but are recorded as discreet coastal assets. They are constructed of timber, rock or concrete, and range in condition status from very poor to very good.

As of 2020, there is substantially more detail available regarding the location and condition of coastal protection structures than in the previous Activity Management Plan period.



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 2. 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 remainder 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.

Additional information about the location and condition of Tasman boat ramps and water access can be found in the Council’s database Confirm.

Through the Regional Tasman Boat Access Study, Tasman District Council is currently in the process of assessing gaps in our boat ramp capacity to achieve the goals of providing more Tasman residents with ‘all-weather all-tide’ access to the water. As part of this study, we are looking to address the primary concerns of safety on land and safety on water, and alleviating pressure on over-capacity car parking facilities at boat ramp locations.



Figure 7: Mārahau Boat Ramp

Table 2: The Council Administered Boat Ramps

Location	Length	Lanes	Surface	Condition
Best Island – Adjacent to jetty on eastern side of island	16.0 m	1	Concrete	Moderate
Māpua – Adjacent to wharf	20.0 m	1	Concrete	Good
Māpua – Grossi Point	Undefined	Undefined	Unformed	Moderate
Mārahau - Waterfront	27.0 m	2	Concrete	Good

Location	Length	Lanes	Surface	Condition
Murchison – at Riverview Holiday Park	10.0 m	1	Concrete	Moderate
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
Ruby Bay – Chaytor Reserve, Broadsea Avenue	30.0 m	1	Concrete	Very Good
Motueka - South of Motueka bridge off Main Road Riwaka	25.0 m	1	Unformed	Moderate
Motueka - north of Motueka Bridge	20.0 m	1	Unformed	Poor
Motueka - 100 metres north of Motueka bridge	50.0 m	1	Unformed	Moderate
Riuwaka - West of two boat sheds on Wharf Road	20.0 m	Pedestrian	Concrete	Poor
Riuwaka - 20 metres East of Wharf	10.0 m	1	Concrete	Moderate
Riuwaka – 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
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	Poor
Patrons Rock – Battery Road	50.0 m	1	Unformed	Moderate
Rangihaeata Head - Keoghan Road end	100.0 m	1	Unformed	Moderate
Tākaka - Tākaka 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, the 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.

The Council owns and maintains a number of lead lights and marker buoys. Recently, the 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 3 and shown in Figure 9 below. The navigational aids listed are permanent structures. Additional seasonal navigational aids are installed to take into account change in channel direction in this highly dynamic coastal environment.

A full register of aids to navigation are available on the Council database Confirm if more information is desired.

Table 3: The 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/Moturoa	Post	Transit	3	Marking ski lane limits	Black & White bands
Riuwaka	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
Tōtaranui	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

Area	Feature	Type	Number	Location	Description
Collingwood	Buoy	Special	2	Entrance to Collingwood / Aorere River	'5 knot sign'
Riuwaka	Buoy	Lateral	1	Riuwaka Fairway Buoy 2800m from Riuwaka Jetty	Council 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
Māpua	Buoy	Lateral	2	Māpua Fairway Buoy	Council sticker and engraved "03 543 8400" and "178". Green tape strips vertical around top.
Māpua	Post	Lateral	2	Māpua 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 the 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

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

3.2 Contribution to Community Outcomes

The Council operates, maintains and improves the coastal assets on behalf of its ratepayers. The 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 4 below.

Table 4: 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 assets 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 the effects of coastal hazard events, particularly coastal erosion.
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.

Community Outcomes	Does Our Activity Contribute to the Community Outcome	Discussion
Our communities have access to a range of social, cultural, educational and recreational facilities and activities.	Yes	Coastal protection seeks to protect reserves and other recreational activities from erosion for the benefit of the whole community.
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, although due to the Covid-19 pandemic, there is expected to be less international tourism and an increase in domestic tourism. Access to the water for recreational and commercial activities will be key to its continued growth.

3.3 Infrastructure Strategy

The Council's Infrastructure Strategy covers the provision of the Council's water supply, stormwater, wastewater, rivers and flood control, and transportation services. 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.

The 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.

The Council's Infrastructure Strategy and infrastructure activity management plans are directly linked. Information flows between the Strategy and the plans in both directions. The table below describes the structure of the Strategy and how it connects to the activity management plans.

Table 5: Infrastructure Strategy Overview

Section	Section Overview	Connection to Activity Management Plan
Executive Summary	<p>A short consolidated summary of the current situation, investment priorities, key actions and total level of investment.</p>	<p>This section is intended to provide an outline of the Strategy to the reader. It does not have a direct connection to individual activity management plans.</p>
Strategic Direction	<p>Examines the context and issues surrounding the provision of infrastructure services.</p> <p>Sets the direction for infrastructure management and investment priorities.</p> <p>Sets out how the Council will:</p> <ul style="list-style-type: none"> • respond to growth or decline in demand; • manage the renewal or replacement of existing assets over their lifetime; • manage 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. 	<p>This section provides direction to the Council staff who prepare activity management plans for the relevant infrastructure activities. Each activity management plan is expected to consider the key priorities and identify actions that are in alignment with those priorities.</p> <p>It also provides a consolidated summary of this information from within the activity management plans.</p>
Activity Summaries	<p>For each activity:</p> <ul style="list-style-type: none"> • Provides an overview of the assets and their condition and performance; • Outlines the levels of service; • Considers the options to address key issues/priorities and identifies the preferred option; • Summarises investment in the activity for the next 10 and 30 years; • Lists the key assumptions and uncertainties. 	<p>This section provides a concise summary of the activity management plan for the topics listed in this table.</p>

3.4 Financial Strategy

The Financial Strategy outlines the Council's financial vision for the next 10 to 20 years and the impacts on rates, debt, levels of service and investments. It guides the Council's future funding decisions and, along with the Infrastructure Strategy, informs the capital and operational spending for the Long Term Plan 2021-2031.

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Infrastructure expenditure forms a large proportion of the Council's spending being 38% of operational expenditure and 79% 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.

Over the next 10 years, forecast rate income increases and debt levels are projected to be very near the Council's limits. The Council has had to work hard to prioritise and plan a work programme which addresses the most pressing key issues while staying within these limits. This means there is very little scope to add further work to the programme within the next five years.

3.5 Key Issues

3.5.1 Protection Structures

Urban development along low-lying coastal margins, and the effects of coastal hazards and rising sea levels associated with climate change all increase the demand for coastal protection works. The Council is planning to maintain existing Council-owned coastal protection assets but will not provide any increased levels of protection to private properties.

The 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 policies is expected in the next three years. Long-term adaptive planning work will take several years to complete and the community conversation on coastal management will be ongoing. In the meantime, a policy has been developed to provide guidance on the process and considerations involved when a private landowner wishes to establish a coastal erosion protection structure on the Council administered reserve land.

In July 2019, the Council launched its 'Coastal Management Project – Responding to Climate Change' which aims to enable our Tasman Bay/Te Tai o Aorere and Golden Bay/Mohua communities to work towards long-term adaptive planning for sea level rise and coastal hazards. The Council has mapped coastal hazards and scenarios of sea level rise up to 2m for Tasman and Golden Bays (during 2019) and published a coastal risk assessment (during 2020). This project implements the Ministry for the Environment's 2017 Coastal Hazards and Climate Change Guidance. Outputs of this work will be used to inform the review of the coastal hazards provisions of the Tasman Resource Management Plan (known as Aorere ki uta Aorere ki tai – Tasman Environment Plan), activity management planning, building consent processes, reserve management plans, and civil defence emergency management.

3.5.2 Boat Facilities

The connection to the sea is one of the features that defines Tasman District. Beaches, estuaries and islands are enjoyed by many 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, which means that the unformed ramps are 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 Public Safety

There are a number of non-Council owned structures, including jetties and wharves, the pose a threat to public safety. While many of these structures are legally owned by the Department of Conservation, they remain a hazard to the wider Tasman Bay community. A new Level of Service related to ensuring public safety was added to this Coastal Asset Management Plan (refer to Table 11), and requires the Council to address the poor condition of publically accessible structures which may pose a safety risk even in the case of the structures being owned by a third party.

3.6 Prioritisation

The Council provides many services on behalf of Tasman's residents and there is often competing demands for the Council's investment across and within these services. The Council needs to decide how much, and when, to invest in these services in a way that maintains affordability for customers and ratepayers.

There are multiple factors that affect the priority of individual projects or work streams. These include:

- The need to protect public health and safety
- The need to conserve and enhance the natural environment
- Statutory compliance

- Meeting the needs of tomorrow's population
- Readiness to implement works
- Co-funding opportunities
- Creating functional and attractive public places
- Benefits and risks
- District distribution
- Strategic fit.

The Council has applied the following principles when developing its programme of works:

- To continue to meet its fiscal prudence, sustainability and environmental sustainability obligations.
- To keep the medium to long term in focus i.e. rather than being overly diverted by the shorter-term recovery from the Covid-19 pandemic.
- To understand the trade-off's or benefits across all of the well-being domains (social, environmental, economic and cultural).
- To capitalise on the economic environment (i.e. enhanced borrowing terms, and increased labour and skills availability).
- To make the most of the enhanced opportunities of Government funding, subsidies and other incentives to advance the community outcomes.
- To right size the Council staffing and operational expenditure.

The Council has taken all of the above into consideration in order to present a programme that is achievable and affordable. Generally, mandatory requirements such as statutory compliance take priority, and discretionary activities have been programmed second to this.

3.7 The Council's Coastal Protection Policy

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 policy statement was developed while the Council works towards long-term adaptive planning for sea level rise and coastal hazards through the 'Coastal Management Project – Responding to Climate Change' work programme. The Council is developing a policy on Coastal erosion protection structures on the Council's reserve land. This policy provides guidance on the process and considerations involved when a private landowner wishes to establish a coastal erosion protection structure on the Council administered reserve land. A broader-reaching Council policy around coastal protection is still in draft form at the time of writing this activity management plan.

The Council's interim position statement is:

- The Council will maintain or repair only existing Council-owned coastal protection structures (CPS) (subject to a review of economic benefit and affordability and compliance with New

Zealand Coastal Policy Statement (NZCPS) and the Tasman Resource Management Plan (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 the Council assets (subject to compliance with the NZCPS and the TRMP). This coastal protection policy relates to the protection of all vulnerable Council-owned assets regardless of which activity management plan is responsible for the structure except for the Council administered reserve land.
- 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 the Council-owned land, for the purposes of protecting the 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 the Council's Reserves General Policies document. In any event, the Council retains complete discretion regarding authorisation of private structures on the Council-owned land.

3.8 Tasman Climate Action Plan

In 2019, the Council adopted the 'Tasman Climate Action Plan' (Action Plan). The Action Plan is the Council's initial response to the urgent need to take action on climate change, to build climate resilience and reduce greenhouse gas emissions.

The Action Plan sets out goals, targets and actions relating to three key themes:

1. Mitigation – how we can reduce greenhouse gas emissions from Council's activities.
2. Adaptation – ways we can respond to our changing environment, including positive opportunities.
3. Leadership – how we can lead by example, advocate and encourage others to take action.

The following goals are the long-term aspirations of the Council. They represent the first step towards a cohesive package of activities that address climate change issues.

- The Council contributes to New Zealand's efforts to reduce greenhouse gas emissions (including net carbon emissions).
- Tasman District becomes more resilient to the impacts of climate change.
- The Tasman Community is informed of climate change actions and options for response.
- The Council shows clear leadership on climate change issues.

Goals will be measured against targets and achieved by implementing the actions set out in the Action Plan. Targets and actions of direct relevance to this activity are listed below. Several other actions are also relevant (e.g. those relating to information provision and leadership goals) - see the online version of the Action Plan for details: www.tasman.govt.nz/climate-change

Table 6: Relevant targets and actions from the Tasman Climate Action Plan (2019)

Goal	Targets	Actions (short-term) 2019 - 2021	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
<p>2. Tasman District becomes more resilient to the impacts of climate change</p>	<p>2(a) Progressively improve network infrastructure resilience to climate change risks across all Council networks</p>	<p>(i) Completion of the Council's Infrastructure Risk and Resilience project (2018 - 2020). This includes development of an Infrastructure Resilience Strategy, which will identify critical infrastructure (i.e. water supply sources, stormwater, wastewater, transportation and solid waste) and their vulnerability to natural hazards and climate change. It will also identify what infrastructure will become redundant.</p>	<p>Activity Management Plans (AMPs) account for climate change risks, uncertainty and resilience for the entire life of current and future infrastructure (i.e. future proof design). All assets should be assessed for climate change risks at their location, before decisions on siting of a new asset/replacement of existing assets are made.</p> <p>Funding for repair or replacement of network infrastructure incorporates accounting for climate change risks and resilience.</p>	<p>Implementation of AMPs through network development projects.</p> <p>Funding maintained through future plans.</p>
		<p>(ii) Review the Council's policy on emergency funds, to ensure it anticipates repair/replacement and relocation costs that factor in climate change risks ("build back better"). Investigate the potential funding requirements of implementing this policy.</p>	<p>The Long Term Plan 2021 - 2031 incorporates 'Emergency funds' that anticipate repair / replacement / relocation costs that factor in climate change risks ("build back better").</p>	<p>Funding maintained or increased as risks increase.</p>
		<p>(i) The Coastal Hazard mapping and plan change programme continues to completion; including consideration of the extent of the risks, options and regulatory responses for adaptation, relocation, coastal structures etc.</p>	<p>Implementation via the Tasman Resource Management Plan and Infrastructure Strategy/ Activity Management Plans.</p>	<p>Implementation via the Tasman Resource Management Plan and Infrastructure Strategy/ Activity Management Plans.</p>

Goal	Targets	Actions (short-term) 2019 - 2021	Actions (medium-term) 2021 - 2024	Actions (long-term) 2024+
2. Tasman District becomes more resilient to the impacts of climate change.	2(b) New coastal development and infrastructure accounts for climate change risks, including sea level rise.	(ii) Regulatory activities (resource and building consenting) continue to account for sea level rise based on the Ministry for the Environment Guidance 2017 and apply the Tasman District Council/Nelson City Council 'Coastal and Freshwater Inundation' guideline (2019) for setting ground and floor levels for new development.	Continue implementation. Review Guideline when new information is available.	Continue implementation. Review Guideline when new information is available.

The Council seeks to manage its coastal assets in accordance with the Tasman Climate Action Plan. Upgrades, renewal and capital projects will take climate change mitigation and resilience to climate change into account. The Action Plan is also reflected in our policies and strategic direction. For example, the Council discourages new builds and development on land that is prone to inundation and sea level rise.

4 Key Linkages

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

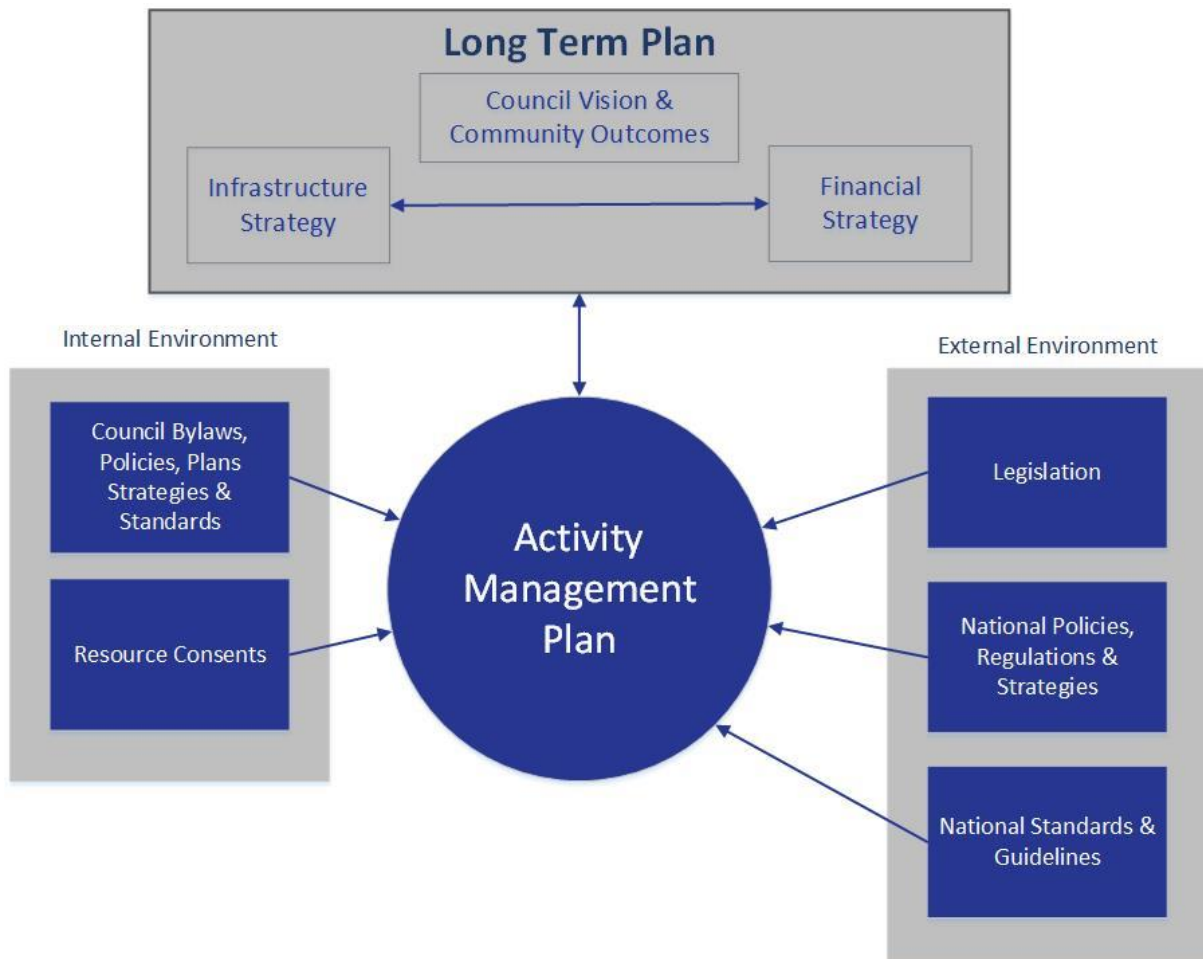


Figure 10: Coastal Assets Activity Management Plan and Relationship with other Documents

In preparing this Activity Management Plan (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 the 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/>.

Table 7: 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 Council's 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 (NZCPS) 2010	The Tasman Resource Management Plan must give effect to the NZCPS and the Council must have regard to it when considering consents in the coastal environment.
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 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
AS 3962 2001 Guideline for design of marinas	Provides guidance on marine facilities for vessels up to 50m in length.

4.2.3 Local Policies, Regulations, Standards and Strategies

Table 10: Summary of Local Documents that Relate to this Activity

Documentation	Effect on this Activity
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 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 influences the consent and permissions required when undertaking any construction.
Tasman District Council Procurement Strategy	The procurement strategy dictates the process for all procurement at the Council. The strategy caters 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 lifecycle 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 the 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 know we are meeting the level of service if ...)	Current Performance	Future Performance Targets			
			Year 1	Year 2	Year 3	By Year 10
			2021/2022	2022/2023	2023/2024	2024 - 2031
Protection Our communities are protected from coastal erosion	The Council owned coastal erosion structures are maintained to their original constructed standard. The Council is developing a detailed inventory of coastal assets and conditions, as measured by routine annual inspection.	2019/20: 100% 2018/19: 100% 2017/18: 100%	100%	100%	100%	100%
Safety Our structures are safe for the public to use	The Council structures are maintained to a safe level to allow use by the general public. Percentage of structures deemed 'safe' are measured through a routine annual inspection.	2019/20: 100% 2018/19: 100% 2017/18: 100%	100%	100%	100%	100%
Amenity The coastal assets are maintained to an appropriate level and satisfies the community's expectations	Residents are satisfied with the Council's coastal assets in the district, as measured through the triennial community survey.	2017/18: 57% 2014/15: 65%	≥ 70%	-	-	≥ 70%

5.2 Level of Service Changes

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

Table 12: Summary of areas of where changes were made 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 was new in 2018. 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 level of service also ties into the additional asset condition inspections that will be undertaken as part of this Activity Management Plan. Previously, the safety level of service focused on the response of the Council to customer service requests. This previous measure has been removed from this activity, but is still applied to the Council through the Support Services performance measures.

5.3.3 Amenity

Amenity performance measure has been added to ensure this activity has a customer focus. This uses the residents' survey to measure residents' satisfaction with coastal assets. This measurement of residents' 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 that more, about the same, or less should be spent of different asset categories. Coastal assets is commonly high on the list of the assets that residents want more money spent on. This measure will track the Council's progress with customer expectations.

6 Our Customers and Stakeholders

The Council engages and consults with iwi partners, customers, and stakeholders to gain an understanding of their needs, expectations and preferences. This enables the Council to provide outcomes that better meet the community's needs.

6.1 Iwi Partners

Māori are tangata whenua of Aotearoa New Zealand. They have a long and rich association with Te Taihū o te Waka-a-Māui (Te Taihū) / the Top of the South Island. There are eight iwi that whakapapa and have Statutory Acknowledgements to places within Te Taihū and Tasman District. They are represented by the following post settlement governance entities:

- Ngāti Apa ki te Rā Tō
- Ngāti Koata Trust
- Te Rūnanga o Ngāti Kuia Trust
- Te Rūnanga a Rangitāne O Wairau
- Te Rūnanga o Ngāti Rārua
- Ngāti Tama ki te Waipounamu Trust
- Te Ātiawa o te Waka-a-Māui
- Te Rūnanga o Toa Rangatira.

Tasman District also covers the northern-western part of the Ngāi Tahu takiwā (tribal area/territory). Murchison is within the Ngāi Tahu takiwā and Ngāti Waewae are the Papatipu Rūnanga on this northwestern side.

Each iwi has their own unique history and association with places across Tasman District. These areas are not easily defined and do not match or stay entirely within the boundaries of Tasman District.

The Council expect iwi / Māori to have a strong interest in the planning and delivery of the following projects:

- Tasman Regional Boat Access Study and consequential upgrades or new coastal boat ramp facilities.
- Māpua Waterfront Boatramp
- Mārahau Sea Wall

The Council staff aim to engage with iwi / Māori on matters that are of interest and importance to them. For the above projects, extra care will be taken to consider and apply the principles of the Tiriti o Waitangi / Treaty of Waitangi. The Council acknowledge that it is important to agree the appropriate level of engagement with iwi / Māori at the outset of a project. This may range from informing through to opportunities for co-governance.

More information about iwi of Te Taihū can be found on the Council's website at <https://www.tasman.govt.nz/my-region/iwi/> and their own websites and social media channels.

6.2 Stakeholders

There are many individuals and organisations that have an interest in the management and / or operation of the Council's assets and services. The Council has a Significance and Engagement Policy, which is designed to guide the expectations of the relationship between the Council and the Tasman community. The 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 that what the Council have been told; and
- Inform contributors how their input influenced the decision the 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; and
- Is an opportunity for a fully informed community to contribute to decision-making.

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

- Elected members (Community Board members)
- 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.

6.3 Consultation

6.3.1 Purpose and Types of Consultation

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

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

- Feedback from 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.

The Council commissions residents surveys on a regular basis to 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.

6.3.2 Consultation Outcomes

The most recent residents’ survey results in May 2020 asked whether residents were satisfied with the District’s recreational facilities, multi-purpose public halls and community buildings and public toilets, however did not ask specific questions about satisfaction with coastal assets. The survey did ask if residents thought that enough, not enough or too much money was being spent on the management of coastal assets. The results are as follows:

Table 13: Public Opinion on Spending on Coastal Assets 2020

	More %	About the Same %	Less %	Don’t Know
Management of coastal structures	31	58	3	9

While a direct question about satisfaction with maintenance of coastal structures was not asked, this data indicates that a small majority of residents are happy with the state of coastal structures, but that very few would prefer less to be spend in this space.

The Council consults with the public to gain an understanding of customer expectations and preferences. This enables the 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.

The Council commissions residents' surveys on a regular basis. These surveys assess the levels of satisfaction with key services and the willingness across the community to pay to improve services. These surveys are self-selecting, and are not necessarily representative of the wider Tasman Bay population.

From time to time the Council undertakes focused surveys to gain information on specific subjects or projects. The residents' survey in May 2018 asked whether residents were satisfied with the management of Coastal Structures. The results from this survey are summarised in Figure 11.

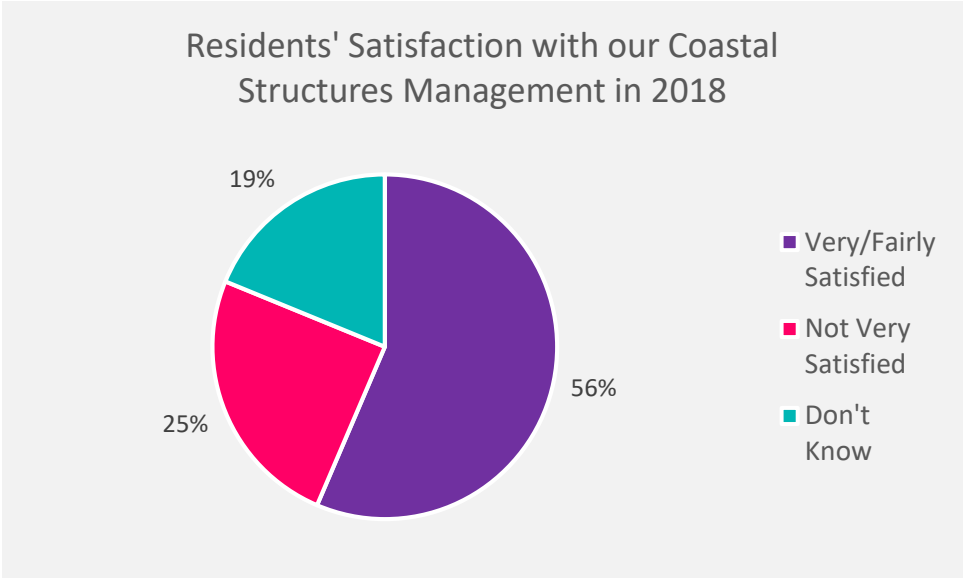


Figure 11: Satisfaction with Management of Coastal Structures

The survey showed that 56% of residents are satisfied with the Council's management of coastal structures. The main reasons residents are not very satisfied with the 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 the Council's coastal structures. This is probably owing to the distance these residents live from the coast, in areas such as, Lakes-Murchison, where 51% said that they did not know if they were satisfied.

7 Current and Future Demand

The ability to predict future demand for services enables the 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 the 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

The Council has not previously quantified actual usage of assets to determine actual changes in demand. The Council has established a process to assess boat ramp usage as an indicator for use of other coastal assets and establish trends. In 2020, the number of vehicles with a trailer accessing the boat ramps in five locations was measured. The Tahi Street Boat Ramp count is significantly lower than in the previous year (at 203). This location will be measured again in 2021, and if the data is similar to the 2019 recorded number of boats, the 2020 measure may be dismissed as an anomaly.

Table 14: Boats Launched in January 2020

Ramp Location	Number of Boats Launched in January 2020
Abel Tasman Boat Ramp Pōhara	871
Ward Street Boat Ramp Motueka	1076
Tahi Street Boat Ramp Grossi Point	60
Akersten Boat Ramp Nelson Marina	2094
Kaiteriteri Boat Ramp	2606

7.2 Assessing Demand

7.2.1 Population Growth

The link between population growth and the demand for coastal assets is not direct. However, 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. However, The Tasman Resource Management Plan seeks to avoid development in areas at risk from natural hazards, unless appropriate mitigation can be provided.

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, however the Tasman Resource Management Plans seeks to avoid new development in areas that are at risk from natural hazards
- The 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.

The 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 is not constant 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.

In 2017, all Nelson, Motueka and Tarakohe marina operators 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 five and six new enquiries for berths per week.

- Currently, the only new coastal protection programmed is a collective effort to plan for the long-term mitigation of coastal erosion in Mārahau between Tasman District Council and Wakatū Incorporation. . 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 interim Council policy on coastal protection is discussed in more detail in section 3.7 of this Activity Management Plan.

According to the medium growth model, Tasman's population is projected to increase by 7,300 between 2021 and 2031, to reach almost 64,000. 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, the Council has used Statistics New Zealand's high growth projections for Richmond, Brightwater, Wakefield, Motueka, and Māpua/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 by the number of new dwellings. The 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 allows 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. The 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. This growth has been predominately in domestic tourism with a share of international tourism of 62.4% compared to the national average of 57.9%. 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.

The 2020 Covid-19 pandemic has brought a high degree of uncertainty to the sector and has changed the face of tourism in the region. The pandemic and on-going international travel restrictions are expected to continue to impact tourism numbers into 2021. To date, the impact has manifested as a complete stop to international tourism into Tasman, and an increase of domestic tourists visiting the region. Prior to the Covid-19 pandemic, the 2019 Tourism GDP was \$377 million, up 4.3% from 2018.

7.2.3 Community Expectations

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

- Environmental awareness is leading to demand for more sustainable development and use of the district coastlines and environs.
- The effects of climate change could be very significant.

- Increasing demand for higher levels of coastal protection as property values increase, concurrently with the increase in the frequency and severity of coastal hazards, sea level rise and other climate change effects.
- Increasing expectation that the 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 seven 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.

7.3 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 The Council's Approach to Demand Management

As a Harbour Authority, the Council has a statutory obligation to manage the activities within the ports. As a regional Council, they 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 Tasman Resource Management Plan.
- 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 the Council of an asset throughout its life, including creation, operations and maintenance, renewal, and disposal. The Council aims to manage its assets in a way that optimises the balance of these costs. This section summarises how the Council plans to manage each part of the lifecycle for this activity.

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

- Engineering Services
- Management of coastal structures owned by the Council
- Community Services
- Management of physical structures on coastal reserves (for example boat ramps at Rabbit Island/Moturoa and Rough Island 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 (Tasman Resource Management Plan and Tasman Regional Policy Statement) 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 the Council-owned property on wharves
- Port Tarohe.

8.1 Asset Condition and Performance

The 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 the 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 15 below.

Table 15: Condition Rating Scale

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

8.1.1 Port Motueka

The 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. In 2018 an inspection of the public fishing platform was undertaken, and remedial changes have been made.

8.1.2 Māpua 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, the Council released the Māpua 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 Riuwaka 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 underwent a condition inspection in 2018, and remedial work was completed.
- Jetties were last inspected in 2015. The Mārahau 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 Māpua pontoon was installed in 2012, and in 2017 an aluminium prow was added to the end of the pontoon to divert swimmers and kayaks around the pontoon instead of under it 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 the 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 which indicates the maximum allowable load.
- The Motueka fishing platform was inspected in 2018 along with all other jetties.
- There are a number of jetties that ownership that have had undetermined ownership. As this information is gathered, any jetties that are found to be the Council’s responsibility 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 Mārahau that are in good or very good condition. These are the assets that the 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 2 in Section 2.6.

All coastal assets will be inspected three-yearly, however assets that carry public safety risk are inspected annually, and after major storm events. The next three yearly assessment will be done in 2023.

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 that have not had their condition assessed and recorded. Most of the ramps are in moderate condition, or better. The ramps with a poor condition rating are either unformed, or the concrete has severe cracking, but all are able to be used. For a complete list of the ramps, including condition rating see Table 2 in Section 2.7.



Figure 12: 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 normally 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 3 in Section 2.8.

8.2 Operations and Maintenance

8.2.1 Key Maintenance and Operational Themes

Routine maintenance of structures (e.g. 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 the Council’s existing contractors (e.g. transportation and/or bridging maintenance contractors). Significant works will be tendered as individual contracts in accordance with the Council’s procurement strategy.

The Council has allocated funds to allow for heavy maintenance of formed boat ramps. This work is yet to be procured. The 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. The finding is that coastal assets are generally in good condition, and there are minimal repairs that need to be completed. Remedial improvements tend to be required after major storm events, particularly timber access stairs across rock revetments. The Council staff are considering ways to make these structures more resilient.

Maintenance of coastal rock protection is undertaken in a reactive manner, particularly after severe storm events. The 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 the 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', or cosmetic, maintenance may be deferred to ensure that safety is maintained.

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

8.2.3 Forecast Operations and Maintenance Expenditure

Figure 13 details the project operations and maintenance expenditure for the next 10 years.

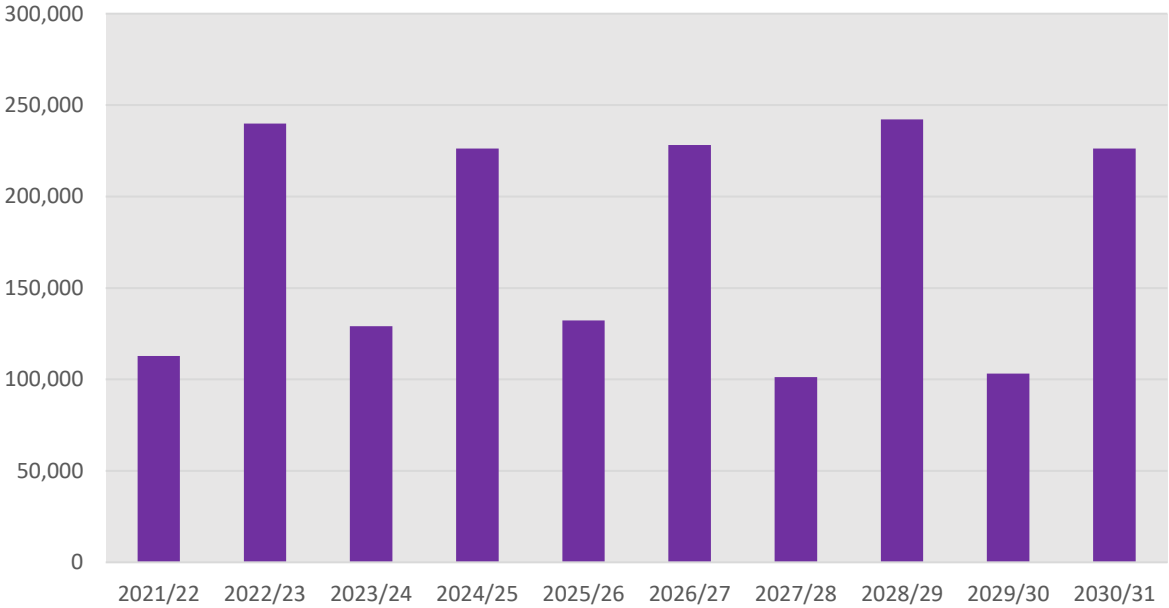


Figure 13: Direct Operating and Maintenance Expenditure Excluding Inflation

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. It is also cross referenced with other activities to determine if other projects are occurring in the same location. Timings may be tweaked to optimise the overall programme to minimise disruptions to the public and realise potential cost savings in the reinstatement and in preliminary and general works where possible.
- Every year the annual renewal programme is reviewed and planned with the input of the maintenance contractor.

Our renewal process is based on condition. However, our condition data has improved over the last three years, giving us a higher degree of confidence in our 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. Mārahau jetty has provision for renewal because of the reliability of information of the asset. Almost all other assets have significant data gaps. Over the last three years, much of the data quality issues on the wharves, jetties and boat ramps has been resolved, allowing for a robust renewal programme to be created.

The renewal programme is reviewed in detail during each Activity Management Plan update (i.e. 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 14 below 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 less than recorded in previous Activity Management Plans. The data gathered indicates that coastal assets are generally in good condition, and renewal is primarily required after significant natural events.

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

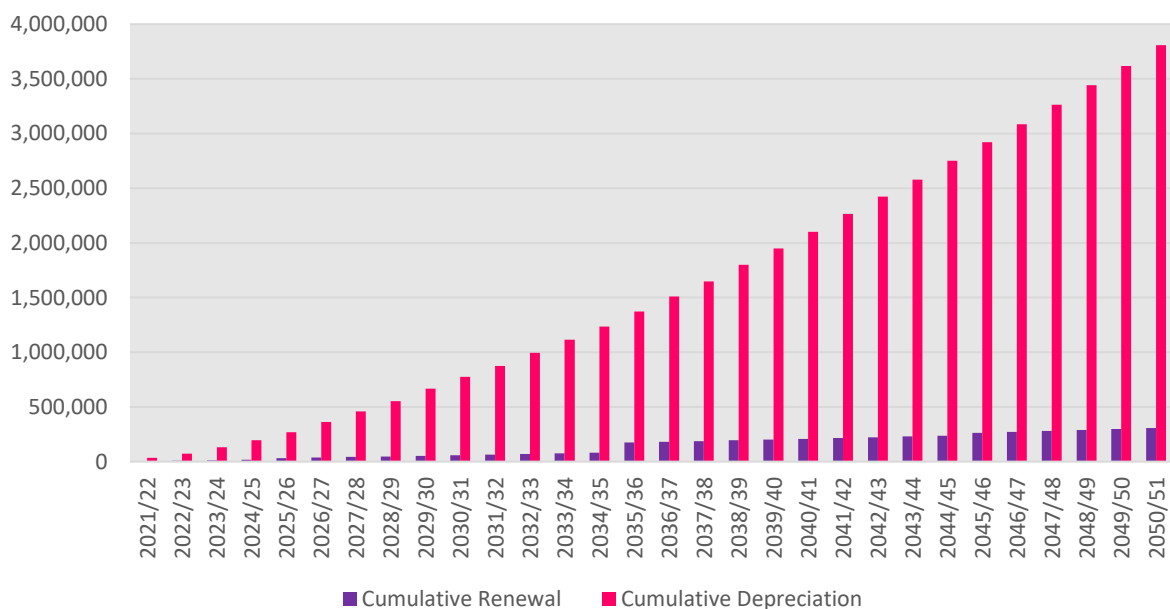


Figure 14: Comparison of Accumulative Renewal Expenditure versus Annual Depreciation Including Inflation

8.3.5 Forecast of Renewals Expenditure

Figure 15 show the projected renewal costs for the next 30 years. The increase shown in 2035/36 is due to the Mārahau jetty renewal.

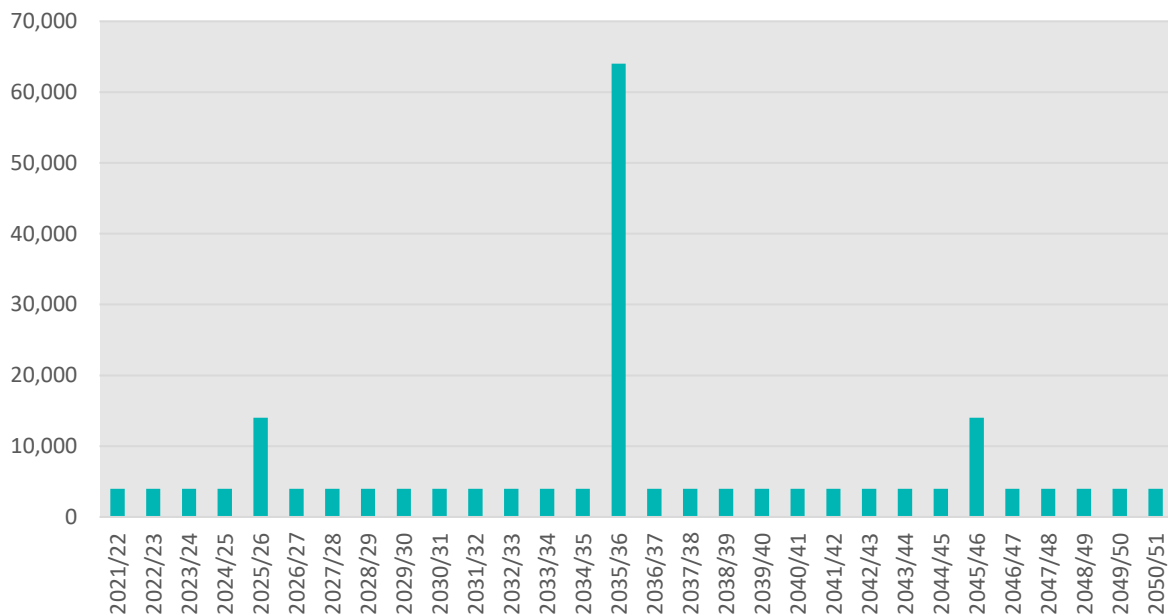


Figure 15: Coastal Assets 30 Year Renewal Expenditure Excluding Inflation

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, the Council undertook a study into the Māpua 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 Māpua 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 Activity Management Plans, but was not favored by the Māpua community, iwi or the Council. The Council decided that the option of a regional facility be adopted to address boat access, not only in Māpua but the entire Tasman Bay area.

The facility will be investigated as part of the Tasman Bay Boat Access Study, and will ensure that public demand for high quality facilities is met.

The Tasman Bay Boat Access Study has been progressed during 2020, and a range of key stakeholders have been engaged. Consultation with iwi is ongoing and is expected to provide important information regarding coastal sites of cultural significance, tapu sites, and the importance of access to water and the location of kai moana sites. With the completion of the study analysis in 2021, a recommendation will be presented to the Council for approval after engagement has been brought to a close, multi-criteria analysis finalized and sensitivity testing has been done.

During deliberations following public consultation, Council resolved to bring the funding to implement the outcome of the study forward and construct a boat ramp in Māpua at the Waterfront Park. Council will complete the Tasman Bay Boat Access study to investigate whether additional facilities are required elsewhere.

8.4.1.2 Mārahau Coastal Erosion

The beach at the northern end of Mārahau 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 the Council which is part of the road reserve and a larger proportion owned by Wakatu Incorporation. It is intended that the sand will continue to be replenished for the next four years to allow an agreement between the Council and Wakatū Incorporation to provide permanent protection in 2025/2026. Wakatū Incorporation are concerned about the level of coastal erosion at this location and would like to find a permanent solution. The Council will look to work collaboratively with Wakatū Incorporation over the coming years.

8.4.2 Projects to Support Increasing Levels of Service

The Council is planning on following key projects to increase the level of service to these assets:

- Tasman Bay – Boat Access Facility
- Mārahau – Extension to Mārahau 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 16.

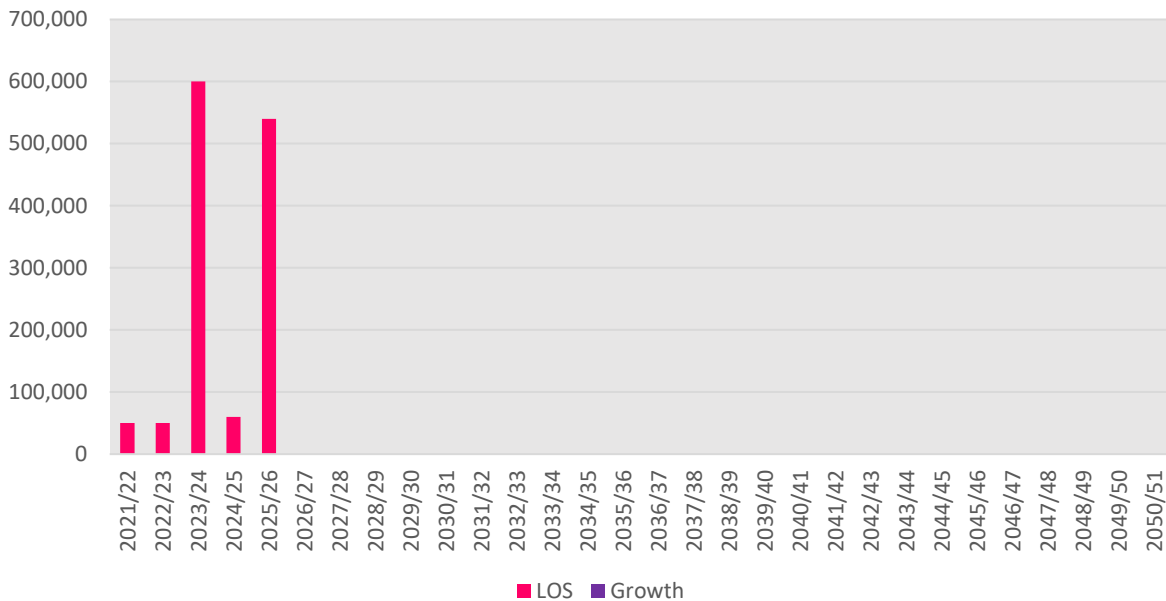


Figure 16: Coastal Assets 30 year Capital Expenditure Excluding Inflation

8.5 Asset Disposal

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

9 Financials

The 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 the 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 17 below.

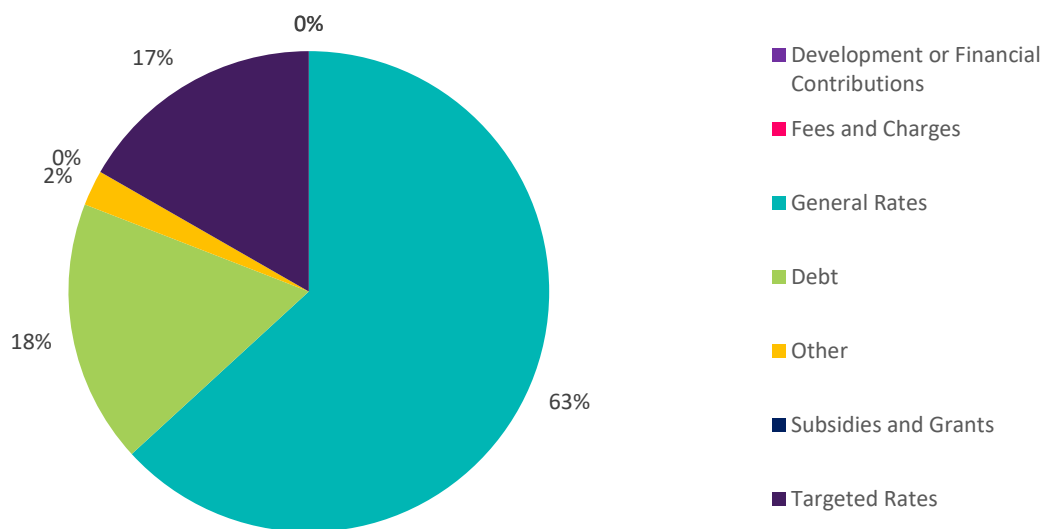


Figure 17: Sources of Coastal Asset Funding

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.

The Council requires its infrastructure asset register and valuation to be updated in accordance with Financial Reporting Standards and the Activity Management Plan 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. Coastal assets were not revalued in 2020.

- 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 the 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 the Council’s Confirm database. This is the first time the database has been used to revalue the Council’s assets. In the past, asset registers based on Excel spreadsheets have been used.

The data confidence is detailed in Table 16 below. For the 2017 valuation, the confidence in coastal asset data is B – Good. In preparing the 2017 Activity Management Plan, staff identified that the coastal asset data was incomplete or unsupported in some instances meaning it should have been ranked as C – Poor. Due to on-going asset data collection which has been undertaken on an annual basis since this time, our condition assessments are significantly more robust in 2020.

Table 16: Data Confidence

Asset Description	Confidence	Comments
Coastal Assets	B - Good	All assets are listed with condition assessments which were last assessed between 2017 and 2020. Coastal assets, including boat ramps, wharves, jetties, coastal protection structures and navigation aids have been assessed for condition and ownership status in the last three years.

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 17 below.

Table 17: 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

Attribute	Useful Life (Years)	Minimum Remaining Useful Life (Years)
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
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 18.

Table 18: 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 and 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 and this has been changed, in line with other activities e.g. Rivers, as rock work is maintained indefinitely rather than replaced.

*Coastal assets were not revalued in 2020, and the 2017 valuations and depreciation are still the most updated numbers available.

9.3 Financial Summary

9.3.1 Funding Impact Statement

The Council's Funding Impact Statement for this activity is included in Table 19 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 19: Funding Impact Statement

	2020/21 AP \$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	2028/29 BUDGET \$000	2029/30 BUDGET \$000	2030/31 BUDGET \$000
SOURCES OF OPERATING FUNDING											
General rates, uniform annual general charges, rates penalties	339	99	40	32	270	342	354	356	386	392	366
Targeted rates	82	81	70	68	70	73	75	77	79	70	36
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	15	8	9	10	10	10	10	10	10	10	10
Total operating funding	436	188	119	110	350	425	439	443	475	472	412
APPLICATIONS OF OPERATING FUNDING											
Payments to staff and suppliers	314	128	267	154	265	164	281	137	313	148	310
Finance costs	19	17	13	10	7	9	19	14	9	5	2
Internal charges and overheads applied	83	53	55	59	60	68	70	73	78	86	80
Other operating funding applications	0	0	0	0	0	0	0	0	0	0	0
Total applications of operating funding	416	198	335	223	332	241	370	224	400	239	392
Surplus/(deficit) of operating funding	20	(10)	(216)	(113)	18	184	69	219	75	233	20
SOURCES OF CAPITAL FUNDING											

	2020/21 AP \$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	2028/29 BUDGET \$000	2029/30 BUDGET \$000	2030/31 BUDGET \$000
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	(85)	(76)	(80)	(97)	(41)	498	(151)	(150)	(150)	(157)	(102)
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
Total sources of capital funding	(85)	(76)	(80)	(97)	(41)	498	(151)	(150)	(150)	(157)	(102)
APPLICATIONS OF CAPITAL FUNDING											
Capital expenditure											
- to meet additional demand	0	0	0	0	0	0	0	0	0	0	0
- to improve the level of service	0	0	0	0	0	0	0	0	0	0	0
- to replace existing assets	0	55	57	653	71	631	5	5	5	5	5
Increase (decrease) in reserves	(65)	(141)	(353)	(863)	(94)	51	(87)	64	(80)	71	(87)
Increase (decrease) in investments	0	0	0	0	0	0	0	0	0	0	0
Total applications of capital funding	(65)	(86)	(296)	(210)	(23)	682	(82)	69	(75)	76	(82)
Surplus/(deficit) of capital funding	(20)	10	216	113	(18)	(184)	(69)	(219)	(75)	(233)	(20)
Funding balance	0	0	0	0	0	0	0	0	0	0	0

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 the 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 the 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 18 and Figure 19 show the total expenditure for the coastal structures activity for the first 10 and 30 years respectively.

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

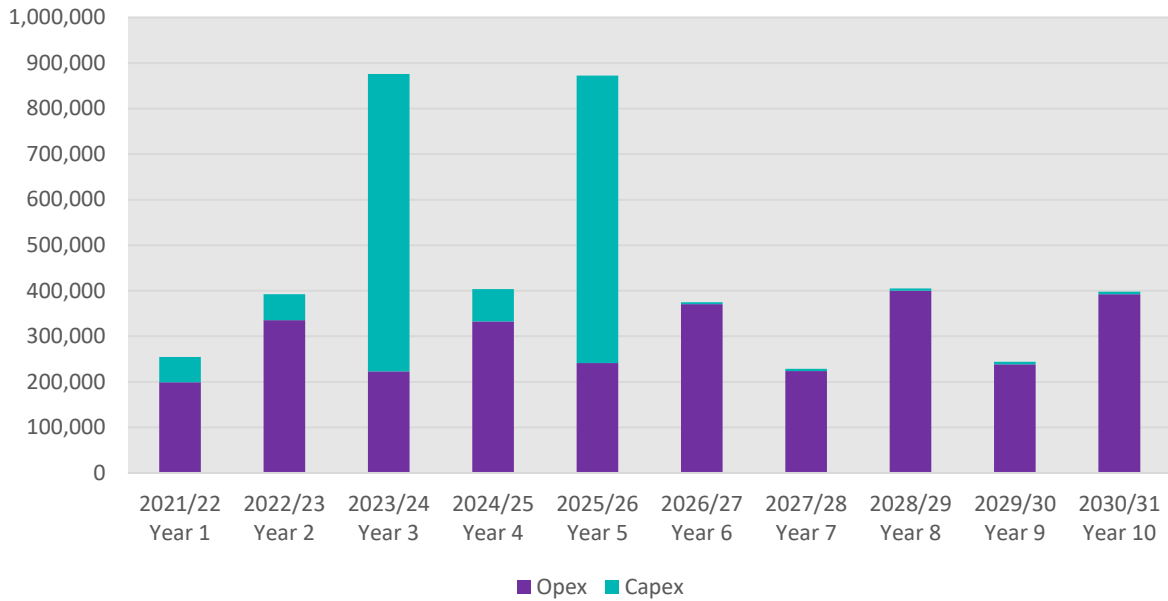


Figure 18: Total Annual Expenditure Years 1 to 10 Includes Inflation

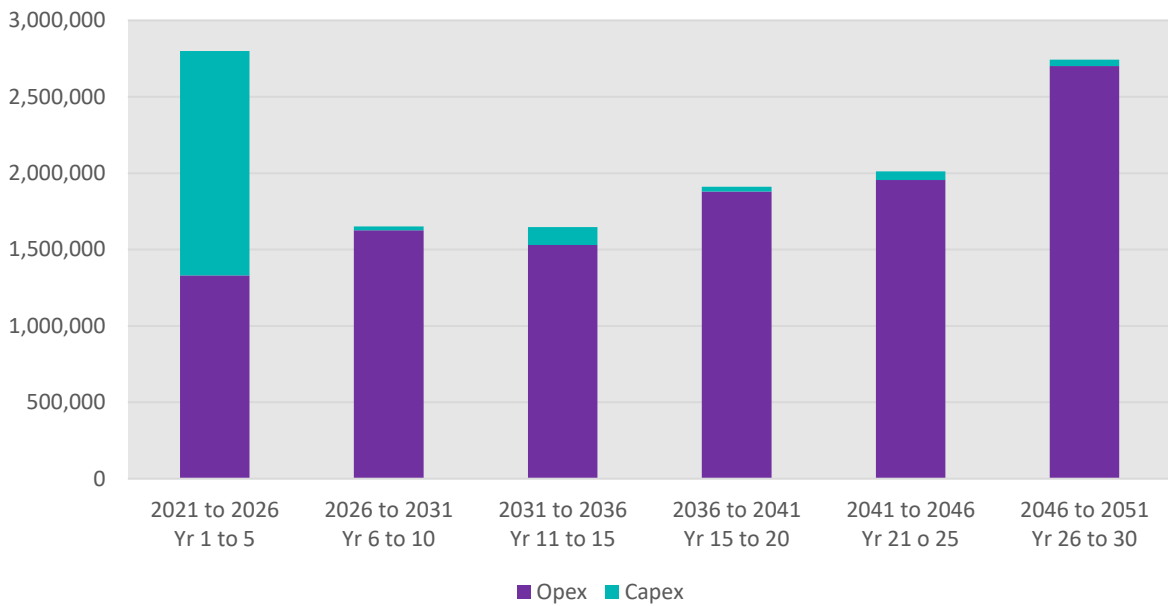


Figure 19: Five Yearly Total Expenditure Years 1 to 30 Includes Inflation

9.3.4 Total Income

Figure 20 and Figure 21 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

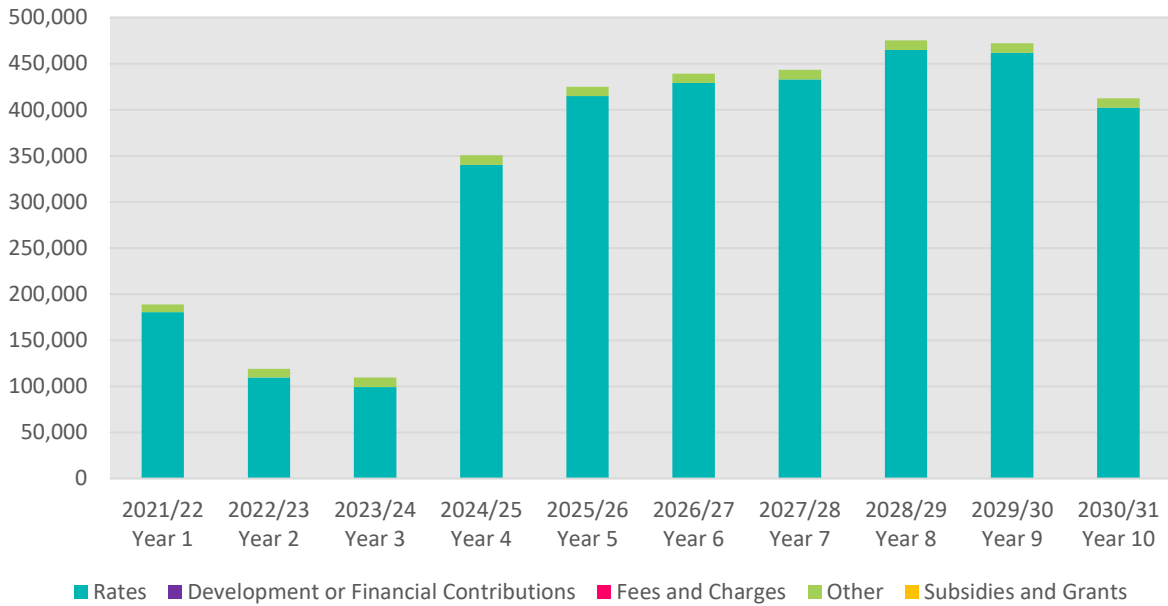


Figure 20: Total Annual Income Years 1 to 10 Includes Inflation

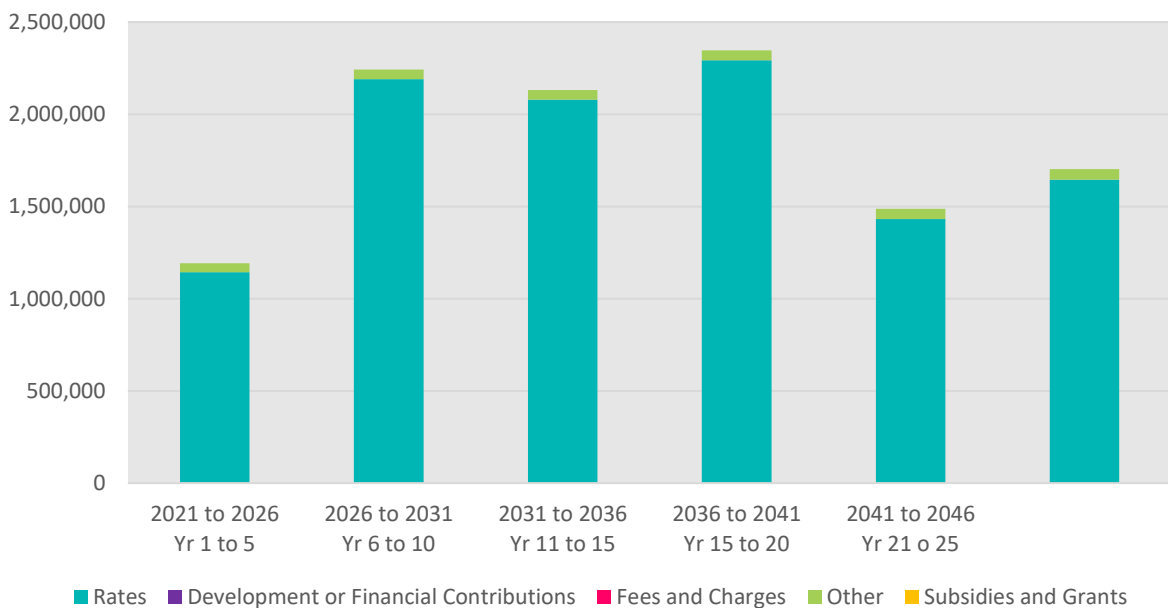


Figure 21: Five Yearly Total Income Years 1 to 30 Includes Inflation

9.3.5 Operating Expenditure

Figure 22 and Figure 23 show the total operating expenditure for the coastal structures activity for the first 10 and 30 years respectively.

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

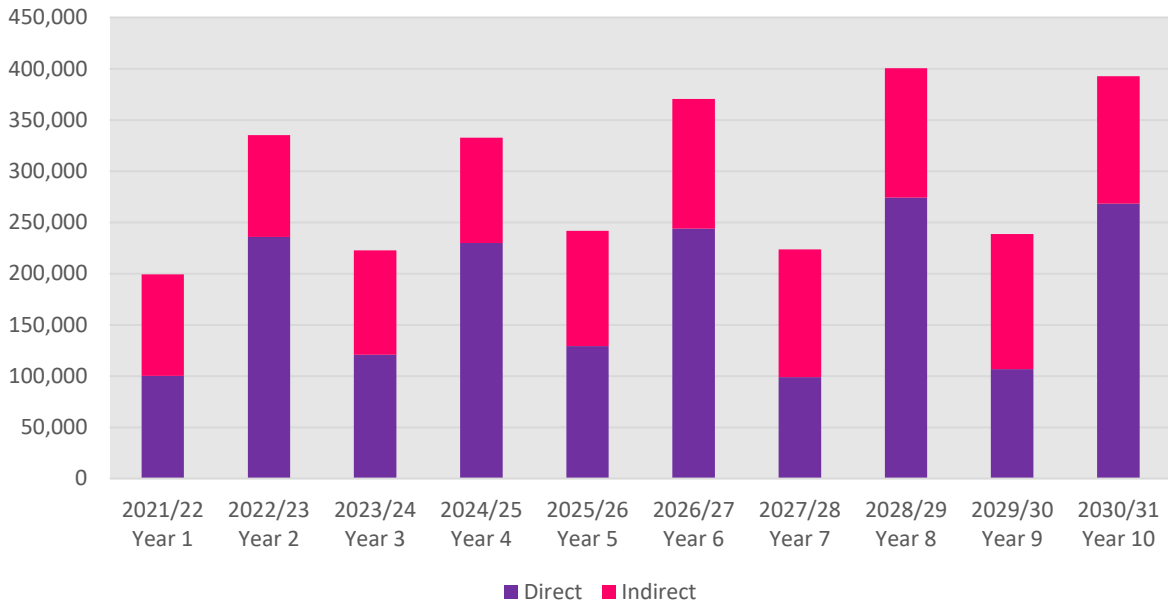


Figure 22: Annual Operating Costs Years 1 to 10 Includes Inflation

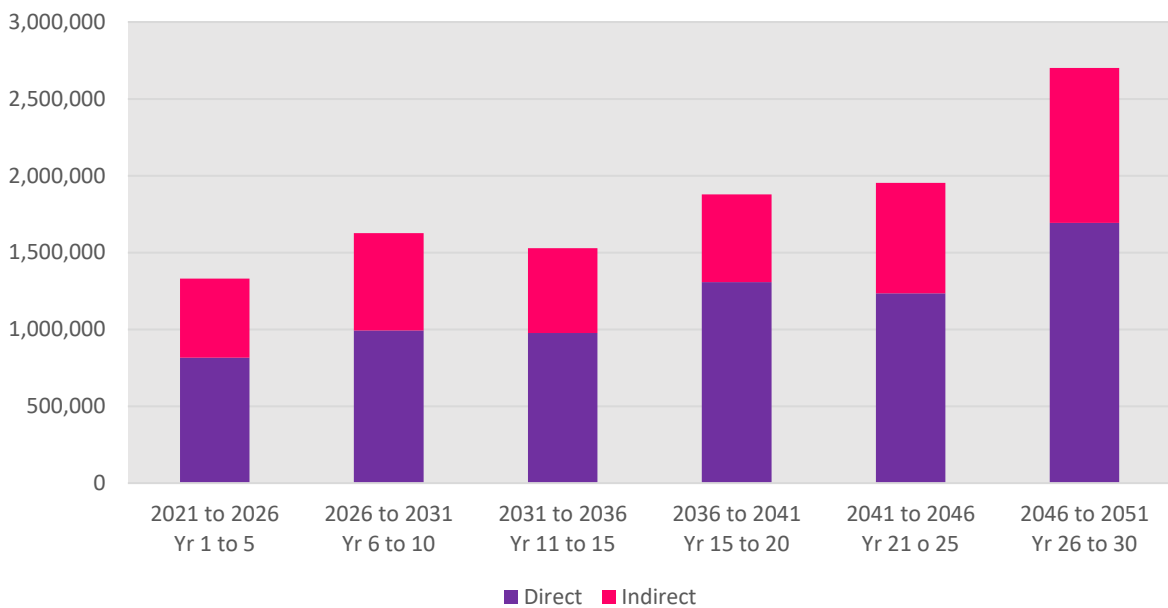


Figure 23: Five Yearly Operating Costs Years 1 to 30 Includes Inflation

9.3.6 Capital Expenditure

Figure 24 and Figure 25 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 Mārahau seawall in Year 5. Other capital expenditure is related minor renewal works.

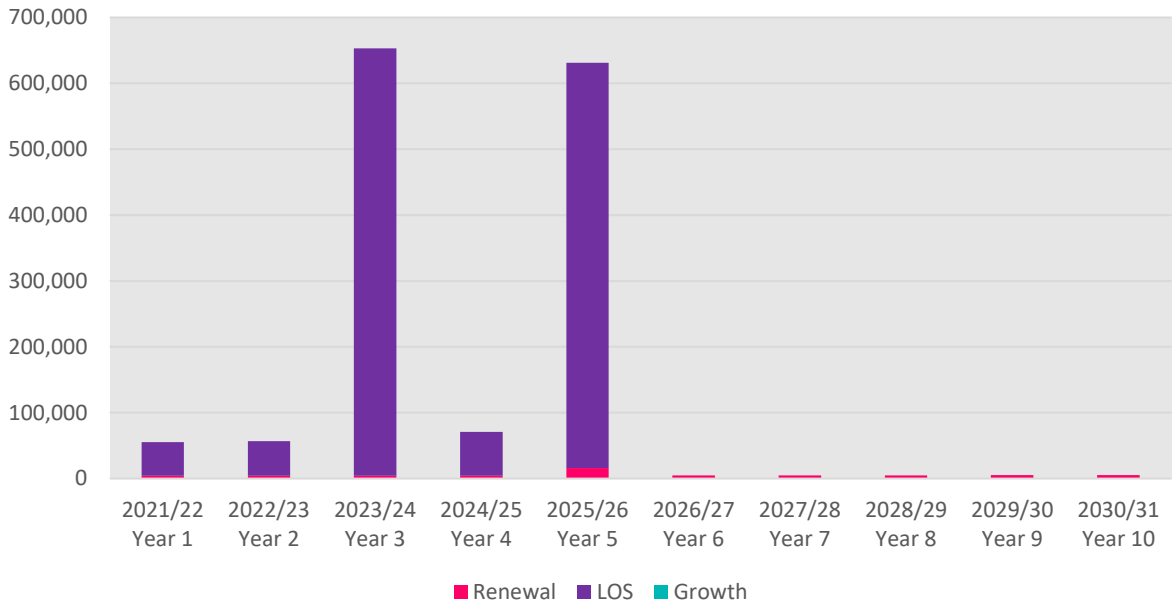


Figure 24: Annual Capital Expenditure Years 1 to 10 Includes Inflation

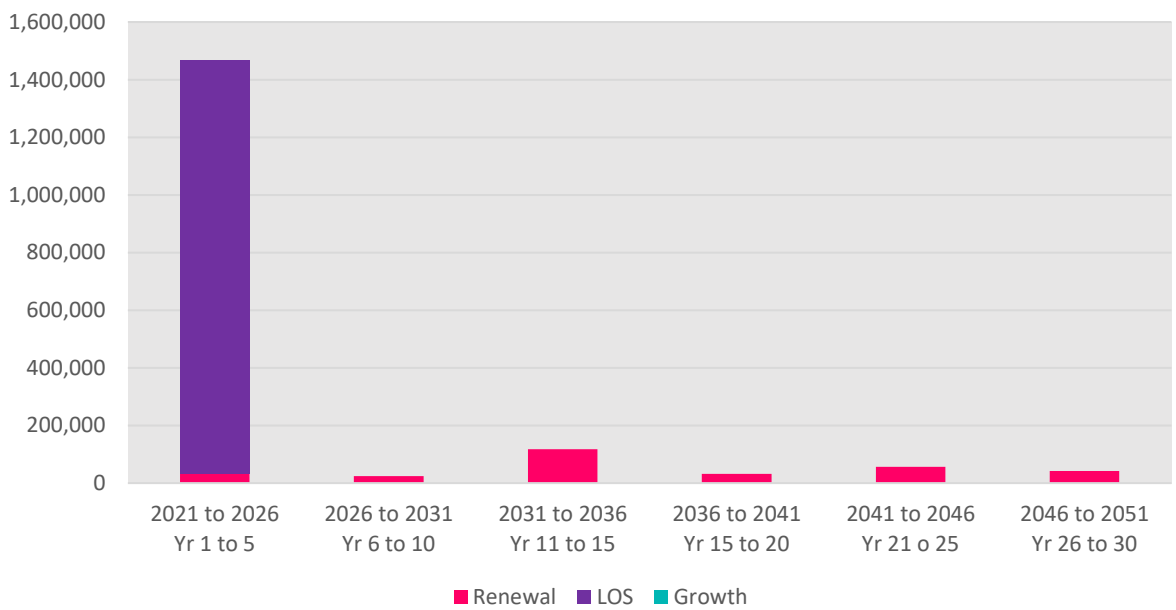


Figure 25: Five Yearly Capital Expenditure Years 1 to 30 Includes Inflation

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'. The 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 the Council's Vision, Mission and Objectives, and is reflected in the 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
The 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 integrating community values such as accessibility, amenity and biodiversity. The 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. The Council minimises public effect on the environment through good design and public education.

Profit – The financial and overall long-term economic viability of the activity
The Council operates, maintains and improves the coastal assets on behalf of its ratepayers. The Council uses its Financial Strategy to guide the development of an affordable work programme. The 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 20.

Table 20: Negative Effects

Effect	Description	Mitigation Measures
Visual pollution of coastal structures	The construction of structures that appear out of character with the coastal environment.	The Council controls this through bylaws and the Tasman Resource Management Plan (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.	The 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.	The Council uses competitive tendering processes to achieve best value for money for works it undertakes. It also uses priority matrices to prioritise funding allocations.
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.	The 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.	The Council undertakes consultation with affected parties prior to undertaking works. The Council also maintains a record of known cultural heritage sites.

10.2 Potential Positive Effects

Potential positive effects are listed below in Table 21.

Table 21: 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 the 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 22 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 22.

Table 22: 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, Mārahau	8/02/2037
NN010295	Coastal Occupation	CST 1071 & 1193 - boat ramp/jetty, Mārahau	8/02/2037
030917	Coastal Disturbance	CST 1272 & 1273 - seawall, Able Tasman Drive, Pōhara	10/05/2039
030973	Coastal Occupation	CST 1272 & 1273 - seawall, Able Tasman Drive, Pōhara	10/05/2039
030974	Coastal Discharge	CST 1272 & 1273 - seawall, Able Tasman Drive, Pōhara	10/05/2039
031345	Coastal Discharge	CST 1272 & 1273 - seawall, Able Tasman Drive, Pōhara	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

Consent No	Consent Type	Description	Expiry Date
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, Māpua 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.

The 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 the 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 the Council's consents database BraveGen. Where permits for coastal discharge, occupation or disturbance, the Resource Management Act 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 the 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 Activity Management Plan 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 The 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 the Council’s objectives. The potential impact of a risk is measured by a combination of the likelihood of the risk occurring, and the magnitude of its consequences on objectives if it does. The Council has adopted both a Risk Management Policy that aligns with the Australian/New Zealand Standard AS/NZ ISO 31000:2009, and a Risk Management Framework which provides guidance and tools to apply to ensure a consistent approach to analysing and managing risks across the organisation. All risks described and managed in this Activity Management Plan comply with the principles and requirements of the policy and framework.

11.2 Activity Risks and Mitigation Measures

11.2.1 Coastal Structures Risks

The key risks relevant to the coastal structures activity are summarised in Table 23 below.

Table 23: Key Risks

Risk Event	Mitigation Measures
Catastrophic failure of a coastal structure.	<p>Current:</p> <ul style="list-style-type: none"> • routine maintenance is included in the coastal structures budgets; • reactive inspection following extreme weather events. <p>Proposed:</p> <ul style="list-style-type: none"> • maintain a complete inventory of the Council owned coastal structures and their current condition.
Premature deterioration or obsolescence of an asset.	<p>Current:</p> <ul style="list-style-type: none"> • routine inspections. <p>Proposed:</p> <ul style="list-style-type: none"> • continue to undertake increase number of routine inspections and scheduling of maintenance programme.

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

11.3 Assumptions and Uncertainties

This Activity Management Plan 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 24 documents the uncertainties and assumptions that the Council consider could have a significant effect on the financial forecasts, and discusses the potential risks that this creates.

Table 24: 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 2020 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. The Council is using the best information practically available from Business and Economic Research Limited (BERL) to reduce this risk.
Asset Data Knowledge	The Council has inspection and data collection regimes in place for assets. These regimes do not allow for entire network coverage at all times. The Council's aim is to strike the right balance between adequate knowledge and what is practical.	That the Council has adequate knowledge of the assets and their condition so that planned renewal works will allow the Council to meet the levels of service.	There are several areas where the Council needs to improve its knowledge and assessments, but there is a low risk that the improved knowledge will cause a significant change to the level of expenditure required.
Growth Forecasts	Growth forecasts are inherently uncertain and involve many assumptions. The Council commissioned population projections for the LTP 2021-2031 as the basis for its growth planning. However, growth will vary depending on actual birth and death rates, as well as net migration.	<p>That the district will grow or decline as forecast in the Council's Growth Model.</p> <p>The overall population of Tasman is expected to increase by 7,700 residents between 2021 and 2031, to reach 64,300. The District will experience ongoing population growth over the next 30 years but the rate of growth will slow over time.</p> <p>Based on these assumptions, the Council is planning a further 4,300 dwellings and 160 new commercial or industrial buildings will be required by 2031.</p>	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 the Council's plans. If growth is higher than forecast, additional infrastructure may be required quicker than anticipated. If growth is lower, the Council may be able to defer the delivery of new or additional infrastructure.

Type	Uncertainties	Assumption	Discussion
Project Timing	<p>Multiple factors affect the actual timing of projects e.g.:</p> <ul style="list-style-type: none"> • Consents • Access to and acquisition of land • Population growth • Timing of private developments • Funding and partnership opportunities 	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. The 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 the Council's financing arrangements.
Project Funding	The 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.
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 the Council may not be able to afford the true cost of the project. The 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.

Type	Uncertainties	Assumption	Discussion
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 the 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, the Council undertakes land negotiations well in advance of construction to minimize delays and scope change. If delays do occur, they may affect the level of service that the Council provides.
Legislation Changes	Often Central Government changes legislation to respond to emerging national issues and opportunities. It is difficult to predict what changes there will be to legislation and their implications for the Council.	The Council assumes that it will be affected by changes to Government legislation. However, as the nature of these changes is not known no financial provision has been made for them except where noted elsewhere in the LTP 2021-2031 forecasting assumptions.	The risk of major changes that impact the Council is moderate. If major changes occur, it is likely to have an impact on the required expenditure. The Council has not planned expenditure to specifically mitigate this risk. It may be necessary for the Council to reprioritize planned work to respond to future legislation.
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. The effects of climate change are likely to include more frequent emergency events.	That the level of funding reserves combined with insurance cover and access to borrowing capacity 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

Type	Uncertainties	Assumption	Discussion
Network Capacity	The Council uses a combination of as built data, network modelling and performance information to assess network capacity. The accuracy of the capacity assessment is based on the accuracy of asset and performance data.	That the Council's knowledge of network capacity is sufficient enough to accurately programme works.	If the network capacity is higher than assumed, the Council may be able to defer works. The risk of this occurring is low, however it should have a positive impact on the community because the level of service can be provided for longer before requiring additional capital expenditure. If the network capacity is lower than assumed, the Council may be required to advance capital works projects to provide the additional capacity sooner than anticipated. The risk of this occurring is low, however it could have a significant impact on expenditure.

Type	Uncertainties	Assumption	Discussion
Climate change	Continued greenhouse gas emissions will cause further warming and changes in all parts of the climate system. The level of continued emissions of greenhouse gases and the effectiveness of worldwide efforts to reduce them are not known. The full extent of the impacts of climate change and the timing of these impacts are uncertain.	<p>The Council uses the latest climate predictions that have been prepared by NIWA for the Tasman District.</p> <p>The Council assumes that it is not possible to reduce the mid-century warming, due to the amount of carbon dioxide already accumulated in the atmosphere–i.e. that the projections for mid-century are already ‘locked in’.</p> <p>As a consequence of climate change, natural disasters will occur with increasing frequency and intensity. The weather-related and wildfire events the District has experienced in recent years are consistent with predictions of climate change impacts. For low lying coastal land there will be increasing inundation and erosion from sea level rise and storm surge. Adaptation can help reduce our vulnerability and increase our resilience to natural hazards.</p> <p>It is assumed that sea levels will continue to rise and are likely to rise at an accelerated rate over time. Our plans assume a sea level rise (SLR) of up to 0.3m by 2045, 0.9m by 2090 and 1.9m to 2150 (metres above 1986-2005 baseline), in line with the Ministry for the Environment’s Coastal Hazards and Climate Change Guidance (2017). For coastal subdivisions, greenfield developments and major new infrastructure, we are planning for 1.9m SLR by 2150. All sea-level rise assumptions are based on the RCP8.5H+ scenario set out in the Ministry for the Environment guidance (2017).</p>	<p>It is likely that risk of low lying land being inundated from the sea, and damage to the Council property and infrastructure from severe weather events, will increase.</p> <p>The Council will need to monitor the level of sea level rise and other impacts of climate change over time and review its budgets, programme of work and levels of service accordingly.</p> <p>The Council will continue to take actions to mitigate its own greenhouse gas emissions, to work with the community on responses to climate change and show leadership on climate change issues.</p>

Table 25: Coastal Asset Specific Assumptions and Uncertainties

Type	Uncertainties	Assumption	Discussion
Financial impacts due to natural hazards	Extreme weather events and associated flood and erosion impacts can happen at any time and their occurrence may differ from what is expected. The Council cannot predict when and where extreme weather events will occur, or the damage that may be done. During large events, there is a risk that coastal structures could be damaged.	The Council has assumed that if damaging events occur, there will be enough funds available to undertake repairs, whether it is through accessing budgeted funds, reprioritisation of other maintenance activities, or increasing borrowing.	When large events happen more frequently, this may trigger higher expectations from our community to provide a higher level of service. This requires more funding than has been budgeted for. The annual budgets allow for clean-up and repair which should be sufficient for most events. The Council also has an emergency fund to cover the costs associated with more significant damage

12 Asset Management Processes and Practices

Good quality data and asset management processes are at 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 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, the Council reviewed its Activity Management Policy and adopted an updated version. The Policy sets out the Council's activity management objectives and appropriate levels of practice. For this activity, the 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

The Council has an organisational structure and capability that supports effective asset management planning. Multiple teams across the 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.

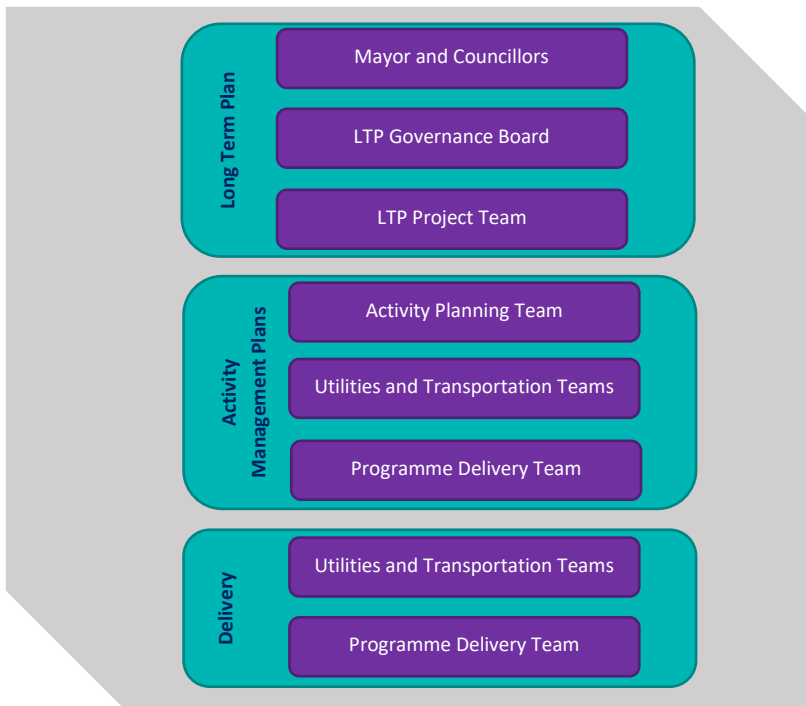


Figure 26: Teams Involved in Activity and Asset Management

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

The 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 the 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 the Council's networks, operations and maintenance.

To achieve this, the 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 the 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 the Council's sole discretion. In 2017, the first of these discretionary three-year extensions was granted, with the proportion of the Council's professional services programmes reduced to 50%. In addition to this, a secondary professional service panel, comprised of Beca, Stantec and Tonkin and Taylor, 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 the contract awarded to Stantec. The second three-year extension was granted to Stantec in 2020 to continue these services.

12.2.4 Procurement Strategy

The 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 Waka Kotahi 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 structured in the Waka Kotahi NZ Transport Agency procurement plan format, which is consistent with whole-of-government procurement initiatives. A review of the strategy was commenced in 2017/2018, and the strategy was subsequently updated in 2019.

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 5.5 to 7 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

The 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 27. 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.

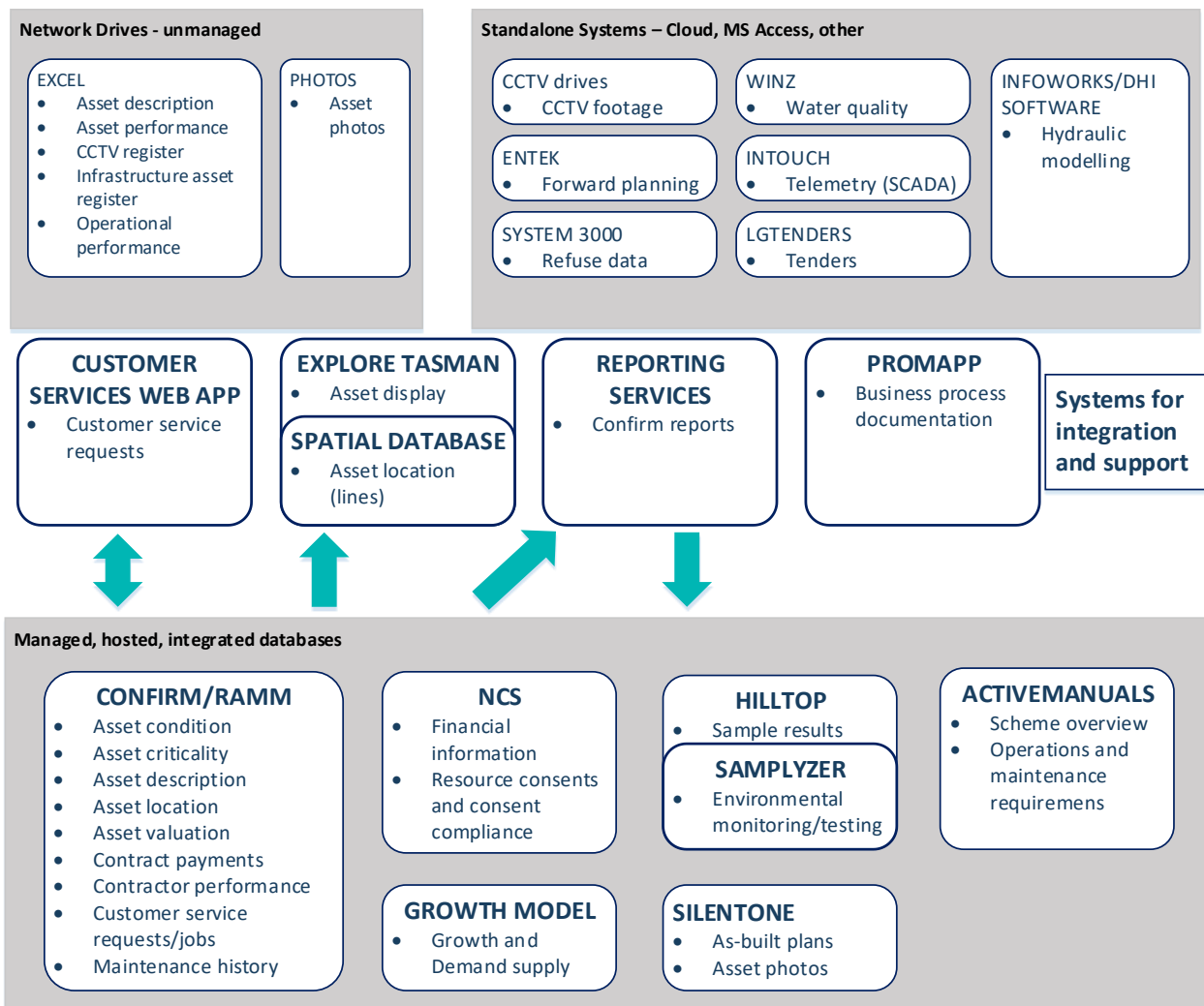


Figure 27: Systems Used for Asset Management

12.3.2 Asset Data

Table 26 summarises the various data types, data sources and how they are managed within the Council. It also provides a grading score on data accuracy and completeness where appropriate.

Table 26: Data Types and Information Systems

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
As-built plans	DORIS (Digital Office and Record Information System)	As-built plans are uploaded to DORIS 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 member 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

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Contractor performance	Confirm	Time to complete jobs is measured against contract KPIs through Confirms Maintenance Management module.	N/A	N/A
Corporate GIS browser	ArcGIS	Selected datasets are made available to all the 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
Financial information	NCS	The 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 the 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

Data Type	Information System	Management strategy	Data Accuracy	Data Completeness
Growth, Demand and Supply	Growth Model	A series of linked processes that underpin the 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/DORIS/Confirm	Electronic photos of assets are mainly stored on the Council's network drives and linked to the asset register. We take photos every year as part of our inspections, and these are loaded onto Confirm.	N/A	N/A
Processes and documentation	Promapp	Promapp is process management software that provides a central online repository where the 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/BraveGen	Detail on Resource Consents and their compliance of conditions (e.g. sample testing) are recorded in the NCS Resource Consents module and BraveGen.	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 DORIS and NCS).	N/A	N/A
Tenders	GETS (NZ Government Electronic Tenders Service)	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 27: 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, the 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, the 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.

For each asset, the criticality has been assessed against the following five criteria:

1. Number of people that would be effected if the asset failed.
2. Asset failure would prevent/impair use of a critical facility.
3. Ease of access/complexity of repair.
4. Asset failure has potential for environmental/health/cultural impacts.
5. Asset failure has potential to initiate cascading failures and/or asset has interdependencies with other assets.

Based on the above, asset criticality has been assessed for all assets across the district and mapped spatially in a GIS viewer. The vulnerability of critical assets to natural hazards has been identified through the overlay of natural hazards information such as coastal inundation and sea level rise, stormwater and river flooding, fault lines, tsunami risk and liquefiable soils.

The asset criticality framework 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 the Council has adequate asset data to enable robust decisions to be made regarding the management of those assets.

12.5 Quality Management

The 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 28 outlines the quality management approaches that support the Council’s asset management processes and systems.

Table 28: Quality Management Approaches

Activity	Description
Process documentation	The 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.
Planning	The Long-Term Plan and associated planning process are formalised across the Council. There is a LTP project team, LTP governance team, and Activity Management Plan (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 the Council. If defects are found, the 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 assets, waste management and minimization, 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.

Activity	Description
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 the Council's Annual Report. This is audited by the Office of the Auditor General.
Reports to the Council	All reports that are presented to the 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 the 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 the 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 2018 the Council undertook an asset management maturity for the coastal assets activity. Targets were developed in consultation with Waugh Infrastructure Management Ltd. Council has repeated this maturity assessment in 2021 in order to measure progress.

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

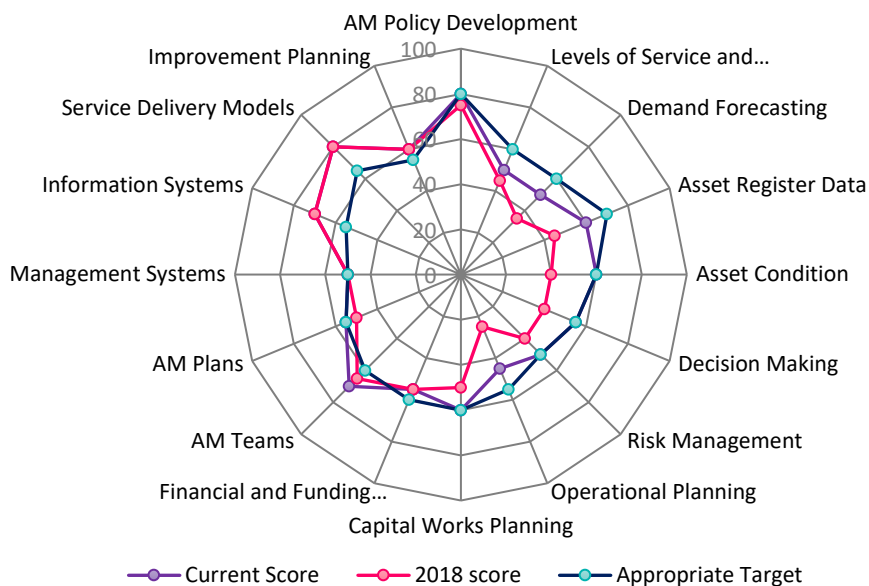


Figure 28: Coastal Assets Maturity Levels

Figure 28 shows that improvements have been made in some areas, but some gaps remain between where the Council’s current practice and where it is desired to be. Focus areas for improvements are Levels of Service, Demand Forecasting, Asset Register Data, and Operational Planning.

13.2 Peer Reviews

13.2.1 Waugh Infrastructure Management 2018 Review

In early 2018, the Council engaged Waugh Infrastructure Management Ltd to undertake a peer review on the consultation version of the 2018 activity management plan. The overall findings of the Peer Review were that the Council's Activity Management Plans were well developed to support the Council's Long Term Plan. The Council staff reviewed and prioritised the feedback received in the peer review report and incorporated improvements in the activity management plan where possible. Other improvements have been ranked and included in the Improvement Plan.

1.1.1 Utility NZ 2021 review

Council engaged UtilityNZ to review the 2021 consultation versions of the Three Waters and Transportation Activity Management Plans (AMPs). Even though the Coastal AMP was not part of the review, most of the recommendations still apply because the review focussed on the strategic purpose of activity planning and its application within the AMPs. The following four recommendations were made:

1. Purpose and value: Clearly define the organisational benefits that an AMP creates and monitor the asset management improvement plan against these benefits.
2. AMP structure that enables good planning: Clearly define the AMPs purpose and audience, then structure it accordingly.
3. Prioritise the planning process towards risk mitigation: Focus asset management improvements on the areas of greatest risk to levels of service and costs. The AMPs are light on what the demand for services is and linkages to renewals and maintenance intervention strategies.
4. Activity risks and mitigation: Use risk management as a tool to reduce organisational impact.

For each recommendation examples and guidance are provided in the appendices of the review document. Council intends to implement the recommendations into its asset planning processes and its 2024 AMPs.

13.3 Improvement Plan

Establishment of a robust, continuous improvement process ensures that the 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
- Staff training.

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.

Based on the peer review by Waugh Infrastructure Management Ltd and internal evaluations and reviews, the Council has made improvements to its activity management plan and specific asset management processes.

13.3.1 Summary of Planned Improvements

A list of the planned improvement items for this activity is provided in Table 29 below.

Table 29: 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. All coastal asset status and condition has been confirmed.	High	ongoing	June 2024	Activity Planning and Coastal Assets team	Staff time and budget
Levels of Service: use improved asset data to develop appropriate levels of service and incorporate mandatory performance measures.	Refer to the Council-wide project on coastal hazard modelling, which is still ongoing. Develop a LOS Gap Analysis.	Medium	Not started	June 2024	Activity Planning	Staff time
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, have delayed this piece of work by three years.	2024	Activity Planning	Staff time

Appendix A: Detailed Operating Budgets

ID	Name	Description	Total Budget	Financial Year Budget (\$)											Total Budget	
			2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031-41	2041-51	
12002	Mārahau Protection	Address new erosion and erosion of existing wall	795,000	40,000	25,000	40,000	25,000	40,000	25,000	25,000	25,000	25,000	25,000	250,000	250,000	
12003	Seawall maintenance		300,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	100,000	100,000	
12004	Professional Services	Professional services	270,000	3,000	19,000	5,000	3,000	19,000	5,000	3,000	19,000	5,000	3,000	100,000	86,000	
12006	Coastal Asset Insurance		150,419	11,557	12,366	13,232	14,158	14,158	14,158	14,158	14,158	14,158	14,158	14,158	0	
12007	Routine Maintenance of Navigation Aids	Routine maintenance of navigation aids	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	
12009	Mārahau Seawall Maintenance	Routine maintenance and renewal of Mārahau rock wall	150,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	50,000	50,000	
12010	Operations and Maintenance of Existing Coastal Structures	Operation and maintenance of existing coastal structures	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	
12012	Torrent Bay Sand Replenishment and Planting	Sand replenishment and plantings at Torrent Bay	1,875,000	0	125,000	0	125,000	0	125,000	0	125,000	0	125,000	625,000	625,000	
12013	Ruby Bay / Māpua Seawall Insurance	Insurance	43,156	3,316	3,548	3,796	4,062	4,062	4,062	4,062	4,062	4,062	4,062	4,062	0	
	Feasibility Studies	Feasibility Studies	12,000	0	0	12,000	0	0	0	0	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		2021-51	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031-41	2041-51
16002	Mārahau Jetty Renewal	Undertake renewal works on the Mārahau jetty	0	0	100	50,000	0	0	0	0	0	0	0	0	0	0	0	50,000	0
16004	District Wide Sign Renewals	District wide sign renewals	0	0	100	150,000	4,000	4,000	4,000	4,000	14,000	4,000	4,000	4,000	4,000	4,000	4,000	50,000	50,000
16005	Mapua Boat Ramp	Create a new boat launching facility at Waterfront Park in Mapua	0	100	0	700,000	50,000	50,000	600,000	0	0	0	0	0	0	0	0	0	0
16006	Mārahau Sea Wall	Extension of the rock revetment at Mārahau to limit erosion of the footpath.	0	100	0	600,000	0	0	0	60,000	540,000	0	0	0	0	0	0	0	0