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DRAFT
Coastal Assets
Activity Management Plan
2024-2054

Quality Assurance Statement		
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Contents

1 Executive Summary

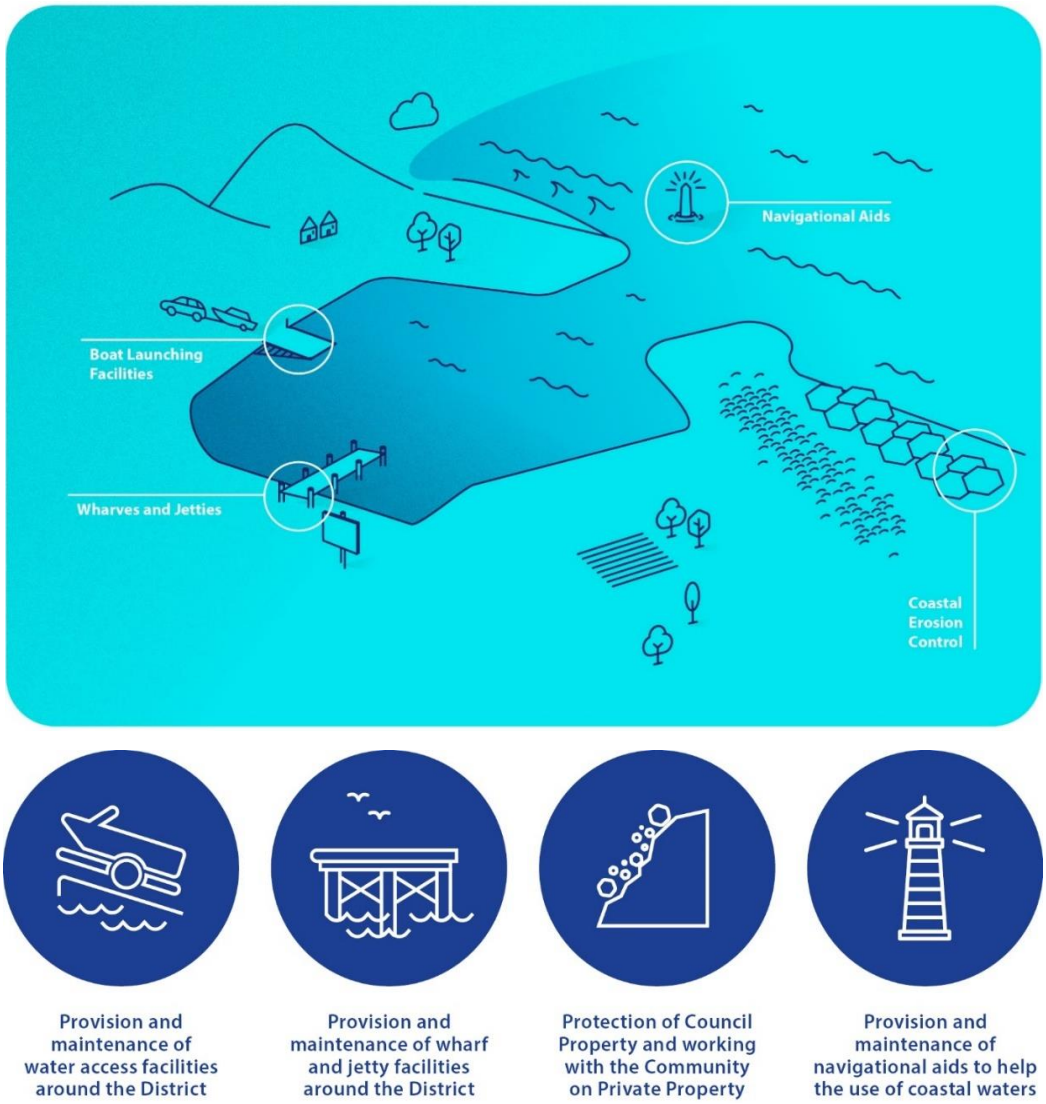
This Activity Management Plan (AMP) provides an overview of how Council manages the Coastal Assets activity and associated assets in an effective, cost-efficient, resilient and sustainable manner.

The plan outlines key issues, goals, objectives, and the levels of service that Council will provide to its communities. The plan provides information on new projects and expenditure that are required to meet future demand as well as detail about life cycle management and maintenance. It provides an overview of costs and how the Coastal Assets activity is funded. The risks and uncertainties involved in undertaking the activity and how we manage those are also outlined in the plan.

1.1 What We Do

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.

Tasman District Council manages a range of coastal assets for the community, including jetties, wharves, boat access points, coastal erosion structures, and navigational aids.



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 Our Levels of Service

The Council aims to provide the following levels of service for the Coastal Assets activity:

Protection	Safety
"The Council maintains the existing level of coastal protection for our communities."	"The Council coastal structures are safe for the public to use."

The allocation in the programmed budget is largely sufficient to continue providing existing services primarily at current levels for the planning period.

1.4 Key Issues and response

The key issues facing the Coastal Assets activity remain largely the same as described in the 2021-2051 Activity Management Plan (AMP), including our approach to coastal protection structures, the provision and maintenance of boat launch facilities, and public safety around our coastal structures. New issues for the 2024-2054 AMP are:

The role coastal structures play in managing coastal hazards, now and in the future; this issue has been merged with the existing key issue of our approach to coastal protection structures;

Seeking to improve coastal asset data gaps and user-friendly visual presentation;

New Government Guidance;

These issues are described below.

1.4.1 Managing Coastal Hazards with Coastal Protection Structures

The demand for new or upgraded coastal protection structures is influenced by a range of factors, including the location of existing communities and infrastructure, the extent and rate of coastal erosion, and potential inundation from sea level rise associated with climate change and all other hazards. One of the core uncertainties facing the Coastal Assets activity is how we should respond to long-term sea level rise and the escalation of coastal hazards. Considering this uncertainty, Tasman District Council has adopted a Coastal Protection Policy. The policy position is to maintain our existing Council-owned protection structures and recreational assets but not to provide any increased levels of protection to properties or new recreational assets. This policy approach "holds the line" on current levels of service and is in accordance with the Resource Management Act 1991, including the New Zealand Coastal Policy Statement 2010, as administered by the Council's planning functions. The Council's Environmental Policy team is in the early stages of reviewing our resource management policies to manage growth and risk in coastal hazard areas, in tandem with emerging central government policy on natural hazard decision-making.

1.4.2 Boat Facilities

Boating is a highly popular recreation activity in Tasman District, with over 67 boat access locations along our coast. However, access to the water can be difficult, in part due to the high tidal range (3.5 to 4.0 metres), to the relatively shallow bays along Tasman coast, and to the variable size and quality of available boat launch facilities: for example, approximately 50% of the 67 boat access locations are unformed, 50% are beach-access only, and 75% are suitable for dinghies and small boats only. The existing higher-capacity launch facilities at Nelson, Motueka, and Kaiteriteri are very busy at peak times and have car/trailer parking capacity issues.

Another issue is the lack of a dedicated hull cleaning facility which is leading to unnecessary contamination wherever this work is undertaken.

1.4.3 Public Safety around Council-Owned Coastal Structures

Coastal structures are often a focal point for recreational activities along Tasman's coastlines, and where the structure is owned by Council our aim is to make them reasonably safe for the public to use. This could mean installing information and warning signage, or ensuring the structures are maintained in good operable condition.

The Tasman area is also home to a number of marine structures that are not owned by Council, but that are of high interest to parts of our community (as a vessel mooring, or for aesthetic or photographic opportunities) and also pose a potential safety risk to the general public. Many of these are derelict structures that have been abandoned and have deteriorated to a point that they post a navigational or safety hazard, and most have not been formally identified in any asset register. Legal advice is that the Department of Conservation should have responsibility for these abandoned structures.

1.4.4 The state of asset data and communication

Currently there is no single database of all Council owned Coastal assets and there is also limited visual representation of both public and private assets to assist staff and the public.

1.5 Financial summary

1.5.1 Operational Programme

The operational programme covers all day-to-day activities that are required to manage the coastal assets. The Council has planned to spend approximately $12.7 million (inflated) over the next 30 years to operate and maintain its assets efficiently. Below is a list of the key projects and investments that are planned. (values are uninflated): Detailed operational budgets are shown in Appendix A.

Activity	Total Budget for 30 Years
Maintenance of seawalls, wharves and jetties	$1,146,000
Maintenance of Navigational Aids	$675,000
Torrent Bay sand replenishment and planting	$1,875,000

1.5.2 Capital Programme

The Council plans to invest approximately $985,000 (inflated) over the next 30 years on capital improvements. Below is a list of the key projects and the uninflated investments that are planned. Detailed Capital Budgets are shown in Appendix B.

Activity	Total Budget for 30 Years
District wide sign renewals	$165,000
Undertake renewal works on the Marahau jetty	$55,055
Extension of the rock revetment at Marahau to limit erosion of the footpath.	$660,664

1.5.3 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Coastal Hazard Asset Adaptation Strategy
- Funding specialist professional services to support coastal asset management

1.5.4 Funding Impact Statement

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

1.5.5 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term, considering Council's Coastal Protection Policy. However, there are inherent risks and uncertainties in the Coastal Assets activity that may impact our ability to deliver our planned level of service, including the timing and severity of extreme weather events. As a result of these unplanned weather events, previously forecast work (operations, maintenance, renewal, acquisition or disposal) may not be able to be undertaken due to available resources, and there may be consequences to the levels of service for users. These service consequences include:

- Deterioration of coastal structures to a point that they are rendered unsafe for public use or access
- Damage to coastal protection structures that compromise their integrity and requires significant resources to repair, and
- Damage to unprotected properties or infrastructure that may raise expectations from the public to provide a higher or more widepread level of service, contrary to national policy direction and Council's own Coastal Protection Policy.

We will endeavour to manage these risks within available funding by:

- Accommodating for potential severe weather event damage to coastal structures through Council emergency funds or other similar funding measures. The Council has assumed that if damaging events occur, there will be enough funds available to undertake repairs whether through accessing budgeted funds, reprioritisation of other maintenance activities, or increasing borrowing.

2 Introduction

The purpose of this 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 its Coastal Assets activity. This is achieved through the planned management of assets, compliance with regulatory requirements, and the funding needed to provide the adopted levels of service.

2.1 Rationale for Council Involvement

The Coastal Assets activity provides 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 legislative requirements and responsibilities.

2.2 Description of Assets and Services

2.2.1 Asset Overview

The Coastal Assets activity is comprised of the provision and maintenance of the following features and infrastructure:

- Wharves, jetties and associated buildings,
- 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, and
- Coastal protection structures in some areas along the coast.

Some Council-owned structures have previously 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 now 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 or simply missing. Work is ongoing to identify Council-owned assets and this information has and will continue to be updated in the Confirm database. Further work is being undertaken to improve the data in Confirm and collect data which is yet to be captured, specifically on the Council's coastal protection assets.

There are a number of wharves and 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 a role to play in determining how they will be managed.

This AMP includes coastal assets from Community Development and Corporate Services to ensure that all coastal assets are recorded in one place. Engineering manages most of coastal assets while Support Services and Community Development continue to manage the small number of coastal assets.

The Port Tarakohe complex has been explicitly excluded from this AMP as it is a commercial operation in itself. With this exception, Table 1 provides an overview of the key Coastal Asset groups that are owned and operated by the Council throughout the Tasman District as recorded in the confirm database at 11 Jan 2024. An overview of these assets with valuations is shown in Table 2.

Table 1: Coastal Assets by Council department

Row Labels	Community Services	Engineering	Engineering - Abandoned	Harbourmaster	Grand Total
Buoy		2			2
Buoy - fairway		1			1
Floating structure		1			1
Jetty		2	1		3
Landing		1			1
Lateral		13			13
Lateral - informal		8			8
Mark		2			2
Mark - cardinal		1			1
Other	8	2			10
Post - beacon		3			3
Post - Reservation		7			7
Post - ski lane		6			6
Post - transit		4			4
Ramp	5	19			24
Rock revetment / protection		59			59
Rock work		8			8
Seawall		12			12
Sign				37	37
Sign - board w/ brochures				11	11
Sign - brochure holder only				1	1
Sign - pipeline				4	4
Steps		8			8
Wall		1			1
Wharf		2	1		3
Grand Total	**13**	**162**	**2**	**53**	**230**

Table 2: Coastal assets overview with valuation

Coastal Assets		Replacement Value
Water Access Features		
	2 wharves	$1.0M
	4 jetties	$0.36M
	20 water access ramps	$0.42M
Coastal Protection Structures 	40 individual permanent coastal protection sites protecting 27 km of coastline	$5.0M
Navigational Aids 	Numerous signs, buoys and other features along the Tasman coast.	$0.20M
Other		$0.38M
TOTAL VALUE OF ASSETS (as at DATE)		$7.36M

2.3 Ports

There are three significant ports in the Tasman area: Port Motueka, Port Māpua, and Port Tarakohe. Tasman District Council owns and maintains various assets at all of these ports, most significantly at Port Tarakohe where the entire facility is owned and operated by Council. Further detail about the ports is provided in the following sections, and their locations are shown in Figure 1.

Figure 1: Location of Ports in Tasman

2.3.1 Port Motueka

Port Motueka started operations in the early 1900s from the old wharf on Motueka Quay. The wharf was moved to its existing location on the 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. Their authority and lands was transferred 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 transferred 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 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 within the last 20 years transferred the ownership of the wharf and its facilities to the Talley's Group, and as such the Council is no longer responsible for the maintenance of this asset. Except, 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 who is responsible for its maintenance.

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.

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. A future Structure Plan is proposed to facilitate enhanced management of this area and consultation on this was undertaken in 2023.

"Join us in shaping the future of Port Motueka and the surrounding land! We are looking at ways to support the future of Port Motueka by developing a Structure Plan for the port and adjacent areas.

The Structure Plan will provide a high-level planning framework that sets out intended uses, guides and planning provisions for the new resource management plan and will influence wider Council decision making.

From the consultation we've done so far with the Tasman Coastal Group and the local community, we received strong feedback that Port Motueka and surrounding areas are not working as well as they potentially could and are missing important infrastructure and amenities.

So, we want to hear from you about what's working well at the port, what doesn't work for you, and most importantly what you would like to change.

This is an important opportunity to tell us how you think the port can be developed to enable greater community and recreational use.

Visit shape.tasman.govt.nz/port-motueka-structure-plan to have your say by Thursday 1 June 2023."

2.3.2 Port Māpua

Port Māpua started operations 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 was mobilised in 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 adjacent to the wharf 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.

Between 1999 and 2007 the Council remediated the former chemical factory site. 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 facilitated the operation of a small ferry service to create a link between Māpua and Moturoa/Rabbit Island.

2.3.3 Port Tarakohe

Port Tarakohe is a port and marina owned and operated by the Council as a commercial operation and recreational area. It services Golden Bay land and developing marine economy and has an important disaster resilience function when the Takaka Hill Highway (SH60) is closed for an extended period. The asset is administered by Corporate Services and is included in the Council Enterprises AMP.

2.4 Wharfs

2.4.1 Riuwaka Wharf

The wharf at the end of Wharf Road in Riwaka 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 (pictured in the figure below).

Figure 2: Riuwaka Wharf

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 legacy '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 aluminium truss gangway (pictured in Figure 3).

Figure 3: 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 five years. Additional information about wharves in the Tasman region can be accessed on the Council database - Confirm.

Figure 4: 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 aluminium. They range in condition status from poor to very good. A summary of the Council-owned jetties is available on the Council database Confirm.

Figure 5: Location of Jetties

2.6 Coastal Protection

There are significant lengths of coastal protection works in Tasman with a range of ownerships and design standards. Some of these structures are private works constructed with or without the appropriate resource 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 AMP and managed under 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 significant coastal protection works at Mārahau and Ruby Bay (Broadsea Avenue and Old Mill Walkway). These have been constructed to protect existing urban development from coastal erosion processes and are built to a higher standard than earlier works that were in place at those locations. Earlier constructed protection works had few design details and therefore maintenance to meet the design standard is challenging. These are the most recent significant coastal protection works constructed by the Council.

A list of the Council's coastal protection assets is available on the Council's coastal asset database 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.

Figure 6: Mārahau Sea Wall

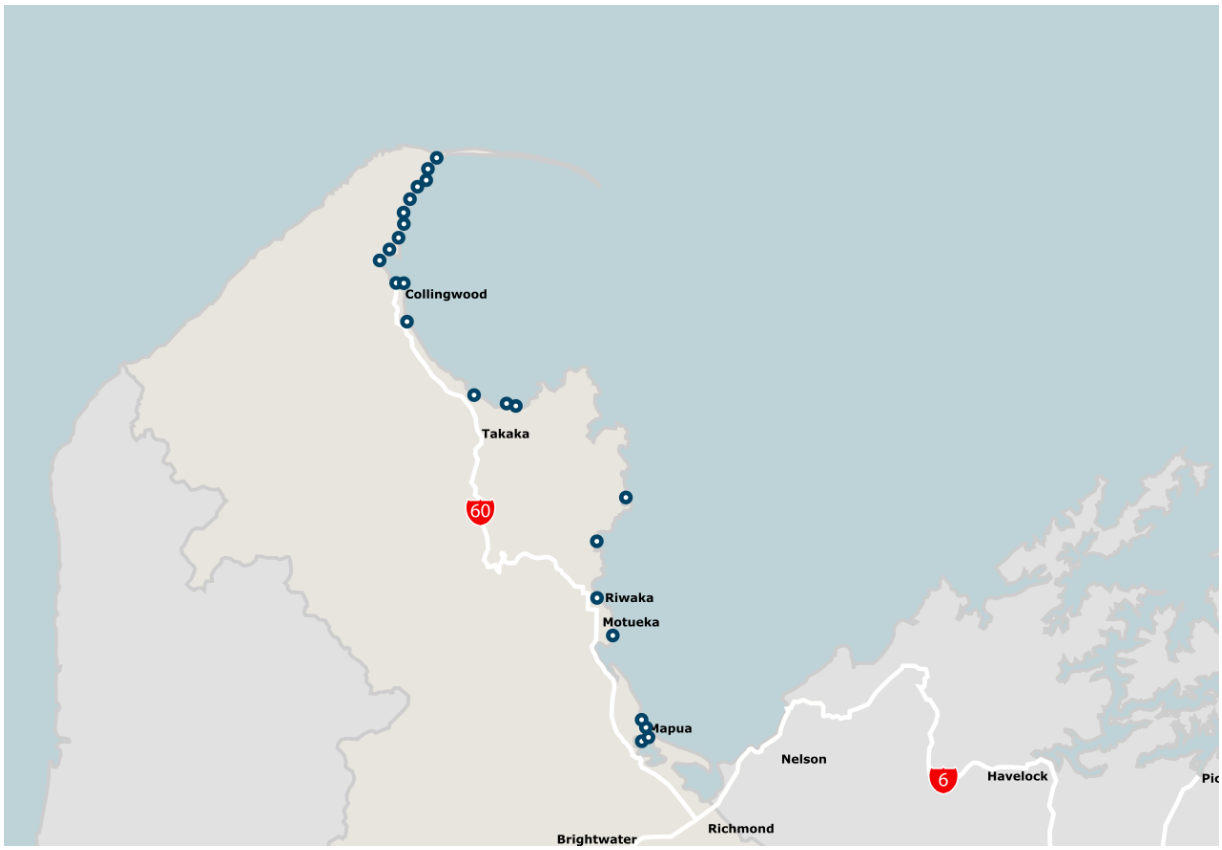


Figure 7: Location of Coastal Protection Assets

2.7 Boat Ramps

Tasman District Council maintains a number of water access points/boat ramps along the Tasman and Golden Bay coastlines, of varying quality, construction, and capacity. A summary of the boat ramps is shown below in Table 3. 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, the Port Motueka boat ramp which is under management of the Motueka Power Boat Club and the Tata Beach boat ramp which now belongs to Tata Beach Association.

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

The Council completed the Regional Tasman Boat Access Study in 2021, which assessed 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 looked to address the primary concerns of safety on land and safety on water, and alleviating pressure on over-capacity car parking facilities at existing boat ramp locations. The study identified a range of safety improvements that could be made at existing facilities as well as a short list of preferred locations for new boat ramp facilities to improve regional capacity; the top rated locations were a new recreational hub at Motueka and a new boat ramp at the Māpua Waterfront. Resource consent has been applied for, a hearing will be held and the decision expected around May 2024.

Figure 8: Mārahau Boat Ramp

Table 3: 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
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

Location	Length	Lanes	Surface	Condition
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 9: 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 to mark significant geographical features for coastal navigation and to mark more significant dangers to regional navigation.

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 4 and shown in Figure 10 below. The navigational aids listed are permanent structures. Additional seasonal navigational aids are installed to respond to changes in channel direction in this highly dynamic coastal environment.

Some Council-maintained navigational aids are located on private property, and we have made formal lease arrangements for some of these locations. 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. A full register of aids to navigation are available on the Council database Confirm if more information is desired.

Table 4: 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

Area	Feature	Type	Number	Location	Description
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
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 10: 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.

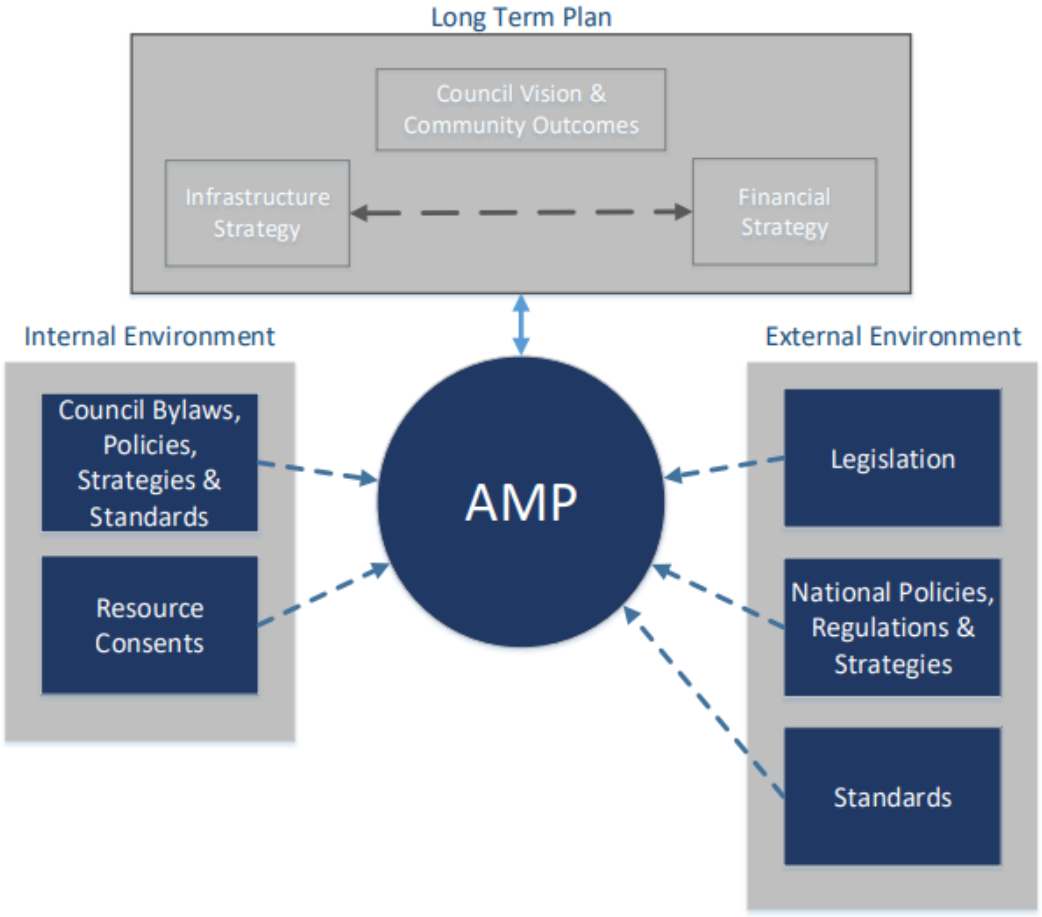
3.1 Our Goal

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 property.

3.2 Strategic Alignment

This AMP is a key part of Council's strategic planning process. This plan supports and underpins the financial forecasts and work programmes contained in planning documents like Council's Long Term and Annual Plans.

The constraints that influence how the Council manages its activities can be internal or external and include legislation, policies, strategies and standards:



Appendix C describes the key Legislation, standards, Council plans and policies with linkages to the Coastal Assets Activity.

3.3 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 2024-2034.

3.4 Infrastructure Strategy

The purpose of the Infrastructure Strategy is to identify the significant infrastructure issues for Tasman into the future and identify the principal options for managing those issues and implications of those options.

The key priorities in the strategy include:

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

3.5 Key Legislation and Regulations

This activity is guided by Council Bylaws, Policy Statements and national legislation. Council Bylaws, Legislated Acts and the key National Policies and Standards that apply to the Coastal Assets activity are listed in Appendix C by their original title for simplicity and they include any subsequent Amendments Acts.

Legislation is continually being amended and replaced, so for the current Act information, refer to https://www.legislation.govt.nz/.

3.6 Our Partners and Stakeholders

3.6.1 Partnerships with Te Tauihu iwi

The Council is committed to strengthening partnerships with iwi and Māori of Te Tauihu and providing opportunities for Māori involvement in Council decision-making processes in a meaningful way. There are eight iwi that whakapapa and have Statutory Acknowledgements to places within Te Tauihu (Top of the South Island) and Te tai o Aorere (Tasman District). They include representation by the following entities:

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

- Te Rūnanga o Ngāti Rārua
- 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 iwi also have interests in this area.

Iwi Management Plans are lodged by iwi authorities and received by Council under the Resource Management Act 1991. Once lodged with Council, they are planning documents that Council is required to take into account when preparing or changing Resource Management Act Plans.

Iwi Management Plans document iwi worldview and aspirations for the management of resources and help Council and staff to better understand those factors.

The Te Tauihu Intergenerational Strategy is also a key strategic document that is influential in determining our community outcomes.

3.7 Stakeholder engagement

There are many individuals and organisations that have an interest in the management and operation of the Council's assets and services. The Council works alongside a variety of stakeholders and partners to share knowledge and views, make the most of resources, and achieve shared goals. 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 stakeholders the Council consults with about this activity include:

- Elected members (Council and Community Board members)
- Regulatory (consent compliance, national regulatory bodies)
- Fisheries organisations
- Public Health Service (Nelson-Marlborough District Health Board)
- Heritage New Zealand
- Civil Contractors New Zealand (Nelson - Marlborough)
- Utility service providers (Electricity and Telecommunications)
- Affected or interested parties (when applying for resource consents)
- Other territorial authorities

3.8 The Council's Coastal Protection Policy 2024

An increasing number of storm events in the district have caused damage and erosion along parts of the Tasman coastline. Community expectations for the Council to protect private property is unaffordable, so a Coastal Protection policy statement was developed while the Council works towards long-term adaptive planning for sea level rise and coastal hazards through its climate adaption work programmes. The Council is developing a policy on Coastal erosion protection structures on the Council's reserve and road reserve lands. These policies provide guidance on the process and considerations involved when a private landowner wishes to establish a coastal erosion protection structure on the Council administered land.

The Council's Policy 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.
- This overarching policy is supported by the following two polices that outline the process details to manage privately initiated proposals that impact reserves and roads:
    - Coastal Erosion Protection Structures on Council Reserve Land Policy
    - Draft Coastal Protection Works with Road Reserve Policy.

3.9 Key Linkages

This Plan is to be read with consideration of other Tasman District Council planning documents, including the Activity Management Policy and Infrastructure Strategy, along with the following key planning documents:

- Tasman District Council Long Term Financial Plan 2024-34
- Tasman District Council Annual Plan 2023/24
- Tasman District Council Risk Management Policy
- Tasman District Council Infrastructure Strategy.

4 Key Issues and Response

4.1 Key issues

The Council has identified key issues specific to the Coastal Assets activity, which are discussed in Table 5 below. Key issues are interrelated and often, investing in solutions will likely help address other issues to varying degrees. The key issues facing the Coastal Assets activity are similar to those described in the 2021-2051 AMP, including our approach to coastal protection structures, the provision and maintenance of boat launch facilities, and public safety around our coastal structures. New to the 2024-2054 AMP is the issue of the role coastal structures play in managing coastal hazards, now and in the future; this issue has been merged with the existing key issue of our approach to coastal protection structures.

Table 5. Key Issues

Key Issue	Response
Managing Coastal Hazards with Coastal Protection Structures	The demand for new or upgraded coastal protection structures is influenced by a range of factors, including urban development, the extent and rate of coastal erosion, and potential inundation from sea level rise associated with climate change. One of the core uncertainties facing the Coastal Assets activity is how we should respond to long-term sea level rise and the escalation of coastal hazards, and considering this uncertainty, Tasman District Council has adopted a Coastal Protection Policy to maintain our existing Council-owned structures but not to provide any new structures or increased level of protection at existing structures. This approach "holds the line" on current levels of service while the Council's planning and policy teams develop resource management policies to manage growth and risk in coastal hazard areas, in tandem with emerging central government policy on natural hazard decision-making. Another example of holding the line is the Torrent Bay Sand replenishment area where Council has a consent to replenish the beach as required to avoid loss of coastal vegetation and potential further erosion into private land. Figure 11 below shows the works area.

Key Issue	Response
Boat Facilities	Boating is a highly popular recreation activity in Tasman District, with over 67 boat access locations along our coast. However, access to the water can be difficult, in part due to the high tidal range (3.5 to 4.0 metres), to the relatively shallow bays along Tasman coast, and to the variable size and quality of available boat launch facilities: for example, approximately 50% of the 67 boat access locations are unformed, 50% are beach-access only, and 75% are suitable for dinghies and small boats only. The existing higher-capacity launch facilities at Nelson, Motueka, and Kaiteriteri are very busy at peak times and have car/trailer parking capacity issues.
Public Safety around Council-Owned Coastal Structures	Coastal structures are often a focal point for recreational activities along Tasman's coastlines, and where the structure is owned by Council our aim is to make them safe for the public to use. This could mean installing information and warning signage, or ensuring the structures are maintained in good operable condition. The Tasman area is also home to a number of marine structures that are not owned by Council, but that are of high interest to parts of our community (as a vessel mooring, or for aesthetic or photographic opportunities) and also pose a potential safety risk to the general public. Many of these are derelict structures that have been abandoned and have deteriorated to a point that they post a navigational or safety hazard, and most have not been formally identified in any asset register. Legal advice is that the Department of Conservation should have responsibility for these abandoned structures.

Figure 11: Torrent Bay Sand Replenishment Area

5 Levels of Service

Activity Management Plans set out the levels of service the Council seeks to provide the community. Stakeholder groups can often have different and sometimes conflicting expectations of these levels of service and these expectations need to be managed to achieve the best value overall outcomes for communities.

The levels of service set the standards the Council aims to meet when providing a service in support of community outcomes. They are the measurable effect or result of a Council service, and can be described in terms of quality, quantity, reliability, timelines, cost or other variables.

The Council aims to achieve these goals while being aware of the cost implications of any changes. This section defines the levels of service provision for the Coastal Assets Activity, the current performance, and the measures and targets by which these will be assessed. Performance measures that are included in the Long Term Plan are assessed annually and reported through the Annual Report.

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

- Customer Research and Expectations: Information is obtained from customers and stakeholders on the expected types and quality of service provided.
- Statutory Requirements: Includes the relevant legislation, regulations, environmental standards and Council bylaws that impact the way assets are managed (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 the manner of service delivery and define the specific levels of service the organisation aims to achieve.
- Best Practice and Standards: Specify the design and construction requirements to meet the levels of service and needs of customers.

5.1 Our Levels of Service

Table 6 summarises the levels of service and performance measures for the Coastal Assets Activity.

[Note Blue shaded rows are the levels of service and performance measures to be included in the Long Term Plan. Unshaded white rows are technical measures that are only included in the Activity Management Plan]

Table 6: Levels of Service and Performance Measures

Levels of Service	Performance Measure (we will know we are meeting the level of service if…)	Current Performance 2022/2023	Future Performance Targets			
			Year 1	Year 2	Year 3	By Year 10
			2024/2025	2025/2026	2026/2027	2027 -2034
Protection Council maintains the existing level of coastal protection for our communities.	Council-owned coastal erosion structures are maintained to a standard[1] that fulfils their intended purpose.	100%	100%	100%	100%	100%
Safety Council coastal structures are safe for the public to use	Council structures that are intended for public use, are maintained to a safe level to allow prudent use by the general public. Percentage of structures deemed 'safe' are measured through a routine annual inspection.	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 generally measured through the triennial community survey.	Not measured in residents satisfaction survey in 2022/2023	≥ 70%	- ≥ 70%	≥ 70%	≥ 70%

[1] Tasman District Council employs experienced coastal engineers with sufficient expertise to assess the condition and performance of coastal erosion structures. During the 2024/2025 year we will develop a comprehensive listing of the intended purpose of Council-owned coastal erosion structures to inform this level of service for inclusion in the Coastal Assets AMP by June 2025. The condition of coastal assets will be assessed against the purpose stated in this list on an annual basis.

5.2 Level of Service Changes

The Council reviews its levels of service every three years, as part of the Long Term Plan process. The Levels of Service from the previous Long Term Plan have been retained with changes that reflect the reducing capacity that Council has to maintain structures in the face of rising sea levels and other climate change driven impacts.

5.3 Level of Service Performance and Analysis

The current adopted Levels of Service (LoS) for Coastal Assets are shown in Table 7.

Table 7: LoS for Coastal Assets for the 2024-2054 period

Levels of Service	Performance Measures
Protection Council maintains the existing level of coastal protection for our communities	Council-owned coastal erosion structures are maintained to a standard that fulfils their intended purpose.
Safety Council coastal structures are safe for the public to use.	Council structures **that are intended for public use,** are maintained to a safe level to allow **prudent** use by the general public. Percentage of structures deemed 'safe' are measured through a routine annual inspection.

5.4 Customer satisfaction

The most recent residents' survey was undertaken in May 2023, however in this case no questions related to the Coastal Assets activity were asked.

5.5 Risks to achieving Levels of Service

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 AMP comply with the principles and requirements of the policy and framework. Table 24: in Appendix D summarises the key risks to achieving our Coastal Assets levels of service.

5.6 Risk Management and Assumptions

This AMP and the financial forecasts within it have been developed from information that has varying degrees of completeness and accuracy, creating some inherent uncertainties and assumptions with the potential to impact on the achievement of the Council's objectives. 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.

The key generic risks, assumptions and mitigations and more specific risks relevant to the Coastal Assets activity are summarised in Table 24 in Appendix D.

5.7 Our Approach to Risk Management

The potential impact of a risk is measured by a combination of the likelihood it will occur, and the magnitude of its consequences on a Council objective. Significant risks for Council are managed through Council's risk management strategy, policy and registers.

The Council's Risk Management Framework is under ongoing development and spans the following areas of activity:

- service delivery
- financial
- governance and leadership
- strategic
- reputation
- legal
- regulatory
- health and safety
- security
- business continuity.

Some features of the strategy include:

- table of consequences to help determine the Risk Appetite
- Enterprise Risk Register
- identifying risks
- assessing likelihood and consequence
- documenting controls, actions and escalation
- monitoring and reporting.

6 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 and overview of key drivers of demand and what demand management measures the Council has planned to implement.

6.1 Demand Drivers

The future demand for Coastal Assets services will change over time in response to a wide range of influences, including:

- population growth
- changes in demographics
- climate change
- local economic factors including industrial and commercial demand
- seasonal factors (tourism)
- land use change
- changing technologies
- changing legislative requirements
- changing regional and District planning requirement
- environmental awareness

In 2019-20 the Council assessed boat ramp usage as an indicator for use of other coastal assets. In 2019 and 2020, the number of vehicles with a trailer accessing the boat ramps in five locations was measured. The 2020 results are shown in Table 8 and are consistent except the Tahi Street Boat Ramp count is significantly lower than in the previous year (at 203).

Table 8: 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

6.2 Assessing demand

The key demographic assumptions affecting future demand are:

- Ongoing population growth over the next 30 years with the rate of growth slowing over time. The overall population of Tasman is expected to increase by 7,400 residents between 2024 and 2034, to reach 67,900.
- An ageing population, with population increases in residents aged 65 years and over. The proportion of the population aged 65 years and over is expected to increase from 23% in 2023 to 28% by 2033.
- 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.

6.3 Demand Management

Demand management includes both asset and non-asset strategies to manage demand across the Coastal Assets activity. The objective of demand management 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 Council's strategic objectives;
- deliver a more resilient and sustainable service; and
- respond to customer needs.

7 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 multiple roles under several departments in the management of coastal assets as shown under the following sub-headings. Coastal structures management is primarily 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 or technical expertise.

7.1 Engineering

- Management of Coastal Structures owned by the Council.

7.2 Community Development

- Management of physical structures on coastal reserves (for example boat ramps at Rabbit Island/Moturoa and Rough Island and the Reserves themselves)

7.3 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).

7.4 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 Tarakohe.

7.5 Asset Condition and Performance

The Council needs to understand the condition of its assets as this helps inform asset management decision making. Condition monitoring programmes consider how critical an asset is, how quickly it is likely to deteriorate and the cost of data collection. The current inspection regime is three years for most assets except every jetty, wharf and boat ramp is inspected annually due to the risk of public injury.

Condition is assessed for all the different components that make up the asset and then an overall condition rating using NZQQA Infrastructure Asset Grading Guidelines and shown in Table 9 below.

Table 9: Condition Rating Scale

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

7.5.1 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.

7.5.2 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.

7.5.3 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.

7.6 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.

7.7 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.

All coastal assets will be inspected three-yearly, however assets that carry public safely 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.

7.8 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.

Figure 12: Grossi Point Boat Ramp

7.9 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 4 in Section 2.8.

7.10 Operations and Maintenance

Operations include regular activities to provide services. Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

7.10.1 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 hop ed 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.

7.10.2 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. This policy was confirmed in 2024.

7.10.3 Forecast Operations and Maintenance Expenditure

Figure 13 below details the project operations and maintenance expenditure for the next 30 years.

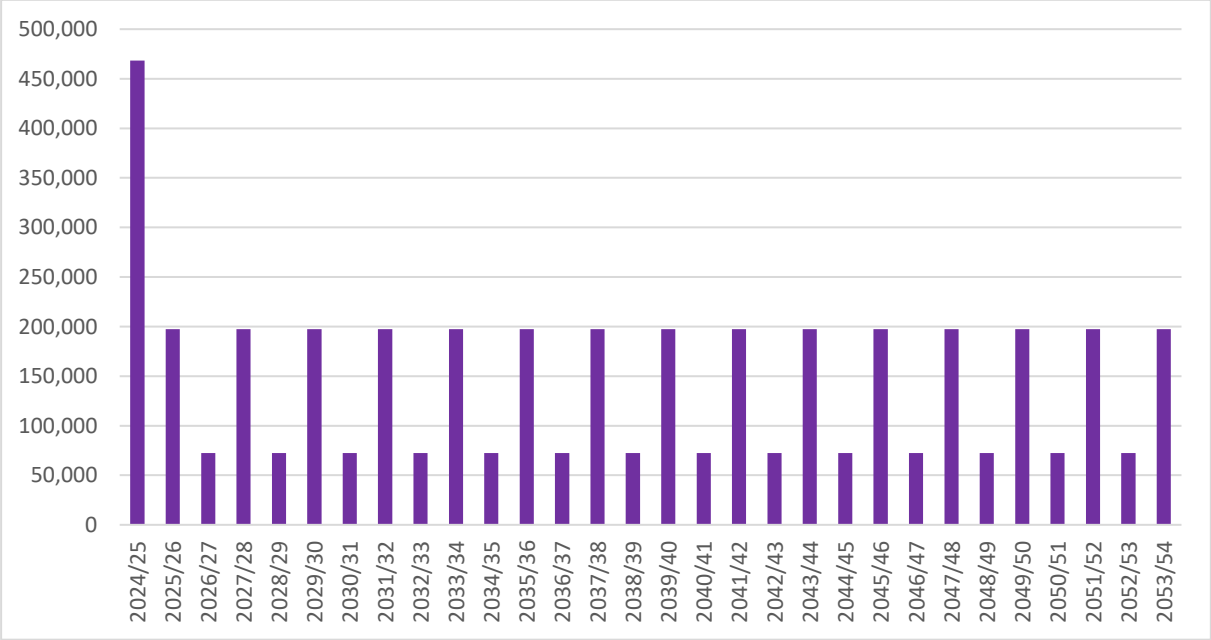


Figure 13: Direct Operating and Maintenance Expenditure Excluding Inflation

7.11 Asset Renewal/Replacement

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Typical useful lives of assets are used to develop projected asset renewal forecasts.

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure, E.g. Critical Assets
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs that becomes uneconomical, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

7.12 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.

7.13 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 crossed 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 ad boat ramps has been resolved, allowing for a robust renewal programme to be created.

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

7.14 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.

7.15 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.

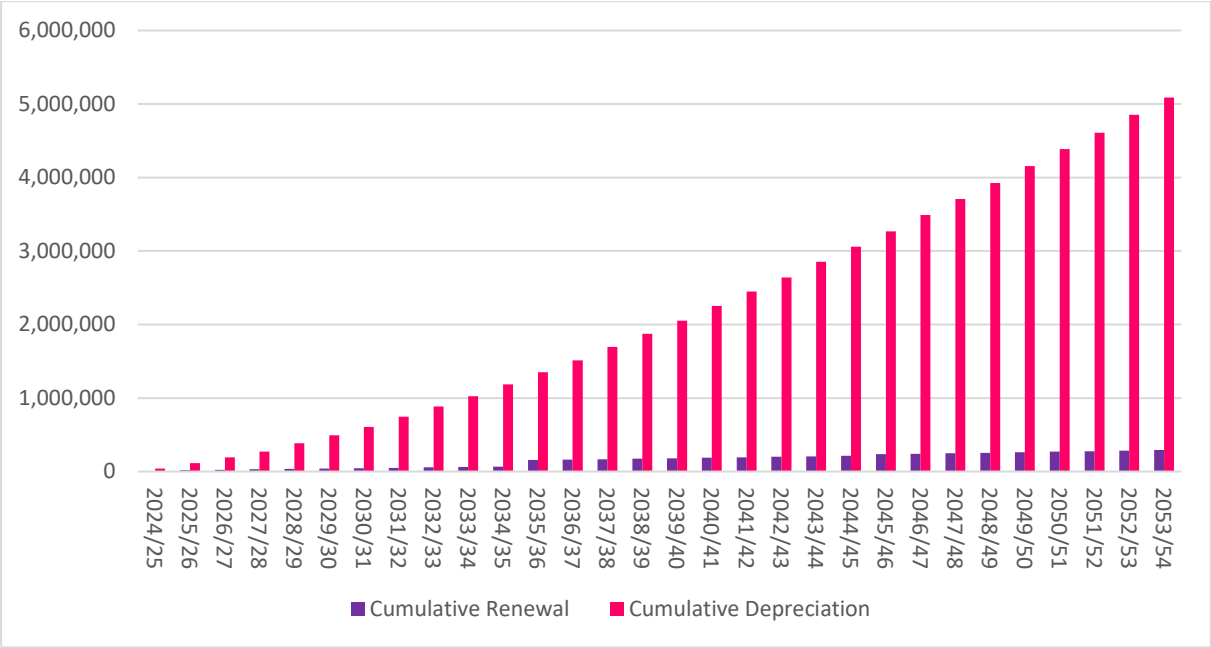


Figure 14: Comparison of Accumulative Renewal Expenditure versus Annual Depreciation Including Inflation

7.16 Forecast of Renewals Expenditure

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

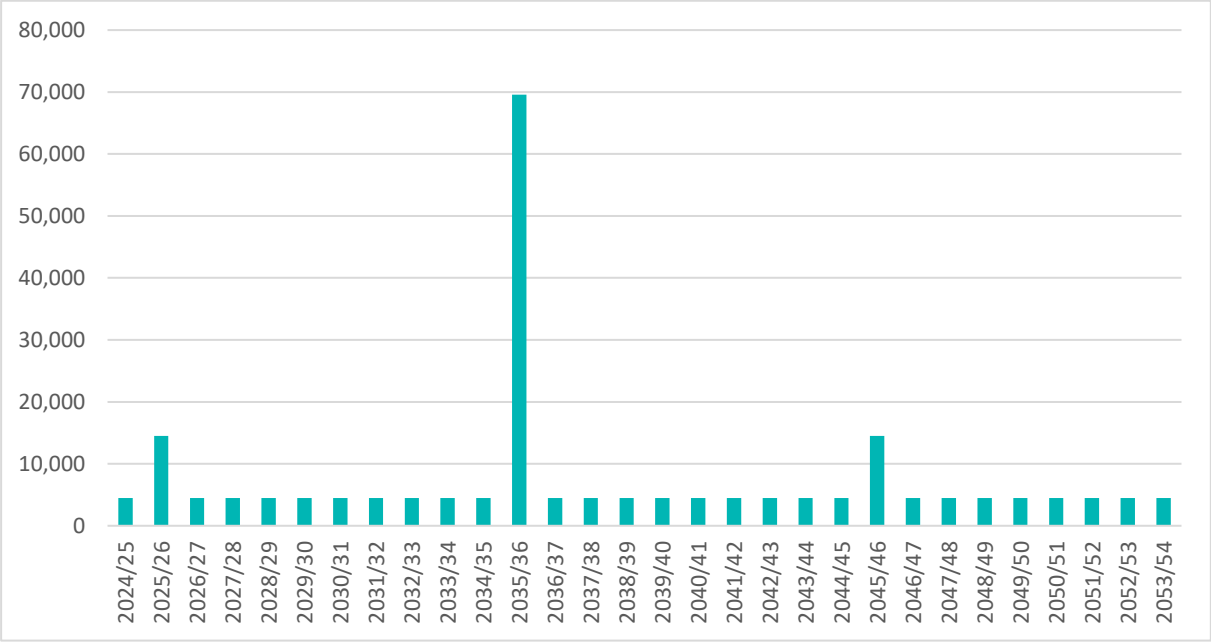


Figure 15: Coastal Assets 30 Year Renewal Expenditure Excluding Inflation

7.17 Asset Development

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding. New assets require consideration of how to fund future operations, maintenance and renewal costs, and consideration also needs to be taken into account for future depreciation when reviewing long term sustainability.

7.18 Key Asset Development Themes

7.18.1 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 favoured 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 favoured 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, the 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. The Council will complete the Tasman Bay Boat Access study to investigate whether additional facilities are required elsewhere.

7.18.2 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 in the implementation of the proposed revetment extension. The area currently covered by the consent is shown in Figure 16 from Consent 160832V1 below.

Figure 16: Location of the proposed sand replenishment works.

7.19 Projects to Support Increasing Levels of Service

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

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

7.20 Projects to Support Growth

There are no projects to support growth.

7.21 Forecast of New Capital Work Expenditure

The forecast new capital programme for this activity for the next 30 years is shown below in Figure 17.

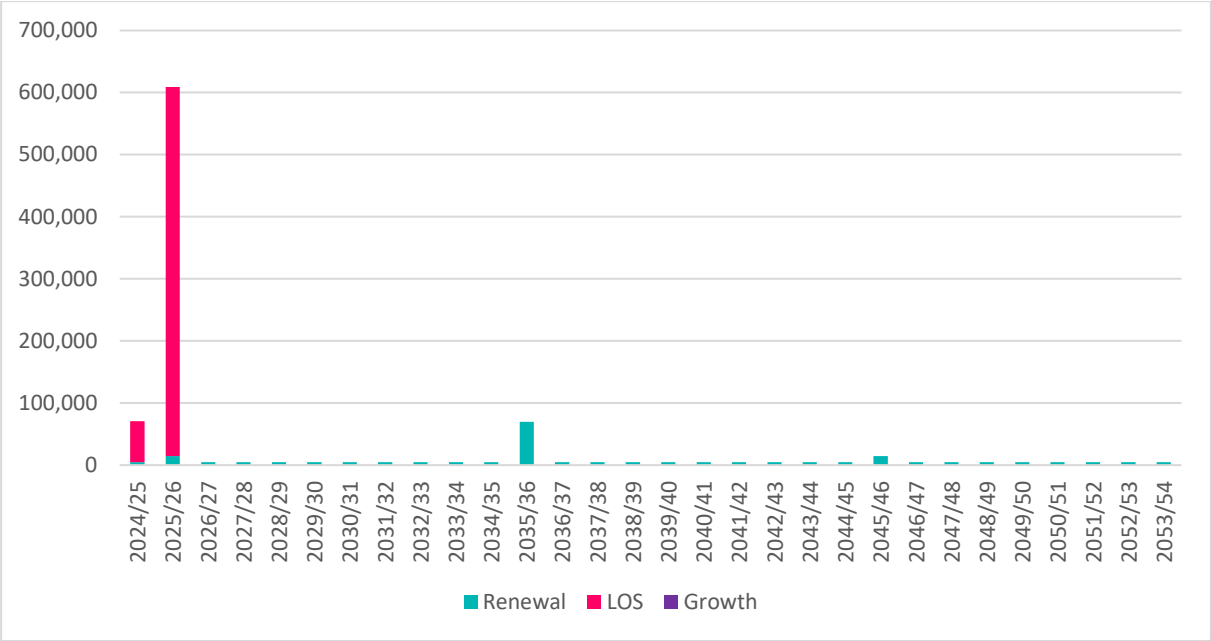


Figure 17: Coastal Assets 30 year Capital Expenditure Excluding Inflation

7.22 Asset Disposal

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

There are no coastal assets identified for possible decommissioning and disposal.

8 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.

8.1 Funding Sources

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

Nature	10 Years
Development or Financial Contributions	0
Fees and Charges	0
General Rates	2,624,421
Debt	1,602,338
Other	99,737
Subsidies and Grants	0
Targeted Rates	697,552

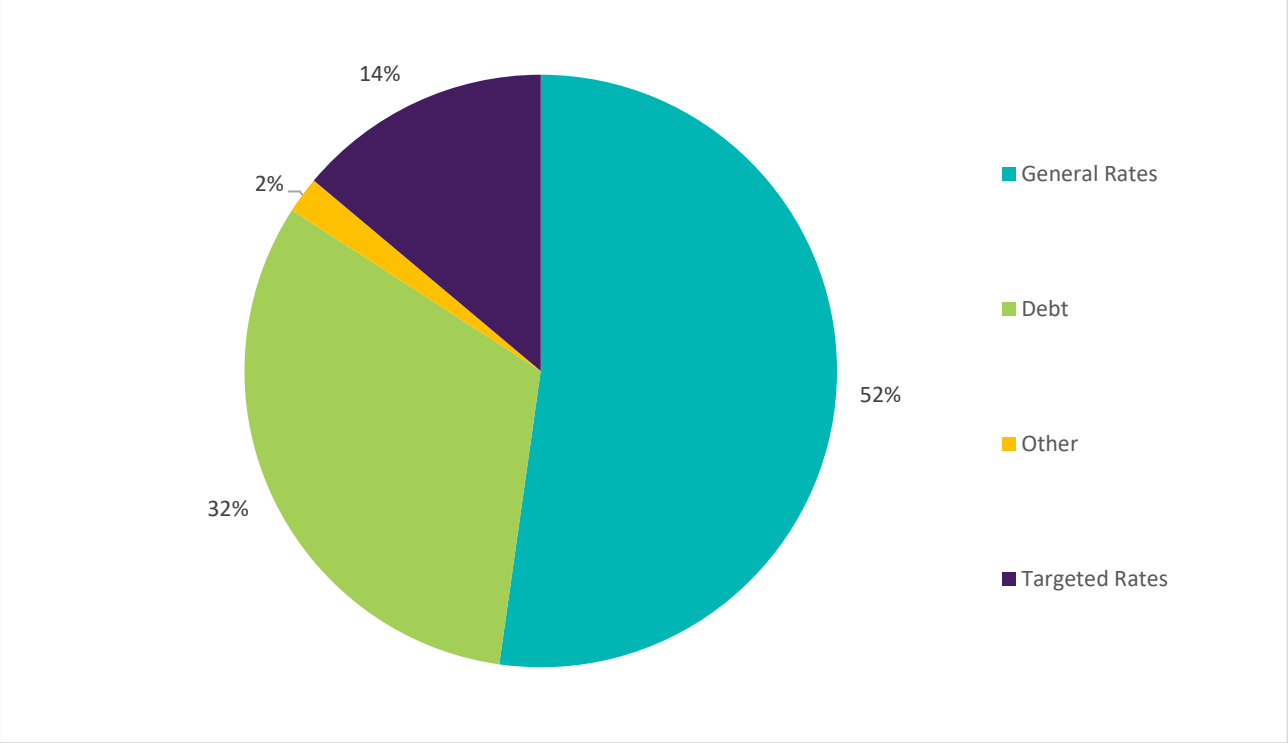


Figure 18: Sources of Coastal Asset Funding

8.2 Asset Valuation and Depreciation

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

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

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

8.2.1 Latest Asset Valuation

The Coastal assets are undergoing a revaluation and new valuations are expected to be complete prior to June 2024. Council assets are generally valued every three years, however due to the slow change in values of most Coastal assets a longer cycle is used. Historic asset valuations reports are held with the Council.

The value of ports/wharves/coastal structure assets are reported under separate valuation report. Key assumptions in assessing the asset valuations are described in detail in the valuation report.

The majority of the information for valuing the assets was obtained from the Council's Confirm database.

The data confidence is detailed in

Table 10 below. For the 2024 valuation, the confidence in coastal asset data is B – Good.

Table 10: Data Confidence

Asset Description	Confidence	Comments
Coastal Assets	B - Good	All assets are listed with condition assessments which were last assessed between 2020 and 2023. 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 11 below.

Table 11: Asset Lives

Attribute	Useful Life (Years)	Minimum Remaining Useful Life (Years)
Buoy	25	2
Buoy - fairway	25	2
Floating structure	30	5
Jetty	50	5
Landing	25	2
Lateral	25	2
Lateral - informal	25	2
Mark	15	2
Mark - cardinal	15	2
Other	15	2
Post - beacon	25	2
Post - Reservation	25	2
Post-ski Lane	25	2
Post - transit	25	2
Ramp	50	5
Rock revetment / protection	No Depreciated	
Rock work	No Depreciated	
Seawall - wood	50	5
Seawall - rock	No Depreciated	
Steps	50	5
Wharf	100	5

8.2.2 Depreciation

The Optimised Replacement Value, Annual Depreciation and Optimised Depreciated Replacement Value of the ports/wharves/coastal structure assets are summarised in Table 12.

Table 12: Ports / Wharves / Coastal Structures Asset Valuation Summary

	Optimised Replacement Value ($)	Optimised Depreciated Replacement Value ($)	Annual Depreciation ($/yr)
Coastal Assets 2017	6,273,234	5,295,163	30,315
Coastal Assets 2023	7,363,929*	5,176,000**	39,000
% Increase	17%	-2%	29%

*Indexed value, a full valuation to be undertaken in 2024

** Net Book Value as included in 2023 Annual Report

The Coastal assets have increased in Optimised Replacement Value by 17% since the 2017 valuations. The increase in the replacement values is mainly due to the cost of rock increasing by approximately 50% since 2017.

8.3 Financial Summary

The Council's Funding Impact Statement (FIS) for this activity is attached in Appendix E of this AMP. It summarises in one place how this activity will be funded and how those funds will be applied over the next 10 years.

8.3.1 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.

1. 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.
2. 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.

8.3.2 Scope Risk and Funded Capital Programme

When developing this work programme, the Council needs to estimate how much to budget for each project. Often, the Council cannot be certain what the actual costs or scope of the project will be because the design is yet to be completed. Typically, the Council has more confidence in the cost and scope of projects that are planned within the first three years. After this, estimates are usually based on simple concept designs.

To address this uncertainty, the Council has incorporated funding of scope risk into capital project budgets. The amount of scope risk included varies from 10% to 40% of the project estimate, depending on the expected complexity of the individual project. Based on history, it is unlikely that all individual projects will need the full amount of allocated scope risk funding, in reality there will be some under and over spending.

8.3.3 Total Expenditure

Overall there is a low level of activity in the Coastal Assets forward expenditure programmes over the next ten years. Key items are:

- An annual allocation to signs and navigational aids ~$30,000/year
- Grant to Māpua Boat Ramp Trust in 2024/25 ~ $396,000
- Torrent Bay sand replenishment and planting[2] biannual funding of $125,000.
- Extension of the rock revetment at Marahau in 2024-26 and annual erosion management ~$900,000.

Figure 19 and Figure 20 show the total expenditure for the Coastal Structures activity for the first 10 and 30 years respectively.

[2] Works done under Consents 161067, 68, 69 to expire on 16 December 2036

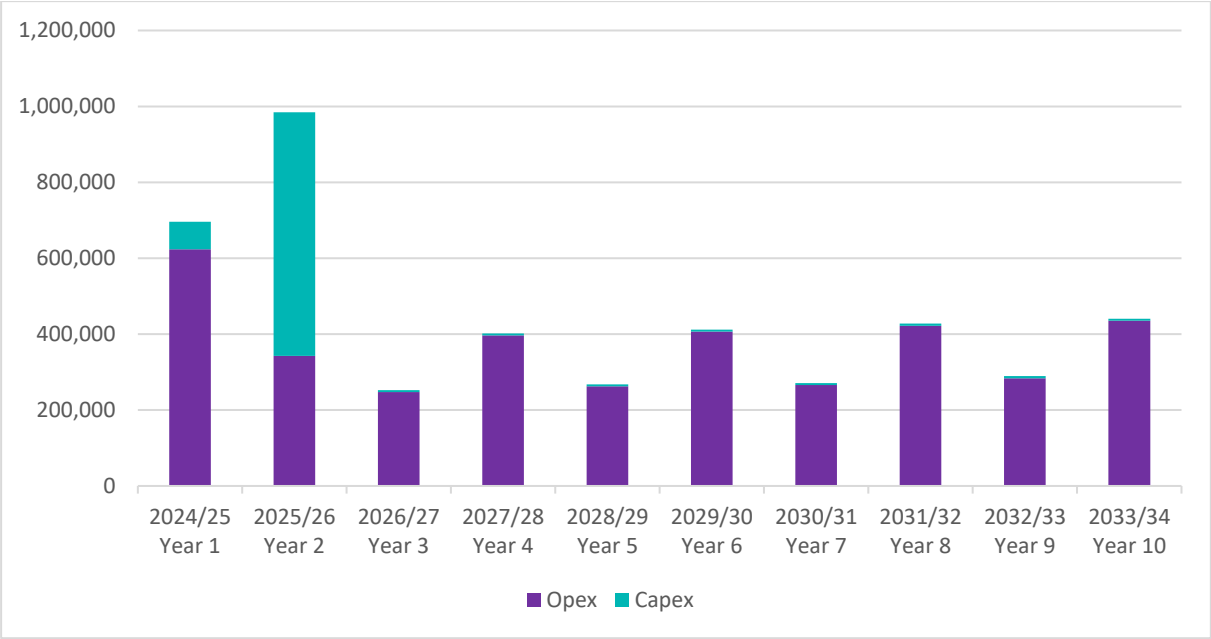


Figure 19: Total Annual Expenditure Years 1 to 10 Includes Inflation

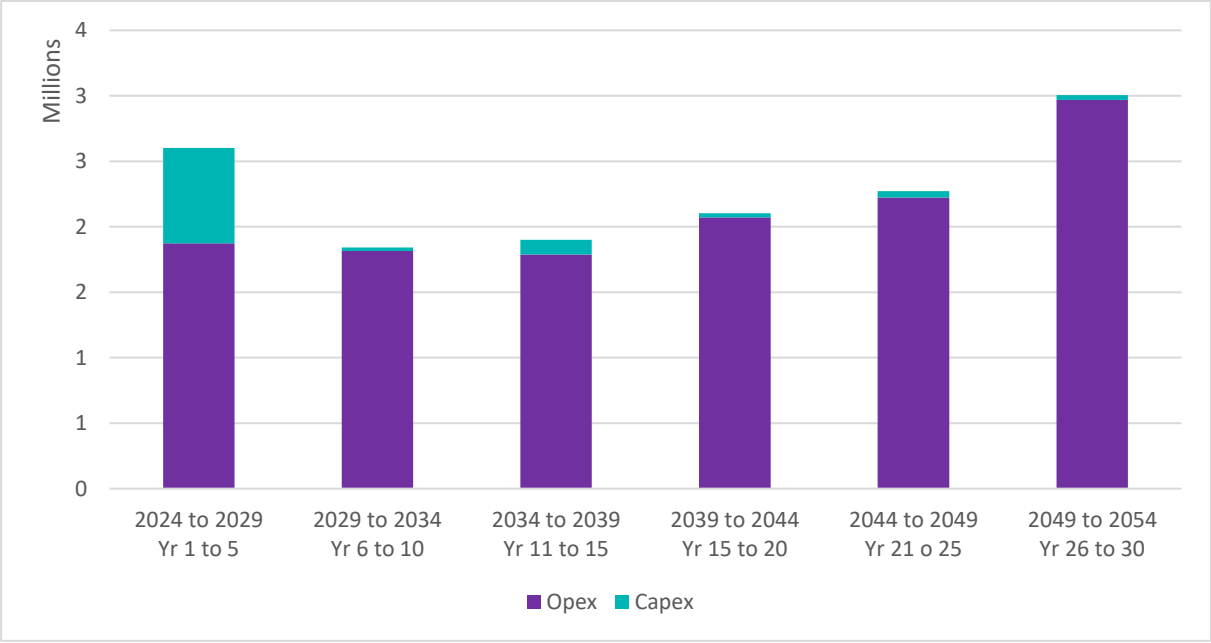


Figure 20: Five Yearly Total Expenditure Years 1 to 30 Includes Inflation

8.3.4 Total Income

Figure 21 and Figure 22 show the total income for the coastal structures activity for the first 10 and 30 years respectively.

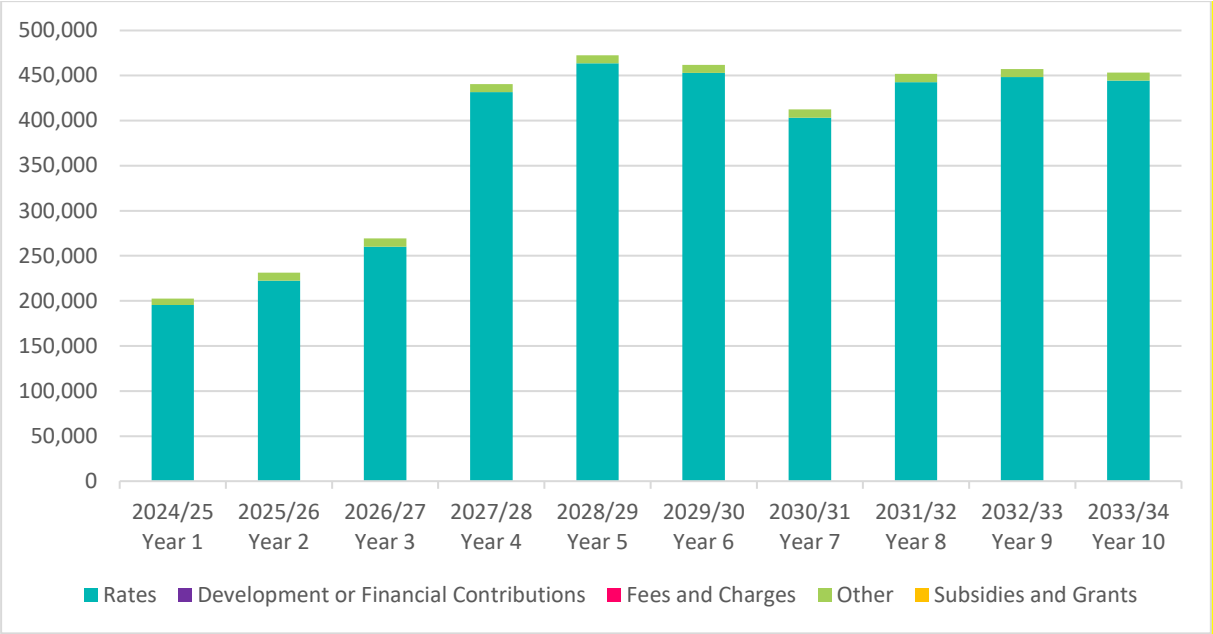


Figure 21: Total Annual Income Years 1 to 10 Including Inflation

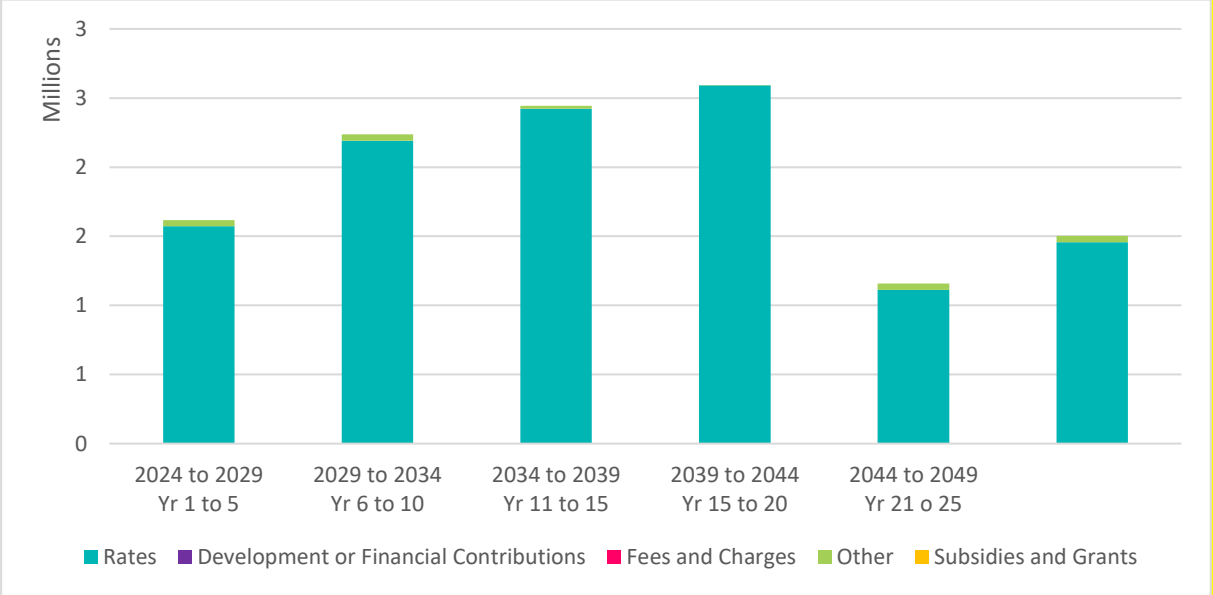


Figure 22: Five Yearly Total Income Years 1 to 30 Including Inflation

Income matches total expenditure over the first ten years and is predominately funded from general rates.

8.3.5 Operational Costs

Figure 23and Figure 24 show the total operating expenditure for the coastal structures activity for the first 10 and 30 years respectively. Operating costs increase with inflation.

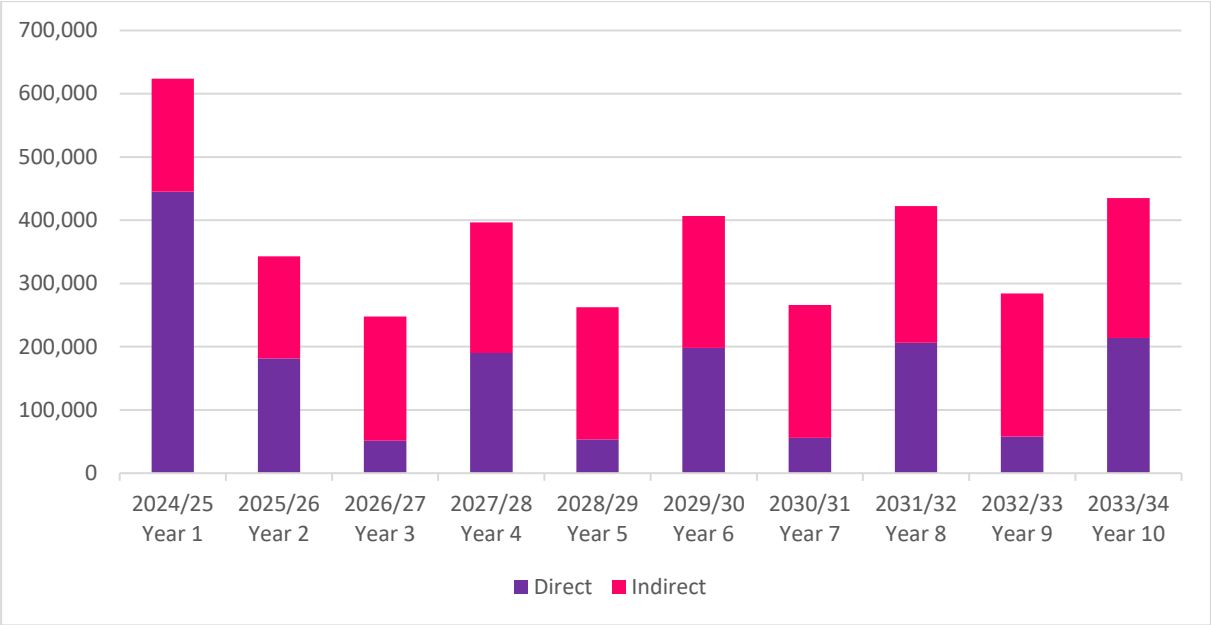


Figure 23: Annual Operating Costs Years 1 to 10 Including Inflation

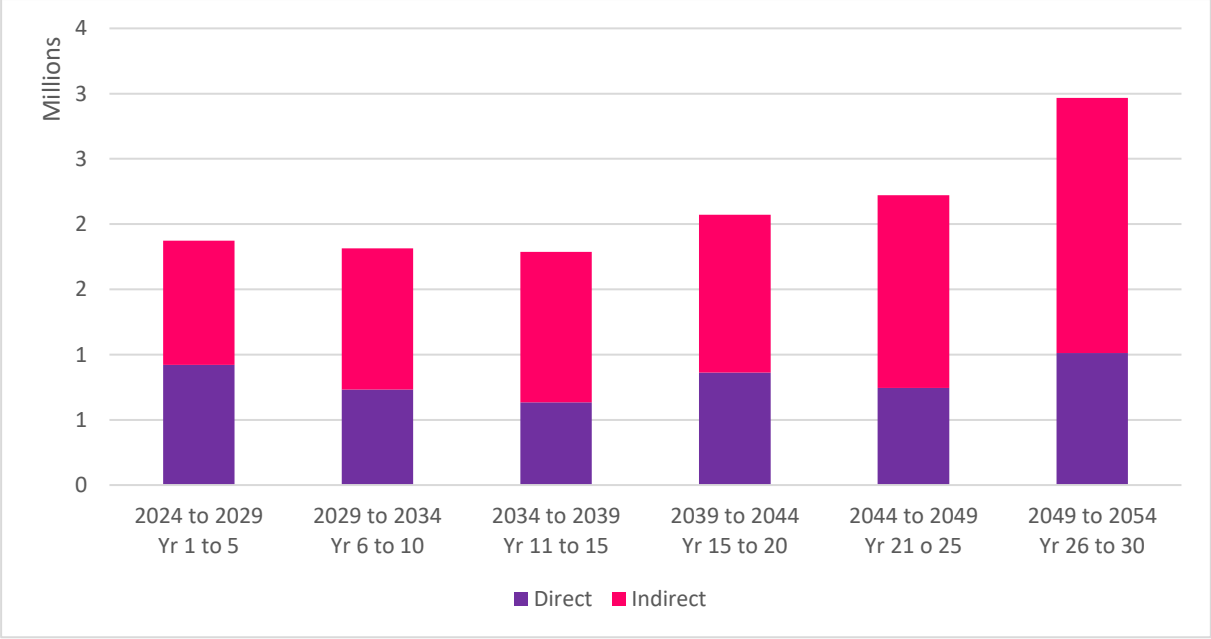


Figure 24: Five Yearly Operating Costs Years 1 to 30 Including Inflation

8.3.6 Capital Expenditure

Figure 25 and Figure 26 show the total capital expenditure for the coastal structures activity for the first 10 and 30 years respectively.

Capital expenditure includes the sea wall extension project in the Marahau in Years 1-2. Other capital expenditure is related minor sign renewal works.

A change for the Coastal Assets Activity since the LTP 2021 – 2031 is that a decision was made by Council on the future Boat Ramp funding and the capital allocation of $700,000 for a *New Tasman Bay Boat Access Facility* (ID 16005) was converted to an operational cost grant (ID 12008) to the Māpua Boat Ramp Trust.

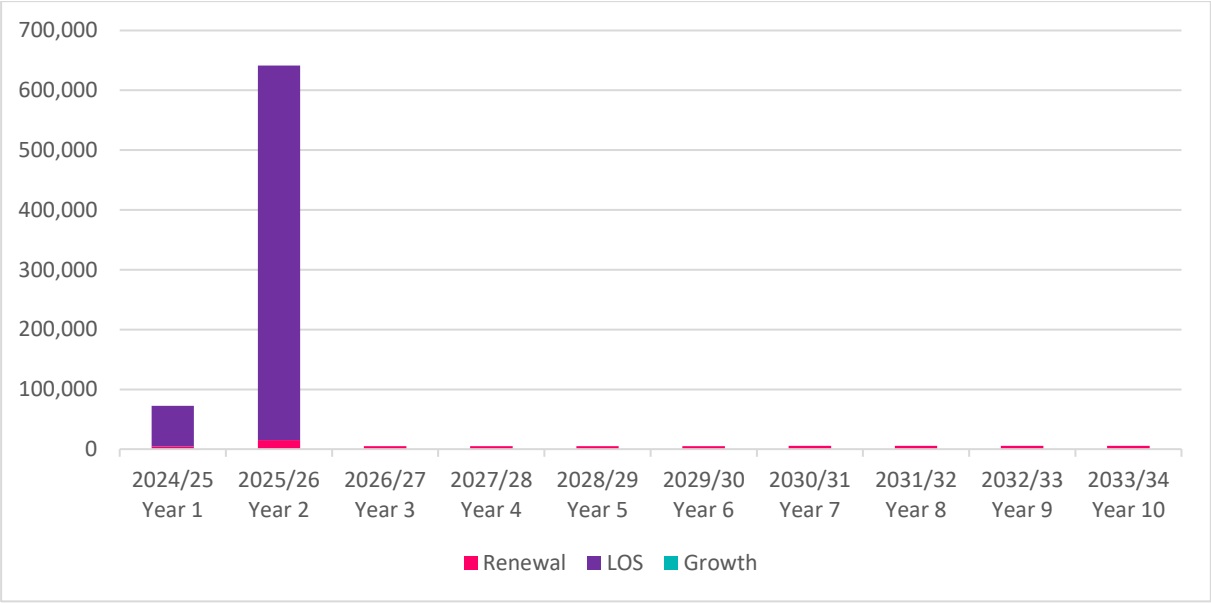


Figure 25: Annual Capital Expenditure Years 1 to 10 Including Inflation

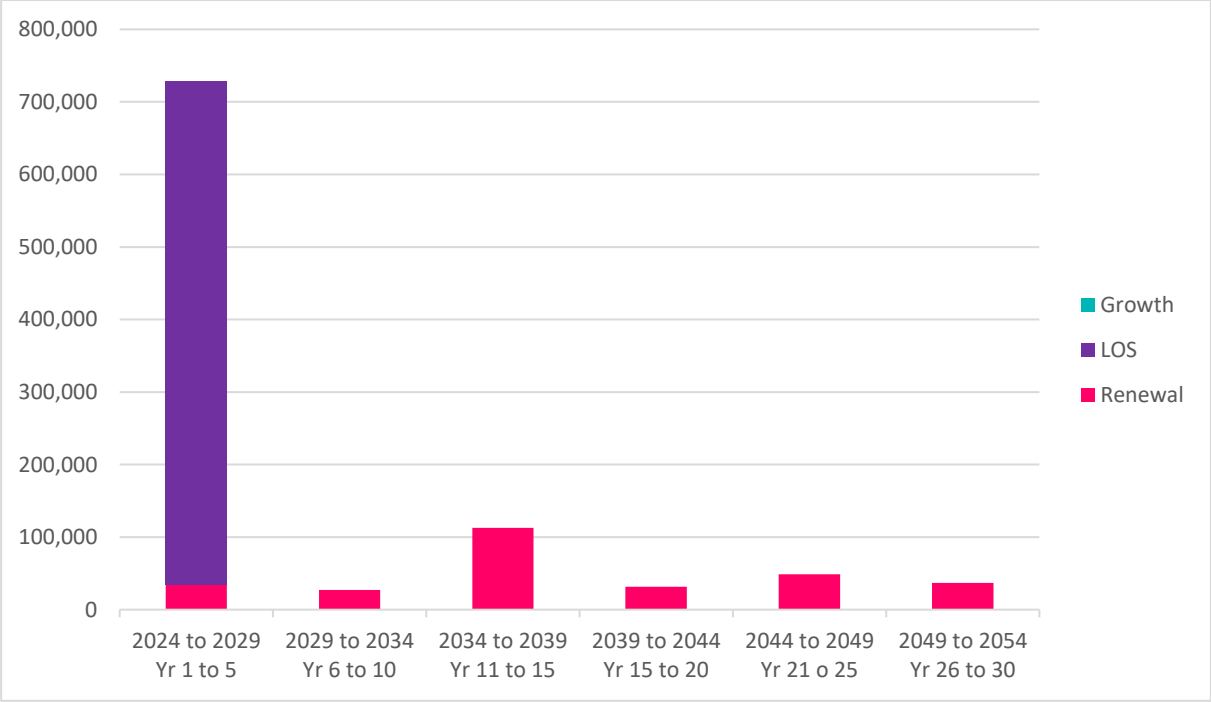


Figure 26: Five Yearly Capital Expenditure Years 1 to 30 Including Inflation

8.3.7 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Fully protecting coastal areas from erosion.
- Expanding the coastal protection structures to meet community expectations.

9 Climate Change, Natural Hazards and Environment

The Tasman region is susceptible to a wide range of natural hazards, some exacerbated by climate change, and the Council needs to plan for these hazards and determine whether adaptation, mitigation, or retreat is appropriate.

The Council needs to ensure it has robust planning in place and provides infrastructure that is resilient. The Council is taking a long term strategic approach by undertaking risk, resilience and recovery planning to provide better information on infrastructure resilience requirements.

The Council will also continue to focus on planning and managing its critical assets and lifelines networks to ensure that the appropriate level of effort is being made to better manage, maintain and renew critical assets.

As well as ensuring its assets are resilient, the Council has a range of financial provisions to assist with response to and recovery from major damaging events. These include:

- annual emergency funding;
- an established Emergency Fund;
- ability to reprioritise the Council's capital programme;
- insurance cover for recovery of a portion of costs of a catastrophic disaster event;
- Central Government support of up to 60% through the Local Authority Protection Programme; and
- Waka Kohati/NZ Transport Agency subsidy of at least 51% for subsidies transportation asset reinstatement.

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).

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.

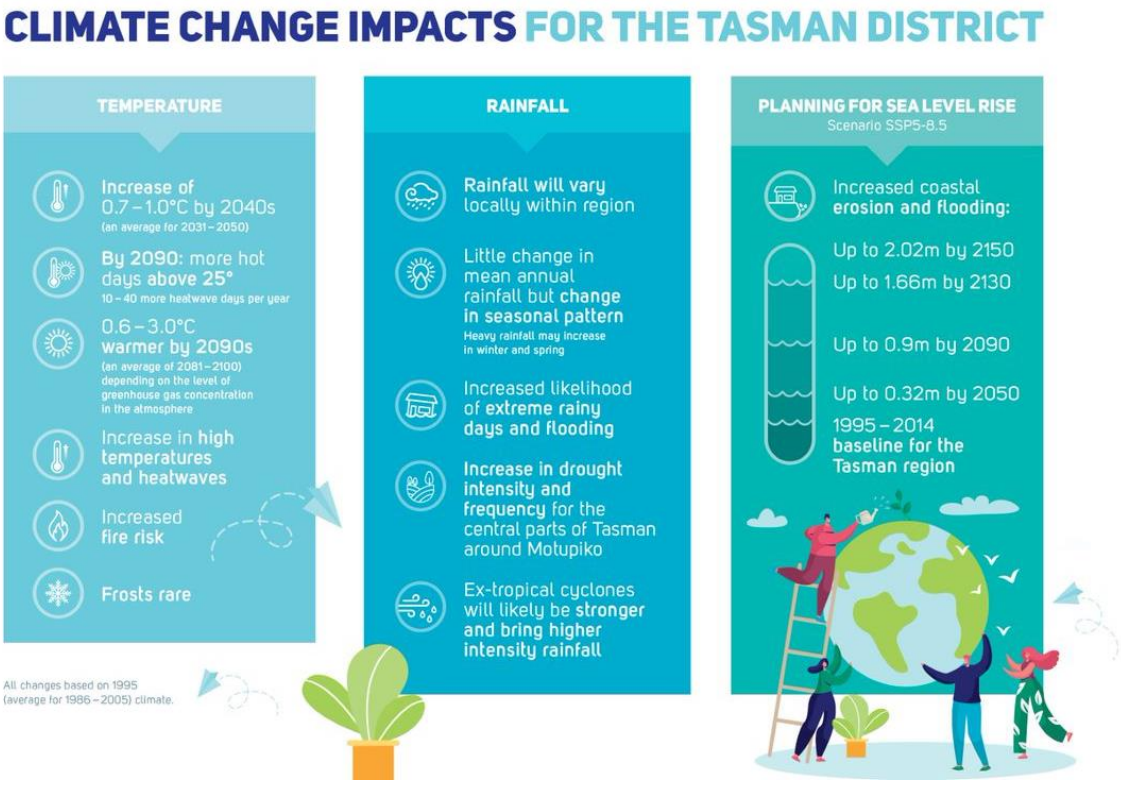
9.1 Climate Change

Embedding climate change, natural hazards and building risk and resilience into core business is an important focus across Council infrastructural activities.

Council has a key role to play in reducing its own corporate emissions, supporting and providing leadership on mitigation actions across the community, including understanding and accounting for risks and resilience-building associated with climate change and natural hazards, including in the following areas:

- **Sea level rise**: sea level rise is a significant climate challenge for Tasman as a large proportion of its urban infrastructure is coastal or low lying. These areas will become more vulnerable to coastal erosion and inundation over time.
- **Heavy rainfall and flooding events**: higher intensity rainfall events mean Tasman will experience more regular and extensive flooding from streams, rivers and stormwater overflows, with an associated increase in land instability.
- **Droughts and high temperatures**: with a warmer climate, the temperature of the water within our rivers and streams will increase and affect habitats. Droughts will result in a higher risk of fires.

The following infographic summarises climate change impacts for Tasman District.



The Council needs to plan for natural hazards and the effects of climate change and determine whether adaptation, mitigation, or retreat is appropriate, working in partnership with our communities. Council has a key role to play in reducing its own corporate greenhouse gas emissions and supporting and providing leadership on climate change mitigation actions across the community. Understanding and accounting for risks and resilience-building associated with climate change and natural hazards is another key role. Embedding climate change, natural hazards and building risk-analysis and resilience into core business is an important focus across Council's activities.

9.1.1 Climate Change Assumptions

The following key assumptions have been made regarding the potential impacts of climate change on the Council's Coastal Assets activity (see the Forecasting Assumptions section in the Council's Long Term Plan 2024-2034 for a detailed explanation of each of these assumptions):

- That Tasman's climate will change based on the NIWA-modelled climate change projections for Tasman District.
- That it is not possible to reduce the mid-century warming, due to the amount of greenhouse gas emissions already accumulated in the atmosphere.
- That different climate change scenarios apply depending on the context:
    - For infrastructure planning, subdivision, consenting and similar planning purposes, Council assumes the climate change scenario of RCP 8.5 or (for sea level rise) SSP5-8.5. This represents a "worst-case" scenario for the impacts of climate change, to avoid the risk of having to replace undersized infrastructure or abandon buildings or subdivisions.
    - For other matters, such as planning Council's proposed mitigation actions, a low-emissions scenario such as RCP 4.5 may be used as a baseline. This scenario assumes that global greenhouse gas emissions peak in the next few years and decline rapidly thereafter, leading to a global temperature increase of around 1.5°C by the end of the century.
- That sea levels will continue to rise and are likely to rise at an accelerated rate over time. The Tasman District is particularly vulnerable to sea level rise due to its extensive coastline. For low lying coastal land there will be increasing inundation and erosion from sea level rise and storm surge.

Our plans assume sea-level rise (SLR) of:

- 0.32m by 2050
- 0.9m by 2090
- 1.66m by 2130, and
- 2.02m by 2150
- (using a baseline of 1995-2014 with a mid-point (zero) at ~2005).

This based on the SSP5-8.5 (83rd percentile) in line with the Ministry for the Environment's Interim Guidance on the use of New Sea-level Rise Projections (August 2022) and sourced from the NZ SeaRise: Te Tai Pari O Aotearoa platform.

MfE is currently undertaking a full update to the 2017 Coastal Hazards and Climate Change Guidance which is expected to be published in 2024. This information will be used to inform Council work once available.

For coastal subdivisions, greenfield developments and major new infrastructure, Council is planning for 1.66m SLR by 2130, and also factoring in the relevant rate of vertical land movement locally (as per the MfE 2022 guidance). The Tasman coastline is generally subsiding with rates typically in the order of -1.0mm to -4.0mm/year (i.e. -0.10 metres to -0.40 metres per 100 years) which will further exacerbate SLR.

The Council acknowledges that there is a range of potential impacts (environmental, social, economic and cultural) associated with climate change, and that these impacts may vary depending on the specific location within the Tasman District. A regional climate change risk assessment is underway to identify the key areas of vulnerability. The next step will be to develop appropriate strategies and adaptation plans to mitigate these risks.

9.1.2 Responding to Climate Change

9.1.2.1 Tasman Climate Response Strategy and Action Plan

In 2019, the Council adopted the *'Tasman Climate Action Plan'* (Action Plan). The Action Plan is Council's initial response to the urgent need to take action on climate change, to build climate resilience and reduce greenhouse gas emissions. This document is under review and will be replaced with the '*Tasman Climate Response Strategy and Action Plan'* in mid-2024.

The Council's *Tasman Climate Response Strategy and Action Plan* will guide our transition to a low-carbon, resilient, and innovative Tasman District. It outlines the key areas of focus for our efforts, including reducing greenhouse gas emissions (mitigation3), building climate resilience (adaptation4), leading by example and empowering communities to act. The updated Climate Action Plan provides more detailed actions and initiatives to achieve these goals. It includes strategies for reducing emissions from the Council's operations, as well as measures to enhance the resilience of our infrastructure, communities and ecosystems.

9.1.3 Resiliency of Coastal Assets

How the Council delivers its services will play a key role in meeting emissions reduction targets and building community resilience.

The Council is working with Nelson City Council on a regional climate change risk assessment, which will build a comprehensive picture of how climate change will impact the region.

How climate change impacts our assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts. As a minimum we consider how to manage our existing assets given likely climate change impacts for our region.

Key aspects for coastal assets are:

- More frequent and more intense storms
- Sea Level Rise

Management of impacts and building resilience opportunities identified to date are shown in Table 13 below.

[3] Mitigation includes reducing greenhouse gas emissions and enhancing carbon sinks. The Council is committed to emissions reduction targets for its own activities in line with government targets.

[4] Adaptation is the process of responding to current and future climate related impacts and risks. To manage these impacts and risks, Council is following the Ministry for the Environment guidance and is using the Dynamic Adaptive Pathways Planning (DAPP) approach. This means managing our assets in a way that makes them more resilient, or in some instances, it may mean moving those assets.

Table 13: Managing the Impact of Climate Change on Coastal Assets and Services

Climate Change Risk	Projected Change	Potential Impact on Assets and Services	Management
Increased storminess and swells	Increased direct damage and vulnerability to erosion	Extensive damage to or destruction of assets Stranding of assets with changes to coastlines	Increased requirements for strenthening or replacement Retreat from the existing coastline.
Higher runoff to the coast	Erosion, transport of pollutants and wastewater overflows increase contaminants	Water quality in receiving environments is permanently reduced	Monitoring of water quality and providing advice to the public and commercial interests
Rising sea levels	Swamping or standing of assets	Extensive damage to or destruction of assets Stranding of assets with changes to coastlines	Retreat from the existing coastline.

9.2 Natural Hazards

The Tasman region is susceptible to a range of natural hazards including:

- Earthquakes, liquefaction, and slope instability
- Flooding, drought, tornadoes and wind; and
- Coastal inundation, erosion, and tsunami.

Natural Hazard Assumptions - Level of Uncertainty: Medium

The following key assumptions have been made regarding the potential impacts of natural hazards on the Council's Coastal Assets activity (see the Forecasting Assumptions section in the Council's Long Term Plan 2024-2034 for a detailed explanation of each of these assumptions):

- That there will be damaging natural hazard events during the term of Tasman's Long Term Plan 2024–2034. Since 2000, Tasman District has been impacted by at least 10 costly weather-related events of varying scales and it is reasonable to expect the next 10-year period to be similar. The frequency and severity of damaging weather-related events will increase into the future, due to climate change.

- There is a high likelihood of localised damaging events, such as from flooding, slope failure, strong winds, coastal erosion, wildfire etc. occurring within the next 10 years, and some of these will be costly (the 2013 Richmond flood was estimated to cost $45m). There remains a modest chance of larger, more widespread, damaging events – such as flooding across multiple catchments, drought or a damaging regional earthquake (including the Alpine Fault) – occurring over this time, with long-lasting effects such as the damage to the Tākaka Hill roading system after Cyclone Gita.
- Council assumes that 60% of the repairs to underground assets will be funded by central government and 51% of repairs to roading assets will be funded by Waka Kotahi/New Zealand Transport Agency (NZTA). If the district sustains storm damage, then the current arrangement with Waka Kotahi is that the funding assistance rate increases with the scale of damage.

9.2.1 Responding to Natural Hazards

The Council is responsible for providing coastal infrastructure that is resilient to events that disrupts 'business as usual'. Examples of coastal network disruption will likely include:

- Asset or landform destruction due to intense storms;
- Earthquake or landslide causing coastal cliff collapse; and
- Sea level rise and coastal inundation that cause assets to fail.

All these types of events can limit our ability to provide adequate and reliable coastal service to our community.

The investment required to ensure our infrastructure can withstand the effects of climate change and natural hazard shock events is significant. For example, system adaptions to the 2013 Richmond flood have not yet been fully installed and cost increases have delayed progress.

9.2.2 Resilience

The Council needs to ensure it has robust planning in place and provides infrastructure that is resilient. The Council is taking a long term strategic approach by undertaking risk, resilience and recovery planning to provide better information on infrastructure resilience requirements.

The Council will also continue to focus on planning and managing its critical assets and lifelines networks to ensure that the appropriate level of effort is being made to better manage, maintain and renew critical assets.

As well as ensuring its assets are resilient, the Council has a range of financial provisions to assist with response to and recovery from major damaging events. These include:

- debt headroom;
- ability to reprioritise the Council's capital programme;
- insurance cover for recovery of a portion of costs of a catastrophic disaster event;
- Central Government support of up to 60% through the Local Authority Protection Programme; and
- Waka Kotahi subsidy of at least 51% towards transportation asset reinstatement.

9.3 Environment

9.3.1 Resource Consents

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991 and subsequent amendments. The RMA is administered locally by the Council, as a unitary authority, through the Tasman Resource Management Plan.

9.3.2 Resource Consent Reporting and Monitoring

An ongoing programme required of "consent renewals" for those components of the Council's 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 Capital programme. Use of the Council's monitoring databases allows the programming for consent renewal including renewal prior to expiry.

9.3.3 Auditing

Regular inspections of key sites are completed and recorded to ensure the Council's maintenance contractor is operating in accordance with a number of key performance indicators including performance measures required under any consent conditions or other legislative requirements.

9.3.4 Environmental Reporting and Monitoring

In addition to audit assessments, non-compliance incidents are recorded, notified to the Council's Compliance Monitoring team and mitigation measures put in place to minimise any potential impacts.

9.3.5 Council's Annual Report

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

9.3.6 Property Designations

Designations are a way provided by the RMA of identifying and protecting land for future public works. The Council has no designations that are due to expire in relation to Coastal Assets.

9.4 Potential Negative Effects

Schedule 10 of the Local Government Act 2002 requires an outline of any significant negative effects that an activity may have on the local community. Potential negative effects associated with the coastal activity are outlined in Table 14.

Table 14: Negative Effects

Effect	Description	Mitigation Measures
Storm surge flooding	**Loss of Life:** Either through extreme waves or associated debris, injury and death may result from storm events. **Social/ cultural:** Localised flooding and erosion may occur in built up areas and cultural sites and affect the well-being of the community. **Economic:** Localised flooding can have significant immediate and ongoing economic consequences on local business. **Environmental:** Mass sediment and pollutant movement can cause significant changes and damage to natural environments. Vulnerable areas such as sea grasses could be totally destroyed with cascading effects to the aquatic ecosystem health.	Coastal inundation modelling. Capital works to increase resilience. Community education. Managed retreat.
Impact to historic and wahi tapu sites.	**Cultural:** Physical works may have an adverse effect on sites.	Record of known heritage sites. Consultation prior to works. Monitoring of erosion near sites.

9.5 Potential Positive Effects

Potential positive effects are outlined in Table 15.

Table 15: Positive Effects

Effect	Description
Access and Mobility	The coastal assets maximise access during and after storm events. Works are integrated with walk and cycle paths.
Amenity and recreation	The Council's policies promote the enhancement of recreational and environmental amenity value when developing new assets through water sensitive design.
Economic Development	The Council maintains coastal assets to minimise damage to private and public assets.
Environmental Protection	The Council minimises damage to the receiving environment through the minimisation of disturbance from manmade and natural events.
Safety and Personal Security	The Council maintains coastal assets to minimise disruption to normal community activities and risk to life.

9.6 Environmental Management

9.6.1 Resource Consents

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991 and subsequent amendments. The RMA is administered locally by the Council, as a unitary authority, through the Tasman Resource Management Plan.

The Council's Engineering Department has over 200 consents to manage. Some consents require active management to ensure reporting and monitoring conditions are met or allow the timely management for lodging new applications before existing consents expire. A register of all active consents including their conditions, compliance actions and expiry dates are managed in Council databases within MagiQ.

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991 and subsequent amendments. The RMA is administered locally by the Council, as a unitary authority, through the Tasman Resource Management Plan.

9.6.2 Auditing

Regular inspections of key sites are completed and recorded to ensure the Council's maintenance contractor is operating in accordance with a number of key performance indicators including performance measures required under any consent conditions or other legislative requirements.

9.6.3 Environmental Reporting and Monitoring

In addition to audit assessments, non-compliance incidents are recorded, notified to the Council's Compliance Monitoring team and mitigation measures put in place to minimise any potential impacts.

9.6.4 Council's Annual Report

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

10 Asset Management Processes and Practices

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

10.1 Appropriate Practice Levels

The Office of the Auditor General (OAG) uses 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 2020, 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 the Coastal Assets activity the Council has determined that the appropriate level of practice is Coastal Assets with 'core' level of practice for demand forecasting, asset register data and asset condition.

10.2 Service Delivery Reviews

10.2.1 Activity and Asset Management Teams

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

The activity management planning function is managed by the Strategic Planning team, Operations are the responsibility of the Utilities and Transportation teams, while Projects and Contracts are managed by the Programme Delivery team.

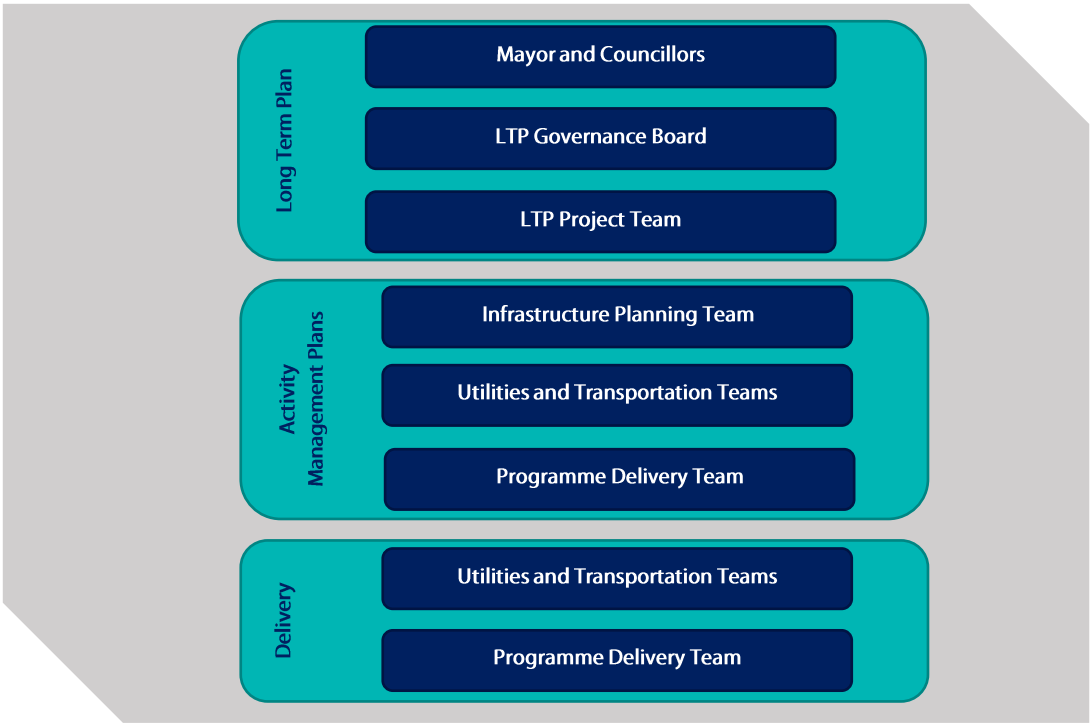


Figure 27: Teams Involved in Activity and Asset Management

The Infrastructure Planning team prepares the update of the activity management plans and oversees implementation of the improvement plan. The draft plans are reviewed internally and released for consultation, then amended as required and adopted by the Council for implementation.

10.2.2 Staff Training

The Council 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.

10.2.3 Professional Support

The Council has a need to access a broad range of professional service capabilities to undertake investigation, design and procurement management in support of its significant capital works programme, as well as support with activity management practice. There is also a necessity on a as-needed basis to access specialist skills for design, planning and policy to support the in-house management of the Council's networks, operations and maintenance.

10.2.4 Procurement Strategy

The Council has a formal Procurement Strategy that it follows, in order to engage contractors and consultants to assist the Council. This strategy has been prepared in part to meet Waka Kohati/NZ Transport Agency's requirements for expenditure from the National Land Transport Fund, and it considers the procurement environment that exists within the Tasman District. It is due for review to remain aligned with Council's strategies. It principally focuses on Engineering activities but is framed in the NZ Transport Agency procurement plan format, which is consistent with whole-of-government procurement initiatives.

10.2.5 Service Delivery Reviews

Since 2014, Section 17A of the Local Government Act has required the Council to review the cost effectiveness of its current arrangements for providing local infrastructure, services, and regulatory functions at regular intervals. Reviews must be undertaken when service levels are significantly changed, before current contracts expire, or not more than six years after the last review.

Table 16 below summarises the last review and when the next review is required for this activity.

Table 16: Summary of Review

Scope of Review	Summary of Review	Review Date	Next Review
Three Waters Operations and Maintenance Contract	An initial review found that current operations and maintenance contract arrangements were appropriate and that the new contract would be procured on a similar basis. A full review is to be conducted in collaboration with Nelson City Council at a later date.	2022	2027

In addition to the Section 17A reviews, the Council is reviewing 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 and operational works programme the following actions are to be undertaken:

- a review of the capital programme for the next five years to better understand project complexities and delivery requirements.
- Investigate a new project management system to track and report project delivery progress.
- Increase the number of Project Managers to enable the project delivery requirements.

10.3 Asset Management Systems and Data

10.3.1 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. 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.

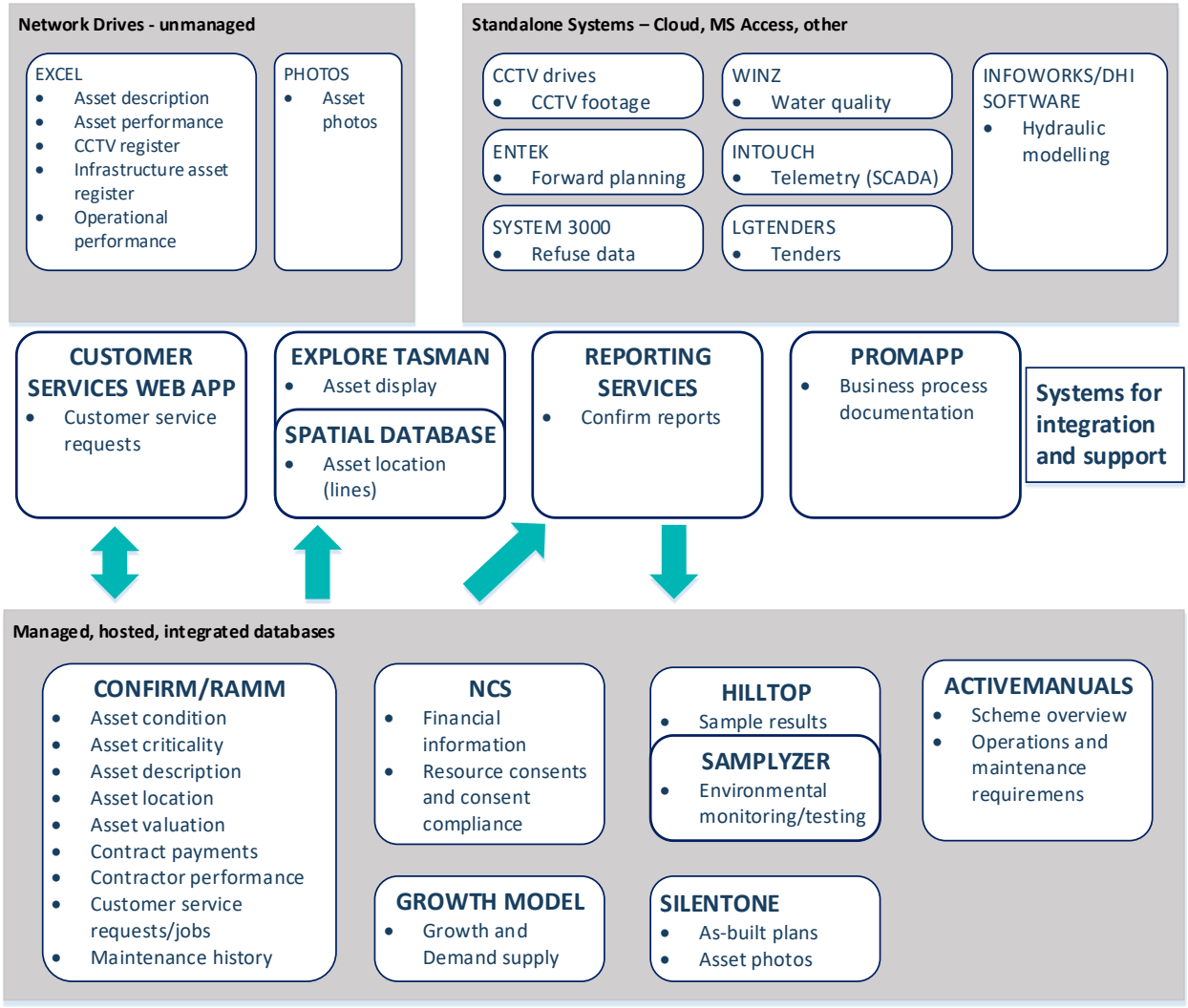


Figure 28: Council's Information Systems and Tools

10.3.2 Asset Data

Table 17 summarises the various data types, data source and how they are managed within the Council. It also provides a grading on data accuracy and completeness where appropriate. The Council is implementing a staged alignment to the NZ Asset Metadata Standard.

10.4 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 to 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; and
- detention dams.

The Nelson Tasman Lifelines Report summarises all lifelines within Nelson and Tasman. Within the report there were a number of actions identified to improve the Region's infrastructure resilience.

The Council also recently developed an asset criticality assessment framework for water supply, wastewater and stormwater. The frameworks is defined by:

- a 'Criticality Score' from one (very low criticality asset) to five (very high criticality asset);
- a set of 'Criteria' against which each asset will be assessed and assigned a Criticality Score (see one above); and
- a set of straightforward, logical rules, measures and proxies under each criterion that can be assessed for each asset and enable a Criticality Score to be assigned in a spatial (i.e. GIS) context.

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

1. Number of people that would be affected 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.

10.5 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 17 below outlines the quality management approaches that support the Council's asset management processes and systems.

Table 17: 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 (LTP) and associated planning process are formalised across the Council. There is a LTP project team, LTP governance team, and AMP project team that undertakes internal reviews prior to the Council approval stages. After completion, 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 structures, solid waste and streetlight assets are shown on the corporate GIS browser, Explore Tasman, and viewers are encouraged to report anomalies to the Engineering Data Management team.
Operations	Audits of a percentage of contract maintenance works are done every month to ensure that performance standards are maintained. Failure to comply with standards is often linked to financial penalties for the contractor.
Levels of Service	Key performance indicators are reported annually via 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 Executive Leadership Team prior to release.

11 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 sustainable way while meeting the community's needs.

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

11.1 Assessment of our Activity Management Practices

In 2021 the Council undertook an asset management maturity review and targets were developed in consultation with Waugh Infrastructure Management Ltd.

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

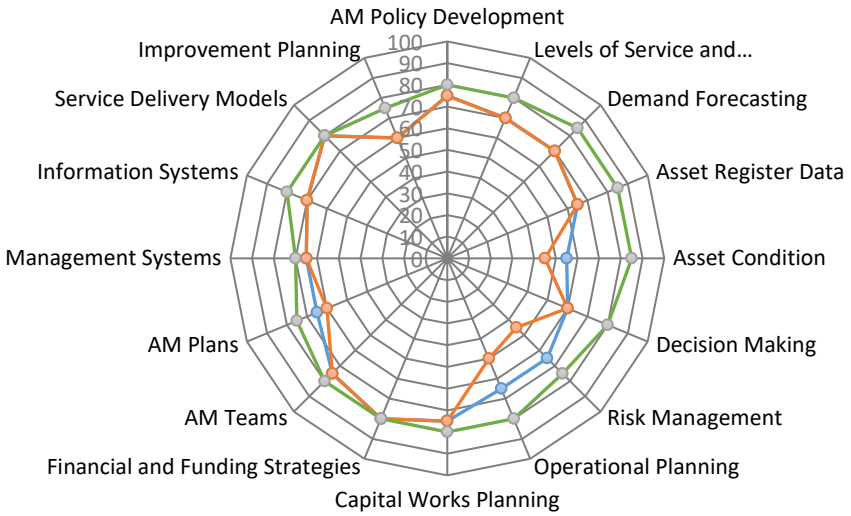


Figure 29: Coastal Assets Maturity Levels

Figure 29 shows that focus areas for improvements were Asset Register Data, Asset Condition, Decision Making, Risk Management, and Operational Planning. Improvements have been incorporated and previously identified gaps have been addressed. Further improvements will be needed to be implemented over the next couple of years to meet the target and actions have been included in the Improvement Plan.

11.2 Peer Reviews

The Council staff reviews and prioritises the feedback received in the peer review reports and incorporates improvements in the activity management plan where possible.

11.2.1 Utility NZ 2021 review

Council engaged Utility NZ to review the 2021 consultation versions of the Three Waters and Transportation Activity Management Plans (AMPs). The review focussed on the strategic purpose of activity planning and its application within the AMPs. The four recommended actions were incoporated into a new template that this AMP is built upon.

11.3 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; and
- ongoing review and monitoring of the programme.

All improvements identified are included in a single improvement programme encompassing all activities. 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.

11.3.1 Summary of Recent Improvements

Based on the peer review and internal evaluations and reviews, the Council has made improvements to its AMP and specific asset management processes.

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

- asset criticality framework has been implemented for the critical infrastructure;
- developers and Council officers are operating in accordance with the Nelson Tasman Land Development Manual.

11.3.2 Summary of Planned Improvements

A list of the planned activity specific improvement items is in Table 18.

A list of general across activity improvement items is given in

Table 19.

Table 18: Specific Improvement Items

Improvement Item	Need for Improvement	Priority	Status	% Complete	Expected Completion Date	Cost/Resource Type	Comments
Cleanup of Coastal Asset Database and visual (GIS) presentation.	No single source of coastal asset data exists nor complete visual representation.	High	Project Proposed for 2024.	5%	2024	Staff Time	Cross departmental project team required to source correct data and establish systems to maintain.
Develop a comprehensive listing of the intended purpose of Council-owned coastal erosion structures.	To facilitate transparency to the public of Council's intent and level of service for these structures. The condition of coastal assets will be assessed against the purpose stated in this list on an annual basis.		Committed action in Response to Audit comments.	0%	by June 2025.	Staff Time	Lead by the Rivers and Coasts Engineer, supported by Strategic staff.

Table 19: General Activity Management Improvement Items

Improvement Item	Further Information	Need for Improvement	Priority	Status	Expected Completion Date	Cost/Resource Type
Provide data confidence ratings for groups of assets within the valuation for each activity.		In the valuation reports data confidence is only assessed across the activity and not for the different types of asset groups. It is likely that data confidence varies considerably between buried assets and above ground assets, and this is not reflected in the reports.	Medium	Not started	June 2025	Consultants and staff time Budget $33,500 in 2019/2020
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, and Recovery Planning).	Engagement is required to determine an appropriate level of service	Medium	Not started	2025	Staff time
Capture and track maintenance data	Historical costs should be analysed to calculate forward budgets	Improve the consistency and confidence when planning operations and maintenance budgets.	Medium	Not started	Ongoing	Staff Time

Appendix A - Detailed Operating Budgets

ID	Name	Description	Total Budget	Financial Year Budget ($)										Total Budget	
			2024-54	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2028/29	2029/30	3030/31	2034-44	2044-54
12002	Marahau Protection	Address new erosion and erosion of existing wall	750,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	250,000	250,000
12006	Coastal Asset Insurance		617,040	20,568	20,568	20,568	20,568	20,568	20,568	20,568	20,568	20,568	20,568	205,680	205,680
12007	Routine Maintenance of Navigation Aids	Routine maintenance of navigation aids	675,000	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	225,000	225,000
12008	Grants Paid		396,000	396,000	0	0	0	0	0	0	0	0	0	0	0
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 / Mapua Seawall Insurance	Insurance	132,090	4,403	4,403	4,403	4,403	4,403	4,403	4,403	4,403	4,403	4,403	44,030	44,030

Appendix B - Detailed Capital Budgets

ID	Name	Description	Project Driver %			Total Budget	Financial Year Budget ($)										Total Budget	
			Growth	IncLOS	Renewals	2024-54	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	3030/31	2028/29	2029/30	3030/31	2034-44	2044-54
16002	Marahau Jetty Renewal	Undertake renewal works on the Marahau jetty	0	0	100	55,055	0	0	0	0	0	0	0	0	0	0	55,055	0
16004	District Wide Sign Renewals	District wide sign renewals	0	0	100	165,000	4,500	14,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	55,000	55,000
16006	Marahau Sea Wall	Extension of the rock revetment at Marahau to limit erosion of the footpath.	0	100	0	660,664	66,066	594,597	0	0	0	0	0	0	0	0	0	0

Appendix C - Key Legislation and Regulations

Table 20: Key legislation

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 AMP 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.

Table 21: National policies, regulations and strategies

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.

Table 22: New Zealand Standards

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.

Table 23: Local policies, regulations, standards and strategies

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.

Appendix D - Key Risks, Assumptions and Uncertainties

Table 24: Key Risks

Risk Event	Mitigation Measures
Catastrophic failure of a coastal structure.	Current: • routine maintenance is included in the coastal structures budgets. • reactive inspection following extreme weather events. • maintain a complete inventory of the Council owned coastal structures and their current condition.
Premature deterioration or obsolescence of an asset.	Current: • maintain the increased number of routine inspections and scheduling of maintenance programme.
Failure to adequately prepare for climate change and failure to respond to changing coastline.	Current: • reactive inspections and maintenance/repairs following extreme weather events. • confirmation of the Coastal Policy Statement which states what the Council is prepared to protect. Proposed: • development of a coastal adaption Plan which includes the fundamentals of New Zealand Coastal Policy Statement (NZCPS) 2010; this is awaiting further direction from central government and Council's environmental policy team.
Customer perception of the Council not doing enough to protect private property and public assets.	Current: • confirmation of the Coastal Protection Policy statement. • regular contact with communities at risk from coastal inundation. • management of resource consents and CSRs.
Failure to manage coastal erosion of public land.	Current: • routine inspections. • resource consent management. • application of NZCPS 2010. • Confirmation of the Coastal Protection Policy statement which states what the Council is prepared to protect. • maintain the routine inspections and scheduling of maintenance programme.

Table 25: 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 2023 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 updated 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 2024-2034 as the basis for its growth planning. However, growth will vary depending on net migration, births and death rates.	That the district will grow or decline as forecast in the Council's Growth Model. The overall population of Tasman is expected to increase by 7,400 residents between 2024 and 2034, to reach 67,900. The District will experience ongoing population growth over the next 30 years but the rate of growth will slow over time. Based on these assumptions, the Council is planning a further 4,200 dwellings and 13 hectares of business land will be required by 2034.	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.
Project Timing	Multiple factors affect the actual timing of projects e.g.: • 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 2024-2034 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
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.	The Council uses the latest climate predictions that have been prepared by NIWA for the Tasman District. 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'. A s 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. 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 0.32m by 2050, 0.9m by 2090, 1.66m by 2130 and 2.02m to 2150 (metres above 1995-2014 baseline). For coastal subdivisions, greenfield developments and major new infrastructure, we are planning for 1.9m SLR based on the RCP8.5H+ scenario set out in the Ministry for the Environment guidance (2017).	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. 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. 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.

Appendix E - Funding Impact Statement

Actual 2023 $000		Actual 2024 $000	Budget 2024 $000	% of Budget	YTD Actual Oct 2023	YTD Budget Oct 2023	YTD Variance	Total Forecast 2023/24	Total Budget 2023/24	Total Forecast Variance	YTD % Total Budget	LTP 2024/25 $000	AP 2024/25 $000	Plan 2023/24 $000	Plan 2024/25 $000	Plan 2025/26 $000	Plan 2026/27 $000	Plan 2027/28 $000	Plan 2028/29 $000	Plan 2029/30 $000	Plan 2030/31 $000	Plan 2031/32 $000	Plan 2032/33 $000	Plan 2033/34 $000
	SOURCES OF OPERATING FUNDING																							
26	General rates, uniform annual general charges, rates penalties	23	56	41%	19	19	0	19	56	38	34%	565	0	56	125	154	194	366	401	401	385	425	430	426
69	Targeted rates	36	71	51%	24	24	0	24	71	47	34%	73	0	71	70	68	66	65	63	52	18	18	18	18
0	Subsidies and grants for operating purposes	0	0	0%	0	0	0	0	0	0	0%	0	0	0	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	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
7	Local authorities fuel tax, fines, infringement fees, and other receipts	3	7	43%	2	2	0	2	7	5	29%	14	0	7	7	9	9	9	9	9	9	9	9	9
102	**Total operating funding**	**62**	**134**	**46%**	**45**	**45**	**0**	**45**	**134**	**(90)**	**34%**	**652**	**0**	**134**	**202**	**231**	**269**	**440**	**473**	**462**	**412**	**452**	**457**	**453**
	APPLICATIONS OF OPERATING FUNDING																							
179	Payments to staff and suppliers	(12)	267	4%	(16)	159	174	(16)	476	493	3%	453	0	267	508	248	120	260	127	274	132	285	137	296
14	Finance costs	6	14	43%	5	5	0	5	14	9	36%	43	0	14	14	16	36	34	25	16	9	3	(4)	(11)
23	Internal charges and overheads applied	26	74	35%	24	25	1	24	74	50	32%	68	0	74	100	79	92	102	111	118	125	135	150	149
0	Other operating funding applications	0	0	0%	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0	0	0	0	0	0
216	**Total applications of operating funding**	**20**	**355**	**6%**	**13**	**189**	**175**	**13**	**564**	**552**	**102%**	**564**	**0**	**355**	**622**	**343**	**248**	**396**	**263**	**408**	**266**	**423**	**283**	**434**
											0%													
(114)	**Surplus/(deficit) of operating funding**	**42**	**(221)**	**-19%**	**32**	**(144)**	**175**	**32**	**(430)**	**462**	**93%**	**88**	**0**	**(221)**	**(420)**	**(112)**	**21**	**44**	**210**	**54**	**146**	**29**	**174**	**19**
	SOURCES OF CAPITAL FUNDING										0%													
0	Subsidies and grants for capital expenditure	0	0	0%	0	0	0	0	0	0	0%	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
(60)	Increase (decrease) in debt	(25)	(91)	27%	(20)	(30)	(11)	(20)	(91)	(71)	22%	940	0	(91)	(18)	509	(134)	(134)	(166)	(153)	(105)	(136)	(135)	(134)
0	Gross proceeds from sale of assets	0	0	0%	0	0	0	0	0	0	0%	0	0	0	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	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
(60)	**Total sources of capital funding**	**(25)**	**(91)**	**27%**	**(20)**	**(30)**	**11**	**(20)**	**(91)**	**71**	**128%**	**940**	**0**	**(91)**	**(18)**	**509**	**(134)**	**(134)**	**(166)**	**(153)**	**(105)**	**(136)**	**(135)**	**(134)**
	APPLICATIONS OF CAPITAL FUNDING																							
	Capital expenditure										0%													
0	- to meet additional demand	0	0	0%	0	0	0	0	0	0	0%	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
(12)	- to replace existing assets	2	213	1%	0	1	1	0	4	4	0%	1,098	0	213	73	641	5	5	5	5	5	5	6	6
(162)	Increase (decrease) in reserves	15	(525)	3%	12	(175)	(187)	12	(525)	(537)	2%	(70)	0	(525)	(511)	(244)	(118)	(95)	39	(104)	36	(112)	33	(121)
0	Increase (decrease) in investments	0	0	0%	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0	0	0	0	0	0
(174)	**Total applications of capital funding**	**17**	**(312)**	**-5%**	**12**	**(174)**	**(186)**	**12**	**(521)**	**(533)**	**98%**	**1,028**	**0**	**(312)**	**(438)**	**397**	**(113)**	**(90)**	**44**	**(99)**	**41**	**(107)**	**39**	**(115)**
114	**Surplus/(deficit) of capital funding**	**(42)**	**221**	**-19%**	**(32)**	**144**	**(175)**	**(32)**	**430**	**(462)**	**93%**	**(88)**	**0**	**221**	**420**	**112**	**(21)**	**(44)**	**(210)**	**(54)**	**(146)**	**(29)**	**(174)**	**(19)**
0	**Funding balance**	**0**	**0**	**0%**	**0**	**0**	**0**	**0**	**0**	**0**	**0%**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**