

Ngā mahere whakaurutau mō te takutai

Shoreline Adaptation Plan

Manukau North

Volume 2: Introduction to the SAP area

August 2025, Version 1.0



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<u>Acknowledgements</u>

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The document was prepared by Engineering, Assets and Technical Advisory, and supported by advice from Healthy Waters, Parks and Community Facilities and numerous other Auckland Council departments, Eke Panuku, Auckland Transport and Watercare Services. Ecomatters have been both community partners and consultants to the Auckland Council team supporting inputs and making community connections.

We would like to acknowledge and thank the Local Boards and Ward Councillors for their ongoing support of the Shoreline Adaptation Plan Programme. The Local Boards and Ward Councillors have actively supported the development of this report, promoting and attending community events and providing valuable insights regarding the challenges for shoreline engagement across the Waitematā Harbour West coastline. The project team would like to acknowledge their support for the programme, as well as the local community, key stakeholders and third-party infrastructure and asset/landowners (including NZTA Waka Kotahi; the Department of Conservation and Transpower Ltd) and users of the wider Manukau Harbour North coastline for their engagement, support, and ongoing interest in this SAP.

As set out in *Volume 1: Understanding the Shoreline Adaptation Plans*, adaptation planning is an ongoing process, with SAPs being a collective first step towards an adaptive approach for the future of our coast for current Aucklanders and the generations to come. Reflecting on this, SAPs operate as living documents, with a strong commitment to continue working in partnership with project partners to inform and guide the implementation of each SAP area plan and further adaptation planning actions. As a living document, future revisions can be made to include additional context as/ when requested (e.g. as per cultural context holding statements illustrated in section 3.0).

Mātauranga Protection Statement (Disclaimer)

Auckland Council acknowledges that all cultural information within this document is the intellectual property of iwi who have contributed to the development and co-authoring of this Shoreline Adaptation Plan (SAP). To ensure the protection of Mātauranga Māori, cultural information must not be recirculated to other workstreams without direct consultation with and approval by iwi, to whom this information belongs and how it can be used.

To ensure that cultural values and associations are recognised and provided for in any works programme, it is fundamental that this partnership and co-management approach with the iwi of Tāmaki Makaurau is applied to each specific coastal stretch when implementing the direction set out in this SAP. Failure to do so has the potential to result in significant adverse cultural impacts.

Early and meaningful engagement with the relevant iwi groups on projects under this SAP is an essential requirement. This will ensure that Auckland Council and Auckland Council-owned organisations meet their obligations to Ngā Mana Whenua o Tāmaki Makaurau and Te Tiriti o Waitangi. Iwi must be given the opportunity to act in their role as Kaitiaki when implementing projects under this SAP.

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Quick Reference

The Shoreline Adaptation Plan (SAP) programme is presented across three volumes of reporting:

- Volume 1: Understanding the Shoreline Adaptation Plans programme and regional scale context
- Volume 2: Shoreline Adaptation Plan area specific overview subregional scale (across 20 SAP areas)
- **Volume 3:** Unit (and stretch) context and adaptation strategies set for each section of Auckland's 3.200 km of coastline.



Glossary

Key terminology and infographics commonly used within this volume and all of the shoreline adaptation plan documents are outlined below.

Term	Definition
Adaptive planning	Adaptive planning encompasses the hazard assessments, the values and objectives and the vulnerability and risk assessments that feed into the dynamic adaptive pathways planning approach, and the measures to implement them through the Resource Management Act 1991, Long-Term Plans, asset plans and other Auckland Council plans, along with the monitoring framework for review and adjustment (Ministry for the Environment, 2024).
Annual Exceedance Probability (AEP)	The probability of an event occurring in any given year, e.g. the 1% AEP has a 1% chance of being met or exceeded in any given year.
Biodiversity Focus Area (BFA)	 Prioritised areas of ecological significance that guide a delivery of conservation activity and were identified as they protect a representative range of all indigenous species and ecosystems within the region.
Catchment flooding	Flooding which occurs when the amount of rainfall exceeds the capacity of an urban stormwater network or the ground to absorb it.
Climate hazard	The potential occurrence of climate-related physical events or trends that may cause damage and/or loss.
Coastal erosion	The removal of the material forming the land due to natural processes, resulting in the coastline moving inland over time.
Coastal inundation	The flooding of low-lying coastal land that is normally dry, due to elevated sea levels.
Council-controlled organisation (CCO)	 Organisations in which Auckland Council has the responsibility to appoint at least 50% of the board of directors or trustees. Auckland Council has four substantive CCOs: Auckland Transport, Tātaki Auckland Unlimited, Eke Panuku Development Auckland, and Watercare.
Council	Auckland Council
Cultural Heritage Inventory (CHI)	An Auckland Council database which contains records for archaeological sites, historic buildings, historic botanical sites, shipwrecks, and other places of heritage interest in the Auckland region.
Dynamic Adaptive Pathways Planning (DAPP)	 A decision-making approach to analyse the flexibility of options and pathways under conditions of uncertainty using scenarios for stress testing options and monitoring of signals and triggers for anticipatory planning (MfE).
Exposure	The nature and degree to which a system is exposed to significant climate variations.
Hazardscape	The net result of natural and man-made hazards and the risks they pose to an area.

Term	Definition
Indigenous biodiversity	A living organism that occurs naturally in Aotearoa, and the ecological complexes of which they are part of – this includes all forms of indigenous flora, fauna, fungi, and their associated habitats.
Nature-based solution	A collection of approaches to address societal issues, including climate change, through the protection, management, and restoration of ecosystems.
SAP	Shoreline Adaptation Plan
SAP area	An identified area for the purposes of the SAP development of Shoreline Adaptation Plans. There are 20 SAPs for the Auckland region.
SAP stretch	Each SAP unit is typically broken down into smaller stretches considering coastal processes, Auckland Council-owned land and asset location, pubic-land boundaries, and infrastructure considerations.
SAP unit	The SAP area is divided into smaller SAP units to enable a more detailed and comparative view of how risk is attributed across the subject area.
Sea-level rise	The increase in the level of the ocean, caused by the melting of glaciers and ice sheets and thermal expansion of water as it warms.
Significant Ecological Area	• Significant Ecological Areas (SEAs) have been identified by the Auckland Unitary Plan (AUP: OP) for terrestrial areas, and parts of the coastal marine area.
	Marine Significant Ecological Area (SEA-M):
	 Identified areas of important indigenous vegetation or habitats of indigenous fauna located in the coastal marine area, and are afforded protection under the AUP:OP.
	Terrestrial Significant Ecological Area (SEA-T):
	 Identified areas of important indigenous vegetation or habitats of indigenous fauna located on land or in freshwater environments and are afforded protection from the adverse effects of subdivision, use and development.
Site and place of significance to Mana Whenua	Sites and Places of Significance to Mana Whenua applies to sites and places in the Tāmaki Makaurau/ Auckland region that are protected for their significance to mana whenua. It acknowledges that sites and places have tangible and intangible cultural values in association with historic events, occupation, and cultural activities.
Statutory Acknowledgement Areas (SAA)	A statutory acknowledgement is an acknowledgement by the Crown that recognises the mana of a tangata whenua group in relation to specified areas - particularly the cultural, spiritual, historical, and traditional associations with an area.
Social Infrastructure	Facilities and assets that support social activities, interactions, and wellbeing within a community.

Shoreline Adaptation Plan Areas

Tāmaki Makaurau, Auckland, is a coastal city, bounded to the east and west by the South Pacific Ocean and the Tasman Sea. The region has around 3,200 km of dynamic coastline and encompasses three major harbours: the Kaipara, Manukau and Waitematā. Due to its location, much of the city's urban development and supporting infrastructure is concentrated in coastal areas and exposed to coastal processes such as erosion and inundation. These natural processes are considered hazards when they impact on things or locations of value. Climate change related to greenhouse gas emissions is contributing to rising sea levels, which have a range of impacts including increasing the frequency and magnitude of coastal hazard events. Auckland Council began developing a series of Shoreline Adaptation Plans (SAPs) in 2021. These area-based plans form the first step for the SAP programme in achieving a resilient future for Auckland's coasts. A more detailed discussion on the SAP Program can be found in *Volume 1: Understanding Shoreline Adaptation Plans*.

As shown in Figure 1-1, twenty SAPs make up Auckland's ~3200 km of coast as follows:

- Aotea Great Barrier and the Hauraki Gulf Islands
- Āwhitu
- Kahawairahi ki Whakatīwai / Beachlands and East
- Central Auckland
- · Highbrook to Whitford
- Kaipara Harbour Moana
- Manukau Harbour East
- Manukau Harbour North
- Manukau Harbour South
- Ōrākei to Tahuna Torea
- Pahurehure Inlet

- Pākiri to Matheson Bay
- Snells Beach to Ōrewa
- Tāmaki Estuary
- Ti Point to Sandspit
- Waiheke Island
- Waimanawa Little Shoal Bay mini SAP
- Waitematā Harbour West
- Weiti Estuary to Devonport Peninsula
- Whangaparāoa
- · Whatipu to South Head

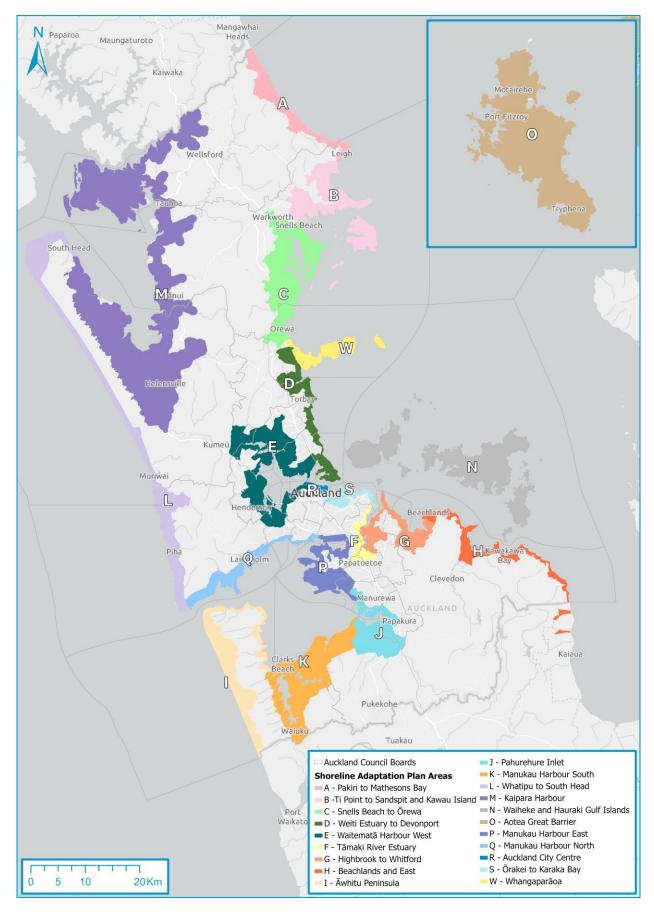
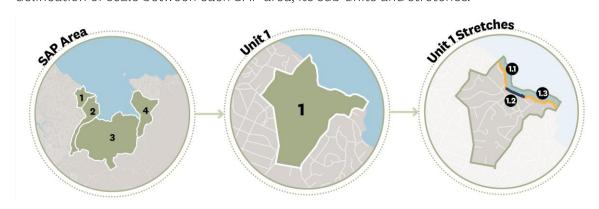


Figure 1-1: Shoreline Adaptation Plans (regional)

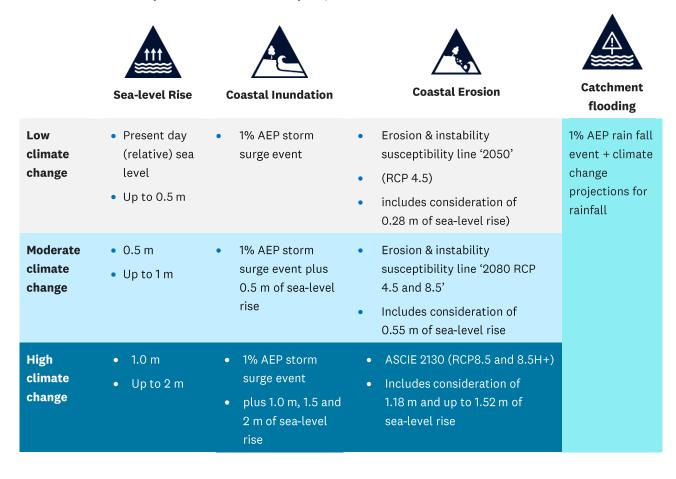
SAP areas, units & stretches

Within each SAP area, the coastline has been broken up into coastal stretches based on coastal processes, Auckland Council-owned land and asset location, public land boundaries, and infrastructure considerations. Coastal stretches have been grouped into broader coastal unit areas. It is important to note here that coastal units and stretches do not strictly reflect the historical cultural boundaries which often extend over multiple units or coastal stretches. The figure below outlines the delineation of scale between each SAP area, its sub-units and stretches:



Climate change scenarios (timeframes for change)

For the SAPs, the following scenarios are used to evaluate how exposure to coastal inundation, erosion and instability and sea-level rise may impact coastal land and assets.



Auckland Council's adaptation strategies

High-level adaptation strategies are developed for each coastal stretch under a low, moderate and high climate change scenario (inclusive of sea-level rise projections), with an indication of how these choices reflect the escalating risk, considerations of infrastructure providers, and the values and objectives of local iwi and the local community. Importantly, strategies outlined within each unit and subsequent coastal stretch apply only to the area of Auckland Council-owned land and assets along the coastal margin.

These recommended strategies do not apply to offshore activities (such as marine farms) or private property. Each high-level strategy provides flexibility for how it is applied to different assets. The value of the strategic approach is to ensure general continuity across asset management, acknowledging hazard risks and impacts of management of one asset class may impact on or have implications for others. Coastal adaptation strategies applied to each coastal stretch are described in further detail below:

No Action



- There are limited risks identified to Auckland Council land and assets as a result of coastal hazards and climate change.
- Natural coastal processes may be complementary to the natural coastal environment or its values.

B

Maintain

- Better decision-making today for Auckland Council land and assets.
- Actions manage risk, build resilience and support best practice coastal management outcomes.

Protect



- Uses and assets are maintained in their current location.
- Protection measures (mitigations) are required to manage risk, and nature-based solutions and hard protection may be utilised.



Adaptation Priority Area

- Auckland Council land and assets are exposed to hazard risk including the impacts of climate change.
- The value and importance of assets, complexity of the hazardscape and social, cultural
 or ecological values are present which requires further adaptation planning to determine
 a management response.

1

SAP Area introduction

The Manukau North SAP area covers approximately 50 km of the Manukau Harbour's northern coastline, from Hillsborough (the western end of Taumanu Reserve / Onehunga Bay) to Whatipu in the west. The SAP area falls within the Puketāpapa, Waitākere Ranges and Whau Local Board boundaries. Communities include Hillsborough, Lynfield, Blockhouse Bay, Titirangi, Laingholm, Cornwallis and Huia.

The area has a diverse shoreline environment, including a mix of sandy beaches, inlets, promontories and high steep cliffs. For the purpose of adaptation planning, the area has been divided into 7 SAP units with 31 stretches. The more populated eastern end of this SAP has smaller units which reflect the scale of key communities and coastal areas.

There is extensive, predominantly residential development along the eastern end of the SAP area. Due to the relatively steep cliffs, infrastructure is generally set back from the coastal edge. These steep cliffs also prevent easy access to the coast, and as a result, beach and water access is concentrated within the lower lying areas of bays and inlets.

Auckland Council land and assets within the Manukau North SAP area include (but are not limited to): 2,838 ha of parkland (including assets such as carparks, paths, playgrounds and buildings), 437 km of water pipes and over 99 km of transport corridor. These landholdings and assets support community, cultural and ecological uses and form part of wider landscapes and systems.

The development of these shoreline adaptation strategies is a starting point for dynamic adaptation planning for the Auckland region and also acknowledges Te tiro ā Māori ki tōna ake ao, a Māori worldview. This reflects the consideration of intergenerational time horizons as a fundamental part of addressing the impacts of climate change and sea-level rise. It also acknowledges the need to consider the tangible and intangible, the inter-relationship of all living and non-living things and the vital connection between people and te taiao (the natural environment) in which they live. The adaptive strategies Volume 3 which guide how coastal land and assets owned by Auckland Council will be sustainably managed have been informed by:

- Local iwi, acknowledging the cultural values and associations of iwi which centred on supporting local iwi objectives and aspirations set out in Section 3
- The objectives of the local community, identified through community engagement and analysis of social context, set out in Section 3 (community feedback and social context)
- Technical inputs including hazard risk, coastal hazard and climate change projections, ecological and policy framing (as set out in Section 2)
- Advice from infrastructure and assets owners/managers (Auckland Council asset owners, Auckland Transport, Eke Panuku and Watercare Services).

A range of adaptation strategies are recommended across this SAP area, discussed in further detail in Volume 3 and summarised in Section 4 of this report.



Figure 1-1: Overview of Manukau Harbour North SAP area

2

What's happening

This SAP report considers natural hazards relating to coastal inundation, coastal erosion and coastal land instability, catchment flooding and climate-change induced sea-level rise. Other hazards, including inland land instability, drought and wildfires, are not within the scope of this assessment. In addition, risks from low probability but high potential impact events (such as volcanic, tsunami, and earthquake events) are not included. Such hazards are managed through measures put in place by emergency management groups including Auckland Emergency Management (Civil Defence). Further information on local emergency readiness planning can be located here, accessible by local board area.

For further discussion regarding coastal hazards and climate change, as considered within the scope of the Shoreline Adaptation Plans, refer to *Volume 1: Understanding the Shoreline Adaptation Plans*.

Coastal context

This coastline includes a variety of coastal environments, including:

- Inner harbour cliffs and beaches with a lower wave-energy shoreline
- Sheltered tidal inlets
- Areas closer to the Manukau Harbour entrance with more exposed wave-energy shoreline.

Manukau Harbour is the second largest harbour on the west coast of the North Island (Kaipara being the largest) and has an area of about 368 km² with over 450 km of shoreline in total (Auckland Council, 2021).

The harbour entrance is narrow, bringing water from the Tasman Sea, with approximately half the water draining out of the harbour on each tidal cycle (Auckland Council, 2021). The harbour experiences a 3.8 m spring-tide range which results in around 140 km² of intertidal flats being exposed at low tide.

This SAP area covers approximately 50 km of the Northern Manukau Harbour coastline. The southern end of the Waitākere Ranges is part of an eroded offshore volcano that erupted some 20 million years ago and forms the north head of the harbour. The shoreline's character is largely a result of the topography, local geology, and coastal processes (including tides, waves and currents) that act upon the land-sea interface. As well, human modifications such as land reclamation and construction of coastal defences have altered the shoreline's position along significant lengths of coast, e.g. along the Huia Bay shoreline.

Beaches along this shoreline occur at Huia, Foster, and Kaitarakihi Bays, at Cornwallis, and at Mill, Laingholm, Paturoa, French, and Blockhouse Bays. They are generally small, narrow beaches that provide limited buffering of the coastal processes that act upon the shoreline during storm events.



Figure 2-1: The iconic Huia Bay with recently constructed groynes and seawall protected the Huia Domain foreshore in the background

The entire Manukau North shoreline is a relatively low wave-energy environment. The prevailing wind is from the southwest to west sector, as are the longest wave fetches (distance over which wind can generate waves). Āwhitu Peninsula and the Manukau Bar block open ocean coast waves from the Tasman Sea (high wave-energy) and restrict the wave fetch across the harbour. However, swell waves through the harbour entrance can occasionally propagate into the north of the Huia embayment. In addition, the shallow nature of the harbour limits the amount of wave energy impacting upon the shoreline.

Tidal currents within the Manukau Harbour, inlets and creeks are predominantly generated by the large tidal range and are largely confined to the main channels. There is an arterial network of channels that transport tidal flows through the harbour and the tidal flows through the Wairopa Channel are characteristic of the coastal processes along this SAP area, providing access and amenity for the communities within this area.

2.1 Natural hazards & climate change

Natural processes, such as coastal inundation and erosion, become hazards when they have the potential to negatively impact things of value. Tāmaki Makaurau / Auckland is frequently affected by natural hazard events and is likely to experience more frequent and severe events in the future due to climate change. Sea-level rise will increase the zone of exposure. For shoreline areas with assets and infrastructure, or cultural heritage sites near the coastal edge (including recreational and environmental areas), the impacts of coastal hazards may be significant.

Scenarios for change, or scenario-based climate projections (inclusive of sea-level rise) have been used to evaluate how the risk of coastal inundation, erosion and instability may impact the Manukau North SAP area, noting that projected conditions may occur sooner or later depending upon climate emissions.

A fulsome discussion around low, moderate and high scenarios for (climate) change and how each is considered to inform the selection of coastal adaptation pathways can be found in *Volume 1*: *Understanding the Shoreline Adaptation Plans*.

Coastal inundation (including sea-level rise)

Auckland Council's best available information on extreme sea-water levels in the Auckland region is presented in the report *Auckland's exposure to coastal inundation by storm-tides and waves*⁴. The modelled spatial extent of potential inundation is published on Auckland Council's web-based portal GeoMaps(Natural Hazards Theme). A range of scenarios are mapped on this platform, spanning from the 5-year Average Recurrence Interval (ARI), corresponding to the 18% Annual Exceedance Probability (AEP), to the 100-year ARI event (1% AEP) to demonstrate Auckland's exposure to a range of present-day extreme events.

Within the Manukau North SAP area, low-lying areas at Taylors Bay, Taunahi / Wattle Bay, Waikowhai
Park, Blockhouse Bay Beach Reserve, Wairaki ki uta/ Wairaki Stream Reserve, Tauihu/ Green Bay
Beach Reserve, Titirangi Beach, French Bay, Laingholm Bay, Kakamatua Inlet, Foster Bay and Huia
are susceptible to coastal inundation. The extent of the area exposed increases with ongoing sealevel rise. Rainfall/stormwater runoff may contribute to the area that is inundated, particularly within
narrow sections of an estuary. However, due to the steep topography along this shoreline this
potential will be confined to few places, e.g. potentially may occur at Taylors Bay. Figure 2-2: Coastal Inundation (CI) for 1%
AEP storm surge for present day and with 0.5 m, 1 m and 2 m sea-level rise. Source: Manukau North Risk Assessment
Technical Report, 2024, Tonkin & Taylor.

The figure below shows the resulting coastal flooding hazard extents at the Manukau North SAP scale for:

- Coastal Inundation 1% Annual Exceedance Probability (AEP) event (meaning a 1% chance of occurring in any year, or otherwise known as a 1 in 100-year return period)
- The same event with 0.5 m and 1.0 m sea-level rise added (to represent medium- and long-term change).



Figure 2-2: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m and 2 m sea-level rise. Source: Manukau North Risk Assessment Technical Report, 2024, Tonkin & Taylor.

Coastal erosion (including sea-level rise)

The areas along the Manukau North shoreline that are susceptible to coastal instability and erosion (ASCIE) for a range of climate change (sea-level rise) scenarios and periods are published on Auckland Council's GeoMaps (Natural hazards theme). The mapping is based on Auckland Council's technical report *Predicting Auckland's Exposure to Coastal Instability and Erosion*⁶.

Coastal erosion is the removal of the material forming the land due to natural processes, resulting in the coastline moving inland over time. It is a complex process caused by factors including wave energy, changes to sediment availability and land use, and sea-level rise. Although some types of shorelines (e.g. beaches) may undergo short-term periods or episodes of erosion and then recover (i.e. build out again), other types of shorelines (e.g. cliffs) continuously erode with no cycle of

recovery. Coastal instability is the movement of land (typically as a landslide) resulting from the loss of support caused by coastal erosion.

Areas Susceptible to Coastal Instability and Erosion (ASCIE) have been mapped using IPCC Assessment Report 5 (AR5) climate change scenarios (RCP emission trajectories), and LiDAR data. Further discussion of the use of hazard data and climate change scenarios is included in Volume 1. The ASCIEs are shown as a line, representing the distance (in metres) landward of the current coastline that is predicted to be susceptible to coastal instability and erosion, based on the modelled assumption of sea-level rise. The regional scale assessment of the ASCIE provides a conservative or 'first pass' appraisal of the natural hazard extent. A more detailed site-specific assessment is required to quantify exposure and risk of localised land or assets of significant value.

Shoreline changes brought about by coastal instability and erosion can be slow and incipient, resulting in a gradual landwards retreat through the processes of weathering, marine and bio-erosion processes, or more evident, occurring as episodic failures, due to changes in mass balance, e.g. loading or when a cliff yields along a geological feature such as a fault. Areas with higher exposure to erosive forces are more at risk to coastal instability and erosion, where waves interact directly with cliff faces (e.g. no beach) or where cliffs are steep with little vegetation cover. As sea-level rise occurs, waves will interact with a larger portion of the cliff and slope instability and erosion along the coast are expected to increase. Along the beach shorelines, erosion predictions are gradual and increase over time with the expected impacts of sea-level rise.

The Mean ASCIE lines indicate that the area susceptible to coastal instability and erosion along the cliffs and consolidated banks of the Manukau North shoreline is largely within 51 – 75 m of the present-day coastline for the area between Onehunga Bay and Laingholm Point. Further west, the ASCIE is largely between 41–50 m or 51-75 m along the shoreline between Laingholm Point to Huia Beach. Significantly higher susceptibility lines are noted for Cornwallis Beach to Daniels Bay and Huia to Whatipu, as a result of the high, steep terrain and greater degree of exposure to coastal and instability processes.

As highlighted during engagement with both local communities and local boards, coastal communities across the Manukau Harbour North coastline experienced the impacts of natural hazards (flooding and land instability/landslides) during the 2023 weather events, resulting in subsequent impacts to reserves, walkways, roading connections and private properties (i.e. around Mt Albert, Huia, Titirangi – discussed further in Volume 3), illustrating the area's vulnerability to natural hazards and the need to proactively manage risk. As identified in 'Volume 1: Understanding the Shoreline Adaptation Plans' the SAPs are focused on coastal hazards noting that land instability and other hazards (see below) may require the management of risk and interventions and strategies within the SAPs may be updated to reflect decisions made through recovery efforts.

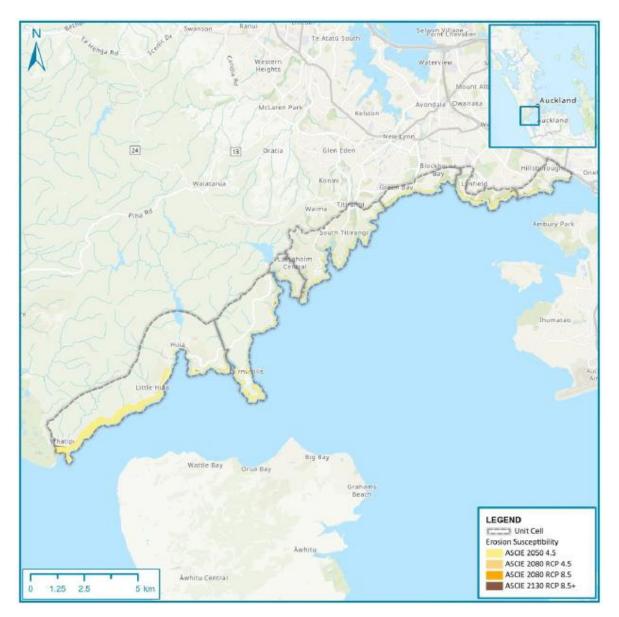


Figure 2-3: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios Source: Manukau North Shoreline Adaption Plan: Risk Assessment Technical Report, 2024, Tonkin & Taylor

Catchment flooding and climate change

Flooding, because of extreme rainfall when the drainage capacity of the natural and/or built environment systems cannot cope, is a natural occurrence and is Auckland's most frequent natural hazard. The flooding event with the highest probabilistic risk is a 1 % AEP event (1:100 year ARI), because an event of such intensity is likely to result in more severe consequences.

Auckland Council's web-based portal GeoMaps (Natural hazards theme) displays the spatial extent of potential flooding. The maps, developed at catchment scale, indicate flood plains, flood-prone areas, flood-sensitive areas, and overland flow paths, which may be affected by a rainfall event that has a 1% AEP, assuming maximum probable development in the catchment (as per the AUP) and future climate change. These maps illustrate that flooding hazards are widespread throughout the Manukau North SAP area, concentrated along the inlets that intersperse the coastline.

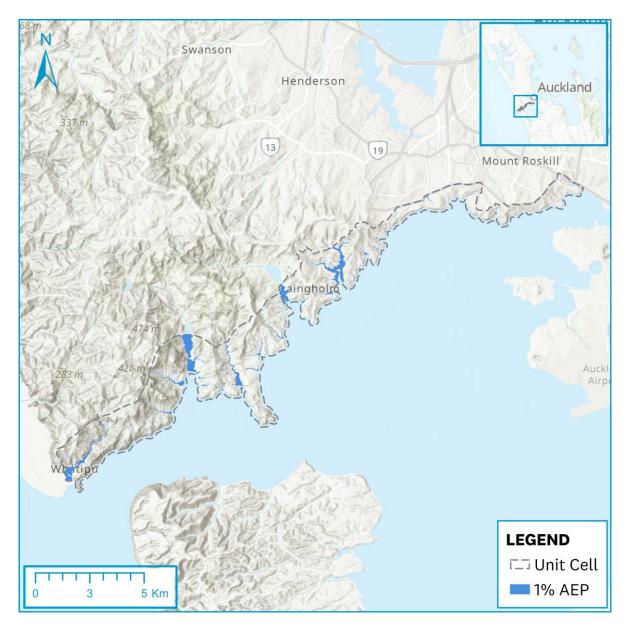


Figure 2-4: Flood Plain areas 1% AEP hazard, for Manukau North, Auckland Council Flood Viewer.

Other hazards

Auckland is affected by several other natural hazards that are not considered within this shoreline plan, including wildfire, volcanic activity, tsunami, earthquakes, severe wind (such as cyclones) and tornadoes. However, it is important to note that landslides and land instability are out of scope for the SAPs. Refer to *Volume 1: Understanding the Shoreline Adaptation Plans* for a more detailed discussion of other hazards impacting Auckland.

It is recognised that this SAP area is affected by a broader range of natural hazards including inland land instability. In February 2023, Cyclone Gabrielle made landfall with New Zealand, causing widespread damage across the North Island, including over 140,000 landslips. The communities of this SAP area have been impacted by loss of property and infrastructure and damage to assets.

The events of Cyclone Gabrielle have shown that some homes are exposed to an unacceptably high landslide risk. Further work is underway to understand the risk to life from large-scale instability in

these areas and further support for these affected communities through Auckland Council's established Storm Recovery Office (Auckland Council, 2024).

Response and Readiness Planning in collaboration with all 21 local boards across the region has supported the development of local board specific plans. For the Manukau Harbour North SAP area, the relevant plans can be located <u>here</u>.

2.2 Current coastal management practices

An overview of existing current coastal management across the Manukau Harbour is summarised in the table below and discussed in greater detail in *Shoreline Adaptation Plan Manukau North Volume 3: Adaptation Strategies.* The coastal margin of Manukau North has an extensive coastal edge. Detailed discussion of the management interventions is included at a unit scale in Volume 3. A non-exhaustive summary of some of the key features is included in the table below:



Flood control or management

Management of the stormwater flooding hazards via Auckland Council's Healthy Waters
 Making Space for Water programme - a programme of planned flood management works
 across the region.



Coastal protection

- There are two seawall structures along the shoreline of Waikowhai Park: a low basalt wall on the south-facing shoreline in Waikowhai Bay; and a basalt block retaining wall on the east-facing shoreline at Faulkner Bay.
- The shoreline of Wairaki Stream Reserve is armoured with rock revetment.
- Wood Bay Reserve has a natural scarped grass bank along the central beach and is partially armoured with rock seawalls at each end of the bay, with several consented stormwater outfalls discharging to the beach.
- At Titirangi Beach, the backshore is armoured by a grouted rock seawall, and the Paturoa Stream channel that discharges at the centre of the beach is lined with retaining walls.
- Laingholm Beach has a grouted rock seawall which extends along the beach, with a 5 15 m wide sandy beach buffer in front of the northern section.
- The headland to the east of Armour Bay is armoured with grouted rock seawall constructed around the base of the cliff in the 1970s.
- At northern Cornwallis Beach, a timber training wall prevents the stream outlet eroding the northern bank and undermining established trees.
- The coastal edge of the reserve and carpark adjacent to Cornwallis Wharf is armoured with unconsented rock revetment.
- The reclaimed coastal edge of Foster Bay Reserve is protected by a low seawall with a series of abutments and stormwater outfalls interspersing the beach. The structure is currently part of Council's Coastal Asset Renewals Programme.
- Huia Domain is protected by a masonry seawall. The structure is fronted by two 45 m long rock groynes and beach replenishment, with a low rock revetment to the west extending towards Huia Stream.
- Sections of rock revetment and rock rip-rap line the coastal edge of the Huia Road from Huia Bay to Little Huia.



Sand replenishment/soft or nature-based engineering

- Beach renourishment at Blockhouse Bay was undertaken in 2008 with 900 m³ imported sediment placed on the beach to create a berm width of 10 m.
- Beach renourishment at Huia Bay to protect the original masonry seawall as a 'backstop' feature and landward grassed reserve area. The beach is retained by two large rock groynes.

2.3 Risk assessment

The SAP coastal risk assessment provides a regionally consistent method to quantify risk to Auckland Council land and assets over three climate change scenarios. This risk assessment demonstrates how the risk to these assets will increase over time with projected sea-level rise. To read more about the risk assessment please refer to *Volume 1: Understanding the Shoreline Adaptation Plans*.

The table below lists the asset groupings for the risk assessment and a description of what they include.

Table 1: Risk assessment asset groupings and descriptions

Grouping	Description
Council-owned land	Park and reserve land area.
Council community facilities	Carparks, accessways, paths and tracks, ramps, seawalls, wharves and jetties, community buildings and park amenities.
Transport infrastructure	Roads, bridges, ferry terminals and train stations.
Water assets and infrastructure	Publicly-owned three waters infrastructure.

For the Manukau North SAP area (Tonkin + Taylor Ltd, 2024), these risk results were considered consistent for the topography, geology, and land use within the SAP area. This is represented in the table below and at a unit scale in Volume 3.

		·	Council-owned land		Cour	cil community facil	ities	Tra	ansport infrastructu	re		Water infrastructu	re
Unit	Hazard	Short-term	Medium-term	Long-term	Short-term	Medium-term	Long-term	Short-term	Medium-term	Long-term	Short-term	Medium-term	Long-term
1	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Low	Moderate	Moderate	Moderate	High
1	Inundation	Low	Low	Low	Moderate	Moderate	Moderate	Low	Low	Moderate	Low	Moderate	Moderate
_	Erosion	Moderate	High	High	High	High	High	Low	Low	Moderate	Moderate	Moderate	Moderate
2	Inundation	Low	Low	Moderate	Moderate	Moderate	Moderate	Very low	Very low	Low	Low	Low	Low
_	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	High	High	High	Moderate	Moderate	High
3	Inundation	Low	Low	Low	Moderate	Moderate	Moderate	Low	Low	Low	Low	Moderate	Moderate
_	Erosion	Moderate	Moderate	Moderate	High	High	High	High	High	High	Very high	Very high	Very high
4	Inundation	Moderate	Moderate	Moderate	High	High	Very high	Moderate	High	Very high	Moderate	Moderate	High
5	Erosion	Moderate	Moderate	Moderate	Very low	Very low	Very low	Very low	Very low	Very low	Low	Low	Low
5	Inundation	Low	Low	Moderate	Very low	Very low	Very low	Very low	Very low	Very low	Low	Low	Low
6	Erosion	High	High	High	High	High	High	Low	Low	Low	Low	Low	Low
6	Inundation	Moderate	Moderate	Moderate	High	High	High	Low	Low	Low	Low	Low	Low
_	Erosion	Very high	Very high	Very high	High	High	High	High	Very high	Very high	Moderate	Moderate	Moderate
7	Inundation	Moderate	Moderate	Moderate	High	High	High	Moderate	High	Very high	Low	Moderate	Moderate

3

What matters most?



3.1 Auckland Council land and assets

Auckland's SAPs focus on coastal land and assets owned by Auckland Council. These include, but are not limited to, coastal reserves, defence structures, public facilities, roads and water infrastructure. This also encompasses infrastructure located within coastal areas, whether situated on, beneath, or adjacent to Auckland Council land or on private land.

While the SAPs take into account third-party infrastructure near the coast, as well as culturally and ecologically significant areas, they are not specifically aimed at managing these assets or values. However, the strategies and associated guidance may reference these connections where relevant, particularly at the level of individual shoreline units or stretches.

The SAPs were developed with input from key stakeholder partners including Auckland Transport, Watercare Services, and Eke Panuku. Council-owned land is primarily identified through Auckland Council's GIS data; in some areas there are landholdings and facilities which involve numerous asset owners and third party infrastructure providers with different ownership, management, or interests.

The Manukau North SAP includes a wide range of Council-owned land and assets, ranging from public parks and community buildings and facilities, coastal defence structures, roads and water infrastructure. This includes infrastructure located within these coastal areas where it is located on, in, or under Auckland Council land or private land.

The figure below shows the general location of Auckland Council land and assets located within the Manukau North SAP area. These are identified in each unit and stretch as relevant to the shoreline adaptation strategies in Volume 3. Further detail on the SAP area is included in the Manukau Harbour North Supporting Report - Policy, Social and Cultural (2023), available here.

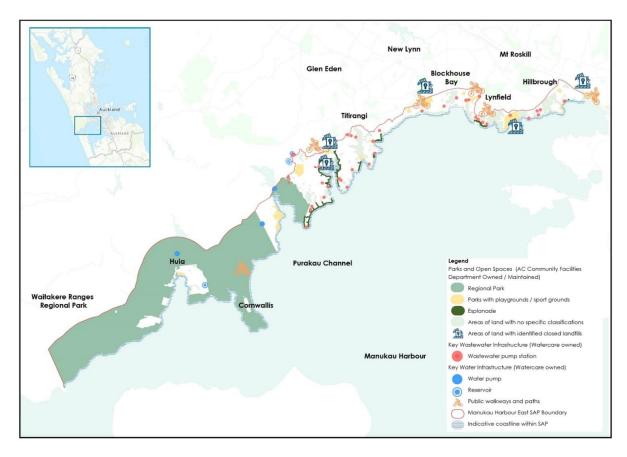


Figure 3-1: Overview of Council-owned land and assets within the Manukau North SAP area



Auckland Council land and parks

The Manukau Harbour North area includes a diverse range of coastal parks and reserves covering an area of over 2,838 ha. These are distributed across all units in the SAP area and include the Waitākere Ranges Regional Park.

- Alex Jenkins Memorial Reserve
- Āmio / Blockhouse Bay Beach Reserve
- Armour Bay and Reserve
- Cornwallis Beach
- Huia Bay
- Karaka Park

- Laingholm Reserve and Laingholm Beach
- Onepoto / Grannys Bay
- Pourewa / Kingswood Reserve
- Puke karoro / Hillsborough Reserve
- Ruatuna / Tauihu / Green Bay
 Beach Reserve

- Taylors Bay Road Reserve
- Te Ākinga / Bamfield Reserve
- Te Tapere / White Bluff Reserve
- Titirangi Bay Beach Reserve
- Waikōwhai Park
- Waitākere Ranges Regional Park
- Wood Bay



Water Infrastructure

Water infrastructure such as wastewater and water pump stations are often located in low-lying areas due to the function of the networks. Water infrastructure is concentrated in units with greater urban settlement such as Hillsborough, Lynfield Green Bay and Titirangi as summarised below:

- Blockhouse Bay stormwater outlet
- Wood Bay wastewater transmission pumping station
- Wastewater pump stations at Davies
 Bay, Jenkins Bay (South Titirangi
 Beach Road), Tamariki Reserve.
- Watercare Services local wastewater pumpstation (Dorothy Road).



Facilities and structures

Over 157 buildings and significant structures (such as and including the Cornwallis Wharf), that are owned and managed by Auckland Council are located within the SAP area. This includes Council-owned accommodation (including rentable historic holiday baches), community buildings (such as libraries and sports clubs) and amenities (e.g. toilet blocks).

- Cornwallis Wharf
- French Bay Yacht Club
- Paturoa Hall aka Titirangi Beach
 Hall and carpark
- Sandys Parade Laingholm
 Fishing Club (community lease)



Roads and access

The SAP area includes 99 km of road infrastructure. The more populated eastern side of the SAP area includes an extensive road network, linking communities and coastlines together. Further west, the Huia Road is a link from Titirangi through to Little Huia.

Key road connections providing access are identified below (non-exhaustive list):

- Blockhouse Bay Road
- Cliff View Drive
- Cornwallis Road
- Endeavour Street
- Frederick Street
- Halsey Drive
- Hillsborough Road
- Huia Road

- Laingholm Drive
- Lewis Street
- South Titirangi Road
- Whatipu Road



Access to the coast

There are a range of walking paths and tracks throughout the SAP area, which are used for recreation as well as to support access to the coast. Key paths (non-exhaustive list) are outlined below:

- Captains Bush Reserve Loop
- Cornwallis Path
- Cape Horn Lookout
- Gittos Domain Path
- Green Bay Path
- Kakamatua Inlet Track
- Lynfield Cove Path
- Onehunga Bay to Waikōwhai
 Path
- Waikōwhai Walkway: Manukau Coastal Walk

The Waitākere Ranges Regional Park includes an extensive network of tracks providing access and views across the expansive coastline of the SAP area.



Harbour access

Coastal access is provided through the following coastal infrastructure (non-exhaustive list):

- Alex Jenkin Memorial Reserve Boat ramp
- Armour Bay boat ramp
- Blockhouse Bay boat ramp
- Cornwallis Wharf
- Foster Bay boat ramp
- French Bay boat ramp
- Laingholm Beach boat ramp
- Little Huia boat ramps
- Waikowhai Bay boat ramp

Te Ao Māori 3.2

The diverse coastlines, estuaries, catchments and harbours of Tāmaki Makaurau hold great spiritual and cultural value to the hapū and iwi of Tāmaki Makaurau who not only live within these areas but are also kaitiaki (guardians, protectors, stewards) of these spaces. Acknowledging intrinsic ancestral connections to lands, water, wahi tapu (sacred areas) and other taonga (treasures) dispersed in remnants around the coast of Tāmaki Makaurau, engagement and collaboration with iwi across Tāmaki Makaurau is a vital step in establishing partnership through the creation and implementation of SAP area plans under the SAP programme. Auckland Council's commitment to growing and supporting partnerships was developed at the programme's inception in 2021 and will continue beyond the completion of these SAP area plans. Programme principles underpinning the development of each SAP area plan are discussed in greater detail in Volume 1: Understanding the Shoreline Adaptation Plans, along with engagement processes underpinning Mana Whenua engagement regionally and locally.

Context and information







The cultural history and context of the area, especially the integration of matauranga Maori and Te Ao Māori principles, has been crucial to the development of the Manukau Harbour North SAP. To inform engagement with iwi who have an association with the area to which this SAP applies, initial research has been undertaken using publicly available information, including that identified on the AUP:OP maps, within the Cultural Heritage Inventory, legacy parks planning documents and research from other publicly available iwi planning documents. Overarching matters considered within the scope of the Manukau Harbour North, along with the wider programme, are discussed in further detail in Volume 1: Understanding the Shoreline Adaptation Plans.

It is important to note that coastal units and stretches reflected in the Manukau Harbour North SAP have been developed to capture Auckland Council asset units and do not reflect the historical cultural boundaries which often extend over multiple units or coastal stretches. Therefore, while all attempts have been made to align with the identified coastal units, the cultural commentary provided throughout this SAP often extends across multiple areas. Where possible, the names of these stretches and units have also been updated to reflect the traditional names.

3.3 Working together- Local iwi engagement

For the Manukau Harbour North SAP, iwi groups were identified using several tools including Treaty Settlement documents, statutory acknowledgment areas and rohe overlays (identified using Auckland Council GeoMaps). Following identification, iwi were formally approached via a letter extending an invitation to engage on this SAP. Where no response was received following provision of the letters, email follow ups were provided restating the invitation to engage. Ongoing updates on the SAP programme are also provided through the I&ES Mana Whenua Forum, with an overview on the upcoming SAP areas and the extension of an invitation to engage if other parties wished to be involved in the development of upcoming SAP area plans.

In no particular order of relevance, those who whakapapa to the area and/or have expressed an interest in the Manukau Harbour North SAP area kaupapa include:

- Te Kawerau ā Maki
- Ngāti Whātua Ōrākei
- · Waikato Tainui.
- Ngaati Te Ata Waiohua.

Throughout the engagement process, Auckland Council has been working with respective iwi representatives to provide individual iwi authored 'Cultural Statements' and/or cultural commentary to inform the understanding of specific and wider cultural values, interests and associations with the coastal environment and the adjoining whenua and to guide the selection of adaptation approaches for each of the stretches set out within this SAP.

It is critical to note that each iwi is the kaitiaki (guardian) of their respective mātauranga and thus all cultural narrative (in this SAP and the supporting 'Cultural Statements') are safeguarded and subject to a disclaimer to protect the intellectual property of each iwi. The same applies for all cultural kōrero, values and mātauranga embedded within this report. Following publication of this report, each iwi has communicated that they will direct how their respective mātauranga and aspirations should be shared through ongoing and continuous engagement as project partners inclusive of the site-focused concept/detailed design and development processes. This will take place through targeted engagement with each iwi group as part of the implementation of this SAP, noting that it is fundamental that a partnership approach is applied to coastal management within each specific coastal stretch and across the entire Tāmaki Makaurau coastline. Failure to do so has the potential to result in significant adverse cultural impacts and a failure of Auckland Council in fulfilling its obligations to iwi as project partners.

Local cultural context

The lands and waters that now comprise Tāmaki Makaurau Auckland have been occupied and accessed for over 1,000 years by tangata whenua as the first inhabitants of Tāmaki Makaurau and form the ecological and cultural fabric of the region. Te Ao Māori calls for the protection and preservation of whole living systems, and for maintenance, sustainability and regeneration of the whakapapa relationships that enable the wellbeing of these systems. Our coastal environment plays an important part of this system.

Each iwi has specific cultural values, interests and associations with the coastal environment and the adjoining whenua that has been captured within this SAP and in the individual, iwi-authored 'Cultural Statements' which outline the guiding principles and cultural values of each iwi. It is critical to note that each iwi holds ownership of their respective mātauranga associated with these areas and thus each 'Cultural Statement Report' is safeguarded and subject to a disclaimer to protect the intellectual property rights of each iwi. The same applies for all cultural kōrero, values and mātauranga used within this report.

In recognition of the partnership approach of the coastal environments and adjoining whenua, following publication of this report, each iwi has communicated that they will direct how their respective mātauranga should be shared through the 'site focused' concept/detailed design and development processes.

The coastal units and stretches have been developed to capture Auckland Council asset units and do not reflect the historical cultural boundaries which often extend over multiple units or coastal stretches. Therefore, while all attempts have been made to align with the identified coastal units, the cultural commentary provided throughout this SAP often extends across multiple areas. Where possible, the names of these stretches and units have also been updated to reflect the traditional names.

The cultural history and context of the area, particularly how we embed mātauranga Māori and Te Ao Māori principles, is relevant to the Manukau North SAP development.

The Manukau Harbour Claim (Wai 08)

In 1985, the Waitangi Tribunal (the Tribunal) reported on a claim on behalf of the people of the Manukau Harbour. It concerned pollution of seafood resources and loss of surrounding land from confiscations after the New Zealand wars, and for public works.

This claim is integral in understanding the impact on the wellbeing those iwi and hapu who live on and around the Manukau and have done so for centuries.¹

Following are a number of findings by the Tribunal on the Manukau Harbour:

- There is insufficient research to assess the impacts of development on the Manukau Harbour and its environs
- The waters of the Manukau once supported abundant marine resources, and these are now seriously depleted and adversely affected
- Loss of fish stocks is unquantifiable, but overfishing has depleted stocks and the marine habitat has been seriously affected by reclamations, sedimentation, and discharges

The Manukau Report (1985). Report of the Waitangi Tribunal on the Manukau claim (Wai 8). 2nd ed. Wellington , N.Z.:

The Tribunal

• The Māori people have been substantially affected by the loss of their traditional access to the sea, the destruction of traditional fishing grounds, and by failure to define and protect areas of special significance to them.

The report has several recommendations that address the findings of the Tribunal; however, the claim remains unsettled. As such, the Manukau Report identifies the loss to the people of the Manukau Harbour.

Local iwi aspirations, values and principles

Holding statement:

All Auckland Council Shoreline Adaptation Plans are considered living documents, noting that the SAP Team is committed to ensuring that the values, aspirations and outcomes sought by Ngā hapū me ngā iwi o Tāmaki Makaurau are represented in each plan and supported throughout implementation. The SAP Team will continue to work with and support iwi to respond to the SAP programme and include linkages to this cultural narrative in further revisions of the SAP reports within the rohe of respective iwi authorities.

Acknowledging the importance of protecting cultural narratives and sustaining ongoing, lasting relationships with iwi for the Manukau Harbour North SAP, the 'Holding Statement' reflected above has been created. This serves as a reminder that this document, and any others which are developed as a result of this document, may be revised to incorporate additional cultural context provided by iwi when they choose to share it. In addition, for each coastal stretch, iwi may share additional mātauranga through the ongoing engagement to occur as part of the implementation of the approaches set out in Section 4.0 and Volume 3.

Mātauranga ā iwi, cultural aspirations and outcomes

Sites and places of significance to iwi have both tangible and intangible cultural values in association with historic events, occupation and cultural activities. The specific location of those that are known may be protected by iwi and not shared. In addition, some of these sites, due to their proximity to the coast, may sit within private ownership which has resulted in iwi being excluded from these areas, with iwi unable to protect them and exercise the appropriate tikanga. Where Auckland Council has an interest or assets within these areas, it is important for direct engagement to be undertaken with iwi so that cultural impacts can be identified and avoided.

Reflected in the sections below, some iwi have chosen to share some high-level mātauranga ā iwi values that are fundamental to ensuring that coastal management is undertaken in a way that is respectful of the cultural associations of iwi and supports the cultural values present within each of these areas.

Except where otherwise stated below, to ensure that engagement with iwi in the Manukau Harbour North SAP is effective, meaningful and aligned with Te Tiriti o Waitangi / Treaty of Waitangi, the following guidelines set out below should be followed for each stage of the SAP programme.

 Local iwi who whakapapa to the area and have a recognised interest need to be provided the opportunity to review and respond to the risks and adaptation approaches identified by Council in each of the relevant SAP Plans.
 Local iwi who whakapapa to the area and have a recognised interest wish to be engaged with to provide cultural input on how the SAP kaupapa will be programmed and prioritised.
 For any tranche-specific implementation of the proposed adaptation approaches, local iwi who whakapapa to the area and have a recognised interest wish to be involved in the concept and detailed design of any approach.
 A role in the consent design and post-consent process to provide the kaitiaki responsibilities of local iwi who whakapapa to the area and have a recognised interest in the Manukau Harbour North SAP.

Te Kawerau ā Maki

Te Kawerau ā Maki values ultimately stem from Te Ao Māori – our world view – and are given effect through our Te Kawerautanga – the body of tikanga or customs specific to our people. Te Kawerau ā Maki worldview, at its foundational or metaphysical basis, consists of different domains of the world governed by ancestral atua (such as Papatūānuku, Rangi, Tāne, and Tangaroa), and core concepts such as whakapapa (lineage), mana (authority), wairua (spirit), mauri (life essence), and tapu (sacredness). Te Kawerau ā Maki values include ensuring the mana of our ancestors and our descendants is upheld. We emphasise a holistic ethic where people are part of the world, rather than separate from it. The body of knowledge passed down and expanded upon each generation is our mātauranga (what we know of the world). The practices of how to use it is our tikanga (how to navigate the world). While some publicly identified sites of significance and portages have been identified at a local scale in Section 5.0, the kōrero around management of these sites is to be lived and activated by Te Kawerau ā Maki and requires ongoing engagement to do so.

Mātauranga shared by Te Kawerau ā Maki to date includes but is not limited to:

The organization (legal entities) that represent Te Kawerau **ā** Maki people have adopted the following values and tikanga as guiding principles:

Mana Motuhake	Independence
Kaitiakitanga	Guardianship and stewardship of te tiao
Whanaungatanga	Whanau-focused
Auaha	Innovation
Mātauranga Māori	Culture-led

Table 3-1 has been developed as a starting point for guiding the implementation of coastal adaptation strategies set out in Section 5.0 of this report.

To help guide the use of this table, the following questions have been set out through engagement with Te Kawerau ā Maki, and are to be addressed by Te Kawerau ā Maki during implementation of coastal adaptation strategies:

- Are Te Kawerau ā Maki rights protected?
- Is Te Kawerau ā Maki making/contributing to decision-making or otherwise collaborating?
- Is Te Kawerau ā Maki mana maintained/increased?
- Is Te Kawerau ā Maki identity acknowledged and celebrated?
- Are Te Kawerau ā Maki heritage places protected or otherwise managed and interpreted/ activated?
- Is tapu maintained?
- Is mauri maintained/enhanced?
- Can Te Kawerau ā Maki safely collect kai?
- Can Te Kawerau ā Maki access the coastline?
- Can Te Kawerau ā Maki access the harbour?

Table 3-1: Te Kawerau ā Maki framework for Coastal Management across the Manukau North SAP

	Rangatiratanga (whakapapa to place, rights, mana over resources, mana to make decisions, and identity of Te Kawerau ā Maki	Wairuatanga (whakapapa to entities, recognition of spiritual elements and practices, protection of tapu)	Kaitiakitangta (ability to uphold the mauri of the place, protection of taonga)	Manaakitanga (ability to care and provide for guests)
Tangaroa	 Te Kawerau ā Maki rights and associations with the harbour are acknowledged Te Kawerau ā Maki decision-making is upheld Te Kawerau ā Maki identity is acknowledged Our marae and lands are protected 	 Tangaroa is acknowledged and the interactions he has with other atua The interaction between Tangaroa and Taane at coastline is natural, and therefore hard infrastructure/hold the line should be avoided except in exceptional circumstances Taniwha are acknowledged Tapu of certain places is protected Cultural tohu/inducators are utilised 	 Mauri is thriving Kaimoana can be safely collected - mahinga kai No noa/kino activities are dischared into harbour Te Kawerau ā Maki can access the harbour easily along the coastline and via boat ramps Heritage places are protected and celebrated Native specieis are protected 	 Visitors/public can safely access the coastline Visitors/public can safely access the harbour Emergency services can access the harbour Critical infrastructure is maintained Kaimoana can be gathered to provide for the needs of guests and customs (i.e. tangi) Te Kawerau ā Maki can activate tourism opportunities on the harbour

	Rangatiratanga (whakapapa to place, rights, mana over resources, mana to make decisions, and identity of Te Kawerau ā Maki	Wairuatanga (whakapapa to entities, recognition of spiritual elements and practices, protection of tapu)	Kaitiakitangta (ability to uphold the mauri of the place, protection of taonga)	Manaakitanga (ability to care and provide for guests)
Papatuuaanuku	 Te Kawerau ā Maki rights and associations with the coastline are acknowledged Te Kawerau decision- making is upheld Te Kawerau identity is acknowledged Our marae and lands are protected 	 Papatuuaanuku is acknowledged and the interactions she has with other atua Taniwha are acknowledged Tapu of certain places is protected Cultural tohu/inducators are utilised 	 Mauri is thriving Topsoil is preserved Coastal topography is preserved Te Kawerau ā Maki can access the harbour easily along the coastline Heritage places are protected and celebrated - where these are naturally eroding the maatauranga about them is protected e.g. via cultural activation of space 	 Visitors/public can safely access the coastline Critical infrastructure is maintained
Taane	 Te Kawerau ā Maki rights and associations with the coastline and its vegetation are acknowledged Te Kawerau ā Maki decision-making is upheld Te Kawerau ā Maki identity is acknowledged 	 Taane is acknowledged and the interactions he has with other atua The interaction between Tangaroa and Taane at coastline is natural, and therefore hard infrastructure/hold the line should be avoided except in exceptional circumstances Tapu of certain places is protected Cultural tohu/inducators are utilised 	 Mauri is thriving Native vegetation is protected and enhanced Vegetation provides for rongoa and textiles (i.e. weaving) Te Kawerau ā Maki can access areas of native vegetation Heritage places are protected and celebrated Native species are protected 	 Visitors/public can safely access the coastline Rongo/textiles can be gathered to provide for the needs of guests and customs (i.e. tangi)

Noting the numerous sites of significance situated along the coastline of the Manukau North SAP, it is important to note here Te Kawerau ā Maki concerns in regard to heritage, noting that only the Te Kawerau ā Maki Trust or its agents can establish the significance of any historic place or area associated with Te Kawerau ā Maki. Heritage in this context refers to Te Kawerau ā Maki's history, culture, traditions, tikanga, place, names, artefacts, wahi tapu and historical places and areas. Each are these are all taonga and their significance is recognised under the Treaty of Waitangi, Conservation Act 1987, Resource Management Act 1991 and Historic Places Act 1993.

Concerns of Te Kawerau ā Maki in regards to heritage include ensuring:

- The protection of Te Kawerau ā Maki heritage without necessarily prohibiting all use and development in areas associated with Te Kawerau ā Maki heritage
- Recognition of and provision for Te Kawerau ā Maki cultural heritage and spiritual values in decision making
- Real opportunities for Te Kawerau ā Maki to manage, enhance and monitor heritage are created, supported and realised
- That Te Kawerau ā Maki's guardianship of our cultural property is recognised and provided for.

It is of note here that the Te Kawerau ā Maki Trust Resource Management Statement has a section on Coastal Marine Areas which identifies areas of key concerns, these identified as being:

- Protecting heritage sites and areas from inappropriate access and development
- Water quality
- The quality and availability of kaimoana
- Waste disposal from boats and the provision of waste disposal facilities for boats
- Development and rental of coastal space
- Additionally, it is noted that the statement discusses the protection of waterways from waste from industry services.

Te Kawerau ā Maki expects to be involved in any plans to improve access to coastal areas to ensure the access does not impact negatively upon heritage sites. Additionally, Te Kawerau ā Maki wishes to be informed and actively engaged in any coastal development proposals in order to assess the likely effects on heritage sites.

Other points raised by Te Kawerau ā Maki:

- It is key that the SAPs are clear that in the Māori world view it is tikanga that guides the activities and practices in respect to the taiao, including within Tangaroa and on Papatuanuku. The interactions of these environments need to be developed but not reinvented.
- Mātauranga is equally important in guiding coastal adaption and management strategies and approaches. All coastal / shoreline management should be subject to cultural input and codesign.
- It is the preference of Te Kawerau ā Maki that 'soft' engineering are used where required, noting that there is not always a need to interfere in the natural processes.

• An acknowledgement that areas may not be able to be, or need to be, 'saved' as nature is the dominant force, with the loss of the whenua and sites being in part accepted as coastal adaptation. Te Kawerau ā Maki consider that recording (e.g. taking photos and surveys) te taiao in its present state and also progressively recording the changes that occur over time. Te Kawerau ā Maki consider that this is a way of preservation and an opportunity to regenerate mātauranga

Ngāti Whātua Ōrākei

The SAP team has worked with Ngāti Whātua Ōrākei on various SAP plans within their rohe, with the aim of gathering Ngāti Whātua Ōrākei's feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Manukau Harbour North SAP, noting that Ngāti Whātua Ōrākei has expressed interest in specific aspects of the Manukau North, SAP that relate to their rohe.

Multiple hui have been undertaken and a cultural statement in response to the SAP programme has been drafted, following is a summary of Ngāti Whatua Ōrākei guiding principles, cultural values and aspirations in response to the Shoreline Adaptation Plan Programme.

As mana whenua of central Tāmaki Makaurau, Ngāti Whātua Ōrākei emphasise their historical relationship with the Crown, including the impacts of land loss and the significance of their Treaty settlement. Their planning documents, Hā Tuamatangi and Te Pou o Kāhu Pōkere, articulate a climate strategy focused on ecological restoration, cultural resilience, and achieving net-zero emissions by 2030. These documents also highlight the importance of integrating mātauranga Māori and kaitiakitanga into environmental governance.

Ngāti Whātua Ōrākei advocate for a shoreline adaptation approach that reflects their cultural values and ancestral responsibilities. Their aspirations include restoring the mauri of coastal ecosystems, protecting customary practices, and ensuring that adaptation strategies are co-developed with iwi leadership. The iwi management plan, Te Pou o Kāhu Pōkere, outlines specific outcomes such as enhancing cultural landscapes, protecting sites of significance, and embedding Māori knowledge into planning and reporting. These goals are framed within a broader vision of intergenerational wellbeing and environmental stewardship.

Ngāti Whātua Ōrākei advocate for a Te Tiriti-based framework in shoreline adaptation planning, placing importance on partnership, protection, and participation. Ngāti Whātua Ōrākei expect early, ongoing, and meaningful engagement from Auckland Council, with co-design of adaptation strategies and recognition of their role as kaitiaki. Key principles such as kanohi ki te kanohi (face-to-face engagement), transparency, and shared decision-making are essential to ensuring that shoreline adaptation efforts uphold the mana and values of Ngāti Whātua Ōrākei and protect the cultural and environmental integrity of their rohe.

The SAP team will continue to work collaboratively with Ngāti Whātua Ōrākei to input into the implementation of the SAPs for the Manukau Harbour North area and other SAPs of interest within their rohe.

Waikato Tainui

The Waikato-Tainui remaining claims are made up of two parts. The first is a number of unsettled interests that were included in the original Wai 30 claim (alongside historical issues concerning raupatu and the Waikato River which have now been settled). These interests include the West Coast Harbours (Kaawhia, Aotea, Whaaingaroa and Manukau) and a number of specific land blocks (Maioro/Waiuku and East Wairoa). These are referred to as the Wai 30 Outstanding Claims.

The second part are the Waikato-Tainui Remaining Claims which include a number of Waitangi Tribunal claims filed by claimants with affiliations to Waikato or their claim area is within the Waikato-Tainui Area of Interest. The negotiation team is committed to their whaanau settlement aspirations, and to seek redress in a way that is consistent with the principles set out in 1987: it must be good for the people, for the whenua, for the moana, and for the taiao – for now and for generations to come.

Raupatu whenua and raupatu moana at the hands of Crown militia saw a livelihood of traditional practices taken away – a way of life that was centralised around the moana. A unique factor of this settlement draws on the social and cultural impacts of raupatu on their people.

Other special factors include the undermining of te mauri o te moana, the nature of land loss post-raupatu (across Waikato as a whole), the impacts of climate change and environmental issues generally.

Waikato Tainui directed the Auckland Council SAP team to the Waikato Tainui Environmental Plan to inform the understanding of the values, principles and objectives Tainui has in relation to coastal areas of their rohe²:

- Chapter 10 of the Environmental Plan sets out the Tribal Strategic Plan Whakatupuranga Waikato -Tainui 2050
- Chapter 14 identifies customary activities Ngaa Mahi Tuku Iho a Waikato Tainui.

Both of these chapters have been identified by Waikato Tainui as being of relevance to the development of the SAP for Manukau Harbour. However, other chapters within the plan can be relevant depending on future activity(s) required for shorelines to become resilient.

The Environmental Plan identifies the mana whakahaere of Waikato-Tainui has for associated requirements to responsibly use, protect, and enhance customary resources, and to ensure their ongoing health and wellbeing. Waikato-Tainui customary activities and resource use include but are not limited to the activities below.

https://www.waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/HR/S32/Part-A/Waikato-Tainui-environmental-plan-Tai-Tumu-Tai-Pari-Tai-Ao.-Hamilton-New-Zealand-Waikato-Tainui-Te-Kauhanganui.pdf

Waikato - Tainui's customary activities (outlined in Chapter 14) include:

The annual celebration of the coronation day of the Head of the Whare Kaahui Ariki. The transportation of human remains and the accompanying funeral ceremonies.
 The collection of resources, such as river stones, shingle, and sand from the Waikato-Tainui rohe for the purposes of customary practices including: The building of a tuahu (altars) Carvings The preparation of haangii.
The imposition of restrictions, from time to time, on all or part of an activity, or the use of a resource, or rohe.
The customary and contemporary gathering and use of naturally occurring and
_

Core objectives in this chapter speak to enabling Waikato - Tainui to access and undertake, protect, and enhance customary activities.

Whakatupuranga Waikato-Tainui 2050 (outlined in Chapter 10) is the blueprint for cultural, social and economic advancement for the Waikato-Tainui people. It is a long-term development approach to building the capacity of Waikato-Tainui marae, hapuu, and iwi. Whakatupuranga 2050 will be Waikato-Tainui's legacy for future generations. Within Whakatupuranga Waikato-Tainui 2050 there are three critical elements fundamental to equipping future generations with the capacity to shape their own future:

- A pride and commitment to uphold their tribal identity and integrity
- A diligence to succeed in education and beyond
- A self-determination for socio-economic independence.

Waikato -Tainui's strategic direction charts a course of significant developments to protect tribal identity and integrity. The development of a core strategy designed to provide maximum support for Waikato -Tainui's kaumaatua, the caretakers of maatauranga, and experts of Waikato -Tainui's reo and tikanga, is a key priority. Waikato -Tainui's whenua, rivers, lakes, harbours and other waterways are living embodiments of Waikato -Tainui's tribal identity. The necessity to forge a partnership with the Crown is vital to the preservation and protection of 'te taiao', our environment:

- To preserve our tribal heritage, reo and tikanga
- To grow our tribal estate and manage our natural resources.

With the above in mind, Waikato -Tainui are primarily interested in ensuring that the affiliate marae are engaged and aware of the SAP programme and the opportunities to start korero about innovation, co-benefits and use of mātauranga (by iwi for iwi) in responding to environmental/climate change challenges, acknowledging these things are often interconnected and closely related to

social/cultural and economic interest and outcomes too. Engagement with affiliate marae may be facilitated through local iwi connections; in particular, Te Kawerau ā Maki and Ngāti Whātua Ōrākei.

Waikato Tainui identified the following ongoing outcomes of the SAP programme and its implementation:

- Remaining engaged with the development of SAP area plans which include areas of interest
 as well as areas where Te Whakakitenga Marae have interest, including historical and
 significant areas which have connections to their shoreline landscapes
- Ensuring data and knowledge is shared appropriately with agreements and protection of mātauranga clearly specified/documented
- Supporting opportunities for innovation, utilise mātauranga, and being directly engaged in discussion around implementation of the SAP programme.

Ngaati Te Ata Waiohua

The SAP team has been working with Ngaati Te Ata Waiohua on various SAP plans within their rohe, with the aim of gathering their feedback on the SAP programme and the individual plans as they have been developed. This ongoing partnership has extended to the development of the Manukau Harbour North SAP, noting that Ngaati Te Ata Waiohua has expressed interest in specific aspects of the Manukau Harbour North SAP that relate to their rohe.

Whilst Ngaati Te Ata Waiohua has an interest in the coastline, they acknowledge the interests of other iwi and hapu across the Manukau Harbour North SAP. Ngaati Te Ata Waiohua place a high importance on the connection of portages around the Manukau Harbour North SAP, noting many locations around the moana are important for traditional cultural practices, mahinga kāi and the Ngaati Te Ata Waiohua way of life.

Ngaati Te Ata Waiohua aspirations for this area include but are not limited to:

- Maintaining access to the coastline to respect and support Ngaati Te Ata Waiohua whakapapa connections to the area
- Preventing and/ or mitigating flood risk where possible to preserve the cultural significance of
 wahi tapu sites in the area, as well as the wider cultural landscape and associated values. The
 consequences of climate change and rising sea levels have the potential to be destructive for
 sites of importance to Ngaati Te Ata, as changes threaten not only the physical environment
 but also Ngaati Te Ata's cultural identity.
- Upholding Ngaati Te Ata Waiohua principles (set out in the table below)

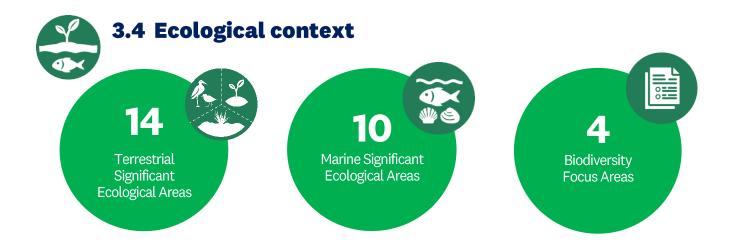
The table below sets out a series of guiding principles provided and advocated for by Ngaati Te Ata Waiohua. Future coastal management strategies across the Manukau Harbour North SAP area aim to acknowledge and support these principles through implementation, recognising the principles below as the starting point for more meaningful consultation with local iwi groups within the Manukau Harbour North SAP area.

Mana Recognising whanau, hapu, and iwi rights to exercise their own tikanga concerning the CMA, Whakahaere foreshore and seabed. lwi Recognising iwi rights to self-determination including their right of self-governance and selfregulation of their CMA, foreshore and seabed. Rangatiratanga Maru Taha Tika Actively protecting whanau, hapu and iwi rights as well as interests concerning the CMA, foreshore and seabed. **Paneketanga** Recognising the whanu hapu and iwi rights to development over its foreshore and seabed within their own cultural preferences. Manākitanga Recognising the role that government and Council must play in supporting whanau, hapu and iwi rights, needs and aspirations concerning CMA, foreshore and seabed. **Hono Marino** Acknowledging that Ngāti Te Ata Waiohua would not unreasonably or without good cause deny others the use and sharing of certain CMA, foreshore and seabed resources consistent with the tikanga of the iwi. Turukitanga Ngāti Te Waiohua consider the principles of access, certainty and protection can be met through recognition of the above principles as the starting point for more meaningful consultation.

Kaitiakitanga

Or guardianship is inextricably linked to tino rangatiratanga and is a diverse set of tikanga or practices which result in sustainable management of a resource. Kaitiakitanga involves a broad set of practices based on a world and environmental view and is about healing and restoring the land and water. The root word is tiaki, to guard or protect, which includes a holistic environmental management approach which provides for the following:

- Restore mana of the Iwi (e.g. protect sensitive cultural and natural features of the environment)
- Restoration of damaged ecological systems
- Restoration of ecological harmony
- Ensuring that resources and their usefulness increases, i.e. plan for the provision for and the restoration of traditional resource areas for future generations (e.g. kaimoana, fish, tuna)
- Reducing risk to present and future generations (i.e. plan long term management and use of taonga)
- Providing for the needs of present and future generations
- Advocate for no illegal seawalls and coastal structures, reclamations that impede our ability to exercise our kaitiakitanga and access to our traditional fishing grounds.



Ecosystems and significant ecological areas

The Manukau North SAP includes numerous beaches/bays, inlets and cliffs and sits within the Waitākere and Tāmaki Ecological Districts. Manukau Harbour catchment has undergone significant changes in land cover since the arrival of humans. This has resulted in a significant loss of native habitat, leaving fragmented remaining pockets which are impacted by their isolation, non-indigenous species and plant diseases.

The coastal boundary of the SAP area, between the land and sea, consists of a number of steep cliffs and low-lying rocky platforms. Coastal saline ecosystems, including mangroves, seagrass, and salt marsh ecosystems are present in many of the bays and inlets around the coast. This coastline is of considerable recreational as well as ecological value and includes 17 sites in the Safeswim programme³.

The Manukau Harbour SAP also includes identified intertidal habitats from mudflats to rocky reefs, and linkages between the marine and terrestrial environment through sequences of algae or seagrass, to mangroves, to good stands of coastal forest. Small invertebrates such as trumpet shells, nudibranchs, worms and sea squirts and their populations are noted as special features.

Manukau Harbour has the longest State of the Environment Marine Monitoring Programmes in Auckland, and these have been underway for several decades, with State of the Environment sites across the Manukau Harbour shown in Figure 3-2. This long-term data is valuable in being able to detect trends and changes over time and understand the way the harbour is being used and has been impacted over time, providing a useful and increasingly important base for future management decisions ⁴.

The programme models and real-time monitors the levels of enterococci within the water to provide an indication of risk to swimmers' health.

⁴ Auckland Council, (2021). A Synthesis of State of the Environment Monitoring in the Manukau Harbour.

The Waitākere Ranges heritage area contains approximately 21,200 ha of indigenous forest, of which approximately 9,500 ha (45%) is kauri-podocarp forest, one of the largest blocks of continuous indigenous vegetation remaining in Auckland (Auckland Council, 2018). Key ecological highlights of this SAP area include but are not limited to:



- The Manukau North SAP sits within a wider West Coast North Island Marine Mammal Sanctuary which was created by DOC in 2008 to help protect the Critically Endangered Māui dolphin.
- There is a patch of saltmarsh sea rush oioi (SA1.3) present close to the boundary of the Manukau Harbour East SAP area, and adjacent to Onehunga Harbour Road. Seagrass meadows are an important habitat which provide shelter and food for marine invertebrates and fishes, and foraging grounds for shorebirds. Dense seagrass helps to stabilise the seabed and reduce erosion (Matheson et al., 2009).



Significant Ecological Areas (14) protect areas of vegetation that provide important ecological
corridors, coastal forest remnants, uncommon tree species and roost sites for birds such as little
shag and pied shag.



• There are four BFAs within the Manukau North SAP, all sit within the Waitākere Ranges Regional Park; Spragg Monument, Huia, Omanawanui Coastal Forest, Whatipu (a small portion of the larger BFA).

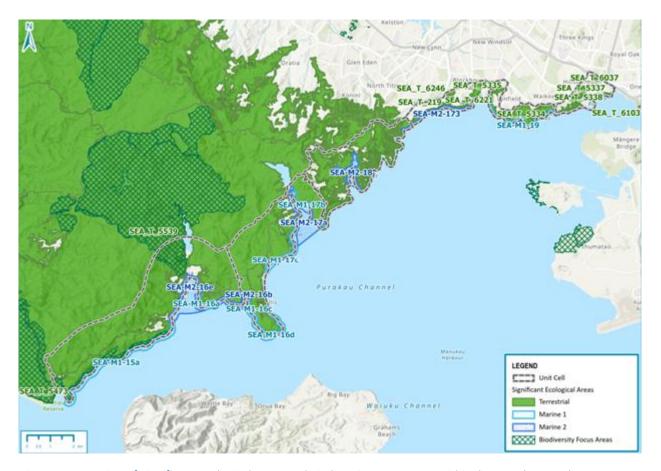


Figure 3-2: Overview of Significant Ecological Areas and Biodiversity Focus Areas within the Manukau North SAP

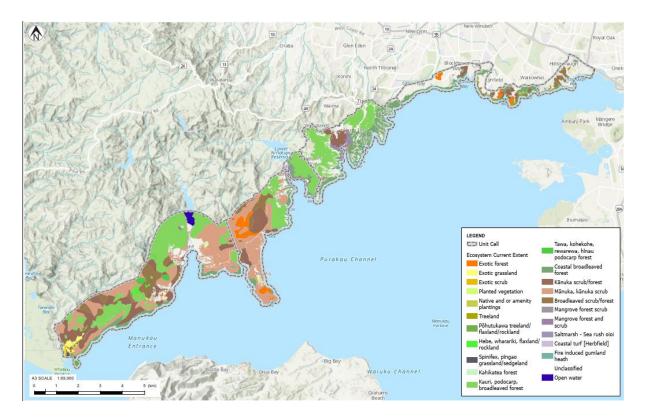


Figure 3-3: Current terrestrial and wetland ecosystem extent layer (Singers et al., 2017)

Potential opportunities: nature-based solutions

Coastal environments around the world are under pressure from climate change. Pressures can vary from localised flooding and erosion to changes in habitats and species distribution. To avoid losing highly valued, vulnerable ecosystems, there is an opportunity to consider a range of nature-based solutions.

For example, where indigenous ecosystems are threatened by increasing inundation and sea-level rise, supporting ecosystems to shift inland, or allowing to adapt naturally is encouraged. Another opportunity is to utilise nature-based solutions (e.g. beach nourishment, dune planting) to protect shorelines from climate change in favour of hard protection structures, which can cause displacement of impacts further around the coastline and coastal squeeze (amongst other impacts).

As a starting point for informing where nature-based solutions or ecological enhancements could be implemented to provide the most ecological benefit for the Manukau Harbour North SAP area, the table below has been formulated, providing information on ecological risks and constraints that need to be considered as part of any options assessment for shoreline adaptation methodologies.

Recognising the microcosm of ecosystems lining the Manukau North SAP coastline, opportunities for nature-based solutions will be factored into decision making in implementation.

Table 3-2: Consideration of ecological values, risks, opportunities for ecological enhancement and nature-based solutions and consideration of risks for the Manukau Harbour North SAP area

Summary of ecological values	Summary of habitats/ecosystems at risk – from existing CCRAs and SMEs ⁵	Opportunities for nature-based solutions	Further opportunities for ecological enhancement where nature-based solutions are not the preferred option	Any risks/constraints when considering adaptive management strategies
 Ecosystems Rocky reefs Coastal broadleaf forest Mangroves Seagrass Species 9 At risk bird species 6 Threatened bird species (Black fronted tern, Caspian tern, Northern NZ dotterel, Reef heron, White fronted tern, Wrybill) 2 At risk freshwater fish species (Inanga, Longfin eel) 1 Threatened freshwater fish species (Shortjaw kokopu) 	 Intertidal mud flats (water temp, extreme rainfall, SLR) Intertidal rocky reef (water temp, extreme rainfall, ocean acidification, SLR) Kelp forests (Water temperature, water circulation) Mangroves (SLR) Ecosystem type (SA1) Mangrove scrub and forest and other variants (CC specifically identified as a threat) 	 Saltmarsh restoration and enhancement Seagrass restoration and enhancement Coastal planting Riparian planting for stream management 	 Removal of pacific oysters to reestablish beach habitats Shell hash for bird roosting locations Inclusion of bird roosting poles 	 Presence of grey-faced petrel nesting site on the southern tip of the Karangāhape Peninsula (Cornwallis), needs to be protected 9 bird hot spots need to be considered Limited land for coastal management due to steep coastal cliffs Weed management following slips, which cause weed infestations from species such as pampas, restricting native regeneration

	Summary of ecological values	Summary of habitats/ecosystems at risk – from existing CCRAs and SMEs ⁵	Opportunities for nature-based solutions	Further opportunities for ecological enhancement where nature-based solutions are not the preferred option	Any risks/constraints when considering adaptive management strategies
•	62 species of fish found including: 1 Critically endangered marine fish species (school shark)				Impacts to Watercare water supply infrastructure from sea level rise.
	1 Endangered marine fish species (basking shark)5 Vulnerable marine fish species (bronze whaler shark, hammerhead shark,				
•	spiny dogfish, thresher shark, white pointer shark) Potential for marine mammals including NZ				
C.F.	Fur Seal, Māui dolphin, common/bottlenose dolphins and orca				
SE					
•	12 marine (7 SEA-M1 and 5 SEA M2 ⁶) 14 terrestrial				

6 SEA - M: Significant Ecological Area - Marine

SEA - M1: Areas which, due to their physical form, scale or inherent values, are considered to be the most vulnerable to any adverse effects of inappropriate subdivision, use or development.

SEA – M2: Areas are of regional, national or international significance which do not warrant an SEA – M1 identification as they are generally more robust.

SEA – M1w and SEA – M2w Areas that are identified as significant wading bird areas.

3.5 Social and policy context

The social (and policy) context provides a foundation of knowledge for testing adaption strategies and the key drivers for each community, their assets, uses and how this may be conveyed in local policy within the Manukau North SAP area.

It is important to understand who lives in an area and how they use and interact with coastal areas to understand the role that Auckland Council land and assets play in supporting community and social outcomes. Considering what communities have already conveyed as important and the outcomes or aspirations they may have adopted in policy also complements the engagement undertaken directly with communities.

A detailed overview of the social and policy context of this SAP area is included in the Supporting Report, available <u>here.</u>

Who lives here

Using the 2006, 2013, and 2018 New Zealand census data, the population within the SAP area increased from 30,414 to 34,455 between 2006 and 2018. This population growth is expected to continue with the latest projections showing the population within this area will reach over 40,000 by 2038. The area also shows a large percentage of population are under 14 years old and/or 65 years and over, based on the 2018 census⁷. This needs consideration in the future for the type and design of access and use of coastal spaces and Auckland Council's ability to respond to risk.

Population densities are generally concentrated along the eastern portion of the coastline of the SAP area, such as Blockhouse Bay, Lynfield and Hillsborough, as shown in the figure below. Auckland Council's planning for future growth⁸ identifies Mt Roskill and the coastal areas between Hillsborough and Green Bay as an area for urban growth. The Hillsborough Unit at the eastern end of the SAP sits almost entirely within this growth area, thus this area will see greater intensification over the next 30 years, likely increasing the demand for coastal recreation and use in adjoining coastal areas.

New Zealand 2018 Census, https://www.stats.govt.nz/2018-census

⁸ Future Development Strategy 2023 and Plan Change 78 (PC78) on 18 August 2022

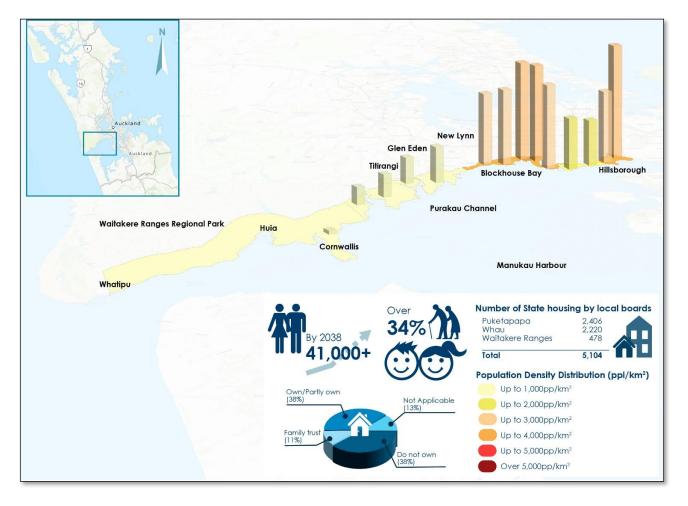


Figure 3-4: Demographic profile of the Manukau Harbour North coastline

Community groups and organisation

The Manukau North SAP area has a rich historic background and well-established local communities. There are a number of community groups and organisations that have been actively utilising Auckland Council-owned assets and land, or working to protect these. It is important to acknowledge the social and community values held by these groups and organisations, while also recognising any changes to these assets will likely affect the current uses and interests of these community groups and organisations. Some of the key groups include:

- Cornwallis Peninsula Group
- French Bay Yacht Club
- Huia-Cornwallis Community Group
- Titirangi Ratepayers and Residents Association
- Green Bay Residents and Ratepayers Association
- Huia Fishing Club
- Manukau Harbour Forum Titirangi Beach Hall
- Blockhouse Bay Business Association
- Laingholm District Citizens
 Association
- Titirangi Coastguard
- Whau River Catchment Trust
- Huia-Cornwallis
 Residents and
 Ratepayers Association
- Paturoa Bay Residents & Ratepayers Association

In addition to the groups listed above, local community initiatives or groups provide education, pest control, and environmental support within this SAP area. Known active groups include but are not limited to: Friends of Wairaki Stream, Moths and Butterflies of NZ Trust, Te Whau Pathway

Environment Trust (formally Whau Coastal Walkway Environmental Trust), South Titirangi Neighbourhood Network, 20 Acre Wood (Titirangi), Friends of Woodside Glen, Waima to Laingholm Pest Free, Restoration Ruatuna, Pest Free Cornwallis, Huia Trapping Group, Manukau Harbour Restoration Society, Pest Free Waitākere Ranges Alliance (PFWRA), Whau River Catchment Trust, Tread Lightly Charitable Trust, Mountains to Sea Conservation Trust.

Recovery efforts following severe weather events in across the wider Manukau Harbour North coastline have led to a focus on climate adaptation, particularly through community-led initiatives and infrastructure improvements, with an emphasis on catchment management, flood and landslide resilience. It is important to recognise, and where possible, acknowledge and support conservation initiatives efforts and local community resilience going on in this space (i.e. the Stickered Titirangi Areas Residents, the Laingholm and District Community Emergency Response Group and the Huia Cornwallis Community Group. Resident and Ratepayer groups (i.e Huia-Cornwallis Residents and Ratepayers Association across the coastline similarly play a critical role in supporting community resilience for coastal communities).

Relevant policy

Understanding the regulatory and policy context applicable to the area helps understand previously expressed issues by the communities, as well as their values, objectives and aspirations. The following are key plans and documents of relevance to Manukau North SAP development. Key documents are identified as applicable to the programme in Volume 1 and at a unit scale in Volume 3.

Policy direction of note includes (not an exhaustive list):

- Auckland Council Long Term Plan 2024 2034 (Auckland Council, 2024)
- The Auckland Plan 2050 (Auckland Council, 2018)
- Auckland Unitary Plan 2016
- Puketāpapa, Whau and Waitākere Local Board Plan
- Regional Parks Management Plan 2022
- Tāmaki Makaurau Recovery Plan (Auckland Council, 2023)
- The Waitākere Ranges Heritage Act 2008: The Waitākere Ranges Heritage Act 2008 and associated plan recognises the national, regional, and local significance of the Waitākere Ranges Heritage Area and promotes the protection and enhancement of its heritage features for present and future generations. The aim of the Act is to preserve the unique natural character and cultural heritage of the area.
- Waitākere Local Park Management Plan
- Greenways Plans:
 - Waitākere Ranges: Adopted Plan October 2019. This shows a number of proposed greenways including connections between French Bay and Titirangi Beach, Davies Bay, Alex Jenkins Memorial Reserve and Sandy's Parade. A priority walking connection is shown around Landing Road in Titirangi.
 - Whau Neighbourhood: August 2015. This plan shows proposed greenways nearly the entire length of the local board's coastline within this SAP. However the plan's delivery

- has been impacted by the 2023 weather events with some of the existing tracks contributing to the greenways network having suffered from slip damage.
- Puketāpapa: April 2012. A key focus of this plan was the development of a continuous coastal walkway. This became known as the Waikōwhai Walkway and provided a series of connected trails passing through 16 local parks and esplanade reserves along the local board's section of the coast, with just a few diversions along local roads. In 2018, the Waikōwhai Walkway Action Plan outlined renewal and development priorities for the walkway over the next five to ten years. Much of this work has been impacted by the 2023 weather events with many of the existing tracks having suffered from slip damage.

Community use

The Manukau North SAP area may experience increased population and higher use of coastal areas and assets and additionally, increased pressure on infrastructure is likely to occur.

Auckland Council notified Plan Change 78 (PC78) on 18 August 2022, which gives effect to the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 and National Policy Statement on Urban Development (NPS-UD). At present, the most widespread residential zone in Auckland is Residential – Mixed Housing Suburban, which provides for two-storey development in a variety of types and sizes including attached and detached housing. Under PC78, much of Auckland's residential land will be rezoned Residential – Mixed Housing Urban. This will result in an increase in the intensity of development, noting that this zone provides for three-storey development in a variety of sizes and forms including more intensive terrace housing and low-rise apartments.

Community buildings / assets

A non-exhaustive list of social infrastructure, which may be located on Auckland Councilowned land or other landholdings identified by the community is identified below and relevant to consideration of adaptation strategies. Note that while the adaptation strategies relate to Auckland Council-owned land, infrastructure and assets, the wider social context of the area has been considered when determining strategies in terms of understanding how the community use and value the area including:

- Blockhouse Bay boating club
- French Bay Yacht Club
- Huia Hall

- Laingholm Fishing Club
- Paturoa Hall aka Titirangi Beach Hall
- Sandys Parade



Emergency services, facilities or key infrastructure

Whilst developing the SAPs, Auckland Emergency Management has, in collaboration with local communities and local boards, developed Emergency Response and Readiness Plans for each of the 21 local board areas. Plans for the Puketāpapa, Waitākere and Whau local board areas have been produced and they identify key information and details for response and readiness including the location of Civil Defence centres, community hubs, marae and urgent care facilities throughout the

wider area. These plans can be located on the Auckland Council website <u>here</u>. Civil defence centres and hubs identified in these plans are generally set back from the coastal edge and may be identified in Volume 3 where applicable to coastal adaptation strategies.



Landscape features and character

Portions of the SAP area are scheduled as Outstanding Natural Landscapes (ONL), High Natural Character (HNC) areas, and/or Outstanding Natural Features (ONF).

- Big Muddy Creek HNC
- Blockhouse Bay to Green Bay cliffs ONF
- Cornwallis HNC
- Cornwallis Peninsula proximal volcanic rich flysch ONF
- Jackie Hill HNC
- Karamatura, Marama catchments and Mt Donald McLean
 ONF
- Lynfield Cliffs Waitematā Group ONF
- South Titirangi HNC South Titirangi ONL
- Te Komoki exfoliation dome ONF
- Wesley Bay-Cape Horn ONF
- Waitākere Ranges ONL
- White Bluff ONF

There are also a significant number of features listed as heritage sites or features under the Auckland Unitary Plan (AUP:OP). These include historic buildings, plaques, and middens. Overall, the Manukau North area is home to 25 historic heritage sites of significant historical value.

Heritage features are identified at a unit and stretch level in Volume 3. Engagement with Auckland Council Heritage experts, followed by Heritage New Zealand may be needed to understand whether any heritage features are exposed to climate hazards or are likely to be impacted by the implementation of adaptation strategies.

3.6 Community Feedback

Community engagement throughout the SAP development process has been extensive in order to understand how communities use and value their coastal areas including contemporary interests, issues and aspirations regarding their interaction, and use of coastal areas. By identifying broad community objectives which reflect shared contemporary outcomes or aspirations sought by each community for their coastal areas, this can then inform the selection of appropriate coastal adaptation strategies.

To capture a diversity of demographics, a range of events and engagement opportunities were utilised, including both in-person and online engagement. These are summarised below. Feedback was received via the 'AK have your say' survey, social pinpoint and email submissions. Refer to Volume 1 for more on the methodology used to plan and undertake community engagement.

Round 1: Values and use based community engagement

The first round of community engagement was focused on understanding community values and uses of coastal spaces and places along the Manukau Harbour North coastline, open from the 23 June - 7 August 2023. Engagement during this time ran in parallel to engagement to on the Pahurehure Inlet and Manukau East SAPs and included engagement with the Manukau Harbour Forum. In-person events during this time included:

- 29th June 2023: Mangere Boating Club
- 3 February 2024: EcoMatters Hub: Community Engagement Event
- 25 July 2023: Titirangi Beach Hall
- June 2023: Sir Edmund Hillary library, Papakura.
- 10 July 2023: EcoMatters Hub

- 11 June 2023: Weymouth Yacht Club
- 29 July 2023: Aotea Sea Scouts
- 21 July 2023: Wesley Market, Mount Roskill
- 22 July 2023: Mangere Market
- June 2023: Huia Community Hall, Huia
- March 2023: Puketāpapa Community network

Running in parallel to digital engagement platforms, public events during this period provided an opportunity to inform people of the SAP programme, sharing prior examples with experts to respond to questions as required. The key call to action at these events was encouragement to identify 'what matters most' to them about the public coastal areas and their associated facilities (through sharing this with the team or identifying this on sticky notes on the large format maps) or to use the 'AK have your say' survey or social pinpoint to share their thoughts. Notes from each event captured basic attendance observations and key issues or matters discussed.

Community feedback (in-person and digital) was analysed alongside that which has been received from Local Boards and key stakeholders. This included:

- 98 comments left on the interactive digital Social Pinpoint map⁹
- 205 surveys relevant to the Manukau Harbour North area via Social Pinpoint and AK Have Your Say⁹

⁹ Inclusive of Social Pinpoint feedback, comments and surveys gathered in April 2024

- Feedback captured during meetings and discussions with key stakeholders (i.e. Huia Cornwallis Committee Group, Manukau Harbour Forum, Puketāpapa Community Network) as well as site-specific information and recommendations from groups with interests in the Titirangi, Huia, and Cornwallis areas
- Community submissions (discussed further in the discussion below).

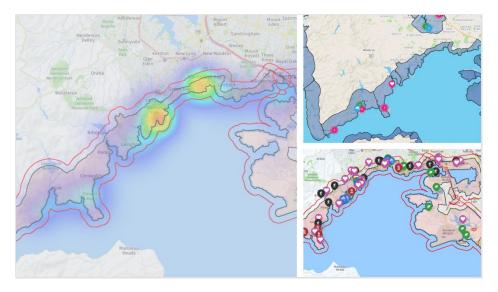


Figure 3-5: Social Pinpoint outputs for the Manukau North SAP area showing the spatial concentration of community feedback during engagement windows.

Round 2: Draft coastal adaptation strategy community engagement

The second round of community engagement focused on socialising and seeking feedback on draft coastal adaptation strategies developed based on changing coastal hazardscapes and input from asset owners and infrastructure providers, and local iwi and communities, running from 2 July - Friday 30 August 2024. Community feedback during this time was primarily received via community submissions and in-person events, plus comments and feedback forms submitted via digital platforms 'AK Have Your Say' and Social Pinpoint. Community engagement ran in parallel with consultation on the Whatipu to South Head SAP. In-person events during this time included:

- 15 July 2024: Drop-In Session: New Lynn War Memorial Library
- 18 July 2024: Presentation/Q&A Session: Titirangi
 War Memorial Hall
- 16 July 2024: Drop-In Session: Glen Eden Library
- 25 August 2024: Community Hui, Piha Bowling Club
- 22 July 2024: Drop-In Session: Kumeu Library
- 16 July 2024: Online information session (webinar)
- 23 July 2024: Drop-In Session: Green Bay Community House
- 20 August 2024: Community Hui, Te Henga Bethells
- 25 August 2024: Community Hui: Karekare Surf Club

Community feedback (in-person and digital) was analysed alongside that which has been received from local boards and key stakeholders. Key themes were identified from the feedback and findings at a SAP scale are shown below. Volume 3 includes more detailed analysis of specific feedback alongside any quantitative community views of the draft adaptation strategies that were provided for engagement.

Who did we hear from

Feedback was received via a number of different platforms. Of those where statistics were gathered (optional), the following profiles can be identified:

- Connection to the coast: Most submitters lived within the Manukau Harbour North SAP area.
- **Gender:** A slightly higher percentage of males than females provided feedback (based on those who responded to optional demographic focused questions on digital platforms).
- Ethnicity: A significant portion in this area say the ethnic group they belong to is Pākehā /NZ European, followed by those whole selected 'Māori' or 'other'.
- Age Group: Of those who engaged in digital feedback, the majority are aged 45-64, followed by those aged between 25-34.

Community discussions

In addition to digital engagement platforms and in-person events, feedback was also received via emailed submissions. These submissions were from community groups and organisations (Titirangi Residents and Ratepayers Group, Disabled Persons Assembly, Transpower, Waitākere Ranges Protection Society, Huia Cornwallis Residents and Ratepayers and the Save Cornwallis Old Wharf Society) along with individual submissions from residents (i.e. Huia, Laingholm, Titirangi and Cornwallis).

Reflected in the list of engagement events above, the SAP Team supported community discussions at a range of venues, noting engagement also took place with the Manukau Harbour Forum and the Puketāpapa Community network during the development of the Manukau Harbour North SAP. A summary of key matters raised through community hui is included is Volume 3, in relation to each Unit area. Feedback from submissions has been weaved into the discussion below and reflected where appropriate in Volume 3.

Local Board views

Throughout the course of development of the SAP, a number of workshops with the Waitākere Ranges, Whau, Puketāpapa Local Board were held. Key discussion included:

- Advocacy for plain language in coastal management and adaptive planning: Local boards supported using clear, accessible language, particularly in communicating adaptation pathways within the SAP programme.
- Limitation of the scope of the SAPs to Council-owned land and assets: Requests for further engagement and community input and leadership in relation to adaptation planning.
- Support for ongoing engagement and education: A key matter raised was the importance of ensuring that community feedback accurately reflects the voices of those across the Manukau North SAP and in turn, respective local board areas (Waitākere Ranges, Whau and Puketāpapa). The need for continued engagement with local communities, iwi, and local boards through educational workshops and in-person events located within the boards' area was noted. This acknowledges that adaptive planning is a complex kaupapa, requiring time, trust, and sustained relationship-building to ensure meaningful and inclusive outcomes. The importance of recognising SAPs as living documents was also noted, marking the beginning of an ongoing dialogue with communities about how we adapt our coastlines.

- Recognition of critical infrastructure and roading connections: Feedback emphasized the need to identify and account for key roading links and essential lifeline infrastructure to ensure they are considered in coastal hazard risk responses.
- Interest in future funding and decision-making: Boards expressed a need for clarity on the funding required to deliver planned activities.
- Ensuring Council-owned assets and land are accurately identified in plans and the role that community facilities play, and where they are located on Council land is clearly identified.
- Aspirations for ecological corridors and pest management, recognition of community-led restoration initiatives along the coast and the coastal networks such groups rely on to get around the coast.
- Landscape changes, sediment build up, land slips and infrastructure damage as a result of the 2023 extreme weather events and the need to ensure engagement captures private property owners impacted by/ vulnerable to coastal hazards. Local boards (Puketāpapa) advocated for ensuring current and historic coastal hazard related damages are taken into consideration/ addressed in the implementation of the Manukau Harbour North SAP.

Community uses/ values

During community engagement, respondents are asked, 'when thinking about the coastal areas they use in the Manukau Harbour North SAP which values matter the most to them'. The most popular values centred around the ability to use and access the coast, coastal habitats and biodiversity, and the natural character of the coastline, with feedback highlighting a shared commitment and values for the coastlines natural features, with an emphasis on being able to maintain connections both to and along the coast.

Uses, access and frequency

Most respondents said they go to the coast most often via private vehicles, with the remaining percentage either walking or using another mode of transport. Most respondents were reported to visit the coast either one or twice a week to once or twice a month, with a smaller fraction of respondents visiting the coast every day.

When it came to beaches visited, many respondents visited Cornwallis, Huia, French Bay, Laingholm Beach / Sandy Bay and Titirangi Beach closely followed by Grannys Bay and Armour Bay. The most popular parks appeared to be Titirangi Beach Reserve, Taumanu Reserve and Waikowhai Park.

Activities - Manukau North

Both locals and visitors alike expressed their appreciation for the beauty of the natural environment across the Manukau North coastline, the peacefulness of the Waitākere Ranges, bush trails and tranquil beaches all contributing to people's ability to connect to the coastal environment.

Activities were varied across the various units within the Manukau North SAP area, covering passive recreation, water-based activities, open-water activities, walking / cycling and nature-watching, etc. Overall, the three most popular were walking or picnicking with friends and family (family bonding activities valued for their contribution to leisure and well-being), while enjoying the natural environment, and water- based activities (swimming, boating, fishing).

Community cultural values / comments

Feedback reiterated the cultural significance of the coast to local iwi, noting the history of the embayments and portages that they once supported, along with the use of Manukau North coastlines for accessing/gathering shellfish or fishing.

Community values of ecosystems and impacts of climate change

Destruction of natural habitat and coastal erosion was a key concern in community feedback, with responses emphasising the strong value placed on the natural environment and landscapes, expressing a clear desire for continued protection, maintenance, and restoration of biodiversity. Key discussion points included but were not limited to:

- Both locals and visitors highlighted the importance of preserving the natural coastal features and landscapes throughout Manukau North, along with maintaining access to these areas. In feedback it was noted that each beach along the Manukau Harbour North has its own character; all gems in their own way for coastal users, with many quoted as 'peaceful, relaxing and beautiful'.
- Commentary that the Manukau Harbour North coastline was home to regenerating native bush, supporting a variety of birds and insects, including glow worms found along the creeks.
- Many people valued the opportunity to walk through beautiful landscapes, surrounded by native vegetation and wildlife, all within close reach of the city.
- Beaches were noted for their natural beauty and cleanliness, with many permitting dogs to be walked on leashes (valued by local communities).
- Native species and biodiversity are prioritized for preservation within coastal reserves. Strong community support for preserving the wild, natural character of the coastline, with calls to limit and carefully manage development near the coastline.
- Concerns about water quality were frequently identified as was a commitment to continuing and supporting actions to nurture ecosystems and address pollution issues.
- Commentary that the coastline across Manukau North supports a rich variety of shorebirds, with longfin eels and īnanga spawning in the nearby creek, noting local communities are actively involved in volunteer efforts to protect and restore native flora and fauna.
- Submissions (i.e. from the Waitākere Ranges Protection Society) highlighted that the Waitākere Ranges Heritage Area is of local, regional and national significance due to its unique heritage features, which include the prominent indigenous character of its terrestrial and aquatic ecosystems.

Community experience of hazards / concerns

Across Manukau North there was wide concern regarding the effects of the early 2023 weather events, with many highlighting damage to private properties, coastal walkways, roads, and natural habitats, with some areas experiencing significant erosion of cliffs and coastal vegetation. These events have deeply affected the community, leading to significant feelings of loss and grief, while also limiting access to the coast and recreational spaces for neighbouring communities. Key themes emerging from the feedback include:

- The loss of coastal forests/ vegetation and impacts on coastal connectivity was a common shared concern, with stormwater management seen as an issue contributing to the damage of road networks and thus needing attention.
- Frequent flooding and landslides are cutting off access to beaches, tracks, and damaging infrastructure.
- Landslides near residential zones raised safety concerns and highlighted vulnerabilities in community access and infrastructure resilience.
- Erosion and Habitat Loss: Commentary that coastal erosion and landslides have caused significant damage to bush areas, resulting in the loss of mature trees, biodiversity, and wildlife. Several people expressed frustration over the reversal of decades of volunteer pest control efforts, as extreme weather events have allowed pests to re-establish in previously restored habitats.
- Commentary that Cyclone Gabrielle compounded the destruction of severe weather events, triggering further landslips, erosion, and damage to infrastructure, including the coastguard building and other coastal facilities damage to amenities, beaches, recreational areas, and public spaces and key facilities (i.e. Coastguard's infrastructure at French Bay).
- Considerable impact on private residential areas, raised safety concerns for residents, with damage to critical roading connections (i.e. Huia Road) negatively impacting the provision of lifeline services.
- Feedback on recovery efforts highlighted the disquiet felt in relation to the extent of assistance, support for local communities, and the long-term effectiveness of remediation options. Given the recent events experienced across the Manukau North communities, the vulnerability of lifeline connections and the current condition of critical road networks, it was felt that more needs to be done to support future resilience.
- There was a desire to protect beaches and coastal infrastructure from erosion and inundation, along with the maintenance of storm drains with inadequate management of stormwater seen to be contributing to existing issues.
- Concerns about the potential impact on access to recreational areas and the need for collaboration between Auckland Council and local communities to develop effective solutions.
- Respondents highlighted specific cases of damage to walkways (such as the Waikōwhai Walkway and ZigZag Track at Atkinson Reserve), private properties, and coastal defences, e.g. seawalls. Several noted the urgent need for repairs and remediation to prevent further deterioration and ensure continued use of these assets.
- Ensure that stormwater pipes are adequately sized to handle the volume of water during heavy rainfall and storm events.
- Commentary that stormwater is being poorly managed, and simply repairing roads will not prevent future issues unless proper stormwater channelling is implemented.
- Recognition of community-led resilience and recovery responses: The Stickered Titirangi Area Residents' Group (STAR) highlighted the impact of the 2023 weather events on coastal communities and supporting Council assets and infrastructure within the Titirangi Bay area and neighbouring coastal communities, highlighting the need to support community resilience and repair critical infrastructure.

• Similarly, the Laingholm and District Community Emergency Response group highlighted the vulnerability of key access roads around the coast (Huia Road, Sandys Parade, Warner Park Avenue and Woodlands Park Road), noting that many of these roads function as lifeline services (Sandys Parade – important for emergency vehicles in upper Laingholms fire brigade headquarters, sole vehicle access to Western Road).

Overall, the responses highlighted the significant challenges posed by extreme weather events and coastal erosion, as well as the importance of proactive measures to mitigate these impacts and protect coastal communities and ecosystems.



Community values and aspirations

Aspiration and values for the future

Respondents were also asked if they had any aspirations specifically for access, facilities or uses at the coast in the Manukau Harbour North area. A discussion of key themes when it comes to future aspirations and values are discussed in brief below; noting the most mentioned were proactive and ongoing maintenance/ protection of critical roading connections, prioritising native species and biodiversity for preservation within coastal reserves, better access and pathways providing for coastal connections to and along the coast improvement of boat ramps, improvement of water quality and ongoing consultations with communities in the implementation of coastal adaptation pathways:

- Aspirations included fostering a balanced approach to safeguard ecosystem integrity while ensuring recreational enjoyment and recognising the area's cultural significance.
- Community members called for more education on environmental conservation, responsible recreation, and adherence to local regulations such as dog control.
- Importance of track networks and coastal access; there was a strong desire for improved accessibility.
- The Disabled Persons Assembly specifically called for greater attention to inclusive access along the Manukau shoreline, ensuring that all individuals can enjoy and use these coastal areas.
- Protect and maintain the wide range of recreational activities supported by the region's diverse coastal landscapes.
- Desire for improved water quality to ensure all beaches always remain clean and safe for swimming.
- Strong community backing for conservation efforts focused on protecting native flora and fauna, including improved pest control and ecological restoration. Community-led initiatives along the coast were also acknowledged and valued.
- Investment in assets including, but not limited to, surf life club building, toilets, and carparking facilities, along with infrastructure enhancements to accommodate increasing visitor numbers, including the construction of toilets, changing rooms, and boat ramps (i.e. at Huia). Feedback on asset maintenance identified key locations, Huia (including Hinge Bay and Little Huia), Cornwallis, Titirangi Beach, and French, Wood, and Armour Bays, as important areas for shoreline access within the SAP area.

Community suggestions for management and feedback on strategies



Overall, just under half of respondents supported the proposed short-term strategies, with slightly less support under the medium-, and long-term strategies, with a proportion of respondents unsure of the strategies proposed. Key feedback from communities and local boards has been the need for further and ongoing conversations regarding

adaptation and further work on adaptation options alongside decision-making responsibilities. There was general acknowledgement that this is a long-term inter-generational conversation.

Where appropriate/possible, location-specific feedback has been captured in Volume 3 and discussed in the sections above. Key community suggestions for management and feedback on strategies included, but was not limited to:

- **Increased maintenance** is needed for roads leading to the most frequented coastal area, with feedback highlighting Huia Road (serves as the sole access route in and out for the broader Huia and Cornwallis communities; critical lifeline service).
- Vulnerability of transport networks: Strong advocacy for ongoing collaboration with asset owners and local communities to support resilience roading connections across the wider Manukau North coastline, noting feedback highlighting how fragile some network are with road closures.
- Commentary that beaches such as Cornwallis and Little Huia, along with the track network in Waitākere Ranges Regional Park, are popular destinations for residents from West Auckland and beyond. It was highlighted that the Council should collaborate with local communities to develop and implement strategies that protect these beaches, maintain park access, and preserve road connections from erosion.
- Calls for improved maintenance and regular clearing of stormwater drains to help minimise flood-related damage.
- Concerns over the design and function of assets in storm events were used further exemplify the impacts of severe weather events on coastal infrastructure and resulting impacts on the environment. Strong advocacy for more resilience infrastructure to support community uses and values, as well as lifeline services.
- The Waitākere Ranges Protection Society (WRPS) strongly advocated the importance of preservation of the Waitākere Ranges due to their significance as a protected Heritage Area and as an outstanding natural landscape. WRPS believes maintaining high levels of naturalness, integrity of the landscape, and the important biodiversity the Heritage Area is home to requires protection from development and the proper management of visitor numbers.
- Advocacy to consider the Waitakere Ranges Heritage Area in planning (strongly advocated for in individual and community groups submission - Titirangi Residents and Ratepayers Association and the Waitākere Ranges Protection Society), noting the need to consider the purpose and objectives of the Act when making decisions about the Waitākere Ranges Heritage Area. This feedback has been reflected via inclusion under the identification of policy above (see Section 3.0).
- Fix / manage tracks washed away in the Jan 2023 flooding (i.e. Waikōwhai and Aldersgate, Zig Zag track).

- The need for engagement with cliff face/ coastal properties in coastal adaptation, noting the likelihood of **future landslides/** coastal hazards impacting the long-term feasibility of managing such environments.
- Weed management/ riparian planting around coastal margins to help buffer the impact of coastal hazards (advocacy for coastal planting for stability).
- Feedback noted that ecosystems and biodiversity had declined over time, such that there was a need for joined restoration efforts, and consultation with local community groups to support and maintain ecological providers to and along the coast.
- Proactive management of the Lower Nihotipu Dam outflow across Huia Road.
- Consideration of Community Connections via tracks to and along the coast, with a note that many local track networks are used by local community groups for pest management, providing access along the coast and supporting restoration initiatives.
- Building additional protective walls to help preserve highly popular beaches over the long term (i.e. Blockhouse Beach).
- Disabled Persons Assembly (submission): Strong call for improved accessibility along the coastline, including the installation of accessible entry points and assistive equipment such as beach mats. Advocacy for disabled people to be prioritised in consultations related to coastal adaptation, climate risk planning, emergency response, and the future development across the Manukau Harbour, involving local disabled individuals and disability organisations is seen as essential for inclusive and effective planning.
- The Titirangi Residents and Ratepayers' Association (TRRA) (submission): Outlined an extensive list of coastal parks, beaches, roads and assets, noting these were valued by the community and these will be vulnerable to inundation, erosion, landslips and flooding. The Association expressed the importance of engaging with adjacent landowners when planning for the future of coastal assets along the Titirangi area, recognising the value of local context and information residents hold (emphasize the importance of engaging with the community and local landowners for better planning).
- In addition to the point above, TRRA urged Auckland Council to **proactively protect vulnerable assets**, improve safety, and maintain essential services such as roads, parking, and stormwater systems. In summary, TRR calls for both immediate upgrades and long-term, climate-resilient infrastructure management focused on environmental risks and emergency readiness.
- Emergency Access for Wildfires: Feedback highlighted that bush-covered areas near North Manukau could become key evacuation zones during a wildfire. Given how wind direction can influence the spread of fire, some groups stressed the importance of maintaining safe and accessible evacuation routes, such as boat ramps, jetties, and vehicle access points, to ensure efficient and effective evacuations.
- Advocacy to protect roading connections and wharf facilities: The 'Save the Cornwallis Wharf Society' provided a written submission strongly advocating for protecting Huia Road from coastal hazards and protecting Cornwallis Beach, road and wharf from erosion, noting Huia Road is commented on as the only road serving the communities of Cornwallis, Big and Litle Huia and as well as some of the most heavily used areas of the Waitākere Ranges Regional Park (WRRP). Both the Huia Cornwallis Community Group and the 'Save the Cornwallis Wharf Society' stressed the importance of Huia Road as lifeline infrastructure, used by emergency services and access to the Watercare Dams.

- Recognition of important third-party assets and infrastructure in coastal management: Transpower provided a written submission to the Manukau North SAP, advocating for recognition and consideration of the existing Transpower assets within the Manukau North SAP, specifically within Units 1, 2, and 3 (critical infrastructure). These assets include the 220kV Henderson Otahuhu transmission line on towers, the Mangere Mt Roskill 110kV line on towers, and the Penrose Mt Roskill 110kV line also on towers.
- The need to recognise and support funding initiatives for community-led resilience and recovery responses: The Stickered Titirangi Area Residents' Group highlighted the impact of the 2023 weather events on coastal communities, road reserves and supporting Council assets and infrastructure within the Titirangi Bay area and neighbouring coastal communities. Supporting and working with community-led recovery groups was strongly advocated for.

Community objectives for the Manukau North SAP area

Community feedback received during the period of engagement was collated and reviewed in collaboration with Auckland Council's Parks and Community Facilitates Department, to develop the following high-level objectives:

Coastal connections, use and access

- Safe accessways to and along the coast are upheld to respond to the dynamic and changing environment of the Manukau North coastline and to support the diversity of recreational uses of the area and accommodate all modes of mobility.
- The dynamic landscape, remote and untamed natural character, amenity, features and values of the foreshore across the Manukau North coast (i.e. in the Waitākere Ranges Heritage Area) are protected to maintain a sense of connectedness and retain recreational access points
- The importance of enabling recreational activities at the coast is prioritised, and supporting infrastructure and assets continue to be maintained and protected where possible, providing for across both urban and rural coastal settlements of the Waitākere Ranges.
- Boat launching facilities are maintained and improved to provide for safe access to the harbour at a range of tide levels for a range of mobilities where possible, recognising the importance of access to the harbour.

Social and Cultural

- The cultural and historical ties of coastal people and communities are enhanced and maintained for future generations in a manner which is sensitive to the natural environment.
- The values of key cultural areas, portages, and historic features, sites and structures are
 preserved and restored, providing for a range of traditional and contemporary coastal
 uses.

Responding to risk

- Information and mapping of natural hazards, particularly coastal erosion, and climatic
 impacts is shared and understood to enable proactive management of risks and support
 the resilience of community infrastructure, roading connections, critical lifeline assets
 and infrastructure, alongside the resilience of communities.
- A network of resilient roads able to support access to and across the Manukau Harbour
 North area needs to be safeguarded and provide for a diverse range of transport types,

lifeline services and recreational uses, along with utility infrastructure (power, telecommunications), wharves and boat ramps (for emergency service access).

Environmental

- Adaptation strategies preserve and enhance the natural environment and ecosystems, considering opportunities to protect habitats and support improvements in fresh and harbour water quality.
- Walking trails are designed and located in a manner that is sensitive to the natural environment in which they are located, considering opportunities to maintain a natural coastal edge and support ecosystem corridors.



What can we do about it?

Summary of adaptation strategies per unit

The adaptation strategies are identified in the quick reference guide at the start of the document. The table below lists adaptation strategies for each unit and stretch. Volume 3 provides additional detail on adaptation strategies at a stretch level.

Climate scenarios

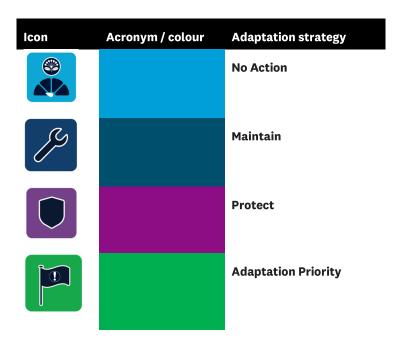
To reflect that exposure and therefore risk will change depending on climate scenarios, necessitating flexibility to change as required, strategies are split across:

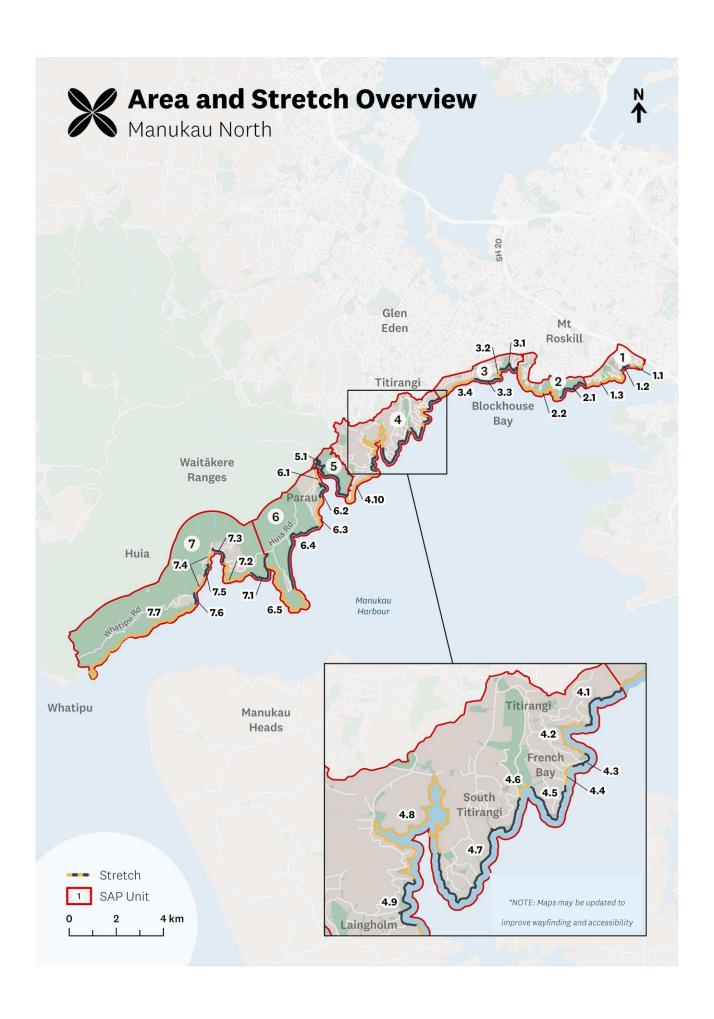
- Low (climate) change sea-level rise
- Moderate (climate) change sea-level rise
- High (climate) change sea-level rise.

Scenarios are indicative only and transitions between strategies will be in response to identified changes in conditions at a given location (i.e. signals, triggers and thresholds).

Auckland Council's adaptation strategies

Coastal adaptation strategies applied to each coastal stretch are described in further detail below:





		Climate change scenario/adaptation strategy		
Unit	Stretches	Low	Moderate	High
Unit 1: Hillsborough	Stretch 1.1: Waikōwhai Walkway	Maintain	Maintain	Maintain
	Stretch 1.2: Taylors Bay	Maintain	Adaptation priority	Adaptation priority
	Stretch 1.3: Onepoto Grannys Bay & Pourewa Kingswood Esplanade	Maintain	Maintain	Maintain
Unit 2: Waikōwhai	Stretch 2.1: Wesley Bay	Protect	Protect	Adaptation priority
	Stretch 2.2: Taunahi Wattle Bay to Wairaki	Maintain	Maintain	Maintain
Unit 3: Blockhouse Bay/ Green Bay	Stretch 3.1: Gittos Domain	Maintain	Adaptation priority	Adaptation priority
	Stretch 3.2: Āmio Blockhouse Bay Beach Reserve	Protect	Maintain	Adaptation priority
	Stretch 3.3: Tauihu Green Bay Beach (Portage)	Maintain	Adaptation priority	Adaptation priority
	Stretch 3.4: Karaka Park Reserve	No action	No action	No action
Unit 4: Titirangi / Wood Bay	Stretch 4.1: Oatoru Bay to Wood Bay	No action	No action	No action
Wood Bay	Stretch 4.2: Wood Bay	Maintain	Adaptation priority	Adaptation priority
	Stretch 4.3: Opou Point Headland	No action	No action	No action
	Stretch 4.4: French Bay Otitori Bay	Protect	Protect	Protect
	Stretch 4.5: Shag Point Headland	No action	No action	No action
	Stretch 4.6: Titirangi Beach Reserve	Protect	Maintain	Adaptation priority
	Stretch 4.7: Paturoa Bay to Laingholm Point	Maintain	Maintain	Maintain
	Stretch 4.8: Wai-kumete Little Muddy Creek/ Waiohua Creek	Maintain	Maintain	Maintain
	Stretch 4.9: Laingholm Beach	Maintain	Adaptation priority	Adaptation priority
	Stretch 4.10: Taumatarea Esplanade	Maintain	Maintain	Maintain
Unit 5: Big Muddy Creek	Stretch 5.1: Taumatarea Point to Big Muddy Creek Landing (Park)	Maintain	Maintain	Maintain
Unit 6: Karangahape Cornwallis	Stretch 6.1: Big Muddy Creek to Armour Bay	No action	No action	No action
	Stretch 6.2 Armour Bay	Maintain	Maintain	Maintain
	Stretch 6.3: Armour Bay to Lawry Point	No action	No action	No action

	Stretch 6.4: Lawry Point to Cornwallis Wharf/Reserve	Maintain	Maintain	Maintain
	Stretch 6.5: Cornwallis Wharf/Reserve to Kakamatua inlet	No action	No action	No action
Unit 7: Huia	Stretch 7.1: Kaitarakiri Beach East	No action	No action	No action
	Stretch 7.2. Kaitarakihi Point to southern end of Fosters Bay	Maintain	Maintain	Maintain
	Stretch 7.3 Huia Bay (Fosters Bay to Huia Road bridge)	Protect	Maintain	Adaptation priority
	Stretch 7.4 Huia Road Connection	Protect	Protect	Protect
	Stretch 7.5: Hinge Bay	Maintain	Maintain	Adaptation priority
	Stretch 7.6: Little Huia	Protect	Maintain	Adaptation priority
	Stretch 7.8: West of Little Huia	No action	No action	No action

4.1 SAP monitoring and implementation

Implementation of this SAP is a live and developing process which will require continued collaboration across multiple Auckland Council departments and Auckland Council-controlled organisations and entities. This will be undertaken alongside ongoing engagement with iwi to ensure that iwi have a partnership/co-management role in the project design, development, and implementation phases. This is a live document which will be kept updated by Auckland Council to reflect any developments in the ongoing implementation of the SAP.

The SAP area reports are currently anticipated to be reviewed on a five-yearly cycle. This will enable updated information to become available and be appropriately considered. Several specific factors may trigger a review or update of this SAP including review requested by iwi and national or regional legislative or policy changes.

Coastal monitoring activities in the Manukau North SAP area will be considered in implementation to inform signals triggers and thresholds. A more detailed discussion regarding implementation of the SAP Programme can be found in Volume 1.

5

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