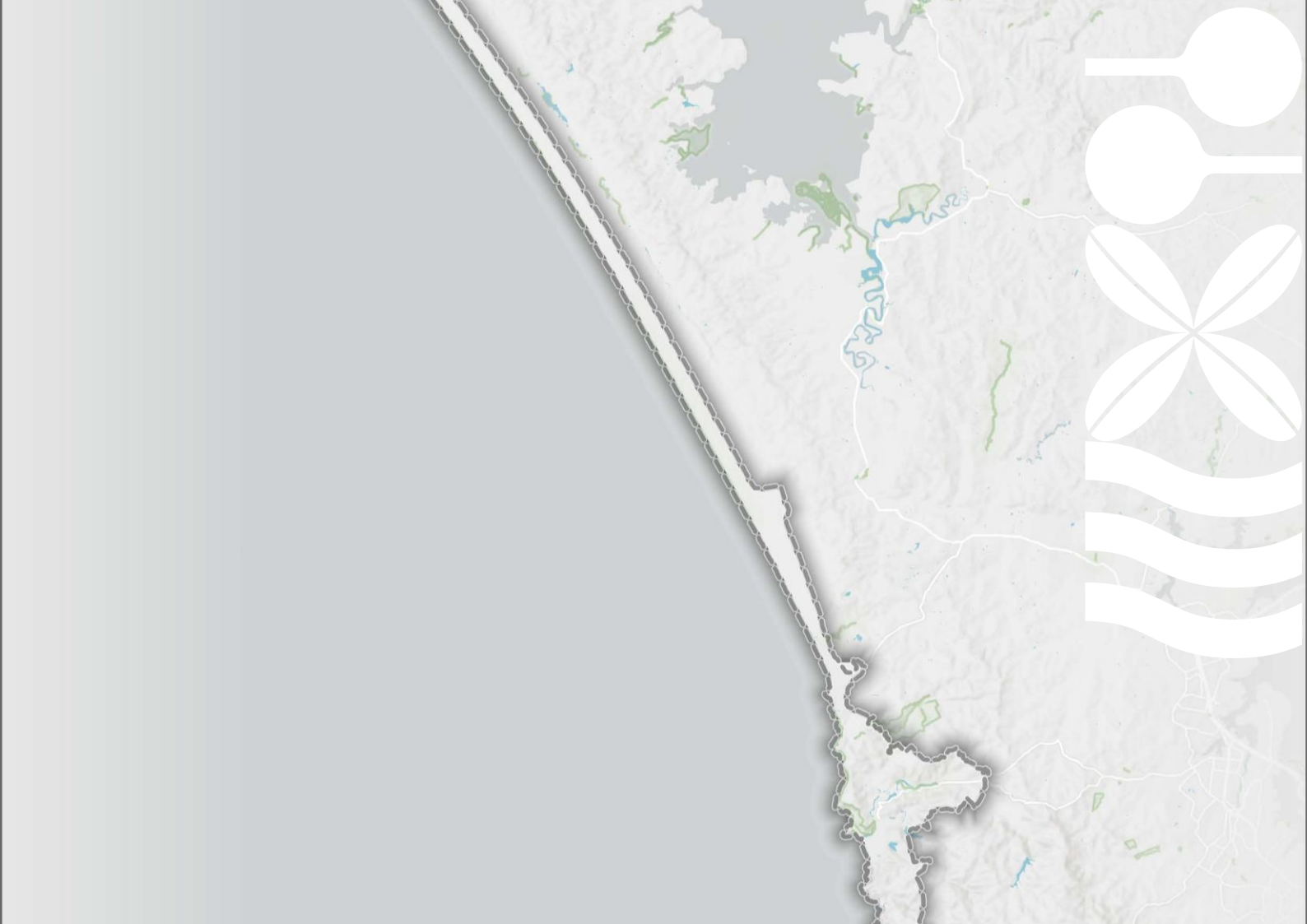




Ngā mahere whakaurutau mō te takutai

Shoreline Adaptation Plan

Whatipu to South Head Te Korowai-o-te-Tonga Peninsula

Volume 2: Introduction to the SAP area

August 2025, Version 1.0



Shoreline Adaptation Plan

Whatipu to South Head Te Korowai-o-te-Tonga Peninsula

Volume 2: Introduction to the SAP area

August 2025

Auckland Council

ISBN (PDF)

Reviewed and recommended for publication by:

Name: Natasha Carpenter

Position: Head of Coastal Management, Engineering, Assets and Technical Advisory, Auckland Council

Approved for publication by:

Name: Paul Klinac

Position: General Manager, Engineering, Assets and Technical Advisory, Auckland Council

Recommended citation:

Auckland Council (2025). Shoreline Adaptation Plan Whatipu to South Head Te Korowai-o-te-Tonga Peninsula Volume 2: Introduction to the SAP area

©2025 Auckland Council, New Zealand

This publication is provided strictly subject to Auckland Council's copyright and other intellectual property rights (if any) in the publication. Users of the publication may only access, reproduce and use the publication, in a secure digital medium or hard copy, for responsible genuine non-commercial purposes relating to personal or public service, provided that the publication is only ever accurately reproduced and proper attribution of its source, publication date and authorship is attached to any use or reproduction. This publication must not be used in any way for any commercial purpose without the prior written consent of Auckland Council. The use of this publication for professional training purposes, regardless of whether payable or free of charge, also requires Auckland Council's prior written consent. Auckland Council does not give any warranty whatsoever, including without limitation, as to the availability, accuracy, completeness, currency or reliability of the information or data (including third party data) made available via the publication and expressly disclaim (to the maximum extent permitted in law) all liability for any damage or loss resulting from your use of, or reliance on the publication or the information and data provided via the publication. The publication, information, and data contained within it are provided on an 'as is' basis.

Acknowledgements

The SAP team would like to acknowledge and thank all iwi and their representatives and Kaitiaki who have been involved in developing this document and have engaged with the SAP team throughout the development of this document.

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 New Zealand Transport Agency ZTA Waka Kotahi; New Zealand Defence Force and Transpower) and users of the wider Whatipu to South Head coastline for their engagement, support, and ongoing interest in this SAP.

As set out in *Volume 1: Understanding 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.

Contents

Quick Reference	i
Glossary	ii
Shoreline Adaptation Plan Areas.....	iv
SAP areas, units & stretches	vi
Climate change scenarios (timeframes for change).....	vi
Auckland Council's adaptation strategies.....	vii
1 SAP Area introduction.....	1
2 What's happening	3
2.1 Natural hazards & climate change.....	5
Coastal erosion and accretion (including sea-level rise)	5
Coastal inundation (including sea-level rise).....	9
Catchment flooding and climate change.....	10
Other hazards	12
2.2 Current coastal management practices	13
2.3 Risk assessment.....	15
3 What matters most?	17
3.1 Auckland Council land and assets	17
Auckland Council land and parks	19
Water Infrastructure	19
Facilities and structures	19
Roads and access	19
Access to the coast	20
3.2 Te Ao Māori.....	22
Context and information.....	22
3.3 Working together- Local iwi engagement.....	23
Local iwi aspirations, values and principles.....	23
Te Kawerau ā Maki.....	24
Ngāti Whātua o Kaipara.....	29
3.4 Ecological context.....	32
Ecosystems and significant ecological areas	32
Potential opportunities: nature-based solutions	37
3.5 Social and policy context	38
Who lives here	38
Community groups and organisations.....	38
Policy context.....	40
Community use, buildings and assets	42
Emergency services, facilities or key infrastructure	42
Landscape features and character	43

3.6	Community feedback.....	44
	Who did we hear from.....	45
	Community uses/ values	46
	Community cultural values / comments	47
	Community values of ecosystems and impacts of climate change.....	47
	Community experience of hazards / concerns	48
	Community values and aspirations	50
	Community suggestions for management and feedback on strategies.....	51
	Community objectives for the Whatipu to South Head SAP area.....	53
4	What can we do about it?.....	54
	Summary of adaptation strategies per unit.....	54
	Auckland Council's adaptation strategies.....	54
5	SAP Monitoring and implementation	57
6	References & Bibliography	58

Figures

Figure 1-1: Shoreline Adaptation Plans (regional).....	v
Figure 1-1: Whatipu to South Head Shoreline Adaptation Plan	2
Figure 2-1: O'Neill Bay (Source: Getty Images).....	4
Figure 2-2: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios.....	6
Figure 2-3: Piha Beach profile monitoring results, 1993 to 2023.....	7
Figure 2-4: Coastal change rates derived from aerial photography and satellite imagery in relation to the SAP area.....	8
Figure 2-5: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m and 2 m sea-level rise.	10
Figure 2-6: Flood Plain areas 1% AEP hazard, for Whatipu to South Head, Auckland Council Flood Viewer....	11

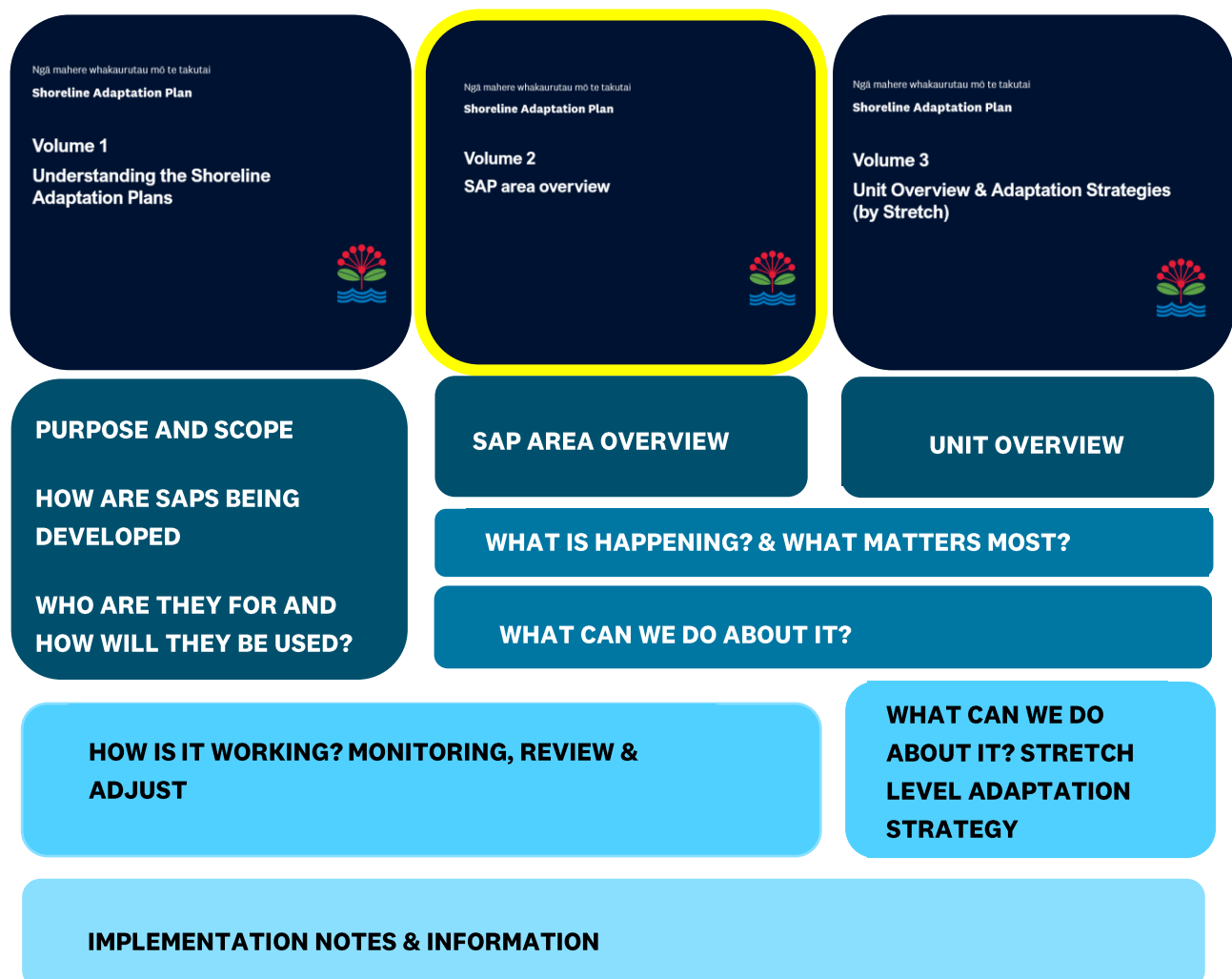
Tables

Table 2-1: Risk assessment asset groupings and descriptions.....	15
Table 2: Council-owned land, community facilities, transport infrastructure and water infrastructure risk ratings per unit	16
Table 3-1: Te Kawerau ā Maki framework for Coastal Management across the Whatipu to South Head SAP..	26

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.

	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, public-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 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 the Shoreline Adaptation Plans*. Twenty SAPs make up Auckland's ~3200 km of coast as follows:

- Aotea Great Barrier and the outer Hauraki Gulf Islands
- Āwhitu
- Kahawairahi ki Whakatiwai / 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 and Inner Gulf Islands
- Waimanawa Little Shoal Bay mini SAP
- Waitematā Harbour West
- Weiti Estuary to Devonport Peninsula
- Whangaparāoa
- Whatipu to South Head

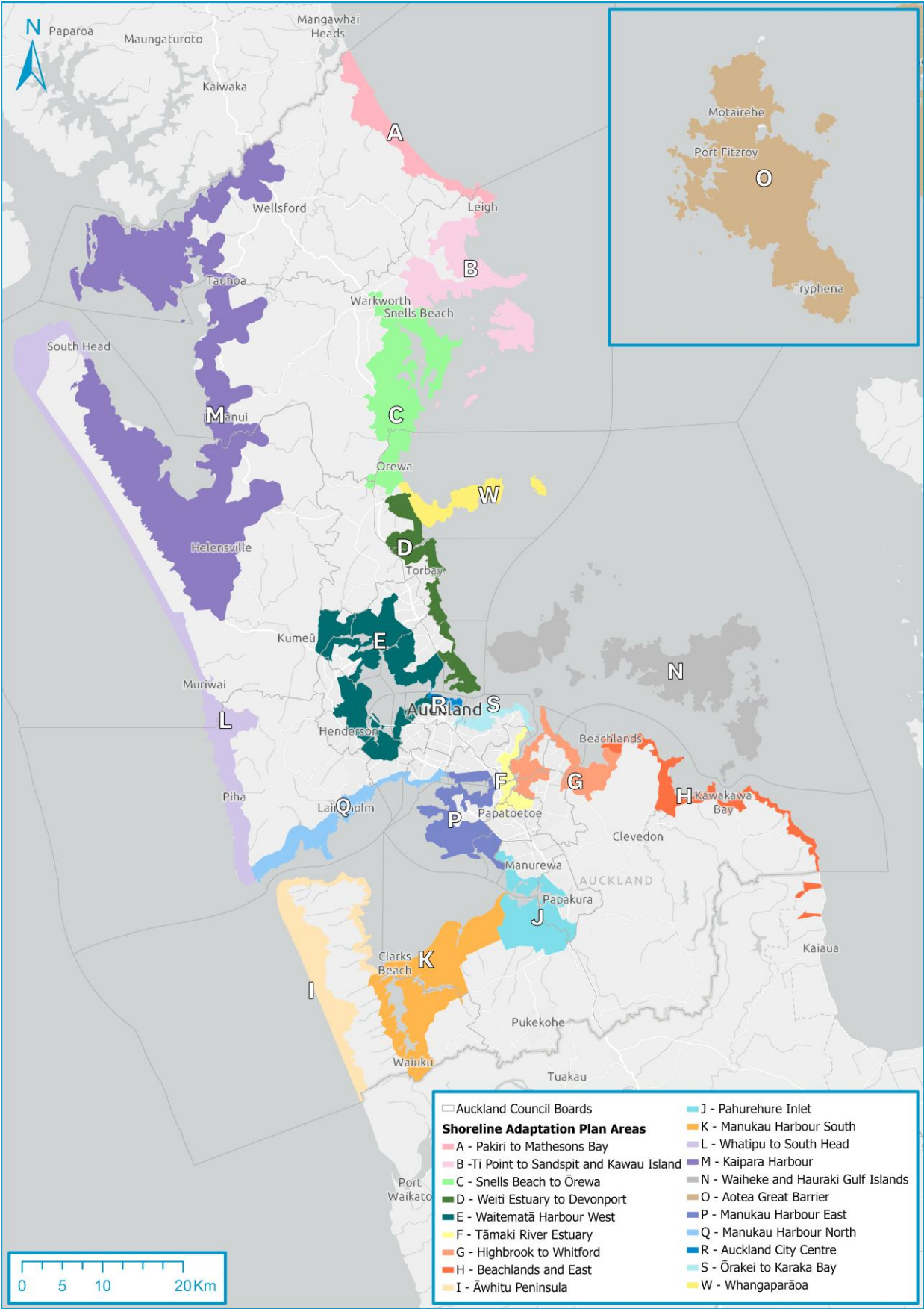
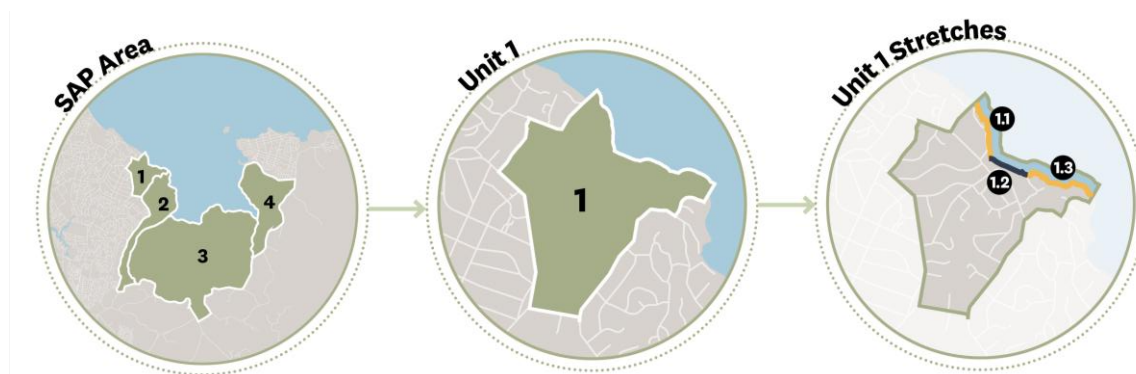


Figure 1-1: Shoreline Adaptation Plans (regional)

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.

	 Sea-level Rise	 Coastal Inundation	 Coastal Erosion	 Catchment flooding
Low climate change	• Present day (relative) sea level • Up to 0.5 m	• 1% AEP storm surge event	• Erosion & instability susceptibility line '2050' • (RCP 4.5) • includes consideration of 0.28 m of sea-level rise)	1% AEP rain fall event + climate change projections for rainfall
Moderate climate change	• 0.5 m • Up to 1 m	• 1% AEP storm surge event plus 0.5 m of sea-level rise	• Erosion & instability susceptibility line '2080 RCP 4.5 and 8.5' • Includes consideration of 0.55 m of sea-level rise	
High climate change	• 1.0 m • Up to 2 m	• 1% AEP storm surge event • plus 1.0 m, 1.5 and 2 m of sea-level rise	• ASCIE 2130 (RCP8.5 and 8.5H+) • Includes consideration of 1.18 m and up to 1.52 m of sea-level rise	

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.



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 Whatipu to South Head area is situated along Tāmaki Makaurau / Auckland's west coast and covers approximately 141,114 ha. The area spans from Whatipu from the south, at the entrance to Manukau Harbour, to South Kaipara Head in the north at the mouth of Kaipara Moana (Harbour). The SAP area falls within the Waitākere Ranges and Rodney Local Board boundaries; it is divided into five units and 20 stretches for the purposes of adaptation planning.

The SAP area constitutes mainly low-density residential, rural and coastal areas. A large proportion of the area from Te Henga / Bethells Beach north provides for rural farming and forestry activities. Subsequently, the Whatipu to South Head SAP area is sparsely populated with a population of approximately 3,850 residents (Statistics New Zealand, 2018), with most residents residing in and near Muriwai, Te Henga / Bethells Beach, Piha and Karekare. There are two neighbourhood centres in Piha (Unit 2) and Muriwai (Unit 4) offering local services and food outlets. Throughout the area, there are significant areas of Department of Conservation (DOC) owned and managed conservation land and Auckland Council-owned and managed regional parks including the Waitākere Ranges.

The Waitākere Ranges is the largest area of contiguous native vegetation on mainland Tāmaki Makaurau / Auckland, and hosts a variety of important ecosystems. It consists of more than 17,000 ha of parkland and is known for its network of walking, running and tramping tracks and access to the coast. It is protected by the Waitākere Ranges Heritage Act 2008 (Waitakere Ranges Heritage Area Act, 2008).

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 (refer to Volume 1 for [further detail of the scope and purpose of the SAP programme](#)). 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: Whatipu to South Head Shoreline Adaptation Plan

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).

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

Coastal context

The 75 km coastline between Whatipu and South Head is predominantly characterised by highly dynamic, high-energy, black sand beaches on the open facing west coast, with relatively large mobile dune systems contained between rocky headlands and backed by high coastal cliffs. There is a net sediment transport in a northerly direction from the Manukau Bar. Marine ecosystems grade into areas of natural coastal vegetation, including wetlands, and associated back dune ecosystems and streams are present in many places.

This coastline's volcanic geology originates from the andesitic early Miocene Waitākere volcano. The geology consists of softer sandstone in places, with pillow lava. Lava caves are also present along this coastline.

The west coast from Whatipu to South Head is open to extensive fetch exposures from the southwest to northwest. As a result, this coastline experiences wave heights between approximately 1.5 - 2.5 m on a regular basis. Periodic larger events result in wave heights of up to 6 m or larger. The west coast beaches are dynamic environments, with accretion of approximately 1.5 km of sand since the 1930s at Whatipu versus erosional trends for areas of Muriwai Beach further north. The overall, present-day pattern of accretion and resulting dune growth on the west coast has created various operational issues for Auckland Council as owners of a vast proportion of land and assets across the Waitākere Ranges and Muriwai Regional Parks. This has included windblown sand affecting roads, carparking and property, maintenance of safe beach access routes and impacts on surf club operations.

Multiple river and stream mouths discharge onto the west coast beaches and there is ongoing potential for water quality issues at the lagoon mouths. There has been a history of high faecal indicator bacteria (*Escherichia coli*) concentrations recorded in the Karekare, Piha and Te Henga lagoons. Studies have identified a range of sources from dogs, birds, ruminants and humans (Noble & Neale, 2016). The current trends in beach accretion have resulted in less frequent natural flushing of these lagoons, due to elevated beach sand levels at the lagoon openings.

Vehicle access points at Piha, Bethells Beach and Muriwai Beach provide for recreational boat launching at the coast. At the northern boundary of the SAP area in the inner Kaipara Moana (Harbour), the coastline is sheltered from the open west coast wave energies and is only exposed to fetch and depth-restricted, short period wind waves. Areas are popular for water-based recreation

including surfing, kite surfing and swimming. A variety of uses including walking, dog walking, and horse riding are also provided for within the wider SAP area.



Figure 2-1: O'Neill Bay (Source: Getty Images)

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 Whatipu to South Head 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 erosion and accretion (including sea-level rise)

Coastal erosion

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 an irreversible process associated with the movement of land (typically as a landslide) resulting from the loss of support caused by coastal erosion.

The areas along the Whatipu to South Head 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 supporting technical report *Predicting Auckland's Exposure to Coastal Instability and Erosion*⁶.

The technical report and mapping provide a regional scale assessment of the ASCIE. It provides a conservative or 'first pass' appraisal of the natural hazard extent, in alignment with guidance from the Ministry of the Environment. A more detailed site-specific assessment is required to quantify exposure and risk of localised land or assets.

Figure 2-2 shows the resulting coastal instability and erosion hazard extents over changing climate scenarios and timeframes. The ASCIEs are shown as lines, representing the distance (in metres) landward of the current coastline that is predicted to be susceptible to coastal instability and erosion, for a given time-period.

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 high and 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.

Soft beach / dune coastal extents are more susceptible than the harder cliff headlands to erosion. The dynamic sandy beaches of Whatipu Beach (Unit 1), Piha Beach (Unit 2), Te Henga South (Unit 3), Muriwai Beach (Unit 5), and Waionui inlet (Unit 5) are identified as being particularly susceptible to coastal erosion. Although it is noted that several of these beaches (Whatipu, Karekareke, Piha, and Te Henga) are currently showing accretionary trends (growth of dune systems in either width or height), these trends are considered a 'medium-term fluctuation' and have been allowed for in the ASCIE prediction (see further details below).

Erosion predictions along the dune coastlines of Muriwai extend approximately 60 m from the present-day coastline by 2050, to 100 m by 2080 and 190 m by 2130 under a conservative climate change scenario. This significant ASCIE extent can be attributed to the high wave energy that the open west coast is exposed to as well as the erodible nature of a sandy coastline.

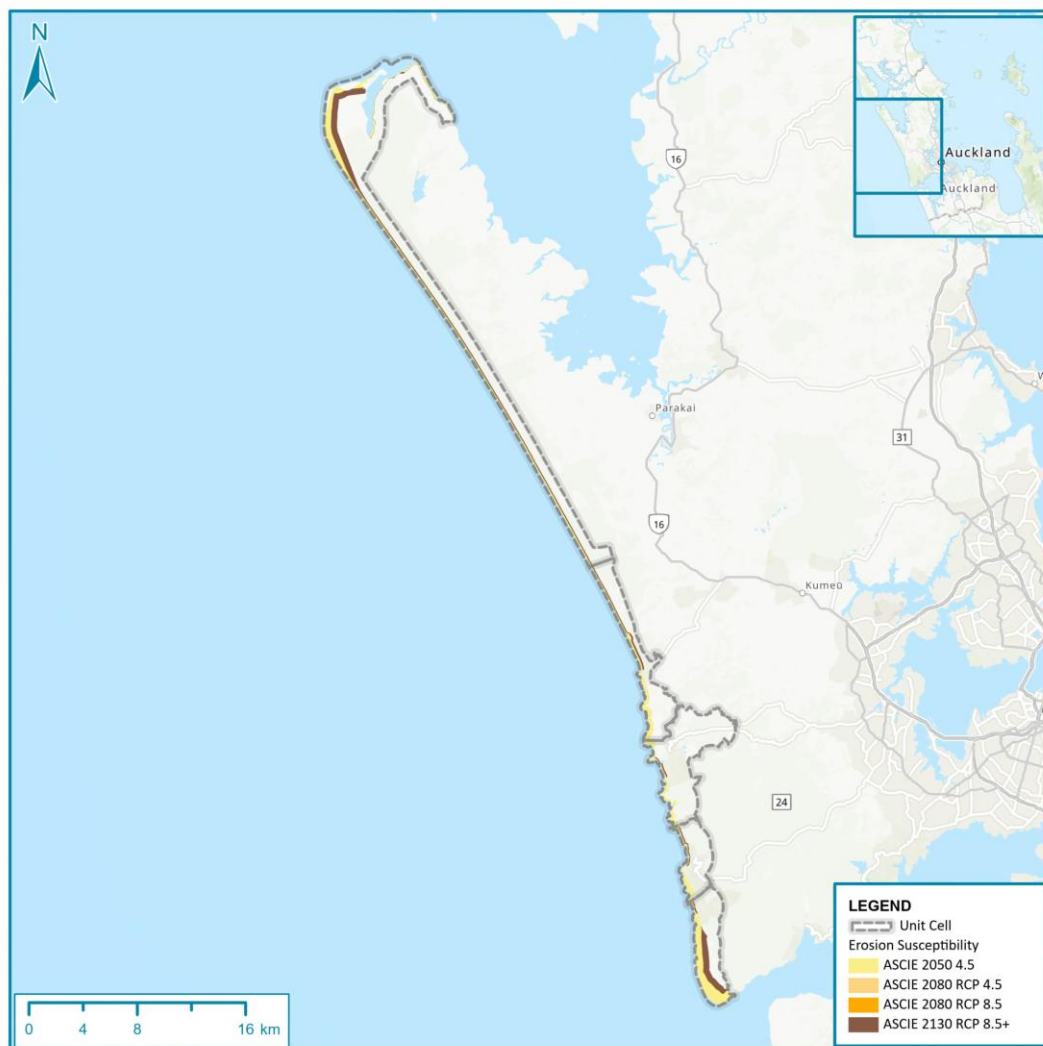


Figure 2-2: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios

Accretion

One of the most notable features of the open west coast of this SAP area is the significant accretion that has occurred from Whatipu and has extended to the north at Karekare Beach and Piha Beach, particularly over the last 15 years.

Beach profiles are monitored by Auckland Council at both Piha and Muriwai as part of Auckland's regional State of the Environment reporting. Surveys of established beach profiles are undertaken at a six-monthly frequency. At Piha, with a monitoring record of approximately 30 years, the accretionary trend is further supported, with variable rates of change as summarised in

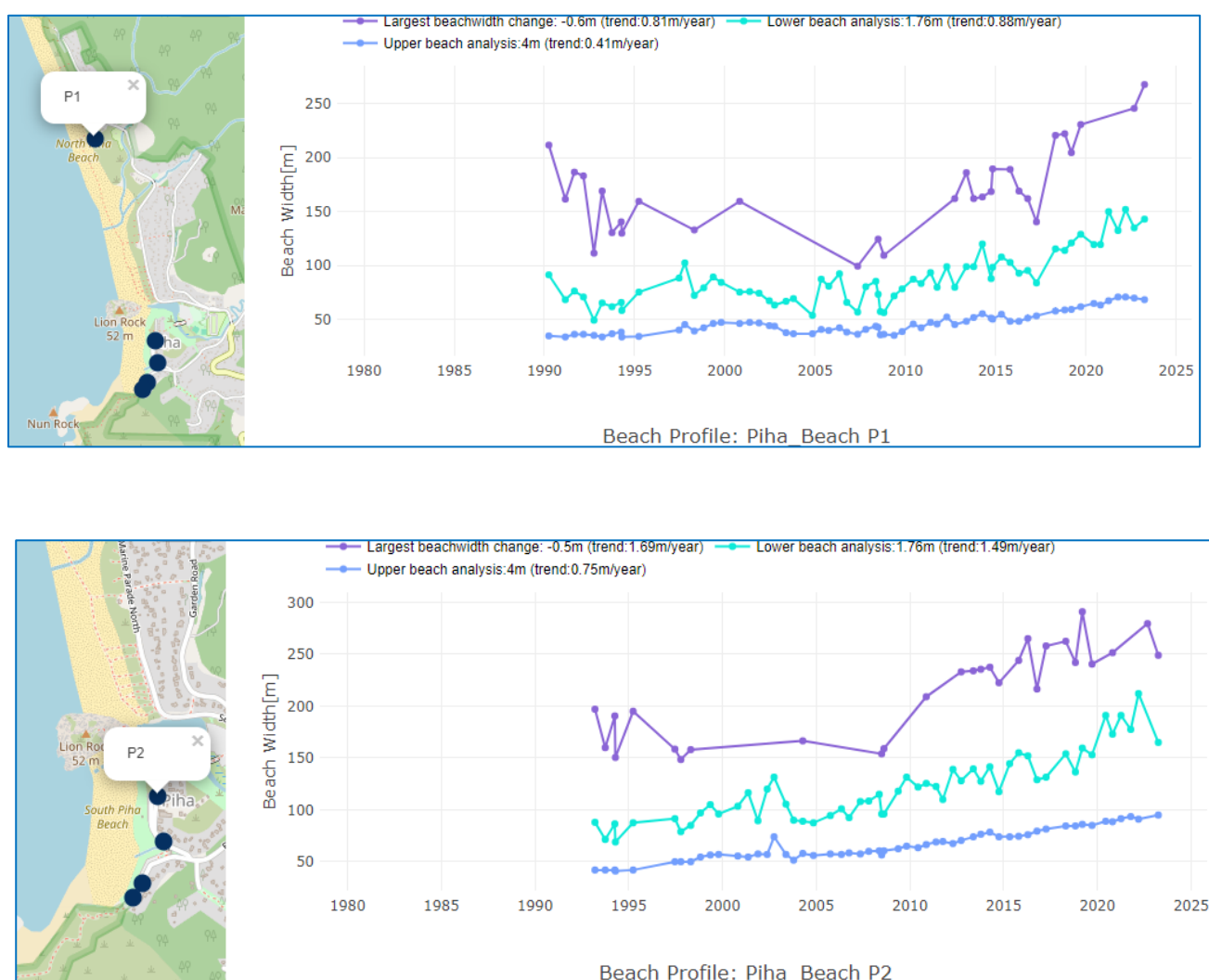


Figure 2-3: Piha Beach profile monitoring results, 1993 to 2023 (Auckland Council)

The accretion and resulting dune growth on the west coast has created various operational challenges for Auckland Council as owners of a large proportion of land and assets across the Waitākere Ranges and Muriwai Regional Parks. This has included windblown sand affecting roads, carparking and property, maintenance of safe beach access routes and impacts on adjacent surf-club operations.

In 2024, the University of Auckland as part of the National Science Challenges, released maps demonstrating the rate of coastal change (in metres/ year), derived from analysis of aerial photographs and satellite imagery from 1938-2023. The mapping provides an overview of New Zealand's overall trends of erosion versus accretion around the coast. Figure 2-4 provides an excerpt of results in relation to the Whatipu to South Head SAP area and further supports the current accretionary trend to the south of the SAP area, transitioning to trends of erosion further north (from Muriwai).

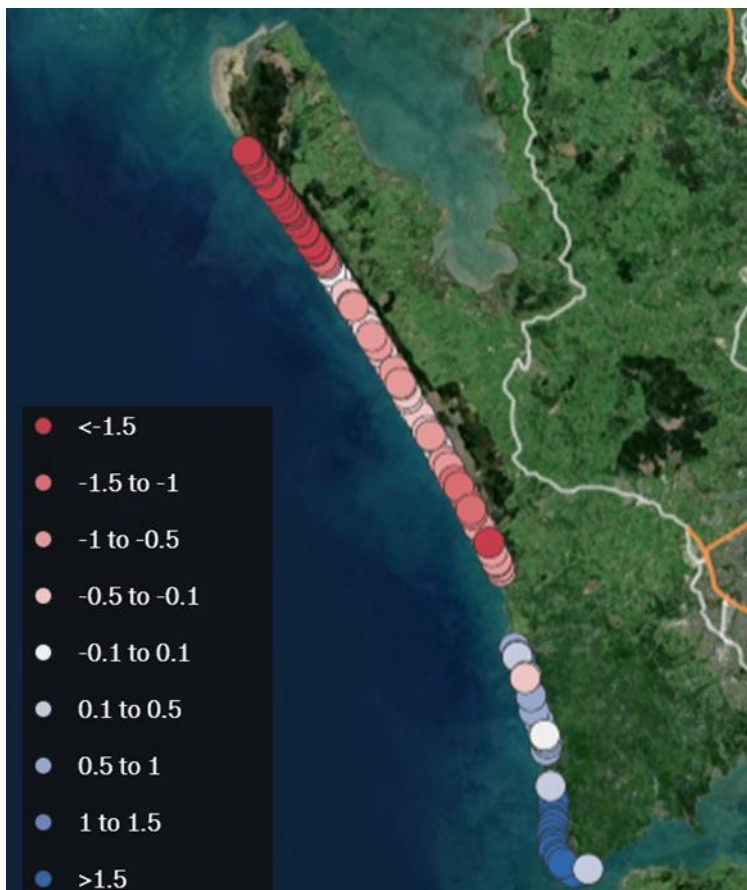


Figure 2-4: Coastal change rates derived from aerial photography and satellite imagery in relation to the SAP area. Red colours indicate erosion and blue colours indicate accretion. (Source: <https://coastalchange.nz/>)

In 2013, Auckland Council commissioned Economos Consulting to undertake a study of the Piha south area in response to the conflicting dune management issues at Piha. The resulting dune management plan is a non-statutory guidance document. It made a series of recommendations across numerous dune management areas including raising community support and awareness, minimising problems with windblown sand, maintenance of public access and natural character.

In 2017, Blue & Kench used historical aerial photographs dating back to the 1940s to assess multi-decadal shoreline changes at Whatipu, Karekare, Piha and Te Hēnga. They found that these west coast beaches are accreting, albeit at different rates and at different times. Their conclusion was that the variations in sediment supply from the Manukau bar have resulted in differing trends along the west coast beaches. Based on this, and as all trends seem to be slowing, it is considered that these observed trends are not necessarily 'long term' (i.e. they will continue at the derived rate over at least

100 years) and it would hence be prudent to consider them part of medium-term cycles or fluctuations.

Coastal inundation (including sea-level rise)

Coastal inundation refers to the flooding of normally dry, low-lying coastal land due to extreme high-water levels. It is a temporal event as opposed to the gradual and ongoing effects of sea-level rise which will permanently change the location of mean high water and the land-sea interface over time.

Extreme high sea-water levels (commonly referred to as storm tides) are a result of a storm surge coinciding with a high spring tide. When king tides (the highest spring tides that occur over the year) occur, the risk of inundation is greatest. Storm surge occurs due to relatively low atmospheric pressure (the 'inverted barometer' effect of 1 cm rise in sea level per 1 hPa fall in pressure) combined with water level set-up at the coast from onshore winds or alongshore winds.

Rainfall flooding may also combine with coastal inundation and contribute to the area that is inundated, particularly within narrow sections of an estuary.

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.

Figure 2-5 below shows the resulting hazard extents for:

- Coastal Inundation 1% Annual Exceedance Probability (AEP) event (equivalent to a 1% chance of occurring in any year, or a 1 in 100-year return period)
- The same event with 0.5 m, 1.0 m, and 2.0 m sea-level rise added.

Much of this area of coastline is characterised by steep topography and extensive, high, sand dunes, resulting in coastal inundation being focussed to discrete, low-lying areas, many of which have been influenced by a stream.

A coastal inundation event with 1% Annual Exceedance Probability (AEP), meaning a 1% probability of occurring in any given year, has been considered (as shown in the graphic).

- In the short term, with no sea-level rise, the areas exposed to coastal inundation include the sandy headland near the Waionui Inlet, Karekare Stream, Piha Stream, Wekatahi Creek and Marawhara Stream (North Piha), Waitākere River (Te Henga), Ōkiritoto Stream (Muriwai), and Whatipu Beach.
- In the medium term, 0.5 m of sea-level rise will increase the depth and extent of coastal inundation for the places that are exposed in the short term. The frequency of coastal inundation events is predicted to increase over time.

In the long-term, 1.0 m of sea-level rise will further increase the depth and extent of coastal inundation for the places exposed in the short and medium term. Some areas there were not previously exposed, may now be exposed to coastal inundation, including the Te Henga wetland system

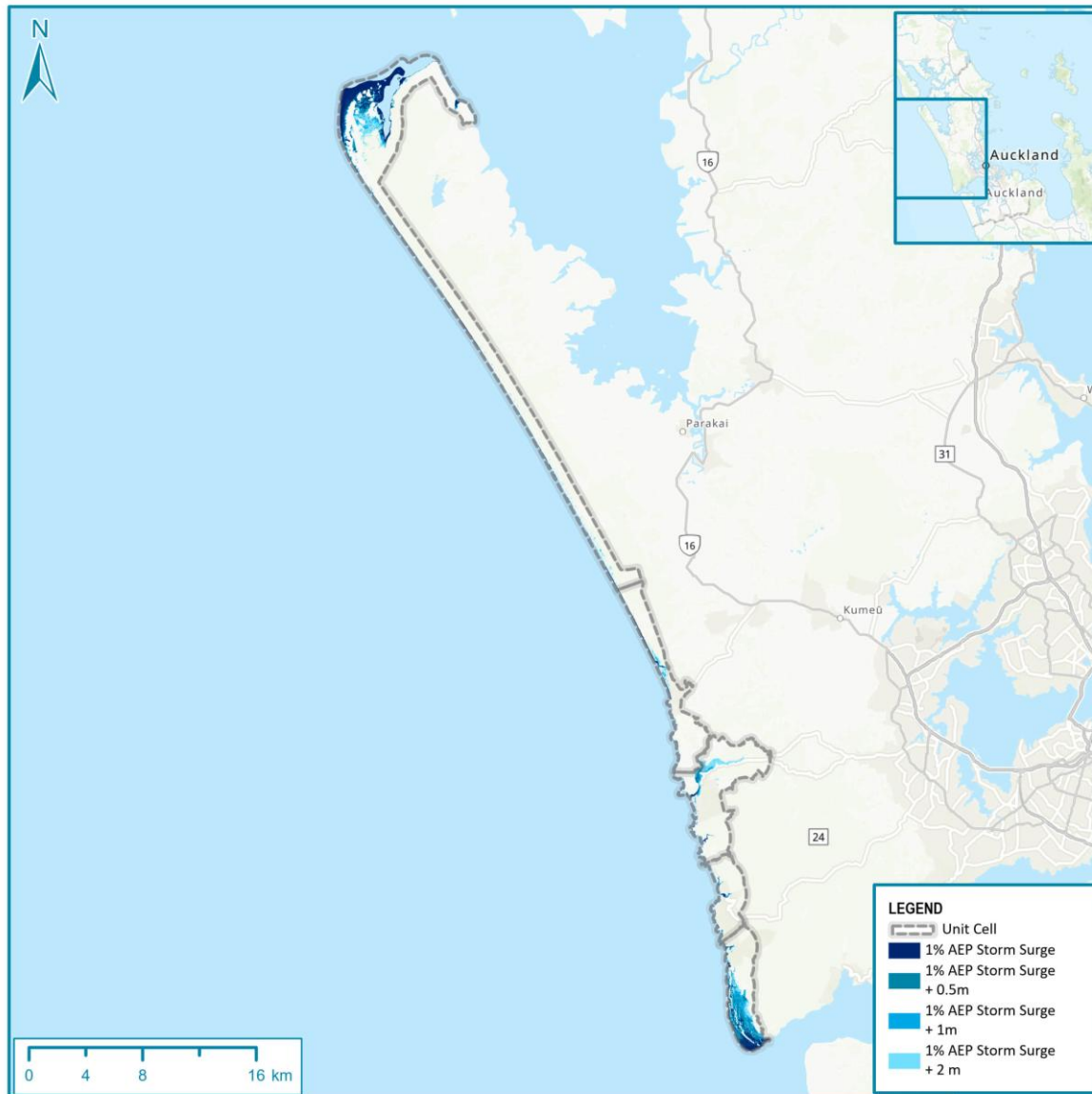


Figure 2-5: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m and 2 m sea-level rise.

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, 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.

The maps illustrate that flooding hazards along this SAP area are focused in lower-lying areas where streams and overland flow paths within the catchment drain to the Tasman Sea. Overland flow paths and floodplains cross multiple hiking tracks and roads throughout the SAP area; these are mostly localised near streams. Key areas include Whatipu Stream, Pararaha Stream, Karekare Stream, Company Stream (Unit 1), Piha Stream, Melville Stream, Marawhara Stream (Unit 2), Anawhata Stream, Waitākere River, Taimana Stream (Unit 3), an un-named stream into Powell Bay, overland flow and flood plains through Muriwai Beach Domain Recreation Reserve and Muriwai Regional Park (Unit 4).

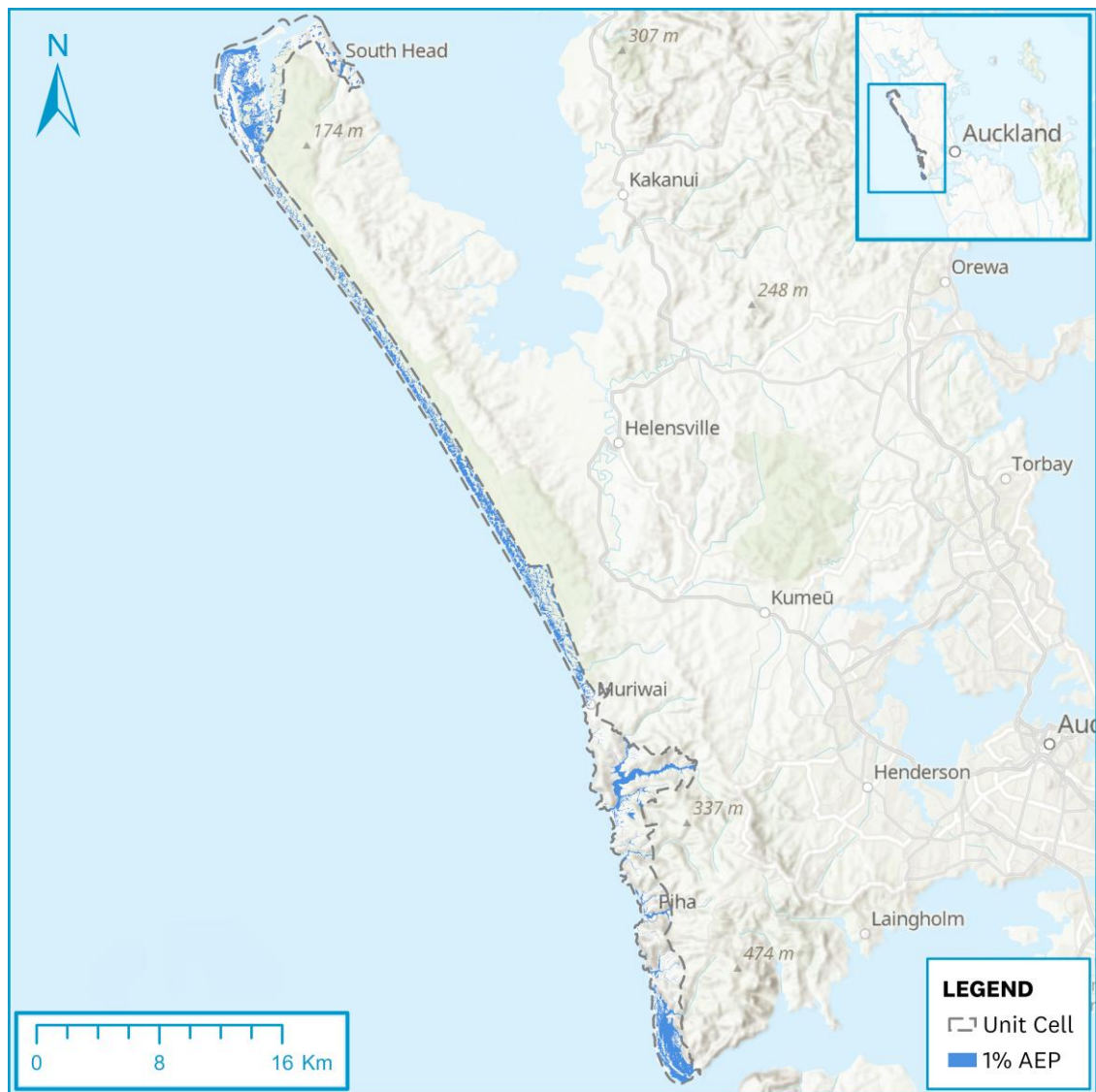


Figure 2-6: Flood Plain areas 1% AEP hazard, for Whatipu to South Head, Auckland Council Flood Viewer.

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. Refer to *Volume 1: Understanding the Shoreline Adaptation Plans* for a more detailed discussion of other hazards impacting Auckland.

It is recognised that the wider area of Whatipu to South Head is affected by a broader range of natural hazards including inland land instability and wildfire. In February 2023, Cyclone Gabrielle made landfall with New Zealand, causing widespread damage across the North Island, including over 140,000 landslips. On Auckland's West Coast, the communities of Karekare, Piha, Te Henga and Muriwai were severely affected including loss of life, property and infrastructure.

The impact of Cyclone Gabrielle has shown that some homes on Auckland's west coast 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).

Emergency 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 Whatipu to South Head SAP area, the relevant plans can be located [here](#).

2.2 Current coastal management practices

An overview of existing current coastal management across the Whatipu to South Head SAP area is summarised in the table below and discussed in greater detail in *Shoreline Adaptation Plan Whatipu to South Head Volume 3: Adaptation Strategies*. Detailed discussion of the management interventions is included at a unit scale in Volume 3. There are minimal engineered coastal protection structures, e.g. seawalls, for erosion management along this SAP area's coastline, this is due to the highly dynamic and high energy nature of this coast. A summary of some of the key features is included in the table below:



Coastal protection

- Accretion at Karekare Beach has moved the high-tide position on the beach seaward, resulting in a significantly increased high-tide beach area. This has impacted access to the Karekare Surf Club building, resulting in a raised and engineered accessway to the club building being constructed.
- Moana Stream at Piha: The engineered Moana Stream outlet channel at South Piha (undertaken in the 1980s) fixes the discharge point on the beach. This reduces potential associated dune scour during flood events.
- Following a sustained cycle of shoreline erosion from the 1960s, an established erosion monitoring trigger for landward realignment at South Muriwai was met in 2006. In response, in 2009, the southern car park was realigned approximately 40 m landward, with a restored new frontal dune planted and established immediately adjacent.



Nature-based options

- Extensive dune planting (and pest plant management) has previously occurred across the Piha sand dunes, with associated dune fencing and defined pedestrian accessways through the dunes maintained by Auckland Council. Additionally, annual weed control is also carried out at Piha, with a particular focus on removing invasive species such as lupin.
- Historically (1990s), the Te Henga dune field was extensively planted with native dune grasses and vegetation. This dune planting (and pest plant management) is now well established and sustains itself naturally.
- Dune restoration works at the southern end of Muriwai Beach, led by Auckland Council, involved significant dune reshaping works, removal of weed species and historic debris, with ongoing seasonal dune planting.
- The Coastal Hazard Management Strategy (2002) signalled the need to move structures from a 150 m hazard zone and to restore natural dune systems within the area.
- The more recent Regional Parks Management Plan (RPMP) (2022) confirms that as the coastal edge within this area has been continually lost over the past 15 years, numerous structures have needed to be moved. One notable example is the landward realignment of the south Muriwai carpark. This facility at Muriwai Beach was threatened by erosion, and after a range of other interventions including sea walls, rock armour and gabion baskets

were ineffective, a managed retreat strategy was adopted in which the carpark was relocated 40 m landward with extensive dune reshaping and re-planting of the scarped area.

- Shortly following, the adjacent Muriwai Surf Club was relocated onto Auckland Regional Council-owned land further inland (Owen , Turner, Ryan, & Kench, 2017). The local community was engaged to explore the various options for the club's future, and the relocation was funded jointly by Rodney District Council, Auckland Regional Council, community fundraising and the Muriwai Surf Club.

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 2-1: 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 Whatipu to South Head SAP area, risk from coastal inundation was assessed as generally being low to Auckland Council community facilities but high to Auckland Council-owned land in the short term. Risk from coastal erosion susceptibility to Auckland Council community facilities was considered high and risk to Auckland Council-owned land as very high in the short-term (Tonkin + Taylor, 2023).

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.

Unit	Hazard	Council-owned land			Council community facilities			Transport infrastructure			Water infrastructure		
		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	High	Very high	Very high	Very low	Very low	Low	Very low	Very low	Very low	Very low	Very low	Very low
	Inundation	High	Very high	Very high	Low	Low	Moderate	Low	Low	Low	Low	Low	Low
2	Erosion	High	High	High	High	High	High	Moderate	Moderate	High	Low	Low	Low
	Inundation	Moderate	Moderate	Moderate	Moderate	High	High	Moderate	Moderate	Moderate	Low	Low	Low
3	Erosion	High	High	High	Low	Low	Low	Very low	Very low	Very low	Very low	Very low	Very low
	Inundation	Moderate	Moderate	Moderate	Moderate	Moderate	High	Low	Low	Moderate	Low	Low	Low
4	Erosion	High	High	High	High	High	High	Moderate	Moderate	Moderate	Low	Low	Low
	Inundation	High	High	High	Very low	Moderate	Moderate	Low	Low	Low	Low	Low	Low
5	Erosion	Moderate	Moderate	Moderate	Very low	Very low	Very low	Very low	Very low	Very low	Very low	Very low	Very low
	Inundation	Low	Low	Low	Very low	Very low	Very low	Very low	Very low	Very low	Very low	Very low	Very low

Table 2: Council-owned land, community facilities, transport infrastructure and water infrastructure risk ratings per unit

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.

As the Waitākere Regional Park covers a substantial proportion of this area, Auckland Council-owned land and assets in the Whatipu to South Head SAP are mainly areas of conservation land and recreational parks. It is noted that there are a cluster of Auckland Council-owned commercial buildings to the east of Whatipu. These are outside of the boundary of this SAP and are instead included in the Manukau Harbour North SAP.

There are over 70 Auckland Council-owned assets within this SAP area, most of which are located along the coastline. These include:

- Facilities to support the access to, and use and enjoyment of, regional and local park areas including parking areas and toilet facilities.
- Walking tracks and associated infrastructure including Gibbons Track, Comans Track, Kitekite Falls Track and the Mercer Bay Loop Walk.
- One closed landfill at Muriwai.
- Water infrastructure including Muriwai water pump station, Gunn Springs water supply well and the Domain Crescent reservoir.
- There are also several buildings and community uses within the SAP area that are not owned by Auckland Council but are located on Auckland-Council-owned land.

The figure overleaf shows the general location of Auckland Council land and assets located within the Whatipu to South Head SAP area. These are identified in each unit and stretch as relevant to the shoreline adaptation strategies in Volume 3.

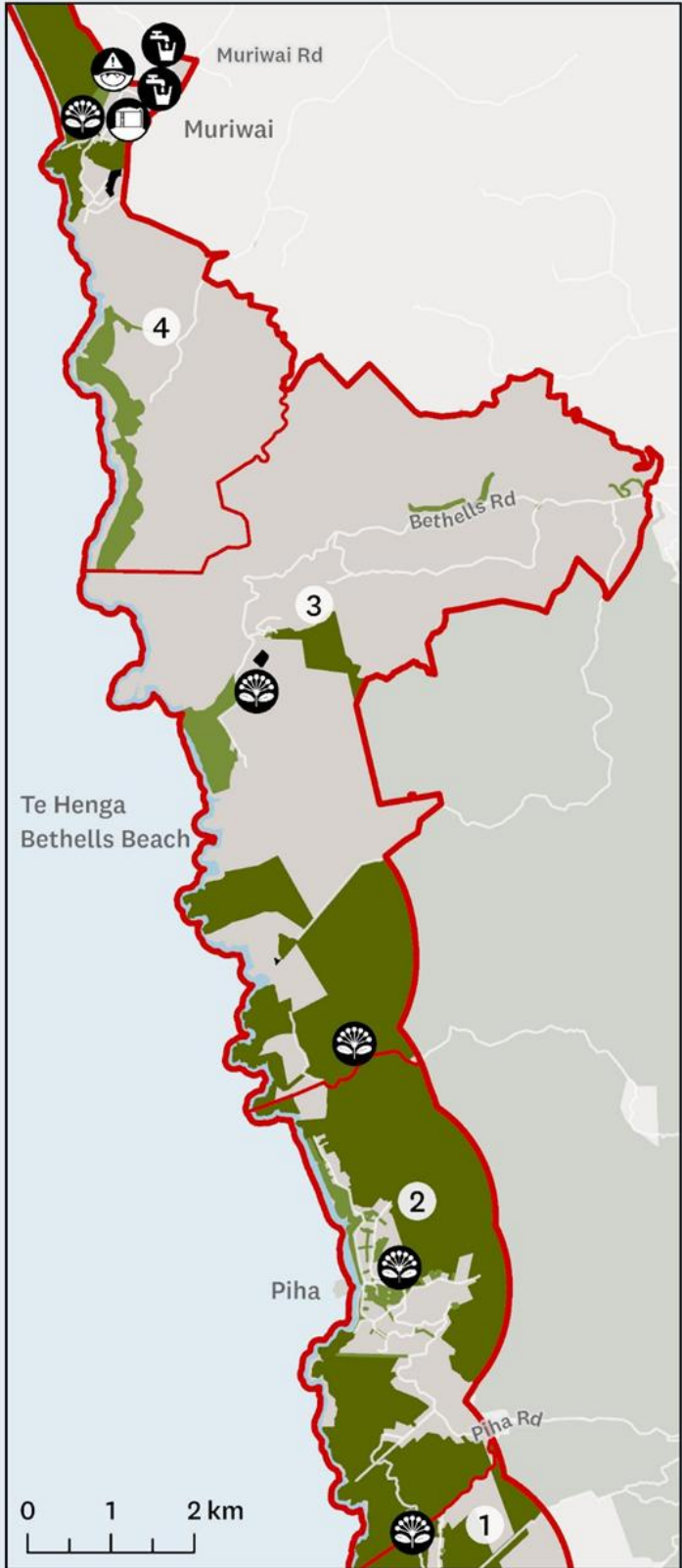


Auckland Council Land and Assets

Whatipu to South Head

*NOTE: Maps may be updated to improve wayfinding and accessibility

Inset 1



NOTE: Only key Auckland Council assets are shown

Kaipara Harbour

South Head

Te Korowai-o-Te-Tonga Peninsula

South Head Rd

Woodhill Forest

Helensville

Muriwai Rd

Muriwai

Te Henga Bethells Beach

Karekare

Huia

Huia Rd

Whatipu

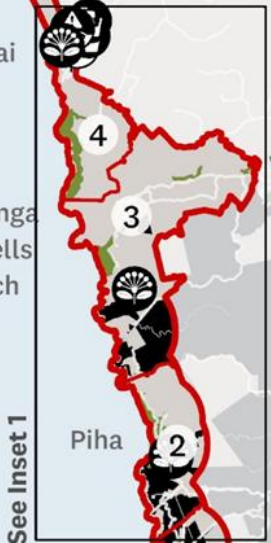
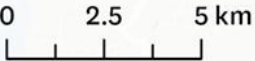
- Council building
- Closed landfill
- Water pump station
- Water reservoir

Auckland Parks

- Park
- Regional park
- Sport & active recreation area

Land owned by Auckland Council and Council Controlled Organisations

- Auckland Council
- Watercare Services





Auckland Council land and parks

There are over 2,970 ha of park and reserve land within this SAP area. The key coastal areas include:

- Anawhata Beach
- Karakare Beach
- Les Waygood Reserve
- Maukaitia Bay (Māori Bay)
- Muriwai Beach
- Muriwai Regional Park
- Piha Beach
- Piha Domain
- Piha Road Reserve
- Te Henga/Bethells Beach
- Waitākere South Regional Park

This is not an exhaustive list and smaller, less accessible beaches/areas located along this coastline have not been included.



Water Infrastructure

There are over 17 km of water pipes located across the Whatipu to South Head SAP area. The key water infrastructure includes:

- Anawhata Farm water pump shed
- Domain Crescent Reservoir
- Gunn Springs water supply well
- Maukatia/Māori Bay pump shed
- Muriwai Water pump station
- Water Pump Shed (Piha Domain)



Facilities and structures

There are a cluster of Auckland Council-owned commercial buildings to the east of Whatipu; these are outside of the boundary of this SAP and are instead included in the Manukau Harbour North SAP. There are 90 Council-owned buildings or wharfs and 7.5 ha of park amenity structure and carparks within this SAP area including but not limited to:

- Various toilet blocks at Muriwai, Piha and Te Henga/Bethells
- Various playgrounds



Roads and access

Roads and walking tracks provide access to the coast for local communities and visitors; however, frequent slips and road closures have historically impacted access to all the coastal features in this SAP area (Auckland Transport, 2023). 51.1 km of Auckland Transport roads falls within the Whatipu to South Head SAP area. A non-exhaustive list of coastal access roads include:

- Anawhata Road
- Bethells Road
- Jack Butt Lane
- Karekare Road
- Log Race Road
- Lone Kauri Road
- Marine Parade South
- Motutara Road
- North Piha Road
- Piha Road
- Seaview Road
- Whatipu Road



Access to the coast

There is an extensive network of walking tracks throughout the area which are widely used by locals and the wider community alike. There were at least 600,000 visitors to the Waitākere Ranges Heritage Area recorded in 2015/2016, and of this total, there were more than 150,000 visitors to Piha, 50,000 to Whatipu and 5,000 to Lake Wainamu (Auckland Council, 2018).

- Comans Track
- Gibbons Track
- Kitekite Falls Track
- Maukatia Gannet Track
- Mercer Bay Loop Walk
- Tasman Lookout Track
- Te Henga Walkway (including DOC land)
- Whites Track

The figure overleaf provides a spatial representation of key walking tracks along the Whatipu to South Head SAP, noting this is not an exhaustive detailing.



Social Context

Whatipu to South Head

*NOTE: Maps may be subject to final amendments

- A Maukatia Gannet Track
- B Te Henga Walkway
- C Lake Wainamu Track
- D Whites Track
- E Tasman Lookout Track
- F Kitekite Falls Track
- G Mercer Bay Track
- H Comans Track

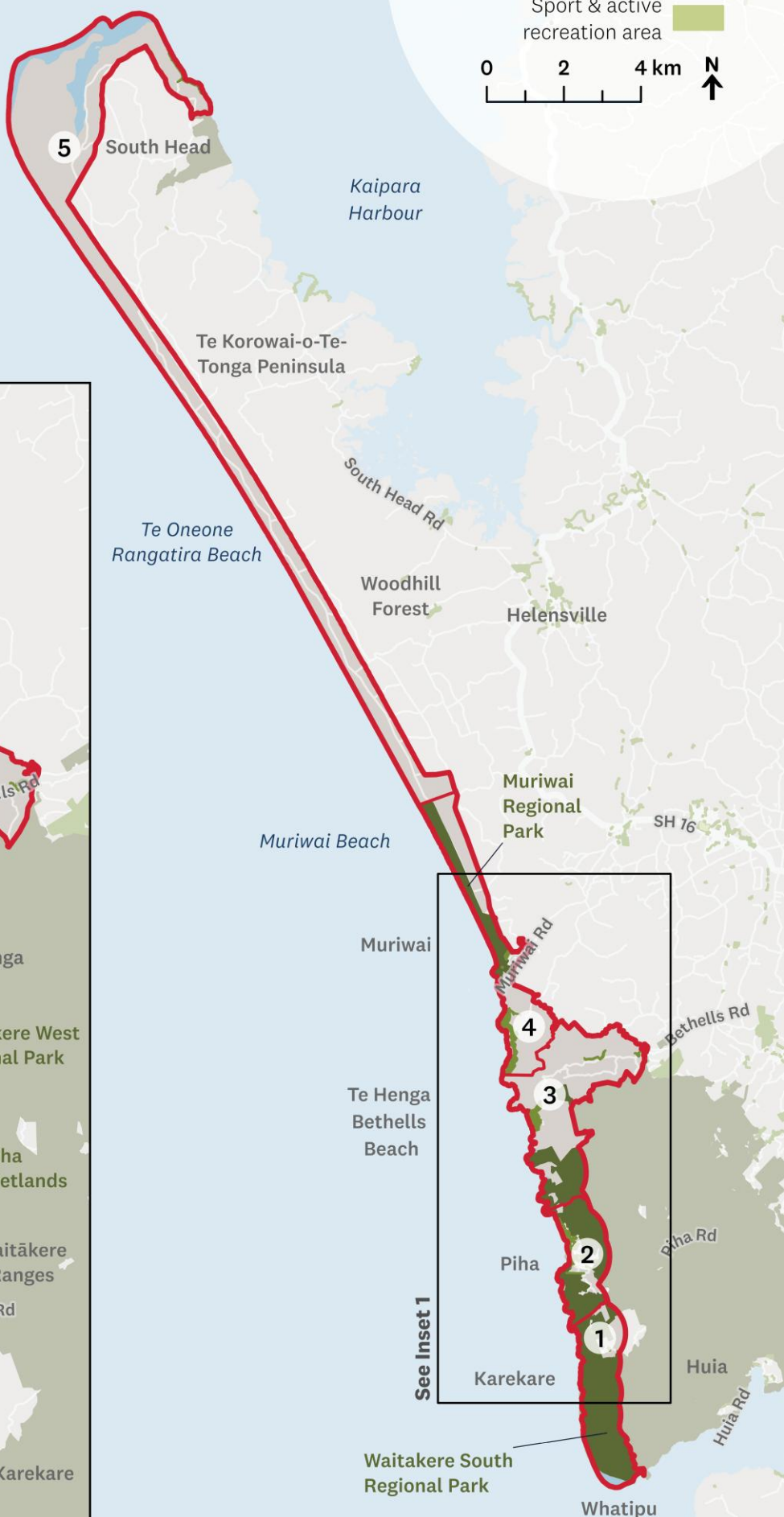
Inset 1



Key Walking Trails

Auckland Parks

- Park
- Regional park
- Sport & active recreation area





3.2 Te Ao Māori

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, wāhi 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 mātauranga Māori and Te Ao Māori principles, has been crucial to the development of the Whatipu to South Head SAP. To inform engagement with iwi who have an association with the area which this SAP applies to, initial research has been undertaken, using publicly available information, including that which is 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 Whatipu to South Head, 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 Whatipu to South Head 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 Whatipu to South Head 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 particular 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 Whatipu to South Head SAP area kaupapa include:

- Te Kawerau ā Maki
- Ngāti Whātua o Kaipara.

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 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 Whatipu to South Head 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 ongoing engagement as part of the implementation of the approaches set out in Section 4.0 and Volume 3.

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. Beyond those which are identified in the Auckland Unitary Plan, the specific location of sites of significance 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 and/or assets within these areas, it is vitally important for direct engagement to be undertaken with iwi so that cultural impacts can be identified and avoided.

Except where otherwise stated below, to ensure that engagement with iwi in the Whatipu to South Head 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.

SAP Development Phase	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.
Programming Phase	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.
Design and Consenting Phase	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.
Implementation Phase	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 Whatipu to South Head 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 Volume 3, 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:

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 implementation of coastal adaptation strategies set out in Section 5.0 of this report.

To help guide 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?

Table 3-1: Te Kawerau ā Maki framework for Coastal Management across the Whatipu to South Head 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)	Kaitiakitanga (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 across the coastline 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/indicators are utilised	Mauri is thriving - Kaimoana can be safely collected - mahinga kai - No noa/kino activities are discharged into the marine environment - Te Kawerau ā Maki can access the coastline easily along the coastline and via boat ramps - Heritage places are protected and celebrated - Native species are protected	- Visitors/public can safely access the coastline - Visitors/public can safely access the coast - Emergency services can access the coast - 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 coast

	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)	Kaitiakitanga (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/indicators 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/indicators 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 of 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 co-design.
- 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 o Kaipara

The SAP Team has worked with Ngāti Whātua o Kaipara on various SAP plans within their rohe, with the aim of gathering feedback on the SAP programme and individual plans of interest. This ongoing partnership has extended to the development of the Whatipu to South Head SAP, and Ngāti Whātua o Kaipara has expressed interest in specific aspects of this SAP that relate to their rohe (i.e. Muriwai to South Head).

The Ngāti Whātua tribal area extends from the Ōtāhuhu Portage/Tāmaki Estuary in the south, northwards along both coasts to Whangarei in the east and Waipoua in the west. Ngāti Whātua operates a tribal framework in which the increasing environmental, cultural, economic rating and societal issues within te rohe o Ngāti Whātua are managed. The South Kaipara takiwa captures the hapū of the five marae of the Southern Kaipara, Ngā marae e rima o Kaipara:

- Rewiti Marae
- Haranui Marae
- Kakanui Marae
- Te Aroha Pā
- Puatahi Marae

The Ngāti Whātua o Kaipara rohe is from Wellsford in the North to Taupaki in the south and includes all the land between these places from the west coast to the east coast; this is known as the South Kaipara Takiwa. These areas of core interest hold ancestral history and connections to Ngāti Whātua o Kaipara.

The South Kaipara Heads Peninsula area, in its entirety (with emphasis on the coast) is one of the last remaining areas with a high density of archaeological evidence of tangata whenua. When implementing SAPs, the cultural significance of the coastline of the South Kaipara Heads Peninsula to Ngāti Whātua o Kaipara must be acknowledged by taking a partnership approach to the management of these important areas.

Historical context

Ngāti Whātua signed the Treaty of Waitangi in 1840, beginning a formal relationship with the Crown. However, this relationship was soon undermined by land losses due to poorly regulated sales and large Crown purchases, especially in the upper Waitemātā and south Kaipara. Promised benefits such as infrastructure were often delayed or never delivered, and the iwi was left with insufficient land for future needs.

By the late 19th century, Ngāti Whātua in the Southern Kaipara faced increasing hardship. Land was sold to repay debts, and political efforts for fair representation fell short. Despite gifting land for public use, the Crown failed to honour the return conditions promised. By 1900, only a small portion of their land remained, and the compulsory vesting of the Otakanini block without consultation further eroded their control. When it was returned in 1958, the iwi faced major challenges due to decades of mismanagement of the land by others.

Settlement

Ngāti Whātua o Kaipara signed a Deed of Settlement on 9 September 2011. This included a comprehensive series of acknowledgements by the Crown, recognising that its actions breached the Treaty of Waitangi and its principles. The Crown formally apologised to Ngāti Whātua o Kaipara for its acts and omissions, particularly those that led to the iwi's virtual landlessness and the resulting social, cultural, economic, spiritual, and physical harm.

The Crown committed to rebuilding and strengthening its historically close relationship with Ngāti Whātua o Kaipara.

Cultural and environmental recognition

The settlement also acknowledges Ngāti Whātua o Kaipara's traditional, historical, cultural, and spiritual associations with sites and places within their area of interest that are currently owned by the Crown. This recognition enables both parties to work together to protect and enhance the conservation values of these significant locations.

Sites transferred to Ngāti Whātua o Kaipara

The settlement vested nine sites in Ngāti Whātua o Kaipara totalling approximately 675 ha, subject to specific conditions including protection of public access and conservation values:

- | | | |
|--------------------------|-------------------------------------|----------------------------------|
| • Atuanui Scenic Reserve | • Mauiniu Island | • Tipare |
| • Mairetahi Landing | • Moturemu Island | • Joint vesting of Kaipātiki |
| • Makarau | • Parakai | (formerly the Parakai Recreation |
| • Makarau Bridge Reserve | • Ten Acre Block Recreation Reserve | Reserve) |

Statutory Acknowledgements

A Statutory Acknowledgement recognises the special association between Ngāti Whātua o Kaipara and a particular site and enhances Ngāti Whātua o Kaipara's ability to participate in specified Resource Management Act processes.

The settlement provides Statutory Acknowledgements over:

- Papakanui Conservation Area and Papakanui Spit Wildlife Refuge
- Rototoa Conservation Area and Lake Rototoa Scenic Reserve
- Motutara Settlement Scenic Reserve and Goldie Bush Scenic Reserve
- Coastal Statutory Acknowledgement area.

Shoreline adaptation planning by Council must reflect the unique status of Māori land and the enduring relationship of tangata whenua with their whenua and moana. Upholding Te Tiriti o Waitangi in this context means recognising and respecting the rangatiratanga of iwi, hapū, and whānau, while ensuring that adaptation strategies are co-developed and co-implemented.

A Te Tiriti-based shoreline adaptation framework must:

- Uphold Council's obligations under Te Tiriti, including partnership, protection, participation, and active protection of taonga and wāhi tapu
- Recognise and support Māori rights and interests in adaptation planning
- Integrate te ao Māori and mātauranga Māori into all stages of decision-making
- Provide adequate resources to enable Māori participation and leadership
- Ensure tangata whenua have decision-making roles in adaptation processes.

Multiple hui have been undertaken and a cultural statement in response to the SAP programme is anticipated. The SAP Team will continue to work collaboratively with Ngāti Whātua o Kaipara to input into the implementation of the SAPs for the Whatipu to South Head area and other SAPs of interest within their rohe.



3.4 Ecological context

90

Terrestrial
Significant
Ecological Areas



15

Marine Significant
Ecological Areas



8

Biodiversity
Focus Areas



Whatipu to South Head is located within the Waitākere and Kaipara Ecological Districts (ED) and is bounded to the west by the Tasman Sea, with Woodhill Forest and Arataki / Waitākere Ranges Regional Park bordering in the east.

The dynamic natural environment of Whatipu to South Head supports a variety of threatened and taonga species. The marine and terrestrial environment are recognised as Important Bird Areas (IBAs) for New Zealand seabirds, with several large seabird colonies occurring along the coastline (Forest & Bird, 2014). There are also a variety of threatened shorebird and cryptic wetland species that roost, feed, and nest along the coastline. Other notable groups found within this area include freshwater fish, lizards, marine mammals, and threatened plants. Two rare invertebrates, the katipō spider (*Latrodectus katipo*) and kauri snail (*Paryphanta* spp.), can also be found within the coastal environment.

Ecosystems and significant ecological areas

There are 24 indigenous ecosystem types that cover approximately 6,238 ha within the boundaries of this area. These include five forest ecosystems, five wetland ecosystems, two cliff ecosystems, two dune ecosystems, two coastal saline ecosystems, three regenerating ecosystems, and five regional variants, as described by the regional ecosystem classification system (Singers N. , et al., 2017). Taonga species within the area will be informed based on local iwi recommendations, as different hapū and iwi associate with different taonga species.

Key highlights across the Whatipu to South Head area include:



- Bull Kelp, Waionui Inlet.



- The marine area within this area is included within the West Coast North Island Marine Mammal Sanctuary, administered by DOC.
- This sanctuary was established in 2008 to help protect Maui's and Hector's dolphins. There are several protection measures in the sanctuary that restrict seismic surveys, mining, and fishing (Department of Conservation, 2019).

- 
 - The Whatipu to South Head area contains a comparatively large number of terrestrial *Significant Ecological Areas* (SEAs) than other coastal areas in the region. There are 90 terrestrial SEAs identified under the AUP:OP within the Whatipu to South Head area. Some of the key terrestrial SEA areas include: Muriwai gannet colony, Muriwai dunes, Papakanui sandspit, Papakanui Stewardship Area, Kakekare dunes and wetland.
- 
 - There are eight BFAs within the boundaries of this SAP area; Whatipu Coastal Forest (Unit 1), Whatipu (Unit 1), Karekare Stream (Unit 1), Waitākere Coastal Forest and Turf, Te Henga Wetland (Unit 3), Piha Domain Wetland (Unit 2), Five Mile Strip (Unit 4) and Papakanui – Waionui (Unit 5).

The natural function and adaptive capacity of coastal dunes and river mouths depends on the ability to move inland or along the coast in response to changing coastal processes. Providing for this natural functioning, in this highly dynamic west coast environment, is critical to maintain the existing spatial extent and associated flora and fauna values of these ecosystems. Critical habitat along the Whatipu to South Head SAP Area occurs in a patchy distribution and at specific locations. These sites are vulnerable to inundation and coastal erosion. The resilience of native fauna populations is dependent on the protection or provision of alternative, suitable sites as part of adaptation strategies where in situ management is not feasible.

A more detailed discussion of the key features, located within each unit, is included in Volume 3. This includes ecological features and values that may influence the selection of adaptation strategies or are vulnerable to climate change hazards. The table below has been informed by Significant Ecological Area (SEA) schedules and descriptions, Biodiversity Focus Area (BFA) information, fauna and flora records and other publicly available information. These ecological features and values should be considered alongside the significant cultural values associated with them and where possible, factored into decision making.

Unit	Summary of ecological features and values
1	The first unit of the Whatipu to South Head area begins at the Whatipu Scientific Reserve to the south and ends to the north of Karekare beach. Whatipu Scientific Reserve contains one of the largest intact duneland systems in the region and in New Zealand. The reserve features a diverse landscape, including dune plains (DN5 – Critically Endangered), duneslacks, sand rivers, herbfields (WL15 – Critically Endangered) and stabilised rear dune. This heterogenous environment provides habitat for a myriad of species, including threatened and regionally restricted cryptic wetland birds, shorebirds, seabirds, terrestrial invertebrates, and vascular plants. The highly cryptic matuku hūrepo / Australasian bittern (Threatened – Nationally Critical) has been recorded in this area (eBird, n.d.). Pupurangi / kauri snail have been recorded in coastal vegetation behind Whatipu Beach (iNaturalist, n.d.). - There is a large colony of white-fronted tern (At Risk – Declining) residing at Te Toka-Tapu-a-Kupe / Ninepin Rock (an island to the southeast of the Whatipu Scientific Reserve) (J. Andrews, pers. comms., 2024). - Shortjaw kōkopu are found in the Whatipu Stream, one of the few locations in the region where this species is found.

- **Karekare Plant Reserve** is located within this unit and is characterised by coastal broadleaved forest (WF4 – Endangered) and areas of regenerating bush. This area is also a Biodiversity Focus Area (BFA), namely ‘Waitākere Coastal Forest and Turf’ which receives ongoing weed and animal control from Council.
- The Karekare dunes and wetland are also regionally important – composed of oioi, restiad rushland (WL10 – Endangered), spinifex, pīngao grassland (DN2 – Endangered), and a small area of coastal lakeshore turf (WL15.1 – Critically Endangered). The complex is recognised as BFA and provides habitat for variety of threatened shorebird and wetland bird species.

2 This unit encompasses the stretch of coastline between Karekare and the Te Waha Point Lookout.

- The coastal cliffs in this unit are covered in pōhutukawa dominated coastal forest (CL1 – Vulnerable, WF4 – Endangered). There are several reserves within this unit including South Piha Plantation Reserve, Piha Domain, and Claude Abel Reserve.
- **Piha Domain Wetland and inland wetland areas** is comprised of oioi, restiad rushland (WL10 – Endangered) and Machaerina sedgeland (WL11 – Critically Endangered).
- A variety of native fish, including inanga (At Risk - Declining), longfin eel (At Risk – Declining) and lamprey (Threatened – Nationally Vulnerable) have been recorded in the wider Piha catchment, including in **Piha Stream** and **Glen Esk Stream** is also located within the unit area are seabird breeding colonies and records to little blue penguins.
- Pupurangi / kauri snail have been recorded in coastal vegetation located between North Piha and Anawhata (iNaturalist, n.d.).

3 This unit begins at Anawhata Beach and continues past Te Henga / Bethells Beach up to Raetahinga Point. The coastal cliffs are covered in pōhutukawa dominated coastal forest (CL1 – Vulnerable, WF4 – Endangered).

- **Anawhata Stream** is surrounded by areas of oioi restiad rushland/reedland (WL10 – Endangered).
- **Te Henga Wetland** is the largest freshwater swamp on the mainland in Tāmaki Makaurau / Auckland and supports a range of threatened wetland bird species, including the largest known population of Australasian bittern in the region (J. Andrews, pers. comms., 2024). To the southwest of the wetland complex is a large area of spinifex, pīngao active duneland (DN2 – Endangered).
- A large number of seabird species utilise **Erangi Point**, **Kauwahia** and **Ihumoana** islands.
- Bull kelp is found amongst the rocky nearshore waters within the unit (between O’Neill Bay to Piha) – the only known occurrence in the region.

4 This unit includes a large mainland gannet colony at **Otakamiro Point**, along with offshore colonies on **Motutura** and **Oaia** Islands. Oaia Island is additionally recognised as an important haul out for fur seals (A. Jamieson, pers. comms., 2024).

- This coastal stretch is home to nesting Kororā/little penguin (At Risk – Declining), as documented by Landers (2017). Katipō observations have also been reported within the Muriwai dune systems (iNaturalist, n.d.).
- Populations of korowai gecko (recently recognised as a distinct species) are restricted to the sandy and rocky coastal areas from Muriwai to South Head, Oaia Island and Woodhill Forest (van Winkel et al.,

2023). The regionally-restricted tātahi skink (At Risk – Declining) are also found along this stretch of coastline (from Muriwai to North Cape) (New Zealand Herpetological Society, n.d.).

- Additionally, the largest population of *Coprosma acerosa* (At Risk – Declining) in the region is associated with the dunes at Muriwai.
 - The **Five Mile Strip** spans 6.5 km north of Muriwai, predominantly comprising active dunes with spinifex and pīngao vegetation.
-

5 The biodiversity value of this unit is extremely high, both on an ecosystem and species level.

- The **Papakanui Stewardship Area**, located in the northern section of this unit and managed by DOC, encompasses vast dune fields and a large sandspit, holding notable regional and national importance as one of the most representative dune systems in New Zealand. The dunefields are comprised of dune plains, spinifex, pīngao active dunes, and *Machaerina* sedgeland. This environment provides habitat for a variety of shorebirds and is recognised as one of the four remaining breeding sites for tara iti / fairy tern (Threatened – Nationally Critical), the most endangered of all New Zealand’s native birds (Auckland Council, n.d.).
 - Adjacent to Papakanui, **Waionui Inlet** is composed of mudflats, mangrove forest and saltmarsh, grading into a raupō-dominated wetland (WL19 – Endangered) in its upper reaches (Cameron & Bellingham, 2002) – this is recognised as a regionally important ecological sequence. There are small areas of seagrass recorded at the eastern side of the inlet, which is Nationally Declining.
 - The highly cryptic matuku hūrepo / Australasian bittern (Threatened – Nationally Critical) has been recorded at South Head (eBird, n.d.). Korowai gecko have also been recorded at South Head and Woodhill Forest (van Winkel et al., 2023).
 - There are several regionally threatened plant species found in this unit, including dwarf musk (Regionally Critical), marsh fern (Regionally Critical) and *Cylcosorus interruptus* (Regionally Critical).
-

A spatial representation of some of these ecological features is provided on the diagram overleaf.

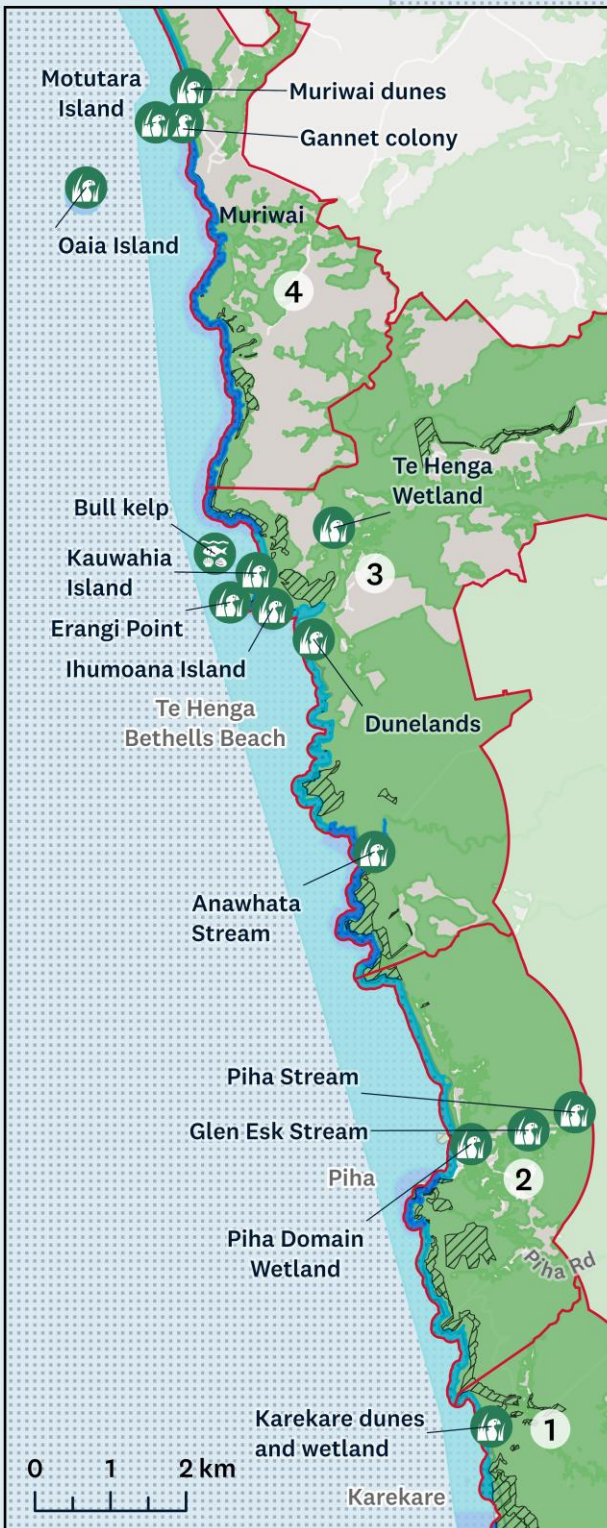


Ecological Context

Whatipu to South Head

*NOTE: Maps may be updated to improve wayfinding and accessibility

Inset 1



Ecological features

Marine

Terrestrial

Biodiversity Focus Areas

DOC Marine Mammal Sanctuary

Significant Ecological Areas

Terrestrial

Marine 1

Marine 2

0 2 4 km



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).

Recognising the microcosm of ecosystems lining the Whatipu to South Head SAP area coastline, opportunities for nature-based solutions will be factored into decision making in implementation.



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 a 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.

Who lives here

The population of Whatipu to South Head is approximately 3,850. People predominantly reside in the coastal settlements of Piha, Te Henga/Bethells Beach, Karekare, and Muriwai (Statistics New Zealand, 2018). South Head is located on the South Kaipara Peninsula and includes the Papakanui Stewardship Area, which is managed by the Department of Conservation, and the Waionui Inlet (Cameron & Bellingham, 2002).

Within the Whatipu to South Head area, 94% of the population identify as being New Zealand European. Other ethnicities include Māori (14%), Pacific Peoples (3.2%), European, Asian, Middle Eastern, Latin American, and African. The population is older than the New Zealand average, with 41% of the population being between 40 and 60 years (Statistics New Zealand, 2018).

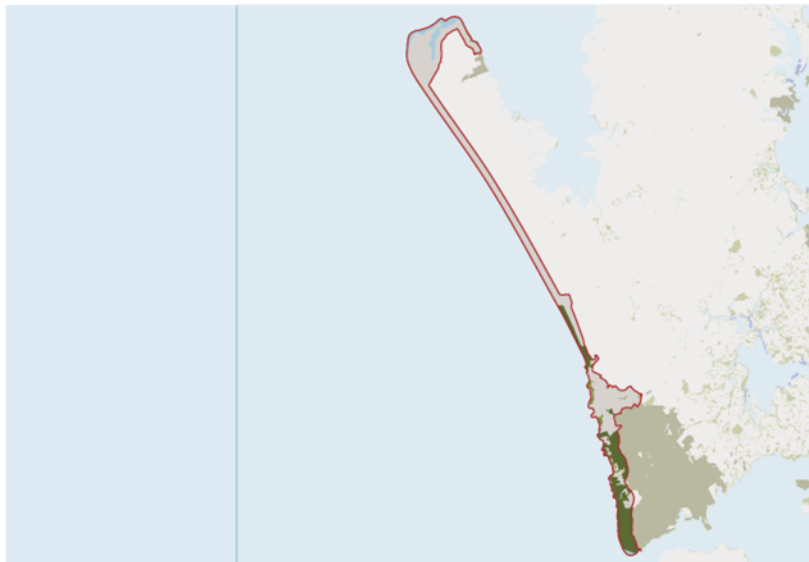
The infographic overleaf summarises the key demographics for this area.

Community groups and organisations

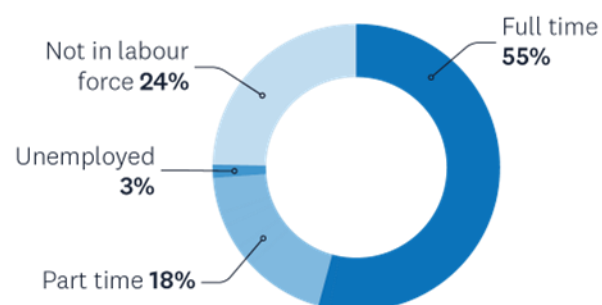
Local community organisations also form an important element of community social infrastructure. Groups have been active through the response to the 2023 storm events and have been engaged to provide feedback which has informed the development of the Whatipu to South Head SAP to date.

Recovery efforts following severe weather events in areas such as Karekare, Muriwai, Piha and Te Henga / Bethells Beach have led to a focus on climate adaptation, particularly through community-led initiatives and infrastructure improvements, with a focus on emphasis on catchment management, flood and landslide resilience. It is important to recognize, and where possible, acknowledge and support community resilience efforts and local conservation initiatives going on in this space.

Additionally, recognising the unique coastal and ecological landscapes along the Whatipu to South Head coastline, numerous community-led restoration initiatives are underway, supported by local environmental groups.



Employment status



2018 population



3,800

Median age 42



Household internet access 88%



Median income



\$43,100

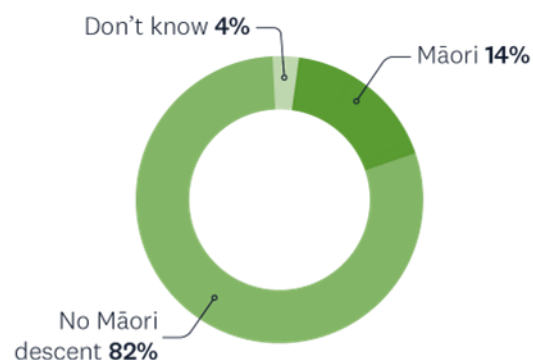
(Weighted average of SA2 areas)

Weighted average deprivation index

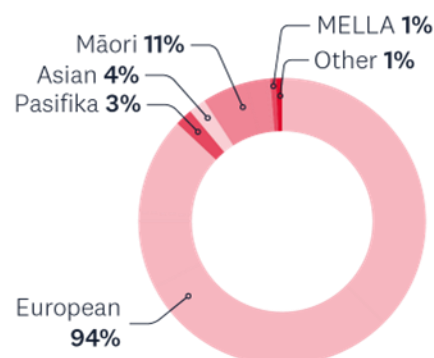


(Weighted average of SA2 areas)

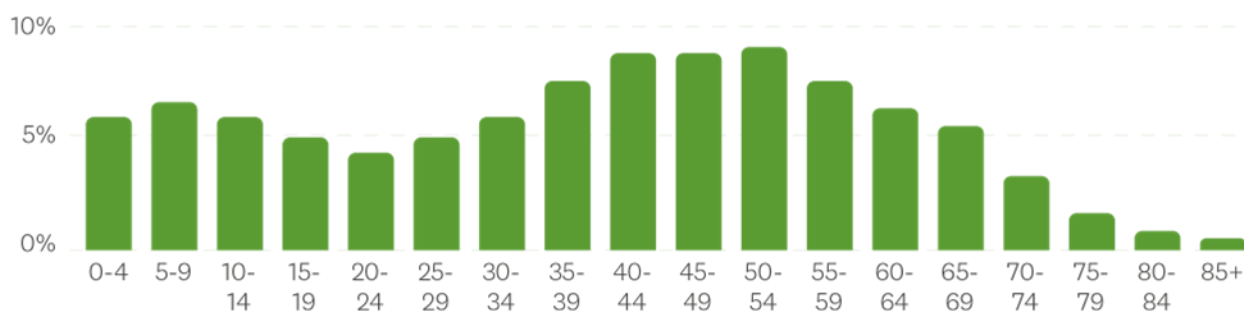
Māori descent



Ethnicity



Population age structure (2018)





Policy context

Understanding the regulatory and policy context applicable to the area helps to 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 the Whatipu to South Head 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 Unitary Plan (Operative in Part)
- Auckland Council Regional Parks Management Plan (2022)
- Rodney Local Board Plan 2023. Auckland Council.
- Rodney West Local Paths (Greenways Plan) (2019).
- Rodney Local Parks Management Plan. Volume 2: Individual parks in Kumeū subdivision. Auckland Council.
- Tāmaki Makaurau Recovery Plan (Auckland Council, 2023)
- Waitākere Ranges Heritage Act 2008: The Waitākere Ranges Heritage Act 2008 and associated plan recognise the national, regional, and local significance of the Waitākere Ranges Heritage Area and promote 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.
 - Deed of Acknowledgement for Waitākere Ranges: in August 2025, the Auckland Council Policy and Planning Committee made the decision to support (have agreed to enter into) the proposed Deed of Acknowledgement for the Waitākere Ranges Heritage Area, and to establish the Waitākere Ranges Heritage Area Forum. The Deed of Acknowledgement was developed in partnership with Te Kawerau ā Maki and the Department of Conservation, and is intended to affirm the enduring relationship of Te Kawerau ā Maki with the Heritage Area, strengthen collaboration, and enhance long-term planning for the area's protection.
- Waitākere Ranges Local Board Plan (2023)
- Various Local Park Management plans for the Waitākere local board area (including but not limited to local parks at Piha and Te Henga)
- Local Area Plans
- Piha Coastal Management Plan (2013)
- The marine area adjacent to the coast is included within the West Coast North Island Marine Mammal Sanctuary, administered by DOC. This sanctuary was established in 2008 to help protect Maui's (*Threatened – Critically Endangered*) and Hector's (*Threatened – Nationally Vulnerable*) dolphins. There are several protection measures in the sanctuary that restrict seismic surveys, mining, and fishing (Department of Conservation, 2019).

The figure overleaf (Regulatory and Policy Features) shows mapped regulatory and policy features within the SAP area.

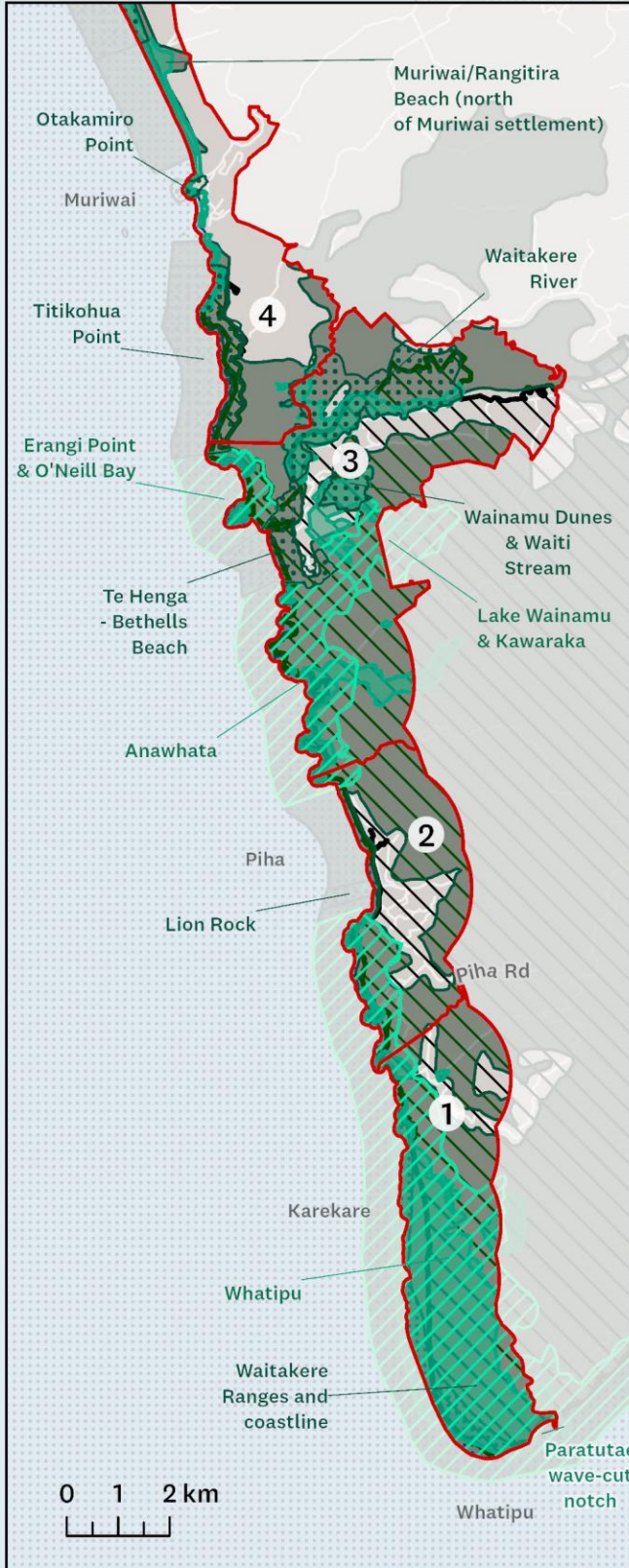


Regulatory and policy features

Whatipu to South Head

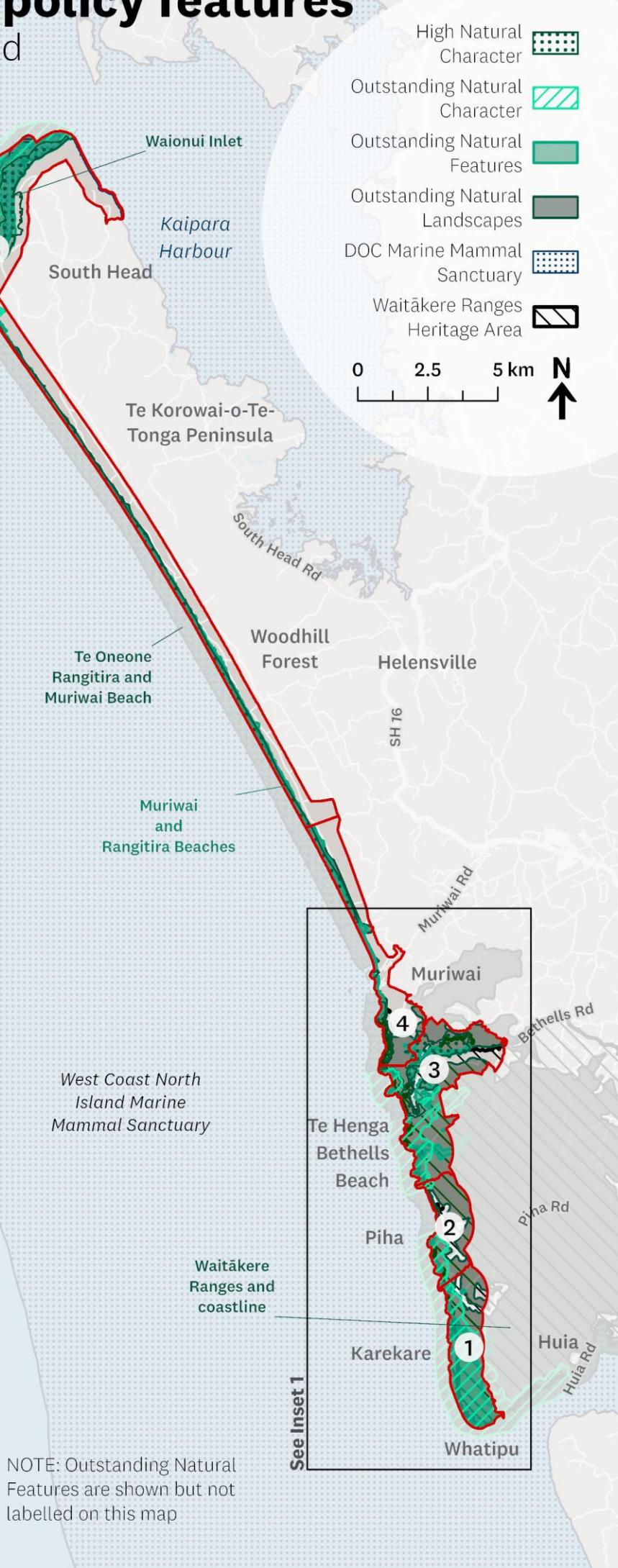
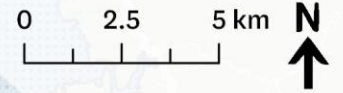
*NOTE: Maps may be updated to improve wayfinding and accessibility

Inset 1



NOTE: Outstanding Natural Features are shown but not labelled on this map

- High Natural Character
- Outstanding Natural Character
- Outstanding Natural Features
- Outstanding Natural Landscapes
- DOC Marine Mammal Sanctuary
- Waitākere Ranges Heritage Area





Community use, buildings and assets

The Whatipu to South Head area includes some of Auckland's most remote areas. The Auckland Plan 2050, the Future Urban Land Supply Strategy and the more recent Future Development Strategy make no note of significant growth or infrastructure in this area.

The Whatipu to South Head area includes a range of social infrastructure and community facilities near to the coast which support local communities as well as being utilised by numerous visitors. Social infrastructure includes facilities and assets that support social activities, interactions, and wellbeing within a community. Social infrastructure can also play a pivotal role during extreme weather events, as a common meeting point and shelter.

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:

- Surf clubs: Karekare Surf Life Saving Club, Piha surf clubs (Piha Surf Life Saving Club and United North Piha Lifeguard Service), Muriwai surf club and Bethells Surf club
- Bowling (Piha Bowling club) and golf clubs located at Piha and Muriwai
- Campgrounds at Piha, Muriwai, Whatipu, Cave and Tunnel Point and McCreadies Paddock at Karekare
- Emergency response: Karekare, Bethells Valley, Muriwai, and Piha fire stations
- Barnett Hall, owned by the Piha Community Centre Society (as advised by the Waitākere Ranges Local Board)
- Other community infrastructure: such as the Piha Library (playing an important role in post-2023 storm events as a community support meeting point), pre-school, West Coast Gallery, Houghton Bush Camp, numerous surf schools, Piha Post Office and Piha Library, cafes and private galleries.



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 Wāitakere Ranges and Rodney 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 [here](#). 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).

This SAP area includes a range of *outstanding natural features and landscapes* in the coastal environment. These areas contribute to the natural character of the coastal environment and are identified under the AUP:OP. Of note are the following locations, designated as *outstanding natural features* or landscapes. These may hold significant community and regional values associated with their preservation and appreciation:

- Outstanding Natural Landscape over the Waitākere Ranges and coastline
- Papakanui Split at Waionui Inlet/South Kaipara Head
- Outstanding Natural Features Overlay at Whatipu coastal flats; Muriwai and Rangitira beaches and Whatipu.

Heritage features are identified at a unit and stretch level in Volume 3. Engagement with 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 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 Whatipu to South Head coastline, open from the 6 November 2023 to 2 April 2024. In-person events during this time included:

- 3 February 2024: Open Day for Matuku Link, to celebrate World Wetlands Day
- 24 February 2024: Piha Surf Competitions
- 10 March 2024: Kumeu Show
- 16 March 2024: What’s Your Legacy Eco Festival event
- 17 March 2024: Whatipu History Talk
- 24 March 2024: Conversations About Our Coastline debrief, EcoMatters drop-in event

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:

- 138 comments left on the interactive digital Social Pinpoint map
- 362 surveys relevant to the Whatipu to South Head area via ‘AK Have Your Say’
- Feedback captured during meetings and discussions at in-person events, with site-specific information and recommendations shared by groups with interests in the Piha, Muriwai, Te Henga area
- Community submissions (discussed further under the Community Views section).

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 during this time ran in parallel with consultation on the Manukau Harbour North 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
- 22 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 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 several different platforms. Of those where statistics were gathered the following profiles can be identified:

- **Connection to the coast:** The majority of submitters lived within the Whatipu to South Head 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 who selected 'Māori' or 'other'
- **Age group:** Of those who engaged in digital feedback, the majority are aged 45-64 or 65+, followed by those aged between 15- 17 and 35- 44.

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 (Muriwai Environmental Action Trust; 'MEACT', Muriwai Community Association, Friends of Regional Parks, Piha Residents and Ratepayers, Waitākere Ranges Protection Society), along with individual submissions from residents (including Piha residents). Feedback from submissions has been weaved into the discussion below and reflected where appropriate in Volume 3.

Reflected in the list of engagement events above, the SAP Team supported community discussions at a range of venues. A summary of key matters raised through community hui is included in Volume 3, in relation to each unit area.

Local Board views

Throughout the course of development of the SAP, a number of workshops with the Waitākere Ranges and Rodney 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.
- **Limitations in approach** regarding the limitation of the scope of the shoreline adaptation plans 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 Whatipu to South Head SAP and in turn, respective local board areas (Waitākere Ranges and Rodney). The need for continued engagement with local communities, iwi, and local boards through educational workshops and in-person events located within the board areas 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 plan, and where they are located on Council land is clearly identified.
- Rodney Local Board, in its 2023 Local Board Plan, notes community concern for the impacts of climate change and notes that Te Korowai-O-Te-Tonga Peninsula (South Head, Unit 5) is particularly vulnerable.



Community uses/ values

During community engagement, respondents are asked, *‘when thinking about the coastal areas they use in the Whatipu to South Head SAP which values matter the most to them’*.

The most popular values centred around ecosystem health (e.g. coastal habitats and biodiversity), the natural form and character of the coast, and recreation and amenity-based values.

Additionally, feedback highlighted that the community values the ability to access the coast for both passive and active recreation. Activities included walking, running, picnicking and enjoying coastal areas, horse riding, kite surfing, surfing, hiking and other coastal activities. The community sought further support (in the form of facilities and maintenance of existing assets) to support this use for present and future generations

A ‘sense of connection’ to the coast was also a common theme in community feedback, noting that many respondents commented on their use of popular coastal walkways to get to and from the coastal environment.

Uses, access and frequency

Most respondents said they most often go to the coast via private vehicles (83%), with the remaining percentage either walking or using another mode of transport. Most respondents were reported to visit the coast either once 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, the majority of respondents visited Piha, closely followed by Te Henga (Bethells Beach) and Muriwai. The most popular parks appeared to be Piha Domain and Te Henga Park.

Activities – Whatipu to South Head

Activities enjoyed were quite varied across the various units within the Whatipu to South Head area covering passive recreation, water-based activities, open-water activities, walking and nature-watching, etc. Overall, the four most popular were:

- Walking and running on the beach, tracks or roads
- Passive recreation, e.g. picnicking, relaxing
- Nature watching (e.g. watching birds, wildlife)
- Active water-based activities (e.g. swimming, surfing, paddle boarding).

The Waitākere Ranges Local Board identified the importance and value of the Hilary trail which traverses many of the coastal units located in this SAP area and has been impacted by 2023 storm events. The Auckland’s Regional Parks track programme will continue to address damage and track closures reopening tracks when they are made safe.



Community cultural values / comments

Response highlights:

- Feedback identified an understanding of the Māori cultural significance of the west coast. There was a desire for more acknowledgement of the Māori cultural significance. Suggestions included supporting aspirations for Marae (Te Henga) and the use of bilingual and cultural interpretation signage explain the cultural significance of the area.
- Access to the coast for traditional harvesting of kaimoana: feedback highlighted the cultural significance of the coastline, noting the need to ensure safe access to the coastline for fishing and gathering of seafood.



Community values of ecosystems and impacts of climate change

The community emphasised the importance of ecosystem health, including coastal habitats, biodiversity, and flora and fauna in the Whatipu to South Head areas. Key themes within feedback included but was not limited to:

- Environmental degradation: The destruction of dunes by human activity was a concern as the community values and understands its importance for a climate-resilient coastal system. Management of the dunes, including planting, was valued.
- There was a strong desire to maintain the wild and natural beauty of the West Coast. Advocacy to minimise and restrict development near the coastline.
- Pest control to support native flora and fauna is valued, as is the need for restoration planting to provide for birds and other animals.
- Restore and preserve natural habitats: The community strongly values the unique natural environment from Whatipu to South Head and emphasises conservation efforts. There is a clear call for increased pest control measures and stronger protections for beaches and dunes, including proposals to ban vehicles such as cars and ATVs.
- Conservation was seen as vital, with strong community support for protecting native flora and fauna, particularly the rich birdlife and important coastal and freshwater wetland habitats.
- Widespread concern was raised about erosion, sediment runoff, and habitat degradation. There was a call for more sustainable, nature-based approaches, such as bioengineering solutions, to manage coastal hazards and maintain ecological balance.
- 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.
- Recognition of the Five Mile Strip Reserve at Muriwai: community feedback highlighted the ecological significance of this strip of coast, noting the need to proactively protect wildlife in and around this reserve (the reserve was noted as in urgent need of attention). Furthermore, it is noted in feedback an advocacy to a change in the reserve's status from the lowest - Recreational Reserve, to the highest - Scientific Reserve to help protect wildlife in alignment with recreational values.
- Populations of the rare matata (fernbird) have been identified in the area between the beach estuary, the current surf club site, and the reserve walkway connecting the surf club and Erangi Place (Te Henga Reserve riverside). It would be valuable to ensure this local biodiversity is considered in future planning, or at the very least, to advocate for ecological studies to better understand and protect these habitats.
- The Waitākere Ranges Local Board identified the role that ecological action such as biodiversity support and pest plant control can play. Observing that environmental groups can help keep support healthy eco-systems (such as streams, wetlands and dune systems) through undertaking pest animal and plant control, riparian planting, dune planting and controlling lupins in dunes.
- The Waitākere Ranges Local Board identified an upsurge in the presence of dotterels (at Whatipu, Karekare, North Piha, and Te Henga), oi and korora.



Community experience of hazards / concerns

Weather events over a number of years, including the Auckland Anniversary weekend floods and Cyclone Gabrielle in 2023 have caused significant damage to homes, road infrastructure

and coastal infrastructure over many years. This caused the community to experience great sadness, loss and impacted neighbouring communities' ability to re-connect with the coast and their recreational spaces. Key themes within the feedback included:

- Frequent flooding and landslides are cutting off access to beaches, tracks, and damaging infrastructure. Including (as identified by the Waitākere Ranges Local Board) impacts on the Hilary Trail and Te Henga walkway.
- Commentary that rising water tables have made areas such as the lower Whatipu campground unusable, limiting access to natural features such as caves.
- Significant disruption to access (i.e. via roading). Feedback highlighted the impact of slips and storm damage which have caused significant damage to the area including the road and road access. The community wants to ensure that there are adequate efforts for repair and maintenance, and to make the assets resilient to storm damage.
- Concerns regarding communication by local authorities about the decisions and progress of repair and reopening of both tracks and roads.
- Concerns have been raised about sand build up at river mouths, particularly in Piha and Karekare and Te Henga, which is perceived to be contributing to increased flooding risk and highlighting broader environmental challenges linked to both climate change and natural coastal processes.
- The need to consider retreat and tsunami hazards in a coastal environment as well as extreme weather events and climate change.
- Accretion: Ongoing and significant sediment accretion along the west coast. Community feedback highlighted a perception that this process is reshaping coastal areas and affecting water flow, potentially creating wetlands and increasing flood risks in stream valleys (e.g. Piha, Karekare). Concerns were also held regarding the management of these areas and the impact on safety and enjoyment of coastal areas.
- Impacts on flooding and infrastructure: Community perception that accretion can trap freshwater behind growing dunes, raising water tables and increasing the severity of flood events. Combined with sea-level rise, feedback noted serious risks to infrastructure and habitable land behind dunes.
- Precaution against development behind dunes: restricting future development and rebuilds in areas behind dunes, especially those affected by Cyclone Gabrielle.
- Caution around stream management: While the community supports stream-mouth management, some highlighted that such interventions may only offer short-term relief, as natural sediment movement will eventually override human efforts.
- Concern over the accuracy of coastal hazard modelling and mapping of flood prone areas/ flood plains.
- Commentary that inadequate stormwater infrastructure is affecting residential areas, especially during extreme weather events such as Cyclone Gabrielle.
- Landslides triggered by the cyclone have significantly altered coastal foreshore areas, exposing cliffs, bare rock, and soil. These changes have disrupted habitats and ecological processes.



Community values and aspirations

Aspirations 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 Whatipu to South Head area. A discussion of key themes when it comes to future aspirations and values as follows; noting the most mentioned were better access and pathways, including improvement of boat ramps, ongoing consultations with communities, and ongoing of roading networks and infrastructure at the coast:

- **Preservation of the natural character** of the coastal environment and the protection of outstanding natural features and landscapes from inappropriate development.
- **Dog friendly areas:** Access for dogs remains a contentious topic, reflecting differing views within the community. Some residents support a total ban on dogs due to concerns about environmental impacts, while others advocate for expanding designated areas for both on-leash and off-leash dog access.
- **Calls for community education** on environmental conservation, responsible recreation, and compliance with local rules (e.g. dog control, litter management).
- **Restore road trail and track access:** The community is advocating strongly for the restoration of roads damaged by recent storms and floods. Additionally, there is a concerted effort to reopen closed tracks and restore access to trails that have been inaccessible (i.e. around the Hillary Trail).
- **Investment in assets** including, but not limited to, surf life club building, toilets, campgrounds, and carparking facilities, along with infrastructure enhancements to accommodate increasing visitor numbers, including the construction of toilets, changing rooms, and drinking fountains.
- **Access:** Regarding access, the community has three main goals. Firstly, there is a need for additional access points to beaches and parks in the region that cater to various user groups, including cyclists, horse riders, different age groups, and people with disabilities. Secondly, there is a request to reopen tracks that have been closed and to make these tracks more resilient to flood and cyclone damage. Lastly, access for gathering kai and other recreational activities such as boating, swimming, and relaxation must be maintained.
- Strong community support for **conservation initiatives** aimed at protecting native flora and fauna, including enhanced pest control and ecological restoration efforts, with a recognition of community-led restoration efforts along the coast.
- Rebuilding and maintaining **key community facilities** and social infrastructure (i.e. surf clubs) in a way that supports community resilience. Further to this point, the Muriwai Community Association highlighted the need to support investment in more resilient hard infrastructure servicing Muriwai, including water supply/ septic systems and emergency services.
- There is a need for more in-depth study to understand and anticipate the **long-term impacts of landscape changes** on the natural environment because of land slips and coastal hazards. In many coastal areas, new vegetation is emerging, often dominated by

invasive species such as pampas grass. The cost of controlling such invasive growth, even with tools such as drone-applied pesticides, may prove prohibitive.

- Submissions from community groups noted the need to consider **climate change mitigation** (i.e. reduction of fossil fuels and carbon emissions) as well as climate change adaptation, noting advocacy for more sustainable transport modes instead of additional carparking facilities to support visitors and residents alike.
- **Road access to the coast and transport infrastructure:** Landslides and damage from the storm have caused significant damage to the area including the road and road access. The community wants to ensure that there are adequate efforts for repair and maintenance, and to make assets resilient to storm damage.



Community suggestions for management and feedback on strategies

Overall, approximately half of respondents supported the proposed short-, medium-, and long-term strategies, with minimal variation in support between the timeframes. Where appropriate/ possible, location specific feedback has been captured in Volume 3 and discussed in the sections above.

Key suggestions in community feedback included, but was not limited to:

- The need to consider **accretion trends and impacts** in coastal management planning, noting community feedback highlighting ongoing and significant sediment accretion along the west coast. Communities in areas like Piha and Karekare and Te Henga have strongly advocated for ongoing coastal hazard assessment and monitoring in management plans that factors in accretionary trends and the impacts on flooding (blocking up streams). In response, additional discussion of coastal processes, including accretion, has been included within the Volume 2 and 3 reports.
- **Need for integrated coastal assessment:** Current planning focuses primarily on sea-level rise based on global climate change projections, without incorporating the effects of local sedimentation. A comprehensive understanding of both accretion and sea-level rise, and how they interact, is strongly advocated by local communities in future planning. In response, adaptation strategies have considered present-day accretionary trends as appropriate for specific coastal stretches of this SAP.
- **Active and adaptive management:** More proactive planning to ensure continued recreational access and community safety. This includes relocating toilets to higher ground, raising roads and bridges, planning for future drainage systems, and protecting high ground for infrastructure, rather than private views. These views will be addressed through implementation of the SAP.
- **Future proof assets:** The community has urged for improvements to coastal assets, such as stormwater infrastructure, roads, and surf life club buildings, to enhance resilience against flooding and storm damage, noting that road networks function as lifeline services for rural communities along the west coast.
- **Surf lifesaving clubs:** Feedback identified the urgent need to rebuild and restore Te Henga Beach Surf Club including restoring lost access. The community feel it is essential

for the surf club to be rebuilt. Bethells Beach Surf Life Saving Club, with support from the Council, is working towards establishing a new surf lifesaving club building in a preferred alternative location. There are calls for more surf club facilities to be built across the Whatipu and South Head areas.

- **Access to beaches:** A key matter raised was vehicle access to and along the coast; while this matter is beyond the scope of the SAP programme, this matter is relevant in relation to the types of access which need to be supported and in relation to how natural systems such as dunes, respond to and function in relation to coastal processes. Supporters of vehicle access identify the importance for recreational activities and accessing Kaimoana harvesting or fishing locations. Opponents of vehicle access highlight its environmental impacts, including dune destruction and disturbance of wildlife due to vehicle noise and emissions. They emphasise that the issue extends beyond cars to include smaller vehicles like dirt bikes and ATVs and the amenity impacts for other beach users. The focus of beach (vehicle) access has been north of Ōkiritoto Stream at Muriwai. It is also important to note that the Muriwai Environmental Action Trust strongly advocated for vehicle access to be factored into the SAPs and future decision making.
- **Establishing ongoing working groups** that include representatives from Council, the Local Board, and local communities which would operate within an agreed framework to support data collection, evaluate adaptation options, and help prioritise responses to climate change, while also aiming to protect existing community assets and investments.
- **Concern that multiple overlapping plans and processes** are being used to respond to climate change (highlighted in community submissions – *Friends of Regional Parks*). Strong advocacy for more inclusive dialogue with the diverse communities along the coastline. Given that regional parks span much of this area, it is essential to involve local groups such as the Friends of Anawhata, Friends of Whatipu, and other community stakeholders in shaping the path forward.
- The **Waitākere Ranges Protection Society (WRPS)** strongly advocates the importance of preservation of the Waitākere Ranges due to its 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 continuance of the important biodiversity the Heritage Area is home to requires protection from development and the proper management of visitor numbers
- Advocacy to consider the Waitākere Ranges Heritage Area in planning; support has been captured under the identification of policy above.
- Consider other natural hazards (i.e. wildfire, landslides) as well as stormwater management and other impacts of climate change in adaptive management planning.
- Aspirations to develop an **implementation plan** that outlines priority actions for Council, asset owners, infrastructure providers, local communities, and iwi to undertake collaboratively in the near term. This plan would help prioritise immediate works and guide the next phase of actions required following storm events.
- Recognition Auckland's north-west area **population growth** will significantly increase visitor numbers to west coast areas; community groups sought consideration of the

impact on communities, infrastructure and assets, as well as on the natural environment and sought further strategic planning in response.

- Overall, 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 intergenerational conversation.



Community objectives for the Whatipu to South Head SAP area

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

Coastal connections, use and access	• Roading connections and walking accessways are resilient, well located and managed to minimise risks from coastal hazards (and catchment flooding) to maintain critical connection for communities. • Assets and infrastructure that provides access to coastal areas and supports the use of these areas is designed to be resilient, support communities and minimise impacts on the natural character and ecological values of the Whatipu to South Head coastal areas. • Use of coastal spaces for recreation and enjoyment occurs in a manner which preserves and supports natural systems, habitats and supports the functions of dunes to respond to coastal processes and the impacts of climate change.
Social and Cultural	• Acknowledge, respect, and uphold the strong social, cultural, spiritual, and historical connections that local iwi and communities have with the land and coastline from Whatipu to South Head. This includes actively involving mana whenua, local communities, and stakeholders as key partners and leaders in conservation, restoration, and climate adaptation planning and implementation. • Collaborate with local communities and local iwi and stakeholders to establish locally meaningful indicators and thresholds that reflect the changing coastal environment and sea-level rise, to guide informed adaptation decisions, supporting an awareness of changing coastlines and hazard risk across the Whatipu to South Head Coastline.
Responding to risk	• Ensure transparent information sharing and effective risk communication, with a focus on community-led initiatives that build resilience and prioritise the reduction of harm from natural hazard risks.
Environmental	• Natural systems are supported and use and activities managed to ensure habitats are identified, valued, protected, enhanced and natural systems, such as dunes, are supported as buffers for coastal processes and the impacts of climate change.

4

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:

Icon	Acronym / colour	Adaptation strategy
		No Action
		Maintain
		Protect
		Adaptation Priority

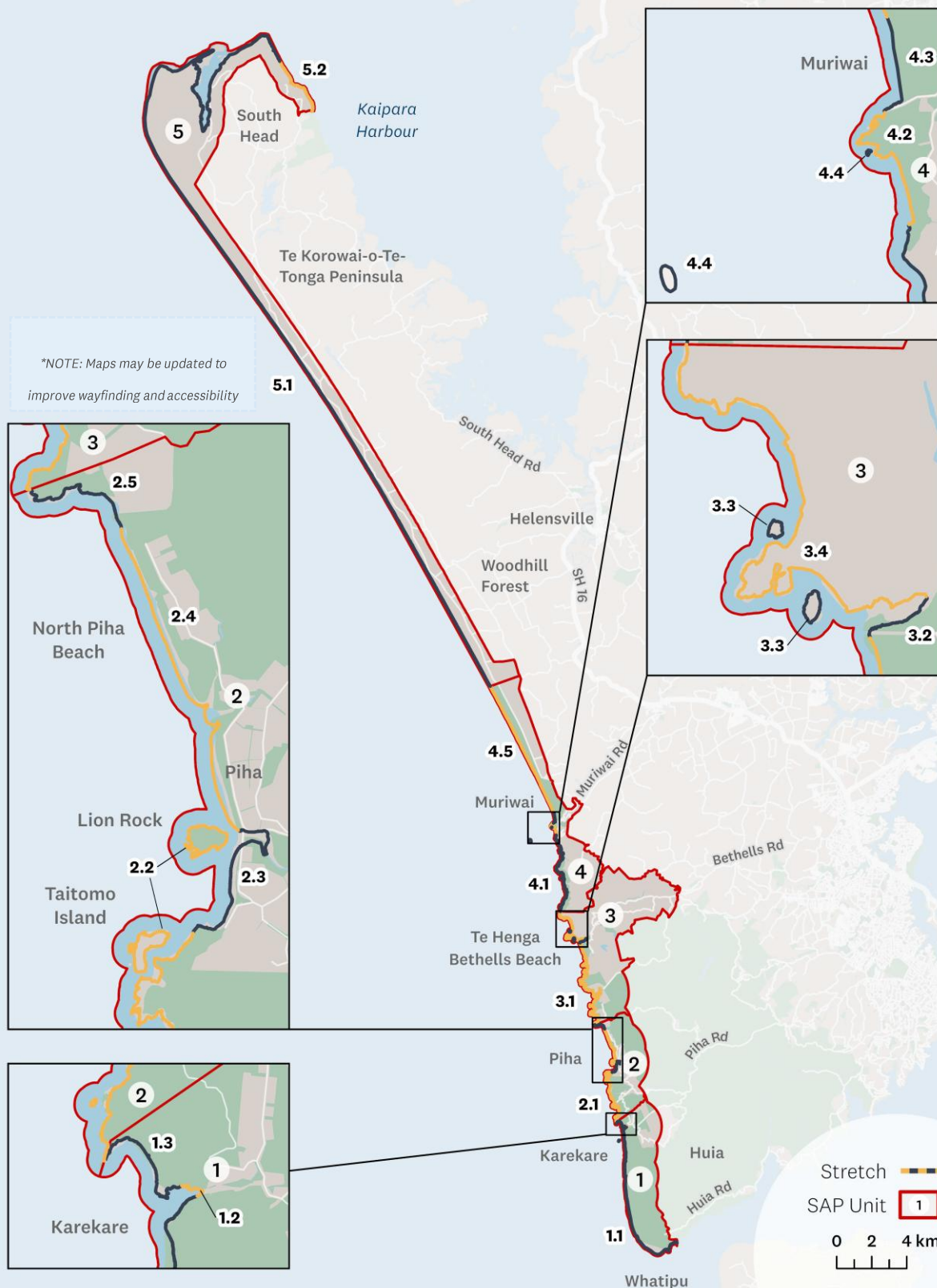


Area and Stretch Overview

Whatipu to South Head



*NOTE: Maps may be updated to improve wayfinding and accessibility



Unit	Stretches	Low	Moderate	High
Unit 1 Whatipu to Karekare	Stretch 1.1: Whatipu Beach to Karekare	No action	No action	No action
	Stretch 1.2: Karekare Beach	Maintain	Adaptation priority	Adaptation priority
	Stretch 1.3: Tāhoro Union Bay to Hinerangi Pou	No action	No action	No action
Unit 2 Piha	Stretch 2.1: Te Unuhanga o Rangitoto / Mercer Bay	Maintain	Maintain	Maintain
	Stretch 2.2: Taitomo Island and Te Piha /Lion Rock	Maintain	Maintain	Maintain
	Stretch 2.3: Piha Beach South (Piha Beach)	Maintain	Adaptation priority	Adaptation priority
	Stretch 2.4: North Piha	Maintain	Adaptation priority	Adaptation priority
	Stretch 2.5: Kohunui Bay & Te Waha Point	No action	No action	No action
Unit 3 Te Henga /Bethells & Anawhata	Stretch 3.1: Anawhata	No action	No action	No action
	Stretch 3.2: Te Henga	Maintain	Adaptation priority	Adaptation priority
	Stretch 3.3: Ihumoana and Kauwahaia Islands	No action	No action	No action
	Stretch 3.4: Waitākere River to Raetahinga	No action	No action	No action
Unit 4 Te Oneone Rangatira Muriwai	Stretch 4.1: Te Waharoa to Maukatia Bay (south)	Maintain	Maintain	Maintain
	Stretch 4.2: Maukatia Bay & Otakamiro Point	Maintain	Maintain	Adaptation priority
	Stretch 4.3: Muriwai Motutara	Maintain	Maintain	Adaptation priority
	Stretch 4.4: Motutara Pa & Oaia Islands	No action	No action	No action
	Stretch 4.5: North Muriwai	Maintain	Maintain	Maintain
Unit 5 Te Korowai o te Tonga / South Head	Stretch 5.1: Te Oneone Rangatira South Head	No action	No action	No action
	Stretch 5.2: Manunutahi Bay / Mosquito Beach to Te Kawau Point	No action	No action	Maintain

5 **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.

Auckland Council services a comprehensive, regional coastal monitoring programme. The programme is dedicated to developing innovative methods for assessing changes in our coastal areas, focusing on beach erosion, accretion, and coastal inundation. This data informs the regional State of the Environment reporting but will also be a key source of information when monitoring and implementing Shoreline Adaptation Plans. A live portal hosts all councils monitoring data and is publicly available [here](#).



Beach Surveys

Six-monthly monitoring surveys of established beach profiles at Piha and Muriwai by Auckland Council will be ongoing



Drone Surveys

Shoreline drone survey monitoring being established by Council at Bethells Beach.

With respect to the Whatipu to South Head area, the results of this monitoring, will inform signals triggers and thresholds for implementation of the plan and specific strategies. A more detailed discussion regarding implementation of the SAP Programme can be found in [Volume 1](#).

6

References & Bibliography

- Auckland Council. (2024). *Regional Parks Management Plan 2022*.
<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/parks-sports-outdoor-plans/regional-parks-management-plans/Pages/regional-parks-management-plan-2022.aspx>
- Auckland Council. (2017). *Coastal Management Framework for the Auckland Region*.
<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/Documents/coastal-management-framework-2017.pdf>
- Auckland Council. (2023, December 8). *Auckland Unitary Plan Operative in Part*. Retrieved January 31, 2024, from
https://unitaryplan.aucklandcouncil.govt.nz/Pages/Plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print
- Bishop, C., & Landers, T. (2019). *Climate change risk assessment for terrestrial species and ecosystems in the Auckland Region*. Auckland Council Research and Evaluation Unit (RIMU) and Chief Sustainability Office. <https://knowledgeauckland.org.nz/media/hy1hicvy/tr2019-014-climate-change-risk-terrestrial-species-ecosystems-auckland-final.pdf>
- Carpenter, N., Roberts, R., & Klinac, P. (2020). *Auckland's exposure to coastal inundation by storm-tides and waves*. Auckland Council. <https://knowledgeauckland.org.nz/media/2070/tr2020-024-auckland-s-exposure-to-coastal-inundation-by-storm-tides-and-waves.pdf>
- Foley, M. M., & Carbines, M. (2019). *Climate change risk assessment for Auckland's marine and freshwater ecosystems*. Auckland Council Research and Evaluation Unit (RIMU) and Chief Sustainability Office. <https://knowledgeauckland.org.nz/media/1083/tr2019-015-climate-change-risk-marine-freshwater-final.pdf>
- iNaturalist. (n.d.). *iNaturalist Observations*. Retrieved January 31, 2024, from
<https://www.inaturalist.org/observations>
- Singers, N., Osborne, B., Lovegrove, T., Jamieson, A., Boow, J., Sawyer, J., Hill, K., Andrews, J., Hill, S., & Webb, C. (2017). *Indigenous terrestrial and wetland ecosystems of Auckland*. Auckland Council. <https://knowledgeauckland.org.nz/media/1399/indigenous-terrestrial-and-wetland-ecosystems-of-auckland-web-print-mar-2017.pdf>
- Statistics New Zealand (2018). *Census Data*. <https://www.stats.govt.nz/topics/census>
- The Reserves Act 1977. (2019).
<https://www.legislation.govt.nz/act/public/1977/0066/latest/DLM444305.html>
- The Local Government Act 2002. (2019).
<https://www.legislation.govt.nz/act/public/2002/0084/latest/DLM170873.html>