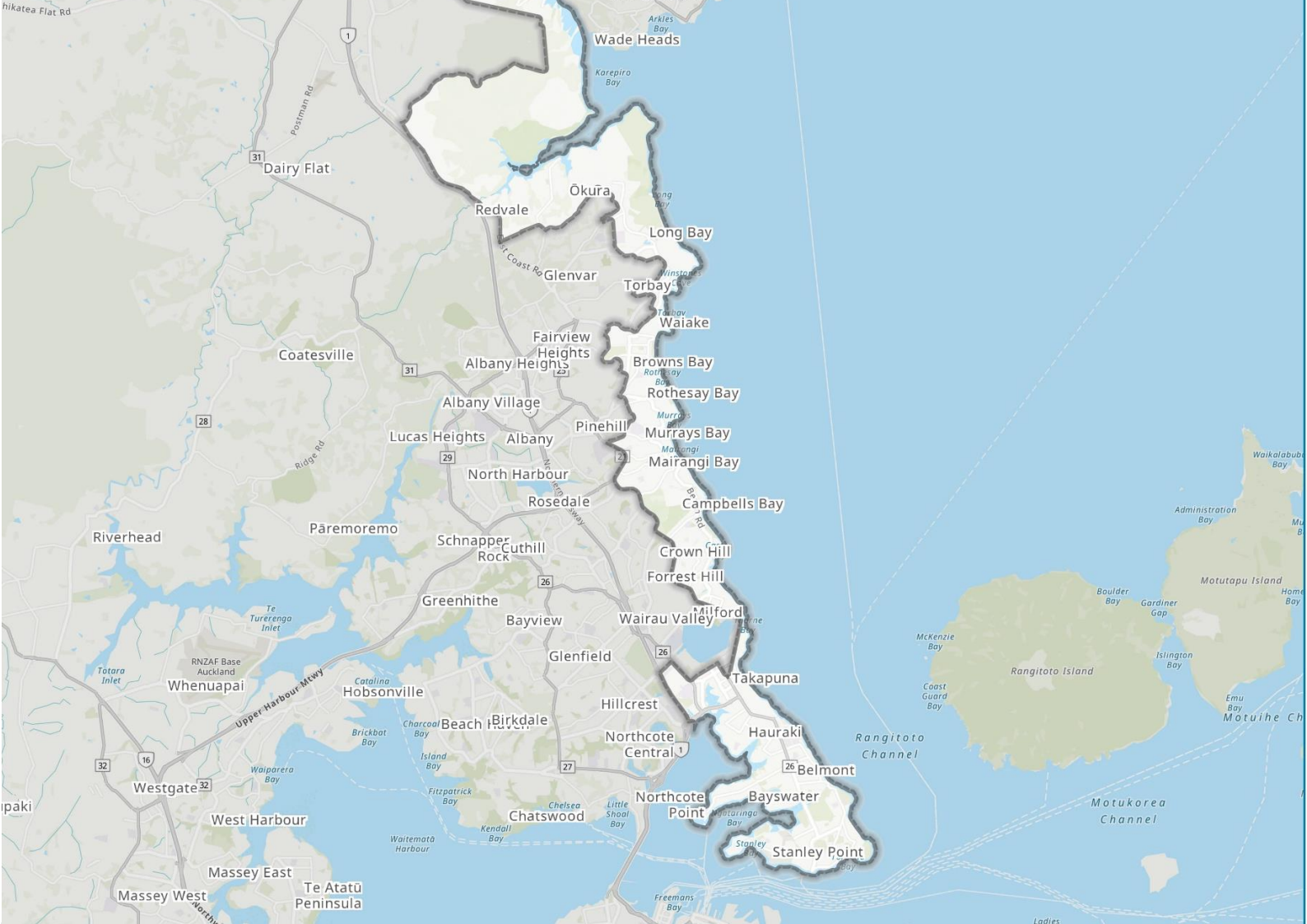




Ngā mahere whakaurutau mō te takutai

Shoreline Adaptation Plan

Weiti Estuary to Devonport Peninsula
Volume 2: Introduction to the SAP area

April 2025, Version 1.0

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Shoreline Adaptation Plan: Weiti Estuary to Devonport Peninsula Volume 2: Introduction to the SAP area

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

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As set out in *Volume 1: Understanding Shoreline Adaptation Plans*, adaptation planning is an ongoing process, with SAPs 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 (for example as per cultural context holding statements illustrated in section 3.0).

Mātauranga Protection Statement (Disclaimer)

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

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

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

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Quick Reference

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

- **Volume 1:** Understanding Shoreline Adaptation Plans - programme and regional scale context
- **Volume 2:** Shoreline Adaptation Plan area specific overview – subregional scale (across 20 SAP areas)
- **Volume 3:** Unit (and stretch) context and adaptation strategies set for each section of Auckland's 3,200 km of coastline.



Glossary

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

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

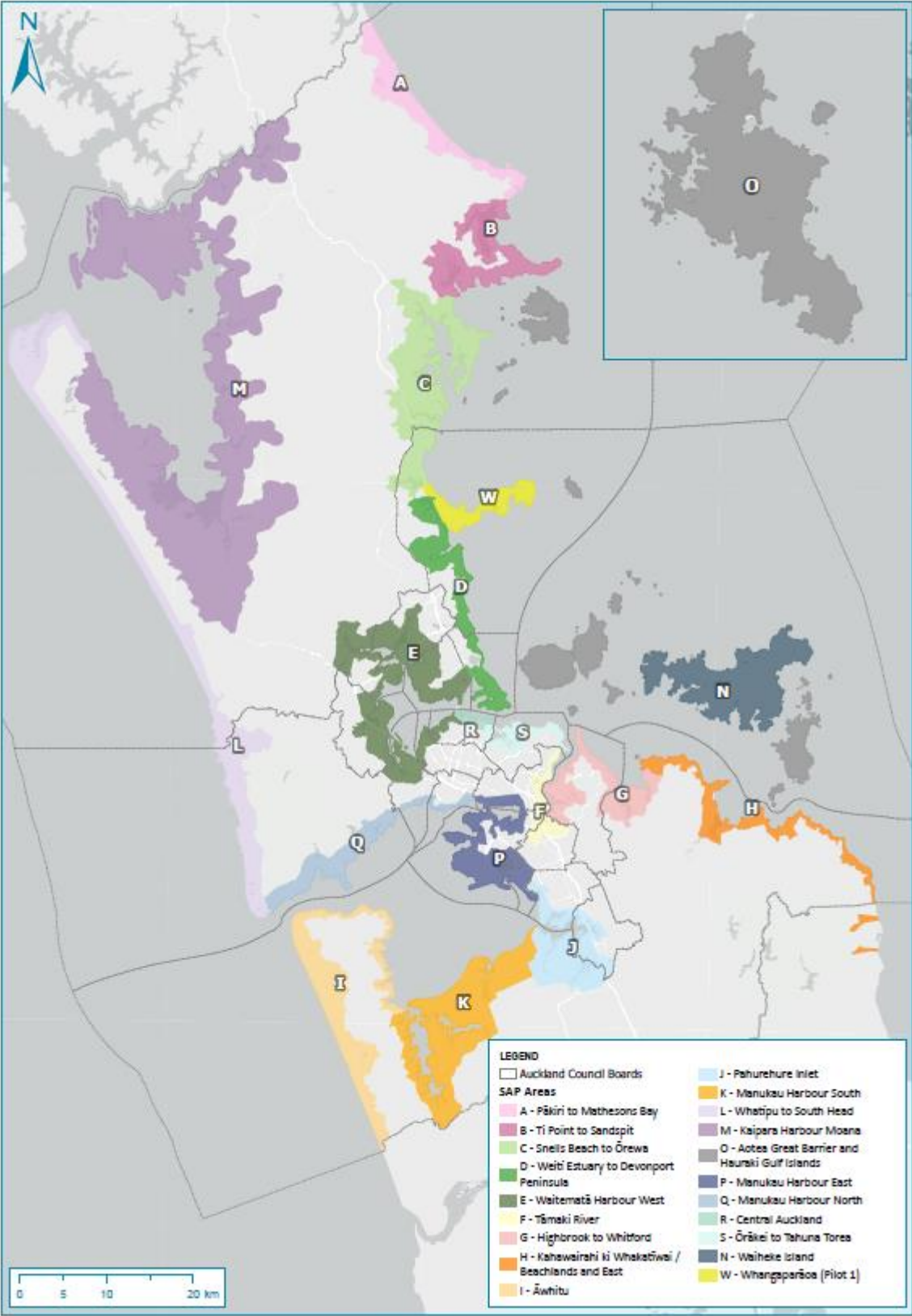
Term	Definition
Nature-based solution	A collection of approaches to address societal issues, including climate change, through the protection, management, and restoration of ecosystems.
SAP	Shoreline Adaptation Plan
SAP area	An identified area for the purposes of the SAP development of Shoreline Adaptation 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 Waitemata. Due to its location, much of the city's urban development and supporting infrastructure is concentrated in coastal areas and exposed to coastal processes such as erosion and inundation. These natural processes are considered hazards when they impact on things or locations of value. Climate change related to greenhouse gas emissions is contributing to rising sea levels, which have a range of impacts including increasing the frequency and magnitude of coastal hazard events. Auckland Council began developing a series of Shoreline Adaptation Plans (SAPs) in 2021. These area-based plans form the first step for the SAP programme in achieving a resilient future for Auckland's coasts. A more detailed discussion on the Shoreline Adaptation Plan Program can be found in Volume 1: Understanding Shoreline Adaptation Plans

As shown in **Error! Reference source not found.**, 20 SAPs make up Auckland's ~3200 km of coast as follows:

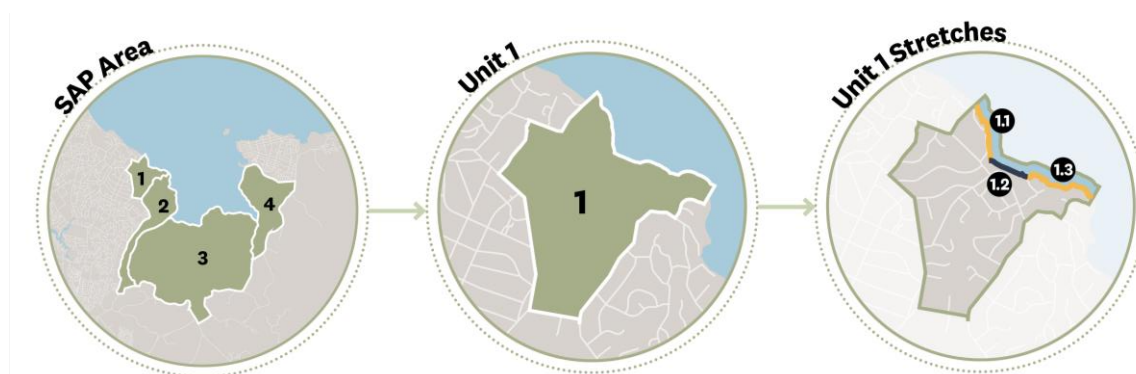
- Aotea Great Barrier and the Hauraki Gulf Islands
- Ōwhitu
- Beachlands and East
- Central Auckland
- Highbrook to Whitford
- Kaipara Harbour Moana
- Manukau Harbour East
- Manukau Harbour North
- Manukau Harbour South
- Orakei to Tahuna Torea
- Pahurehure Inlet
- Pākiri to Matheson Bay
- Snells Beach to Orewa
- Tamaki Estuary
- Ti Point to Sandspit
- Waiheke Island
- Waimanawa Little Shoal Bay mini SAP
- Waitemata Harbour West
- Weiti Estuary to Devonport Peninsula
- Whangaparāoa
- Whatipu to South Head



Shoreline Adaptation Plans (regional).

SAP areas, units and 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.

Table 1-1: Shoreline Adaptation Plan climate change scenarios

	 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 rainfall 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.



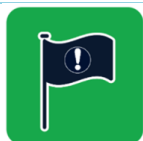
Maintain

- 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 Weiti Estuary to Devonport SAP area is situated on the northeastern coast of Auckland's North Shore. It extends along the coastline from Silverdale in the north to Devonport in the south. The SAP area forms part of the wider North Shore which lies just across the Waitematā Harbour from Auckland's central business district. For the purposes of adaptation planning, the area has been divided into 15 SAP units with 93 stretches. It includes the communities of Devonport, Takapuna, Browns Bay, and Long Bay. The total coastline is approximately 40 km in length.

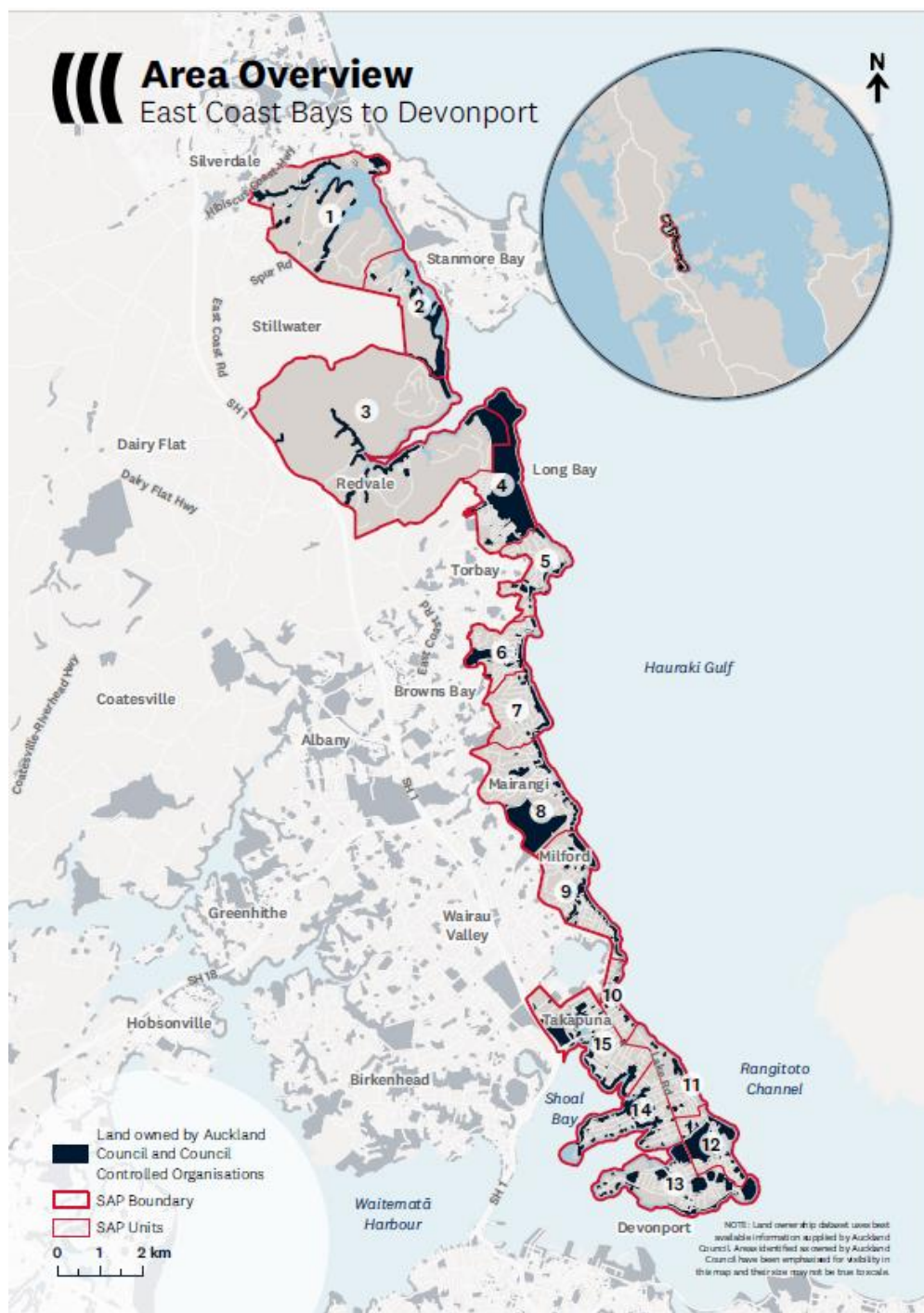


Figure 1-1: Weiti Estuary to Devonport area overview

Most of the SAP area is urbanised, with residential areas between Torbay and Castor Bay (Units 5-9), and in Bayswater (Unit 14), Belmont (Unit 11), Takapuna (Unit 10), Hauraki (Unit 15) and Devonport (Unit 13). Most of these areas have small town centres, with larger centres in Devonport and Takapuna. Okura (Unit 3), Stillwater (Unit 2), and parts of Silverdale (Unit 1) and Long Bay (Unit 4) are characterised as lower-density rural areas with larger areas of open space. Auckland Council land and assets within the Weiti to Devonport SAP area include (but are not limited to): 576 ha of park and reserve land, over 400 Council-owned buildings, two coastal Maunga, five closed landfills and over 200 km of road infrastructure. These landholdings and assets support community, cultural and ecological uses and form part of wider landscapes and systems.

The development of these shoreline adaptation strategies is a starting point for dynamic adaptation planning for the Auckland region and also acknowledges Te tiro ā Māori ki tōna ake ao, a Māori worldview. This reflects the consideration of intergenerational time horizons as a fundamental part of addressing the impacts of climate change and sea-level rise. It also acknowledges the need to consider the tangible and intangible, the inter-relationship of all living and non-living things and the vital connection between people and te taiao (the natural environment) in which they live. The adaptive strategies (Section 5) 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).

For many stretches, a **No Action** approach is recommended across low change, moderate, and high change to reflect private property and/ or areas of the coast with limited Council-owned land or assets exposed to coastal hazard risk.

A **Maintain** approach can be applied to the majority of the coastline, supporting current interventions at the coast, such as existing protection structures and access ways. Maintain provides for the maintenance of activities and assets, utilising design and location (localised realignment) to manage risks from coastal hazards to ensure the safe and continued function of existing assets and uses.

Adaptation Priority is identified under moderate to high climate change scenarios for low-lying and/ or areas prone to coastal instability and erosion, specifically areas along the shoreline of Long Bay, Torbay, Browns Bay, Takapuna, Milford, Narrow Neck, Devonport, Stanley Point and Bayswater, where coastal erosion and coastal inundation with sea-level rise and catchment flooding risks require the need to strategically plan to reduce maintenance and renewal costs by moving/ redesigning Auckland Council assets and infrastructure out of exposed areas to accommodate natural coastal processes, building a more resilient shoreline and support ecological and cultural outcomes. Acknowledging that increasing risk from coastal hazards will impact the long term feasibility of maintaining all uses within a specific area, adaptation priority signals the need for proactive management of land uses and assets, working to support highly valued coastal access, alongside coastal character and the recreational enjoyment of the coast at locations across the Weiti Estuary to

Devonport SAP. The strategy acknowledges the risk to low lying, highly valued coastal reserves where increased inundation may impact uses, assets, infrastructure and the function of roading connections within local areas under a high climate-change scenario.

A **Protect** approach is recommended in a limited number of stretches, typically where there is critical infrastructure which will need to be maintained in its current location to allow for its continued use, necessitating defence of the coastal edge. This approach is typically used in areas where critical assets and/or marine facilities are located on or near the coast, i.e. the coastal margins of Devonport (Torpedo Bay, Queens Parade, the ferry terminal and Stanley Bay). A protect approach has also been applied to critical roading networks and links between urban areas (i.e. Lake Road, providing access to the Devonport Peninsula through Narrow Neck) and Esmonde Road providing a roading connection to the State Highway and western areas.

A range of adaptation strategies are recommended across this SAP area, discussed in further detail in Volume 3 and summarised in Section 5 of this report.

2

What's happening

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

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

Coastal context

This coastline includes a variety of coastal environments, including:

- The sheltered Weiti and Okura estuaries
- The more open eastern coastline that is periodically exposed to moderate to high wave energies during significant events
- The Waitematā Harbour coastline that is exposed to low-energy, short period, fetch, and depth-restricted waves.

The coastlines of these estuaries and Waitematā Harbour are characterised by shallow extensive intertidal areas, established mangroves, fine sediments, and lack of notable sandy pocket beaches. Significant shell spits, or chenier type shell barriers are present towards the mouth of Weiti Estuary. The more exposed eastern coastline is characterised by dynamic sandy beaches contained within rocky headlands and intertidal shore platforms separated by Waitematā sandstone cliffs, noting that the majority of these east coast beaches are backed by a mix of Auckland Council-owned and private seawalls. Restored and vegetated sand dunes extend for the length of Long Bay Beach, with dune restoration at Browns Bay Beach. The east coast beaches typically have relatively narrow, dry, high-tide beach widths, and are therefore vulnerable to impacts from storm events and sea-level rise.

The southern end of the Milford Beach to Takapuna Beach coastline is characterised by basaltic lava exposures and intertidal reefs including the Takapuna fossilised forest, resulting in a naturally hard coastal edge. The North Head volcano (Maungauika) dominates the northern entrance to Waitemata Harbour and is also characterised by a hard basaltic coastal edge.

The wave climate on the open eastern coastline is dominated by short period, locally to regionally generated wind waves associated with strong onshore winds, with lower frequency, longer period swell events. The east coast beaches from Long Bay to Cheltenham Beach are relatively closed systems with limited volumes of sandy sediment. These beaches are periodically impacted by storm events that result in beach erosion and exposure of underlying softer or rocky substrate materials. Several streams and numerous stormwater outfalls discharge onto the eastern beaches. These can result in scour on the beaches following significant rainfall events, which is typically remedied by coastal processes. These stream mouths can also impound or block during times of low rainfall. On occasion, operational works at these discharge points are undertaken to maintain the functioning of these outlets, and to address any related effects on amenity values. Storm events can result in

deposition of significant volumes of seaweed along the eastern beaches. This can result in pressure to manually remove the seaweed, particularly during the high beach use periods over summer. However, residence time of such seaweed deposition is relatively short, with the seaweed being remobilised and broken down by natural processes.

The Waitematā sandstone cliffs present along this coastline, particularly on the more exposed eastern coastline, are subject to slow, ongoing weathering and erosion with occasional episodic failures or slips. This will, over time, result in loss of reserve land and public walkways along these cliffs tops, and any associated foreshore access structures.

The Waitemata Harbour section of this coastline has been highly modified in places, including beach replenishment and associated control structures at Torpedo Bay, Victoria Wharf and the ferry terminal, the Navy/Defence land coastal infrastructure, large reclamations, and Bayswater Marina. Intact chenier shell banks remain in the upper Shoal Bay area, transitioning into areas of established mangroves and salt marsh habitat.



Figure 2-1: Long Bay Beach, sand dunes, and Waitemata sandstone cliffs



Figure 2-2: Mairangi Bay Beach, stream mouth, reserve edge seawalls, and Waitemata sandstone cliffs



Figure 2-3: Takapuna basaltic shoreline with Takapuna Beach and Waitemata sandstone cliffs in the background



Figure 2-4: Shoal Bay shell banks and mangrove habitat, looking back to Stanley Point

2.1 Natural hazards and 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 Weiti Estuary to Devonport Peninsula area, noting that projected conditions may occur sooner or later depending upon climate emissions.

Coastal inundation is predicted to have the greatest impact to Auckland Council assets on low-lying or reclaimed land, particularly in Stillwater (Unit 2), Long Bay (Unit 4), Waiake Beach (Unit 5), Mairangi Bay (Unit 8), Milford Beach (Unit 9), Narrow Neck Beach (Unit 12) and Devonport (Unit 13). Many of these facilities are located next to stream mouths on the coast. At a localised scale, there are other areas where inundation extent will increase with future sea-level rise, such as the reclaimed land of Ngataranga Bay (Unit 13) and Woodall Park bordering Narrow Neck Beach (Unit 12).

Throughout the SAP area there is a moderate coastal erosion risk, reflective of the sheltered environments of the Weiti and Okura estuaries and the eastern open coastline being partially sheltered by the offshore islands. The Waitematā sandstone cliffs present along this coastline are subject to slow, ongoing weathering and erosion. Over time, this will result in loss of reserve land and public walkways along these cliff tops. Coastal erosion is predicted to have the greatest impact to Auckland Council-owned land, parks and reserves with most coastal stretches still being exposed under a low-change climate scenario.

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

Coastal inundation (including sea-level rise)

Auckland Council's best available information on extreme sea-water levels in the Auckland region is presented in the report *Auckland's exposure to coastal inundation by storm-tides and waves*. The modelled spatial extent of potential inundation is published on Auckland Council's web-based portal GeoMaps⁵ (Natural Hazards Theme). A range of scenarios are mapped on this platform, spanning from the 5-year Average Recurrence Interval (ARI), corresponding to the 18% Annual Exceedance Probability (AEP), to the 100-year ARI event (1% AEP) to demonstrate Auckland's exposure to a range of present-day extreme events.

Within the Weiti Estuary to Devonport Peninsula SAP area, coastal inundation flooding is predicted to have the greatest impact on low-lying land and Auckland Council community facility assets in a low-change scenario, particularly at Devonport and Stanley Point. At a localised scale, there are other areas where the inundation extent will increase in the moderate to high-change scenario, such as low reclaimed reserves and adjacent tidal stream channels (e.g. Stanley Bay Park, Milford Reserve, Browns Bay and Long Bay). The critical roading connections of Lake Road access to Devonport, and

Esmonde Road's connection to the Northern Motorway/SH1, are likely to be exposed to some level of coastal inundation with sea-level rise under a low to moderate climate scenario.

Figure 2-5 below shows the resulting coastal flooding hazard extents at the Weiti Estuary to Devonport SAP scale for:

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

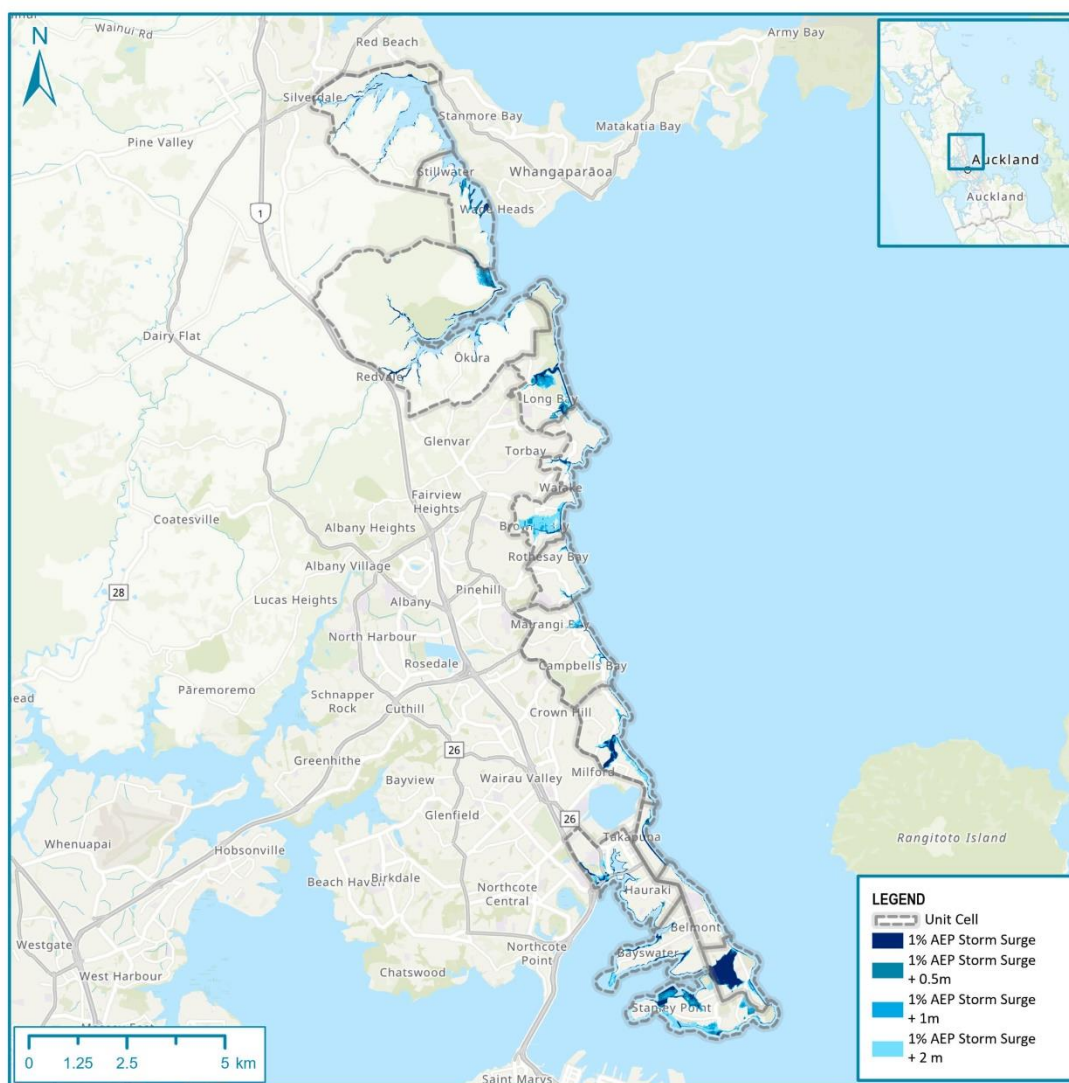


Figure 2-5: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m and 2 m sea-level rise. Source: Weiti Estuary to Devonport Peninsula Shoreline Adaptation Plan: Risk Assessment Technical Report, 2024, Tonkin & Taylor.

Coastal erosion (including sea-level rise)

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

The regional scale assessment of the ASCIE provides a conservative or ‘first pass’ appraisal of the natural hazard extent. A more detailed site-specific assessment may be required to quantify exposure and risk of localised land or assets.

Figure 2-6 below shows the resulting coastal instability and erosion hazard extents over changing climate change scenarios. The ASCIEs are shown as a line, representing the distance (in metres) landward of the current coastline that is predicted to be susceptible to coastal instability and erosion, for a given time period.

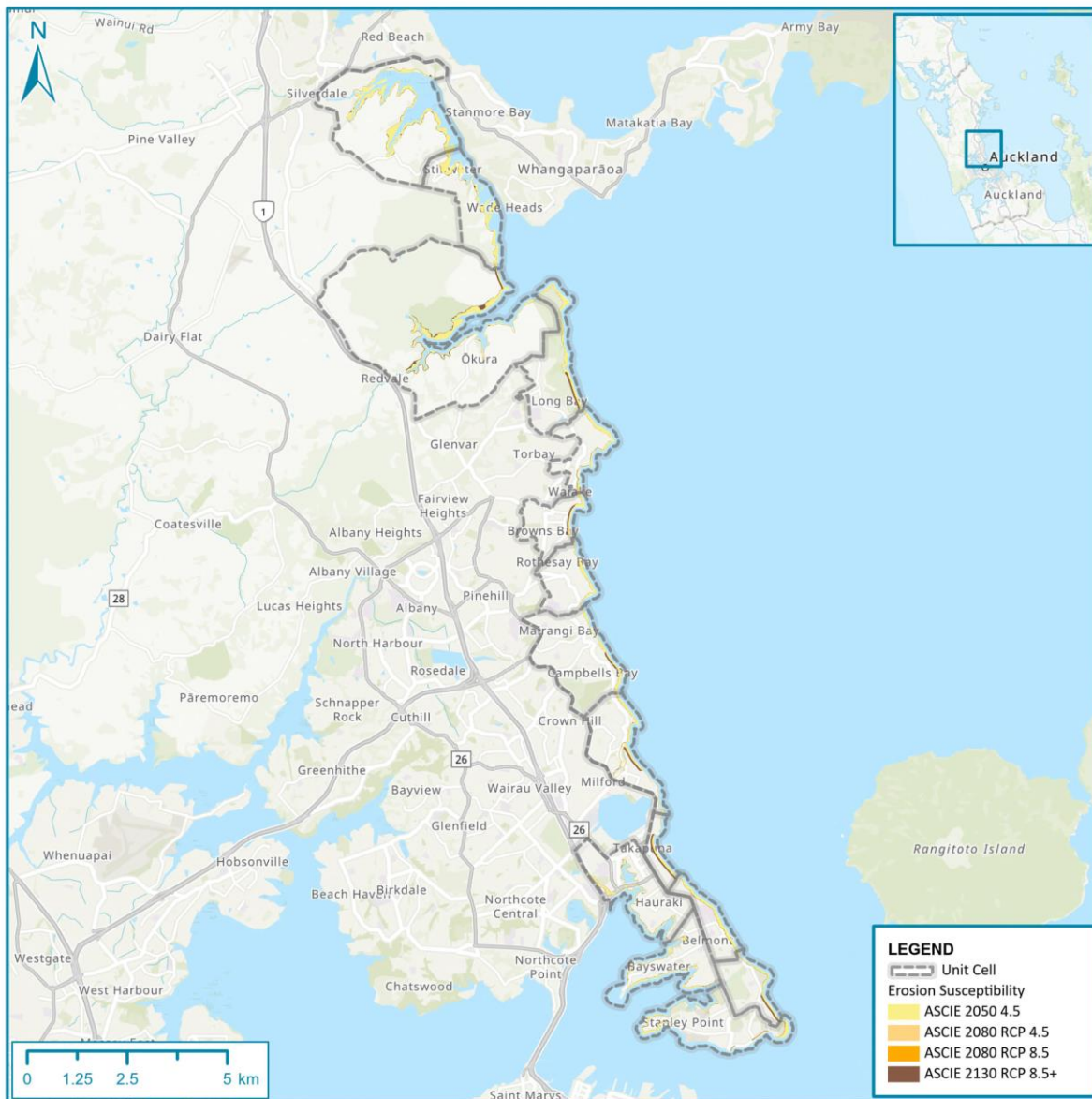


Figure 2-6: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios. Source: Weiti Estuary to Devonport Peninsula Shoreline Adaption Plan: Risk Assessment Technical Report, 2024, Tonkin & Taylor

Areas with higher exposure to erosive forces are more at risk to coastal instability and erosion, where waves interact directly with cliff faces (e.g. no beach) or where cliffs are steep with little vegetation cover. As sea-level rise occurs, waves will interact with a larger portion of the cliff and slope instability and erosion along the coast are expected to increase. Along the beach shorelines, erosion predictions are gradual and increase over time with the expected impacts of sea-level rise.

The ASCIE lines show a low to moderate coastal erosion risk, reflective of the more sheltered environment of the Weiti Estuary to Devonport Peninsula. Predicted future rates of erosion are greatest on more elevated sections of coastline such as along the cliffs around the east coast, including Campbells Bay and Milford, Torbay and Long Bay.

Mapped coastal erosion predictions terminate before the upper reaches of the smaller side arms of tidal inlets at the approximate high tide boundary. However, it is noted that these areas will still be exposed to stream bank erosion (particularly on outer meanders) (Auckland Council, 2024b).

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 % Annual Exceedance probability (AEP) event, because an event of such intensity is likely to result in more severe consequences.

Auckland Council's web-based portal GeoMaps (Natural Hazard 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.

Within the SAP area, numerous catchments include areas of floodplain which drain to the coast. Impacts from historic and more recent flood events (including the 2023 storm events) has impacted land uses, assets and infrastructure as a result of rainfall-induced flooding. Unit 9 within the Devonport Takapuna Local Board area includes the Wairau catchment where severe weather events in early 2023 affected many communities in the Wairau Valley area and resulted in two fatalities. This catchment is now identified as subject to the Wairau Valley Flood Resilience Project which aims to reduce flood risks and prepare for future flooding by:

- Increasing how much stormwater that uninhabited green space can hold during flooding
- Creating more stormwater storage and wetland spaces.

This project is part of our Making Space for Water Programme and will form a blue-green network designed to make the stormwater network more resilient and easier to maintain and significantly reduce flooding risk to 10 ha of residential properties in the Wairau area (about 200 homes), help maintain access to important roads including Nile Road, Waterloo Road and Alma Road, important community facilities including schools, retirement villages, North Shore Hospital and other medical facilities. This programme of work is separate to the SAPs and will be undertaken with ongoing collaboration with communities. The catchment area and proposed interventions are included in Figure 9 below.

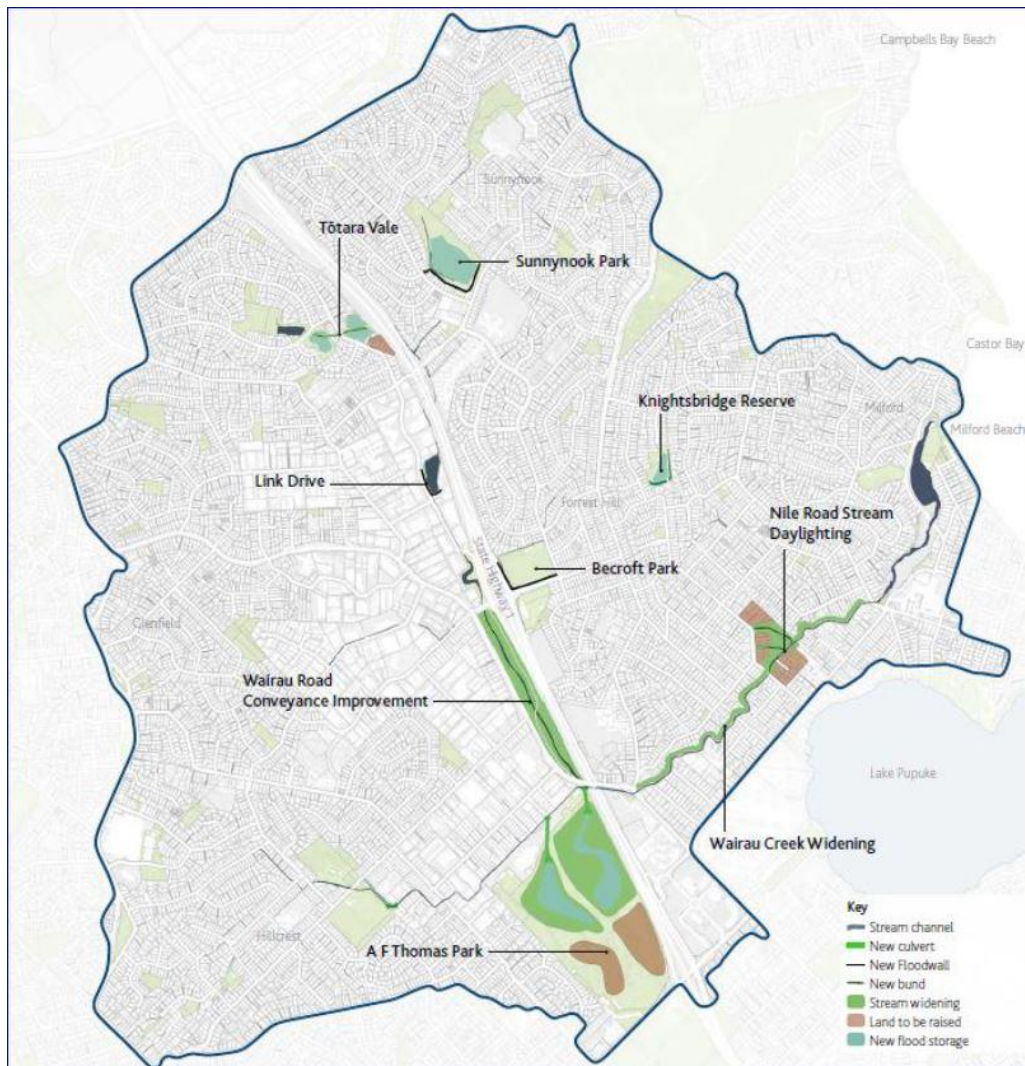


Figure 2-7: Wairau flood resilience, Auckland Council proposed interventions to the Wairau Valley catchment. Source <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-projects/projects-north-auckland/Pages/wairau-valley-flood-resilience-project.aspx>

Other hazards

Auckland is affected by several other natural hazards that are not considered within this SAP, including wildfire, volcanic activity, tsunamis, earthquakes, severe wind (such as cyclones) and tornadoes. Refer to *Volume 1: An understanding of Shoreline Adaptation Plans* for a more detailed discussion of other hazards impacting Auckland. 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 Weiti Estuary to Devonport Peninsula SAP area, the relevant plans can be located [here](#).

2.2 Current coastal management practices

An overview of existing current coastal management across the Weiti Estuary to Devonport is summarised in the table below and discussed in greater detail in *Volume 3: Adaptation Strategies for the Weiti Estuary to Devonport SAP*.



Flood control or management

- The stream mouths which discharge onto the beach at the southern end of Long Bay, Waiake Beach and at Murrays Bay, have previously been manually opened when these stream mouths were significantly impounded.
- Streams that discharge onto a number of the North Shore east coast beaches can result in significant beach face scour at the discharge points during extreme rainfall events.
- Wairau Valley's flood resilience project is identified under Auckland Council's 'making space for water' (blue green networks). This project is addressing flooding risk for homes and roads, improving stormwater flow and making the network more resilient. Noting the significance of this body of work, this has been referenced in Unit 9 of the Weiti Estuary to Devonport SAP.



Coastal protection

- A seawall armours the Buster Elliot Memorial Landing Recreational Reserve.
- A timber retaining wall armours the stream bank at the southern end of Long Bay, and a rock masonry seawall present at Winstones Cove provides protection to a wastewater pump station.
- Waiake Beach is armoured with a mix of rock masonry, concrete shotcrete and rock revetment seawalls, with further rock revetment armouring along the northern bank of the stream that discharges onto Waiake Beach.
- The Rothesay Bay and Murrays Bay shorelines are armoured with rock masonry and stacked rock seawalls.
- Mairangi Bay and Campbells Bay are armoured with a mix of private seawalls armouring private beachfront property, and Council-owned seawalls armouring Council reserves.
- The "Crows Nest" walkway along the cliff top between Murrays to Mairangi Bay was impacted by a slip event in 2017. In response, cliff and walkway stabilisation works were undertaken to enable the walkway to reopen safely. However, the walkway is likely to be further impacted by cliff instability over time.
- Castor Bay is armoured with concrete and rock masonry seawalls.
- Milford and Takapuna beaches are armoured with a mix of private seawalls armouring private beachfront property, and Council-owned seawalls armouring the Council reserves.
- A short length of rock masonry seawall is present at the St Leonards Beach access point.
- Narrow Neck is armoured with a mix of concrete and rock masonry seawalls.
- Cheltenham Beach is armoured with a mix of private seawalls armouring private beachfront property, and Council-owned seawalls armouring the Council reserves.
- Rock revetment armours reclaimed land and landfill on the southern coastline of Ngataranga Bay.

-
- The coastline from Torpedo Bay to Stanley Bay is armoured with rock masonry and concrete seawalls.
 - Rock masonry and rock revetment seawalls armour the reclaimed land at Bayswater Point, Marine Parade Reserve, and Lansdowne Reserve.
-

**Nature-based options**

- The response to the storm-related erosion Browns Bay experienced in 2023 included dune restoration works as a naturalised response, alongside a more engineered approach. It is anticipated that the ‘naturalised’ section maybe impacted by future storm events, and may require reshaping or replanting over time.
-

**Sand replenishment/ soft or nature-based engineering**

- Sand dune restoration has occurred along Long Bay Beach, with planting and maintenance of these dunes and defined pedestrian accessways ongoing.
 - Beach replenishment has occurred at Torpedo Bay, contained within rock revetment control structures. Additional to enhancing recreational amenity values, this replenishment was to provide a buffer to waves, particularly ferry wake, that enter Torpedo Bay and previously overtopped the seawall.
-

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 Shoreline Adaptation Plans*.

The risk assessment results are summarised below, noting that these risk results were considered consistent for the topography, geology and land use within the SAP area.

Table 2 lists the asset groupings for the risk assessment and their assets.

Table 2. 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 Weiti Estuary to Devonport SAP area (Tonkin + Taylor Ltd, 2024), risk results for Council-owned land, Council community facilities, transport infrastructure and water infrastructure were considered consistent for the topography, geology, and land use. 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	Moderate	Moderate	Moderate	Low	Low	Low	Moderate	Moderate	Moderate	High	High	High
	Inundation	Moderate	Moderate	Moderate	Moderate	Moderate	High	Moderate	Moderate	High	Low	Low	Low
2	Erosion	High	High	High	Moderate	Moderate	Moderate	High	High	High	Moderate	High	High
	Inundation	Moderate	Moderate	High	Moderate	Moderate	High	Low	Low	Moderate	Low	Moderate	Moderate
3	Erosion	High	High	High	Moderate	Moderate	Moderate	Low	Low	Moderate	Low	Low	Low
	Inundation	Moderate	Moderate	Moderate	Moderate	High	High	Low	Low	Moderate	Low	Low	Low
4	Erosion	High	High	High	High	High	High	Low	Low	Low	Very low	Very low	Very low
	Inundation	High	High	High	High	Very high	Very high	Moderate	Moderate	High	Low	Low	Low
5	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	High	High	High
	Inundation	Low	Low	Low	High	High	High	High	High	High	Low	Moderate	Moderate
6	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	High	Moderate	Moderate	Moderate	High	High	High
	Inundation	Low	Moderate	Moderate	Moderate	High	Very high	Moderate	High	Very high	Moderate	High	High
7	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	High
	Inundation	Low	Low	Low	Moderate	High	High	Low	Low	Moderate	Low	Low	Moderate
8	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Low	Low	Moderate	High	High
	Inundation	Low	Low	Moderate	Moderate	Moderate	High	Very low	Low	Moderate	Moderate	Moderate	Moderate
9	Erosion	Moderate	Moderate	Moderate	Very high	Very high	Very high	High	High	High	High	High	High
	Inundation	Moderate	Moderate	Moderate	High	Very high	Very high	High	High	High	Moderate	High	High
10	Erosion	Low	Low	Moderate	Moderate	High	High	Low	Low	Moderate	High	High	High
	Inundation	Low	Low	Moderate	High	Very high	Very high	Very low	Low	Low	Low	Low	Low
11	Erosion	Moderate	Moderate	Moderate	Low	Moderate	Moderate	Very low	Very low	Low	Moderate	Moderate	High
	Inundation	Low	Low	Low	Very low	Very low	Very low	Very low	Very low	Very low	Low	Low	Low
12	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	High	Low	Low	Moderate	Moderate	Moderate	High
	Inundation	High	High	Very high	Very high	Very high	Very high	High	High	High	High	High	High
13	Erosion	Moderate	Moderate	Moderate	Very high	Very high	Very high	Moderate	Moderate	High	Moderate	High	High
	Inundation	Moderate	High	High	Very high	Very high	Very high	Very high	Very high	Very high	High	High	Very high
14	Erosion	Moderate	Moderate	Moderate	Moderate	High	High	High	High	High	High	High	High
	Inundation	Moderate	Moderate	Moderate	High	High	High	Very high	Very high	Very high	Moderate	Moderate	Moderate
15	Erosion	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Very high	Very high	Very high	High	High	High
	Inundation	Moderate	Moderate	Moderate	Low	Low	Low	Very high	Very high	Very high	Moderate	Moderate	High

Table 2-3: Council-owned land, Council community facilities, transport infrastructure and water infrastructure risk ratings per unit

3**What matters most?****3.1****Auckland Council land and assets**

Auckland's Shoreline Adaptation Plans (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.

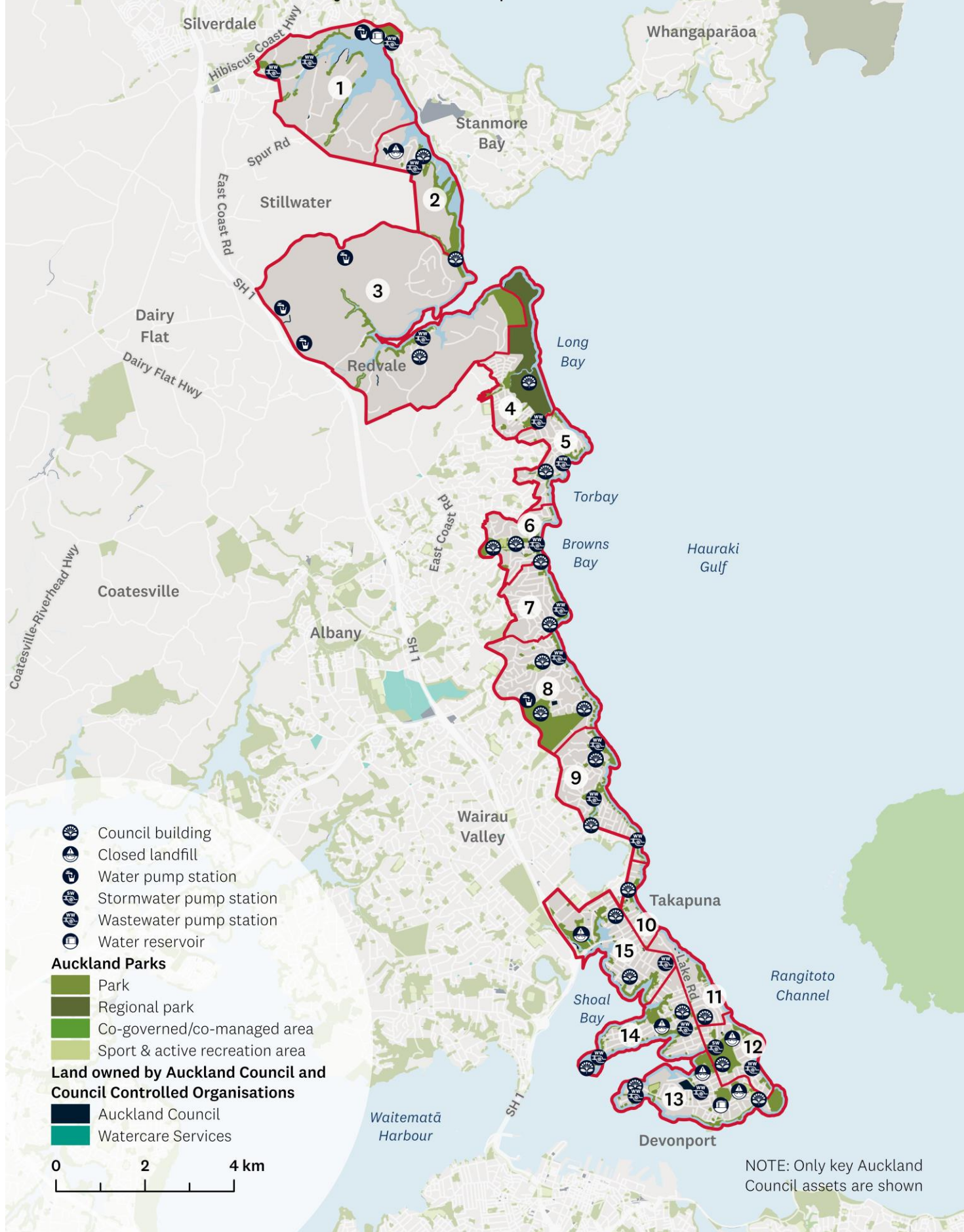
The SAPs have been developed with input from key stakeholder partners, including Auckland Transport, Watercare Services, and Eke Panuku. Council-owned land is primarily identified through Auckland Council's GIS data, though some areas, such as Maungauika / North Head and Fort Takapuna Reserve, have complex arrangements involving different ownership, management, or interests.

The Weiti Estuary to Devonport area includes a wide range of Council-owned land and assets, including reserves and open space, boat ramps, a wharf, playgrounds/skateparks, public toilets, fitness facilities and numerous Auckland Council or Council-controlled organisation (CCO)-owned buildings.

The figure overleaf shows the general location of Auckland Council land and assets located within the Weiti Estuary to Devonport 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

East Coast Bays to Devonport





Auckland Council land and parks

The Weiti Estuary to Devonport area features diverse coastal environments. This includes (but not limited to) the 21 main beaches and bays listed below:

- Browns Bay
- Campbell's Bay
- Castor Bay
- Cheltenham Beach
- Devonport Beach
- Granny's Bay (access via Long Bay)
- Karepiro Bay
- Long Bay
- Mairangi Bay
- Milford Beach
- Murrays Bay Beach
- Narrow Neck Beach
- Pohutukawa Bay (access via Long Bay)
- Rothesay Bay
- Saint Leonards Beach
- Stanley Bay
- Stillwater
- Takapuna Beach
- Thorne Beach
- Torpedo Bay
- Waiake Beach

The beaches in this area are popular with both the local and wider communities for informal recreational activities such as swimming, kayaking, and boating. Particularly popular beaches include Long Bay, Browns Bay, Milford, Takapuna, and Cheltenham. A range of Council amenities are available across the SAP area, including restrooms, boat ramps, picnic areas and walking paths.

There are also approximately 79 reserves/ parks located in this area, including Long Bay Regional Park, which is extremely popular, attracting visitors from around Auckland and beyond. Across the Weiti Estuary to Devonport SAP there are also 7 closed landfills; these being: Duck Creek Road Reserve, Barry's Point, Woodall Park, Ngataranga and Dacre Parks, Plymouth Reserve, Cambria Reserve



Water Infrastructure

Key pump sheds and stations:

- Black Rock pump station
- Browns Bay pump station
- Castor Bay pump station
- Fred Thomas Drive pump station
- Kowhai Reservoir
- Long Bay pump station
- Mt Victoria Reservoir
- Northboro pump station
- Seabreeze pump station
- Sidmouth pump station
- Thornes Bay Wastewater pump station

Water reservoirs:

- Mt Victoria Reservoir
- Marellan Reservoir



Facilities and structures

This SAP area has a significant number of features listed as heritage sites or features under the Auckland Unitary Plan (AUP:OP) (Auckland Council, 2016). These include historic buildings, plaques, and middens. The Weiti Estuary to Devonport SAP is home to 301 historic heritage sites of significant historical value. Units 13, 14 and 15 hold most of these historic heritage areas. In Unit 13 alone (Devonport) there are 135 historic heritage areas, 7 of which are listed as Category A sites recognised for their outstanding significance well beyond their immediate environment (Auckland Council, 2016).

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



Transport, roads and access

Ferry terminals such as Bayswater Ferry Terminal (Unit 14) and Devonport Ferry Terminal (Unit 13) offer alternative modes of transport across Waitematā Harbour and into Auckland CBD. There is an extensive bus network within this SAP area; the Northern Express Bus service travels along SH1 regularly between Auckland CBD and park-and-ride facilities along the North Shore from which bus services connect to the suburbs (Auckland Transport, n.d.). Two of these park and ride facilities, Akoranga Bus Station and Smales Farm Bus Station, are located within Unit 15.

Auckland Northern Motorway (SH1) runs through Unit 15 and is just outside the SAP area for most of its length. This is a key transport corridor that connects the northern suburbs to the central business district of Auckland. It facilitates a significant volume of daily traffic, serving as a key route for commuters, freight, and public transportation. It features dedicated bus lanes as part of the Northern Busway as described above (NZ Transport Agency Waka Kotahi, n.d.).

Major roads that service the SAP area are Beach Road and East Coast Road, which run roughly parallel to each other along most of the SAP area (north-south). Access to the coast is from Beach Road or smaller local roads traversing coastal communities, from Silverdale down to Devonport Peninsula.

Coastal access is also provided through footpaths/ coastal walkways near key beaches. A non-exhaustive list of roads that provide coastal access is below:

- | | | |
|----------------------|----------------------|--------------------------|
| • Barrys Point Road | • Hillary Crescent | • Rothesay Bay Road |
| • Beach Road | • Huntly Road | • Sandy Bay Road |
| • Beach Front Lane | • Hurstmere Road | • Sidmouth Street |
| • Cheltenham Road | • King Edward Parade | • St Leonard's Road |
| • Duck Creek Road | • Kitchener Road | • Sir Peter Blake Parade |
| • Eversleigh Road | • Lake Road | • The Promenade |
| • Gails Drive | • Lansdowne Street | • The Strand |
| • Glenvar Ridge Road | • Old Lake Road | • Whangaparāoa Road |
| • High-Access Road | • Queens Parade | |



Access to and along the coast

As indicated in the section above, several beaches/ bays across the Weiti Estuary to Devonport Peninsula coastline are backed by coastal reserves and scenic walking tracks. North Shore Coastal Walk is a 31.4 km walkway made up of a network of smaller paths which traverse much of the SAP area from Long Bay to Devonport. This path runs directly along the coast for much of its length but also veers inland for sections (Herenga ā Nuku Aotearoa, n.d.). After heavy weather events, some paths can be affected and alternative routes via roads may be used.

Popular paths within the SAP area (noting most of these are part of the North Shore Coastal Walk include (AKL Path, 2024):

- Browns Bay to Waiake Beach (Torbay)
- Campbells to Murrays Bay Path
- Campbells Bay to Mairangi Bay Coastal Walkway
- Castor Bay to Campbells Bay Walkway
- Coastal Walkway within Long Bay Regional Park
- Devonport to Torpedo Bay Path
- Kennedy Park to Castor Bay Path
- Long Bay Coastal Walkway
- Maungauika / North Head Path
- Milford to Castor Bay Walkway
- Milford to Takapuna Path
- Murrays to Rothesay Bay Path
- Narrow Neck to Devonport Path
- Rothesay to Browns Bay Path
- Stillwater Coastal Track
- Takapuna Beach Path
- Takapuna to Devonport Path
- Torbay to Long Bay Regional Park Walkway



Harbour access

Coastal access is provided through the following boat ramps/ coastal infrastructure along the Weiti Estuary to Devonport SAP area (non-exhaustive list):

- Blair Park wharf
- Browns Bay Valley Road boat ramp
- Buster Elliot Memorial Landing Reserve boat ramp
- Campbells Bay Esplanade boat ramp
- Campbells Bay Beach Reserve boat ramp
- Cheltenham Beach Reserve boat ramp
- Deborah Reserve boat ramp
- Gould Reserve boat ramp
- Hillary Crescent
- Hill Park boat ramp
- Holloway Reserve boat ramp
- King Edward Parade Reserve
- Landsdowne Reserve boat ramp
- Longshore Drive Wetland jetty
- Long Bay Beach Road boat ramp
- Mairangi Bay Beach, boat ramp
- Marine Parade Reserve boat ramp Sandy Bay Reserve
- Milford Beach Front Reserve boat ramp
- Milford Reserve, boat ramp
- Murrays Bay Beach Road boat ramp
- Queens Parade Reserve boat ramp
- Rock Isle Beach Reserve boat ramp
- Rothesay Bay Road boat ramp
- Rothesay Bay Beach boat ramp
- Secret Cove, Wharf
- Stanley Bay Beach Reserve boat ramp
- Takapuna Beach boat ramp
- Torpedo Bay boat ramp
- Victora Wharf boat ramp
- Wade Landing Reserve boat ramp
- Waiake Beach Reserve boat ramp
- Wairau Estuary Reserve boat ramp
- Winstones Cove Gray Crescent boat ramp



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 also act as 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 ngā hapū me ngā iwi o 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 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 reflection of mātauranga Māori and Te Ao Māori principles, has been crucial to the development of the Weiti Estuary to Devonport Peninsula 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.

The Weiti Estuary to Devonport SAP area includes 796 known cultural heritage sites. These are identified on the Cultural Heritage Inventory layer on Auckland Council's GIS Mapping system. These sites all have cultural and heritage value and significance. It is noted that there are many more sites which are not mapped. Key cultural matters considered across the SAP 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 Weiti Estuary to Devonport 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 - Iwi engagement

For the Weiti Estuary to Devonport 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 Interim Mana Whenua Engagement 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, those who whakapapa to the area and/or have expressed an interest in the Weiti Estuary to Devonport Peninsula SAP kaupapa include:

- Ngāti Paoa
- Ngaati Whanaunga
- Ngāti Tamaterā
- Ngāti Maru
- Te Patukirikiri
- Te Ākitai Waiohū
- Ngāi Tai ki Tāmaki
- Te Kawerau ā Maki
- Ngāti Whātua Ōrākei
- Ngāti Wai
- Ngāti Manuhiri
- Marutūāhu Collective (Ngāti Maru, Ngaati Whanaunga, Ngāti Paoa, Ngāti Tamaterā, Te Patukirikiri (of Kapetāua))

Throughout the SAP development process, Auckland Council has been engaging with iwi representatives to develop individual iwi authored 'Cultural Statements' and/or cultural commentary to inform the understanding of cultural values, interests and associations with the coastal environment and the adjoining whenua. The Cultural Statements can guide the selection of adaptation approaches for each of the stretches set out within this SAP and are also to be held by iwi and used as they might require when addressing and commenting on other related kaupapa.

Importantly we recognise each iwi own and have control over 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 in the implementation of the SAPs. A partnership approach with iwi must be 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 Auckland Council not fulfilling its obligations to iwi as Treaty partners.

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 Weiti Estuary to Devonport Shoreline Adaptation Plan, 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, may be revised to incorporate additional cultural context provided by iwi when they choose to share it.

In addition, for each coastal stretch, iwi may share additional mātauranga through the ongoing engagement to occur as part of the implementation of the approaches set out in Section 4.0 and Volume 3. 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, noting that Auckland Council is committed to the provision of ongoing engagement with iwi as project partners through the full extent of the SAP programme.

Except where otherwise stated below, to ensure that engagement with iwi in the Waitematā Harbour West is effective, meaningful and aligned with the principals of 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 for and enable the kaitiaki responsibilities of local iwi who whakapapa to the area and have a recognised interest in the Weiti Estuary to Devonport Peninsula SAP.
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Ngāi Tai ki Tāmaki

The rohe boundary of Ngāi Tai ki Tāmaki includes the area of the Weiti Estuary to Devonport SAP. The commentary included below outlines the aspiration and processes for fostering meaningful engagement with Ngāi Tai ki Tāmaki as the SAP programme advances through its various implementation phases. It also emphasises the importance of recognising Ngāi Tai ki Tāmaki interests and ensuring their active participation in the planning and execution of the SAP programme and highlighting that their role as Kaitiaki of whenua, wai, and Taonga is respected and upheld.

The cultural narrative shared below serves as a starting point, acknowledging the partnership development and the intention to ensure each SAP report remains a living document and may be updated to reflect further cultural context shared by Ngāi Tai ki Tāmaki. The commentary below is provided as a ‘holding statement’ to identify:

- Ngāi Tai ki Tāmaki areas of interest with respect to the SAP kaupapa; and
- How Ngāi Tai ki Tāmaki wish to be involved in the kaupapa going forward – engagement.

The rohe boundaries of Ngāi Tai ki Tāmaki have a long and deeply rooted connection to their ancestral boundaries. Prior to the arrival of European explorers and their decision to adopt Tāmaki Makaurau as a hub of settlement and population growth, Ngāi Tai ki Tāmaki upheld their territorial responsibilities for hundreds of years, through the right of ahikā and the expression of manaakitanga to those who arrived on our shores. In some cases, these arrivals became their allies.

Ngāi Tai ki Tāmaki developed sophisticated agricultural practices, supported by domestic trade and well-established societal routes that extended through Tāmaki Makaurau and beyond. Enterprise was a cornerstone of Ngāi Tai identity, grounded in deep knowledge of maramataka, weather systems, and wave patterns.

Regarding the Council’s SAP programme, and acknowledging that Ngāi Tai ki Tāmaki wish to protect all of our areas of interest ki uta, ki tai, Ngāi Tai ki Tāmaki kaitiaki responsibilities extend over the area to which this SAP applies.

The partnership between Ngāi Tai ki Tāmaki and Auckland Council within the SAP programme presents a valuable opportunity to ensure that environmental adaptations are culturally aligned, sustainable, and acknowledge the role of Ngāi Tai ki Tāmaki as Kaitiaki. Ngāi Tai ki Tāmaki have identified a set of aspirations and outcomes, with the intention that these are upheld and supported through the implementation of coastal adaptation strategies and SAPs as follows:

- Mātauranga is equally important in guiding coastal adaptation and management strategies and approaches. All coastal / shoreline management should be subject to cultural input and co-design from Ngāi Tai ki Tāmaki.
- Ngāi Tai ki Tāmaki prefer the use of ‘soft’ engineering solutions wherever possible, recognising that interference with natural processes is not always necessary. Where

appropriate, we advocate for nature-based approaches to coastal engineering—initiatives that support and enhance ecologically significant areas and vital ecological corridors

- Ngāi Tai ki Tamaki is supported to conduct its own monitoring of the effectiveness of environmental regulation in the protection of its cultural resources, biodiversity wāhi tapu and other taonga within their rohe.
- Kaitiakitanga is embraced and empowered as a commitment to rehabilitate and heal the natural systems that support us all.

Ngāti Whātua Ōrākei

Ngāti Whatua Ōrākei are a hapū from the wider iwi of Ngāti Whātua – Ngāti Whātua-tūturu. They are tangata whenua and hold mana whenua over areas of the central Tāmaki isthmus.

Ngāti Whātua Ōrākei have been involved in the Shoreline Adaptation Plan programme from its beginning in 2021. They have been integral to the development of a number of Plans in particular Wai Manawa (Little Shoal Bay mini SAP).

Ngāti Whātua Ōrākei is developing a cultural statement in response to the SAP programme which will include their interest in the Weiti Estuary to Devonport SAP area. It is important to note that Ngāti Whatua Ōrākei hold an interest across multiple SAP areas:

Te Ākitai Waiohū

Over the course of the SAP programme, the SAP team had the opportunity to work with kaitiaki representatives from Te Ākitai Waiohū. Through development of the Kahawairahi ki Whakatiwai (Beachlands and East), Awhitu and Manukau South SAP area plans, hui were held and korero shared. Over the 2024 - 2025 calendar year, the SAP team deepened their understanding of the cultural landscape through further hui and hiko for the Weiti Estuary to Devonport Peninsula SAP area. Korero and hui remain ongoing.

This SAP is considered a living document, and the SAP team is committed to ensuring that the values, aspirations and outcomes sought by Te Ākitai Waiohū are represented in this plan and through implementation. The SAP team will continue to work with and support Te Ākitai Waiohū to prepare a cultural statement in response to the SAP programme and include linkages to this in further revisions of the Weiti Estuary to Devonport SAP report.

Brief History and connection: Te Ākitai Waiohū¹

The tūpuna who would, in the fullness of time, give rise to Waiohū were well established throughout Tāmaki Makaurau and the shores of Te Waitematā when the Tainui waka made landfall adjacent Takamāiwaho (now Dunders Beach Reserve) in 1350CE.

¹ This cultural narrative provides a snapshot of Te Ākitai Waiohū cultural association and whakapapa to the Weiti Estuary to Devonport Peninsula and herein does not represent the full breadth and depth of Te Ākitai Waiohū's association to this area of coastline. Furthermore, this commentary provided does not represent a fullsome position in respect of the SAP kaupapa, and maybe subject to change without prior notice.

Ngā Iwi, Ngā Oho and Ngā Riki would eventually coalesce under Huakaiwaka- “The Eater of Canoes” in the C17th to become Waiohūa, “The Waters of Hua”. Thus followed the “Golden Age of Tāmaki and the influence of Waiohūa”, reflecting the prosperity and opportunity of the time (C17th to mid C18th). Kiwi Tāmaki - the progenitor of Te Ākitai Waiohūa, would fall in battle in the mid C18th. Whilst Waiohūa maintained principle pā at Maungawhau, and latterly Maungakiekie by Ikamaupoho and his son Kiwi Tāmaki, numerous sites of strategic importance and cultural significance- not to mention resource rich mahinga kai (food gathering sites), were situated across the expanse of Te Waitematā and were variously occupied, visited and carefully harvested- respectively, on a seasonal basis.

Te Waitematā is translated as “The Obsidian dark waters”, whereas Te Waitemata is ascribed to Te Arawa Chief Kahumatamomoe, specifically the mauri stone “Te Mata”, which he laid on Boat Rock, south of Te Matarae o Mana (Kauri Point).

The waters of Te Waitematā are held by Te Ākitai Waiohūa as a living entity, replete with its own mauri (life force and mana (prestige)). These life sustaining waters are a sacred resource that must be protected. Accordingly, taniwha are typically associated with various bodies of water, and in this instance it is Ureia, the spiritual kaitiaki who take the form of a whale, and is associated not only with Te Waitematā and Te Okā (Pt. Erin), but Tikapa Moana also. From the Hauraki Gulf to the south of the Firth of Thames. Te Waitematā is seen as a taonga of great cultural and spiritual significance to Te Ākitai Waiohūa. Similarly, the association of Te Ākitai Waiohūa with Te Waitematā and Tikapa Moana is indelible and remains an affirmation of its tribal identity. Te Ākitai Waiohūa wish to continue to assert its kaitiakitanga obligations in this SAP project space, in keeping with the relationship that Te Ākitai Waiohūa and the Engineering Assets & Technical Advisory group have grown and nurtured to date.

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 across 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 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

The table above has been developed as a starting point for guiding the implementation of coastal adaptation strategies set out in Volume 3.0 of this report.

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

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

Table 3-1: Te Kawerau ā Maki framework for Coastal Management across the Weiti Estuary to Devonport Peninsula SAP

	RaNgātiratanga (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 with the harbour are acknowledged - Te Kawerau ā Maki decision-making is upheld - Te Kawerau ā Maki identity is acknowledged - Our marae and lands are protected	- Tangaroa is acknowledged and the interactions he has with other atua - The interaction between Tangaroa and Taane at coastline is natural, and therefore hard infrastructure/hold the line should be avoided except in exceptional circumstances - Taniwha are acknowledged - Tapu of certain places is protected - Cultural tohu/indicators are utilised	- Mauri is thriving - Kaimoana can be safely collected - mahinga kai - No noa/kino activities are discharged into harbour - Te Kawerau ā Maki can access the harbour easily along the coastline and via boat ramps - Heritage places are protected and celebrated - Native species are protected	- Visitors/public can safely access the coastline - Visitors/public can safely access the harbour - Emergency services can access the harbour - Critical infrastructure is maintained - Kaimoana can be gathered to provide for the needs of guests and customs (i.e. tangi) - Te Kawerau ā Maki can activate tourism opportunities on the harbour

	RaNgātiratanga (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)
Papatuaanuku	- 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	- Papatuaanuku 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 Weiti Estuary to Devonport 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 is 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 Manuhiri

Over the course of the SAP programme, the SAP team had the opportunity to work with kaitiaki representatives from Ngāti Manuhiri, initially on the development of the Whangaparāoa Pilot in 2021 to the development of Weiti Estuary to Devonport SAP, noting that engagement is ongoing to input into all plans within the rohe of Ngāti Manuhiri, both locally and regionally.

This SAP is regarded as a living document, with the SAP team dedicated to ensuring that the values, aspirations, and goals of Ngāti Manuhiri are reflected both in the plan and its implementation. The SAP team will continue to collaborate with and support Ngāti Manuhiri in developing a cultural statement in response to the SAP program, and will incorporate this into future updates of the Weiti Estuary to Devonport SAP report.

Mātauranga shared by Ngāti Manuhiri to underpin coastal management on the SAP programme to date includes:

- Tino Rangātiratanga – Self-Determination
- Rangātiratanga - Leadership
- Toitutanga - Sustainability
- Whakahautanga - Restoration
- Tiakitanga - Stewardship
- Manaakitanga – Support.

These values are categorised into three major themes which reflect the Kia Ora Te Tātai outcome; *Whakapapa - Ancestry, Taiao-Environment, and Tangata Hononga - Connecting People*. For each theme, Ngāti Manuhiri have provided objectives on how the Shoreline Adaptation Plan will give effect to these values in Weiti Estuary to Devonport Peninsula.

Whakapapa (Ancestry)

Wāhi tapu are protected, celebrated, and enhanced through an integrated approach, by natural means first and foremost and in partnership with mana whenua. The celebration of mana whenua values includes the acknowledgement, respect and recognition of cultural and spiritual values of mana whenua. Wāhi Tapu and Taonga must be respected, treasured and valued. This may include archaeological sites, cultural landscapes and artefacts as well as sites of spiritual and historic significance to the trust. For example, wāhi tapu may include pā sites, battlefields, burial grounds, significant historic iwi sites, and waka landings.

Objectives

Mana whenua will not prioritise any wāhi tapu and confirm they all require protection and that all are crucial to mana whenua identity

Mana whenua should always be contacted/consulted where works will be conducted near or at wāhi tapu. An open toolbox must be provided to mana whenua proactively/in advance of any methodology being developed or risks being presented to these sites.

Some examples of valuing Whakapapa include:

- Wāhi Tapu are protected by natural means such as dunes and natives planting
- Respect for significant cultural landscapes and Wāhi Tapu
- Respect for rahui that are established in specific areas
- Continual engagement with mana whenua will support the celebration
- Protecting Marae pā and urupa sites.

Taiao (Environment)

The environment is protected, enhanced and celebrated through an integrated approach, by natural means first and foremost and in partnership with mana whenua. This includes proactive enhancement and/or conservation activities that will aim to naturalise and enhance the natural environment and ultimately contribute towards preserving the coastline. Guardianship and stewardship of the environment in terms of Kaitiakitanga. Restoration and enhancement of the mauri.

Objectives

- Proactively protecting and restoring nature's first line of defences for the coastline, (prioritising nature's ability to absorb the effects of climate change)
- Historical planting - mangroves and dunes with native planting all around the coastal area, consistent with what was historically present. A planting regime should be commenced in advance of any potential risks
- Proactively protect and enhance coastal dunes
- Proactively protect and enhance wetlands
- Proactively protect and enhance habitats and biodiversity.

Some examples of valuing Taiao include:

- Restoration planting of native plants along the coastline
- Removal of pest/exotic vegetation. Manual removal is preferred
- Prevention of damage to habitats from sedimentation issues (too much mud or silt deposition)
- Daylighting of streams with riparian planting.

Tangata Hononga (Connecting people)

Through involving the community, the people are connected and invested in their environment and therefore uplifted. The SAP recognises that people and the environment are holistically intertwined. Resource management should be implemented in a way that sustains and supports the ability of Manaakitanga, ongoing generosity and hospitality, and enables and supports mana whenua's role as Kaitiaki.

Objectives

Marine life and whenua cannot be separated. The SAP must be considered and implemented holistically with an integrated approach as the moana and the whenua cannot be separated.

- Recognising and providing for Kaitiaki opportunities for mana whenua in future
- Make room for water, enable natural processes where possible
- Naturalising where possible (e.g. daylighting of streams)
- Some examples of valuing Tangata Hononga include:
 - Mana whenua-led planting days with the community
 - Educating the community about mana whenua cultural values, Mātauranga Māori and climate change.

Marutūāhu Confederation (Collective)

The Marutūāhu Confederation (collective) is comprised of **Ngāti Maru, Ngāti Pāoa, Ngāti Tamaterā, Ngaati Whanaunga and Te Patukirikiri (of Kapetaua)**. The interests across the Marutūāhu iwi extend from Mahurangi in the north to the Bay of Plenty in the south (as shown in Figure 3-1), noting that the individual rohe boundaries of each iwi entity within this confederation may fluctuate in terms of areas of interest.

Responding to matters raised during individual hui over 2024- 2025, engagement has been undertaken with the Marutūāhu as a collective, with a statement in response to the SAP programme anticipated.

The intention is that this statement will set out a response to the SAP program, an overview of customary acknowledgements and historical accounts, as well as expectations around engagement and aspirations for the Marutūāhu confederation in relation to coastal management across Tāmaki Makaurau.

Acknowledging the cultural footprint of the Marutūāhu confederation (as per Figure 3-2), the SAP team will continue to work collaboratively with the Marutūāhu collective to reflect this statement in future revisions of the Weiti Estuary to Devonport Peninsula, as well as other SAPs of interest. The collective statement will also aim to enhance and provide vital context to the individual contributions each iwi has and will make to the SAP programme.



Figure 3-1: Marutūāhu Collective Iwi areas of interest. (New Zealand Government, 2018)

Ngāti Pāoa

The SAP team is currently working with Ngāti Pāoa on various SAP plans within their rohe, including through the development of the Waiheke and Orakei to Tahuna Torea, with the aim of gathering Ngāti Pāoa feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Weiti Estuary to Devonport Peninsula SAP, noting that Ngāti Pāoa has expressed interest in specific aspects of the Weiti Estuary to Devonport SAP that relate to their rohe.

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 Pāoa to input into the implementation of the SAPs for the Weiti Estuary to Devonport area and other SAPs of interest within their rohe.

Ngāti Tamaterā

The SAP team is currently working with Ngāti Tamaterā on various SAP plans within their rohe, in with the aim of gathering Ngāti Tamaterā feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Weiti Estuary to Devonport Peninsula SAP, noting that Ngāti Tamaterā has expressed interest in specific aspects of the Weiti Estuary to Devonport SAP that relate to their rohe.

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 Tamaterā to input into the implementation of the SAPs for the Weiti Estuary to Devonport area and other SAPs of interest within their rohe.

Ngāti Maru

The SAP team is currently working with Ngāti Maru on various SAP plans within their rohe, with the aim of gathering Ngāti Maru feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Weiti Estuary to Devonport Peninsula SAP, noting that many areas and sites across Weiti Estuary to Devonport hold great significance to Ngāti Maru. In Tamaki, Ngāti Maru along with other the Marutuahu Tribes had many fortified Pā, sites of significance and Wahi Tapu and a deep whakapapa connection and intermarriages with other early iwi of the district. The Ngāti Maru History an occupation in the Tamaki area began many generations before the coming of the British Crown's occupation and settlements.

Noting that engagement is ongoing, this section of the Weiti Estuary to Devonport SAP will be updated with cultural narrative in future revisions, noting the Ngāti Maru Runanga are yet formalise their Treaty Settlement with the Crown. Additionally to ensure that engagement with Ngāti Maru Runanga throughout the SAP programme 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 Shoreline Adaptation Plan programme.

The SAP team will continue to work collaboratively with Ngāti Maru to input into the implementation of the SAPs for the Weiti Estuary to Devonport area and other SAPs of interest within their rohe.

Ngaati Whanaunga

Over the course of the SAP programme, the SAP team had the opportunity to work with kaitiaki representatives from Ngaati Whanaunga through the development of the Kahawarahi ki Whakatiwai (Beachlands and East), Wai Manawa Little Shoal Bay ‘mini’ SAP, Manukau East, Manukau North and Pahurehure Inlet including the process at which hui were held and koorero was shared. Over the 2024-2025 calendar year the SAP team has deepened their understanding of Ngaati Whanaunga cultural foot print across the Weiti Estuary to Devonport SAP through further hui and koorero with Ngaati Whanaunga, with hui remaining ongoing to support Ngaati Whanaunga to input into plans of interest at a regional scale via the completion of a Cultural Statement.

Matauranga shared by Ngaati Whanaunga:

Kaupapa Matua Guiding Principles:

“Ki te whakarite te taha tinana, te taha hinengaro, te taha wairua, te taha whaanau ki te aoturoa, kia tino whai mana te mauri”

To ensure that there is a holistic balance between and in tune with the natural world and that the mauri of Te Taiao is enhanced via the implementation of all SAPs.

Whakatauakii by “Auntie Betty Williams”

“Kaitiaki Principles are practised by all”

Ngaati Whanaunga enhances the mauri elements of the Te Taiao and seeks to protect our whenua tuupuna, moana waahi tapuu and other taonga, from the effects of development and the many activities that take place within the rohe.

The core objectives of Ngaati Whanaunga Environmental Plan seek to ensure the long-term wellbeing of land, freshwater, coastal and marine areas, biodiversity, air, culture, and heritage such as historic structures, archaeological sites, places of significance that may include nature features such as trees, springs, rivers, or awa²

Coastal and marine areas are important to Ngaati Whanaunga because they:

- Provide valuable habitat, nurseries and feeding grounds for native species. Ngaati Whanaunga advocate for the protection and enhancement of the mauri of indigenous flora and fauna
- Provide mahinga kai, weaving and carving materials
- Regulate rainwater, drinking water, and climate

² Estuarine tool kit developed by NIWA in consultation with Ngaati Whanaunga. This can be supplied via the Ngaati Whanaunga office @ 24 Wharf Road Coromandel. Ph 07 866 1011.

Shellfish monitoring toolkit supplied by the Hauraki Gulf Forum/ translated in the dialect of Ngaati Whanaunga for use at schools – Yr 1- Yr 13. This can be supplied via Ngaati Whanaunga website www.ngaatiwhanaunga.maori.nz or office @ 24 Wharf Road Coromandel. Ph 07 866 1011.

- Recreational/ community values and amenities when they align with Te Taiao (kia tino whai mana te mauri)
- Economic values e.g. tourism/ ecology/ aquamarine areas/ commercial development of fisheries, shorebird adaptation centre (supporting the migration of taonga species)
- Ngaati Whanaunga Aspirations and Outcomes for the Takutai and whenua
- Ngaati Whanaunga seeks to achieve the following goals in the Takutai moana space:
 - To enhance coastal and marine habitats: regeneration of wetlands, use of mangroves as nature-based solutions and recognize their role in ecosystem services.
- Sustainable resource use:
 - To recognise connections – mountains to the sea.

Documents which support Ngaati Whanaunga outcomes and aspirations include but are not limited to the Estuarine Tool Kit developed by NIWA in consultation with Ngaati Whanaunga and the Shellfish monitoring toolkits supplied by Hauraki Gulf Forum/ translated in the dialect of Ngaati Whanaunga for use at schools^{Error! Bookmark not defined..}

Further to the principles above, Ngaati Whanaunga seek to be included in any decision-making as part of the SAP kaupapa through:

- Encouraging applicants to consult with Ngaati Whanaunga prior to submitting any application for a Plan Change or resource consent application
- Ensuring plan rules and policies make provision for Ngaati Whanaunga involvement
- Recognising and supporting kaitiaki initiatives. For example, raahui, whakatapu (cultural tools) as well as monitoring, enforcement and enhancement programmes
- Ensuring staff have read and understand the Ngaati Whanaunga Environmental Management Plan³
- Working with Ngaati Whanaunga to develop appropriate risk and mitigation measures for protecting and enhancing Te Taiao and all cultural sites of significance within and beyond the confines of the Shoreline Adaptation Plan kaupapa.

³ Ngaati Whanaunga advocates for ongoing recognition, acknowledgement and reference to the Ngaati Whanaunga Environmental Plan. Kaitaitanga is the responsibility of all.

Public access and equity

Ngaati Whanaunga acknowledges the importance of public access to coastal and marine areas but emphasises that access must be balanced with the protection of cultural sites, environmental sustainability, and kaitiakitanga responsibilities, advocated by the following principles:

1. <u>Protection of cultural and environmental values</u>	Public access should not compromise the mauri of Te Taiao or the integrity of wāhi tapu, urupā, mahinga kai, and other taonga. Ngaati Whanaunga advocates for: • Controlled access to wāhi tapu and culturally significant areas, ensuring tikanga and kawa are followed. • Clear guidelines on visitor behaviour to protect ecosystems and species. • The ability to implement rāhui where needed to allow natural recovery of resources. •
2. <u>Equitable access for Ngaati Whanaunga</u>	Ngaati Whanaunga expects that access to traditional lands, waterways, and marine areas will prioritise tangata whenua rights, including: • Unrestricted access to mahinga kai areas for customary harvesting • Recognition of tikanga-based management practices in access rules • Collaborative governance ensuring iwi voices shape access policies.
3. <u>Sustainable and managed public use</u>	Ngaati Whanaunga supports responsible public access that aligns with environmental and cultural values, such as: • Designated pathways or boardwalks to minimise ecological damage • Education initiatives to inform the public about kaitiakitanga and responsible behaviour • Limits on commercial or recreational activities that may harm Te Taiao, such as overfishing or unregulated tourism.
4. <u>Expectations for decision-making</u>	Public access policies must: • Be developed in partnership with Ngaati Whanaunga to ensure equity • Reflect Te Tiriti o Waitangi obligations and protect iwi rights • Provide mechanisms for monitoring and enforcement of access rules • Include resourcing for iwi-led management and educational programmes • Te ao Māori worldview: connection to the te taiao.

Climate Change, adaptation measures and expectations around engagement

Understanding the impacts of climate change

Ngaati Whanaunga recognises that climate change is already affecting coastal and marine environments. Key impacts include:

- Rising sea levels threatening wāhi tapu, urupā, and coastal communities
- Increased coastal erosion affecting whenua tūpuna and biodiversity
- More frequent and severe storms damaging mahinga kai, ecosystems, and infrastructure
- Changes in ocean temperature and acidity impacting fisheries and traditional food sources.

Kaitiakitanga-based adaptation approaches

To respond to these challenges, Ngaati Whanaunga supports adaptation measures that uphold the mauri of Te Taiao, including:

- **Nature-based solutions:** Restoring wetlands, maintaining mangroves, and using native vegetation to prevent erosion
- **Cultural protection measures:** Identifying at-risk wāhi tapu and developing strategies to safeguard them from climate impacts
- **Sustainable resource management:** Ensuring fisheries, freshwater sources, and other taonga species are managed in a way that adapts to changing conditions
- **Community resilience:** Supporting whānau and hapū in preparing for climate-related risks, including emergency planning and relocation strategies if necessary.

Expectations for decision-making and engagement

Early and ongoing consultation:	• Ngaati Whanaunga must be engaged before any plans or changes are made, not just after decisions have been drafted • Regular hui and wānanga with iwi representatives to discuss concerns, priorities, and aspirations • Access to all relevant information (i.e. coastal hazard assessments, coastal options assessments) in a timely and transparent way.
Co-governance and decision-making:	• Ngaati Whanaunga has a seat at the table for planning, implementation, and monitoring • Decision-making should align with Te Tiriti o Waitangi principles and ensure Māori perspectives shape outcomes • Recognition of mātauranga Māori (traditional knowledge) alongside scientific approaches.
Protection of cultural sites and taonga:	• Active identification and safeguarding of wāhi tapu, mahinga kai, and other areas of significance • Support for iwi-led kaitiaki initiatives, including rāhui, ecological restoration, and resource monitoring • Development of cultural protocols for site access, use, and protection.
Clear communication and accountability:	• A formal agreement outlining how engagement will happen and who is responsible • Regular progress updates and opportunities for iwi to provide feedback • Commitment from councils and agencies to honour Ngaati Whanaunga's role as kaitiaki

Te Patukirikiri

The SAP team is currently working with Te Patukirikiri on various SAP plans within their rohe, in with the aim of gathering Te Patukirikiri feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Weiti Estuary to Devonport Peninsula SAP, noting that Te Patukirikiri has expressed interest in specific aspects of the Weiti Estuary to Devonport SAP that relate to their rohe.

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 Te Patukirikiri to input into the implementation of the SAPs for the Weiti Estuary to Devonport area and other SAPs of interest within their rohe.

Reflecting on the above, this section of the report serves as a “holding statement” for Te Patukirikiri Iwi Incorporated are yet formalise their Treaty Settlement with the Crown.



3.4 Ecological context



There are 20 indigenous ecosystem types that cover approximately 565 ha within the boundaries of this SAP area. Ecosystems are described using the regional ecosystem classification system (Singers, me ētahi atu, 2017b) and regional or national species threat classifications as appropriate.

Ecological features and values that may influence the selection of adaptation strategies or are vulnerable to climate change hazards (Foley & Carbines, 2019) (Bishop & Landers, 2019) are described in the table below.

This table has been informed by Significant Ecological Area (SEA) schedules and descriptions (Auckland Council, 2024t), 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. Statutory direction to protect and enhance the Weiti Estuary to Devonport area is reflected in several national and regional policy documents and more specifically, Local Board Plans for the surrounding Local Boards, namely the Hibiscus and Bays and Devonport-Takapuna local boards.

Table 3-2. Summary by SAP unit of Weiti Estuary to Devonport vulnerable ecological features and values.

Unit	Summary of ecological features and values
1	Unit 1 encompasses the upper estuarine arms of Weiti River and a small section of the northern banks. - The upper arms are lined by mangrove forest (SA1.2, SA1). This saline vegetation transitions into coastal broadleaved forest (WF4 – Regionally Endangered) that is found within Weiti Esplanade Reserve and Chenery Road Esplanade on the northern banks of the river. - Council and local groups are actively restoring the river environment through native plantings and other initiatives (Hibiscus Coast Forest & Bird, n.d.)
2	Unit 2 continues south along Weiti River including Stillwater and its surrounding reserves. A key feature is the Weiti River shellbanks located to the south of Stillwater Reserve. The chenier-type shellbanks are classified as shell-barrier beach (SA1.5) bordered by areas of saltmarsh (SA1.3) and mangrove forest (SA1). The shellbanks are considered to be nationally and internationally significant landforms (Auckland Council, n.d.). They act as an important high-tide bird roost for a number of threatened shorebird species, including South Island pied oystercatcher (SIPO; <i>Haematopus finschi</i>, At Risk - Declining), and bar-tailed godwit (<i>Limosa lapponica</i>, At Risk - Declining). Seabirds also frequent the shellbanks, including Caspian tern (<i>Hydroprogne caspia</i>, Threatened - Nationally Vulnerable) (eBird New Zealand, n.d.). The most seaward shellbank is utilised by northern New Zealand dotterel (<i>Charadrius obscurus aquilonius</i>, Threatened - Nationally Increasing) as a key breeding ground.

Unit	Summary of ecological features and values
3	Unit 3 encompasses the land surrounding the Okura River, including Karepiro Bay and Okura Bush. • Shell-barrier beach (SA1.5) runs along the coastal environment of Karepiro Bay, which grades into a thin area of spinifex, pīngao duneland (DN2 – Regionally Endangered). The stream located to the north of the bay is bordered by oioi restiad wetland margins (WL10 – Regionally Endangered). A number of threatened shorebirds and seabirds have been recorded within the sheltered bay, including the reef heron (<i>Egretta sacra</i>, Threatened - Nationally Endangered), Caspian tern (<i>Hydroprogne caspia</i>, Threatened - Nationally Vulnerable), grey duck (<i>Anas superciliosa</i>, Threatened - Nationally Vulnerable), northern New Zealand dotterel (<i>Charadrius obscurus aquilonius</i>, Threatened - Nationally Increasing), and dabchick (<i>Poliocephalus rufopectus</i>, Threatened - Nationally Increasing) (eBird New Zealand, n.d.). • Okura Bush begins to the south of Karepiro Bay and contains a mosaic of broadleaved forest (WF4), kauri, podocarp, broadleaved forest (WF11 – Regionally Endangered) and regenerating native bush. There are a number of range restricted and/or threatened plant species, including kauri, kānuka, pōhutukawa (<i>Metrosideros excelsa</i>), akatea (<i>M. perforata</i>), northern rātā (<i>M. robusta</i>) (all are Threatened - Nationally Vulnerable). Some species are also only found growing in association with kauri forest, such as the kauri greenhood (<i>Pterostylis agathicola</i>, Not Threatened) (Wilcox, 1998). • There is another important shellbank (SA1.5) located opposite Okura Boat Ramp that is utilised as a high-tide bird roost by a variety of shorebird species. This grades into mangrove forest (SA1) which continues up Okura River. Banded rail (<i>Gallirallus philippensis</i>, At Risk - Declining) have been recorded within the saline vegetation. A variety of native freshwater fish, including giant kōkopu (<i>Galaxias argenteus</i>, Threatened – Regionally Critical) and longfin eel (<i>Anguilla dieffenbachii</i>, At Risk – Declining) are found in the Okura River. • This unit is included within the Long Bay – Okura Marine Reserve, which was formally established in 1995. It is designated as a ‘no-take’ reserve aimed at safeguarding a portion of the Hauraki Gulf.
4	Unit 4 includes the land surrounding the suburb of Long Bay, including Long Bay Regional Park. • The regional park is largely covered in reserve grass, however the cliffs along the edge are covered in pōhutukawa-dominated coastal forest (WF4, CL1 – Regionally Vulnerable). • This unit is included within Long Bay – Okura Marine Reserve, which was formally established in 1995. It is designated as a ‘no-take’ reserve aimed at safeguarding a portion of the Hauraki Gulf (Department of Conservation, n.d.). See Unit 3 above for more detail on the ecological values along Okura River and at Karepiro Bay.
5	Unit 5 continues past Awaruku Creek and encompasses the coastal suburb of Waiake. • A large portion of this unit is covered in residential land use. The coastal cliffs are lined with pōhutukawa-dominated coastal forest (WF4, CL1). A variety of avifauna have been recorded along this area, including shorebirds, seabirds, and passerine species (eBird New Zealand, n.d.).

Unit	Summary of ecological features and values
6	Unit 6 encompasses Browns Bay and a series of small reserves and parks belonging to this suburb. There are only two small patches of indigenous vegetation; one area of coastal broadleaved forest (WF4) along Lotus Walkway to the north and one area to the south of Taiaotea Creek. A variety of avifauna have been recorded along this area, including shorebirds, seabirds, and passerine species (eBird New Zealand, n.d.)
7	Unit 7 includes Rothesay Bay, Churchill Reserve and Murrays The Bay Beach. The coastal cliffs within the unit are lined with coastal broadleaved forest (WF4). A variety of avifauna have been recorded along this area, including shorebirds, seabirds, and passerine species (eBird New Zealand, n.d.).
8	Unit 8 covers the land to the south of Murrays Bay Beach to Campbells Bay. Centennial Park contains an area of tawa, kohekohe, rewarewa, hīnau podocarp forest (WF13 – Regionally Vulnerable) and supports several threatened vascular plant species (Hursthouse, 2005). A variety of avifauna have been recorded along this area, including shorebirds, seabirds, and passerine species (eBird New Zealand, n.d.)
9	Unit 9 encompasses Castor Bay, Wairau Estuary and Milford Beach. - The peninsula located to the north of Castor Bay is largely classified as coastal broadleaved forest (WF4) which continues along the western slopes of the estuary. - A variety of avifauna have been recorded along this area (eBird New Zealand, n.d.). Threatened shorebird species, including variable oystercatcher (<i>Haematopus unicolor</i>, At Risk – Recovering) and seabird species, including white-fronted tern (<i>Sterna striata</i>, At Risk – Declining) utilise the Milford Reserve and the coastal environment to the east (eBird New Zealand, n.d.) - Inland from the coast within the Sylvan Reserve a small remnant of Pūriri forest (WF7) is identified on the shores of at Lake Pupuke. This carries a regional IUCN threat status of Critically Endangered.
10	Unit 10 is a small section which covers Takapuna Beach and the residential land closest to the ocean. There is only one small remnant of original pōhutukawa trees (WF4) called Te Uru Tapu at the northern end of Takapuna Beach. There are areas of intact reef systems located below the cliff line which support a particularly diverse association of marine flora and fauna species (Turner & Schwarz, 2006).
11	Unit 11 begins from the southern end of Takapuna Beach and continues to the northern end of Narrow Neck Beach. The coastal cliffs are lined with pōhutukawa-dominated forest (WF4). The rocky reef system within this unit supports an array of marine fauna and flora, including a large number of sponges.
12	Unit 12 continues along the coastline and covers Narrow Neck Beach and Cheltenham Beach. There are very small pockets of coastal broadleaved forest (WF4) scattered along the cliffs within this unit. A variety of avifauna have been recorded along this area, including shorebirds, seabirds, and passerine species (eBird New Zealand, n.d.).

Unit	Summary of ecological features and values
13	Unit 13 covers the Maungauika / North Head Historic Reserve, Devonport, Takarunga / Mount Victoria and the southern section of Ngataranga Bay. Community groups (e.g. Restoring Takarunga Hauraki) are active in ecological restoration across this unit and the wider coastline. - A large number of avifauna have been observed utilising Maungauika / North Head Historic Reserve and the surrounding coastline, including white-fronted tern, variable oystercatcher, and SIPO. There are also bird hotspots located at the Devonport Ferry Terminal and Takarunga / Mount Victoria. - Ngataranga Bay contains a mosaic of mangrove forest (SA1.2) and a small area of shellbanks (SA1.5). This intertidal area provides important feeding ground for shorebirds. - There is a small area of seagrass (<i>Zostera</i> sp.) recorded in the marine area to the east of Maungauika (Department of Conservation, 2011) – seagrass meadows are experiencing a worldwide decline and are important natural habitats.
14	Unit 14 covers the coastal area to the north of Ngataranga Park to Philomel Reserve. This unit includes the Bayswater Peninsula and marina. Coastal broadleaved forest dominated by pōhutukawa (WF4) runs along the cliffs of the peninsula, which transitions into patches of mangrove forest (SA1.2) further inland. A large number of avifauna have been recorded utilising Sandy Bay Reserve (eBird New Zealand, n.d.)
15	Unit 15 covers the remaining section of Shoal Bay (also called Shoal Bay East), as well as Esmonde Road Reserve and Auburn Reserve. Shoal Bay is an important area for a variety of avifauna, including Caspian tern (<i>Hydroprogne caspia</i>, Threatened - Nationally Vulnerable), northern New Zealand dotterel (<i>Charadrius obscurus aquilonius</i>, Threatened - Nationally Increasing), banded dotterel (<i>Charadrius bicinctus</i>, At Risk – Declining), SIPO, and variable oystercatcher (New Zealand, eBird). There is a large shellbank (SA1.5) located in the intertidal area which grades to mangrove forest (SA1.2) and then into patches of coastal broadleaved forest (WF4) and pūriri forest (WF7 – Regionally Critically Endangered). The shellbank is recognised as an important high-tide bird roost by a number of the species listed above.

Vulnerable and unique ecosystems and areas

The Weiti Estuary to Devonport SAP covers the Tāmaki and Rodney Ecological District (ED). Prior to human modification both EDs would have been extensively forested. Since then, both EDs have been significantly modified for rural, industrial, and residential use (McEwen, 1987). As shown in the table above, there are several ecologically significant ecosystem types identified within this SAP area including:



- Several small and large river and stream systems provide habitat and a migratory pathway to a range of freshwater fish, as well as spawning habitat for inanga (*Galaxias maculatus*, At Risk - Declining) (Hibiscus and Bays Local Board, 2019).



- Extensive mangrove forests (SA1.2) and shellbanks (SA1.5) within the estuarine environment provide roosting and foraging habitat for a diverse range of wetland and shorebirds.



- Pōhutukawa trees and broadleaved forests (WF4), pōhutukawa-dominated coastal forest (WF4, CL1) and kauri, podocarp, broadleaved forest (WF11 – Regionally Endangered)

(Singers et al., 2017). These systems provide habitat to a range of At Risk and Threatened avifauna.



- There are three BFAs identified within this SAP area (Okura Bush and Shell Barriers, Weiti River Shell Barrier, and a Tāmaki ED Wetland), which are areas prioritised by Auckland Council for protection.



- Portions of the SAP area are designated as having High Natural Character (HNC) and/or Outstanding Natural Features (ONF), with nine ONFs and six HNCs identified within the Weiti Estuary to Devonport SAP. Of particular note are two maunga located in Devonport (Takarunga / Mount Victoria and Maungauika / North Head); these are significant features in the local area and are identified as Outstanding Natural Features under the AUP:OP.

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) for the protection of 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 Weiti Estuary to Devonport SAP 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 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 key developed areas of this SAP include residential areas between Torbay and Castor Bay (Units 5-9), Bayswater (Unit 14), Belmont (Unit 11), Takapuna (Unit 10), Hauraki (Unit 15) and Devonport (Unit 13). Most of the areas listed have small town centres, with larger centres in Devonport and Takapuna. Okura (Unit 3), Stillwater (Unit 2) and parts of Silverdale (Unit 1) and Long Bay (Unit 4) are characterised as lower-density rural areas with more lifestyle properties and larger areas of open space.

According to the Auckland Plan and associated strategies, the Weiti Estuary to Devonport area is anticipating future growth with numerous key projects underway or planned, particularly in Units 15 and 14 (Auckland Council, 2023b). As population growth continues in this region, especially in areas such as Takapuna, upgrades to infrastructure have been undertaken. Key initiatives include significant street environment enhancements, new high-rise developments, public space upgrades, and transport corridor improvements. Several development aspirations are noted by two local boards within the Weiti Estuary to Devonport area (Devonport to Takapuna Local Board and the Hibiscus and Bays Local Board). A summary of these aspirations is provided below; (Auckland Council, 2023a; Auckland Council, 2023c):

- Regeneration of metropolitan centres in Takapuna
- Future proofing terminals and key transport routes
- Improvements to the transport network and road safety
- Environmental sustainability and water quality improvements
- Upgrades to seawalls/ coastal protection measures and walkways.

Housing intensification around key transport hubs and town centres is represented by the land use zoning and the distribution of the population as identified in the figure below.

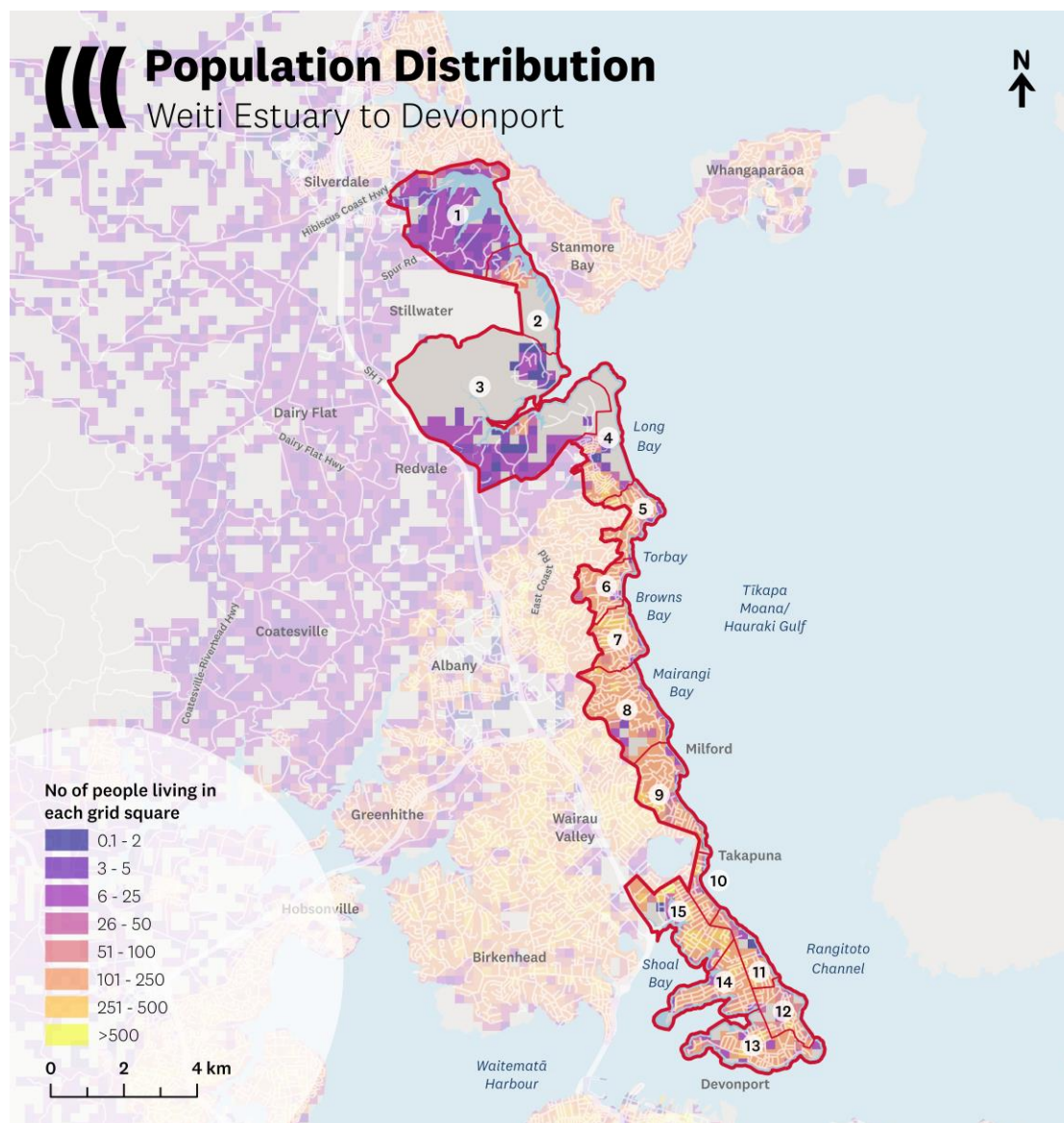


Figure 3-2: Population distribution Weiti Estuary to Devonport

Community groups, clubs and organisations

The Weiti Estuary to Devonport coastline is home to long-established communities, has a rich historical heritage and supports a wide range of community groups and organisations. These include environmental groups, youth organisations, and others for whom access to the harbour is central to their activities. A desktop review has identified over 45 active community organisations within the East Coast Bays to Devonport SAP area (identified at a unit scale in Volume 3 and in the Weiti Estuary to Devonport Community Engagement Report).

Key organisations including Rotary Groups and various community groups such as Residents' Associations and community trusts are found throughout the SAP area. In addition, a diverse array of sports and recreation groups are present. Many of these are focused around water-based activities including sea scouts, rowing, swimming and sailing clubs (i.e. Murrays Bay Sailing Club, Mairangi Bay Surf Lifesaving); there are also other clubs such as rugby, football and tennis clubs. While these groups are spread throughout the SAP area, they are more concentrated in the more densely populated units.

There are also a number of organised environmental and conservation groups volunteering on various environmental protection, regeneration and resilience projects. These include (but are not limited to) Friends of Okura Bush, Restoring Takarunga, Hauraki and Pupuke Bird Song projects and the Centennial Park Bush Society. Environmental groups also play a key role in conservation and restoration initiatives across both coastal and catchment areas. Recognising and supporting their contributions as integral members of the local community has emerged as a recurring theme in community feedback.

It is important to consider the social and community values associated with these groups, while also acknowledging that any changes to coastal infrastructure may impact their current activities and interests.



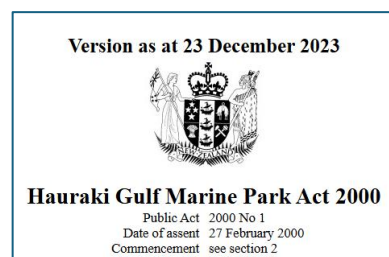
Applicable policy

Understanding the regulatory and policy context applicable to the area helps us understand previously expressed issues by the communities, as well as their values, objectives and aspirations. The following are just some of the key plans and documents of relevance to the Weiti Estuary to Devonport Peninsula SAP development, noting that this is not an exhaustive list.

The Hauraki Gulf Marine Park Act 2000 (New Zealand Government, 2000)

The SAP area falls within the geographical scope of the Auckland region influenced by policies and regulations pertaining to the Hauraki Gulf.

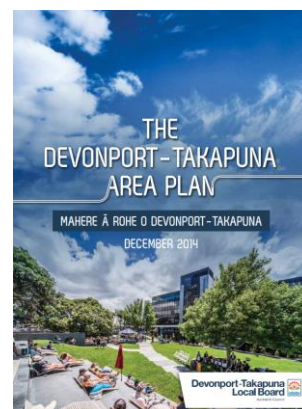
This Act primarily applies to the Hauraki Gulf, its islands, and the surrounding catchment areas. It aims to integrate the management of land and marine resources within Hauraki Gulf, enhancing environmental quality and sustaining its ecological health. Of note, the Marine Park Act includes Long Bay-Okura Marine Reserve (Unit 4). Located along the extent of Long Bay Regional Park and the Okura coastline, this reserve protects coastal ecosystems including estuarine habitats.



The Devonport-Takapuna Area Plan (Auckland Council, 2014a)

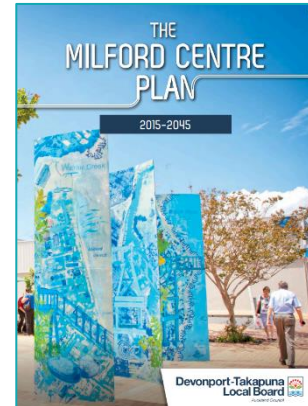
The Devonport-Takapuna Area Plan is a strategic document developed to guide the future growth, development, and enhancement of the Devonport-Takapuna area. It outlines a comprehensive vision for the region, focusing on aspects such as environmental sustainability, infrastructure improvements, natural restoration and community wellbeing.

The plan includes projects and initiatives of specific relevance to coastal planning and adaptation for Units 9 -15 of this SAP, with such initiatives reflected in Volume 3 Units 9-15.



Milford Centre Plan (Auckland Council, 2015a)

Milford Centre Plan aims to balance growth with sustainability, ensuring that the community's needs are met while preserving the character and environmental quality of the area, with specific relevance to Unit 9.



The Takapuna Centre Plan 2014-2044 (Auckland Council, 2014b)

The Takapuna Centre Plan provides a comprehensive vision for transforming Takapuna into a dynamic urban hub while preserving its unique character and environment.

It outlines multiple initiatives focused on improving infrastructure, enhancing public spaces, promoting economic growth, and ensuring environmental sustainability. Key elements include upgrading spaces which are currently 'under-performing', with initiatives outlined within this plan of specific relevance to Units 10 and Unit 15.



Local Board Plans

There are two 2023 Local Board Plans that are relevant to this SAP, viz: Devonport – Takapuna and Hibiscus and Bays.

They cover challenges and opportunities of dealing with climate change under sections on the environment, noting the need to prepare for flooding and more extreme weather events. Both local boards are committed to building resilience and adapt to climate change, including reducing carbon emissions, increasing public awareness of climate change through community educational initiatives and delivering environmental restoration programmes (as set out and discussed in detail in their respective plans).



Watercare Asset Management Plan 2021-2041 (Watercare, 2021)

This is a strategic document outlining how Watercare Services will manage and develop its water and wastewater infrastructure over a 20-year period, from 2021 to 2041.

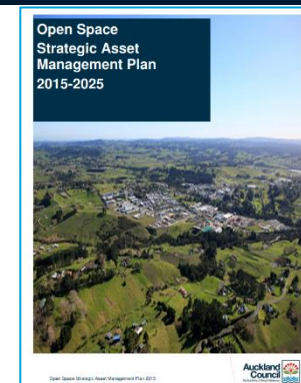
The plan aims to ensure the sustainable, efficient, and reliable delivery of water services to the Auckland region. In relation to the SAP area (which intersects with the Rosedale catchment), this document sets out work which is planned (as part of the North Shore Trunk sewer programme), with this work of specific relevance to Units 13, Unit 9 and Unit 15.



Open Space Strategic Asset Management Plan (Auckland Council, 2015b)

This plan outlines key Auckland Council-owned strategic assets and sets guidelines for their management over a 10-year period.

Units across the Weiti Estuary to Devonport Peninsula coastline transverse critical coastal assets, along with their 'condition rating' and the anticipated number of years until each asset will require renewal. This is relevant to this SAP in terms of understanding which coastal assets are considered 'critical' and when they may need to be replaced or renewed, with Units 8. 3. 7. 14. 9 and 13 recorded as having critical assets in need of repair.



Hibiscus and Bays Open Space Network Plan 2019 (Auckland Council, 2019a)

This plan aims to ensure that the region's parks, reserves, and public spaces meet the needs of its growing population while preserving natural landscapes and providing high-quality recreational opportunities.

It lists a series of priority actions, some of which relate to parks within this SAP area (across Units 7, 8, 6, 4, 2).



Regional Parks Management Plan 2022

This plan sets a vision for the regional parks network and states the values of the parks to be protected and enhanced. It includes a section and general policies on 'Sustainable Management and Climate Change'.

Importantly, it recognises Long Bay Regional Park (and beach), as one of Auckland's first regional parks. Reflecting on the variety of land uses and activities that Long Bay Regional Park provides for, this is a very popular park. The park has significant cultural heritage areas; protected and interpreted, enabling visitors to learn about the history and importance of this land. Conservation and education programmes protect and enhance the natural ecosystems on site and the adjacent marine reserve. Long Bay Regional Park has high visitor numbers with 1.3 million visiting between 2021-2022. This causes traffic congestion and overflowing car parks during the peak summer period, impacting local residents. Management intentions note the need to investigate other ways of accessing the park, including public transport routes and new walking and cycling connections.



Tūpuna Maunga Integrated Management Plan (Tūpuna Maunga Authority, 2019)

This sets out values and pathways to achieve integrated outcomes for all the Tūpuna Maunga. The values provide the tika (correct) framework for the care and protection of the Tūpuna Maunga, with pathways set out in the integrated management plan elaborating and give tangible expression to values, guiding principles and objectives that set the direction for the Tūpuna Maunga Authority to protect and care for the Tūpuna Maunga and provide a crucial framework for decision-making. The Plan does not speak to the coast, climate adaptation etc. Notwithstanding, intentions and objectives are particularly important to management of Unit 13, with reference to Maungauika North Head.



Master planning and significant infrastructure

In the East Coast Bays to Devonport area, numerous projects are either underway or planned, primarily within Units 15 and 14. Many of these aim to enhance the liveability of coastal communities and surrounding networks (i.e. for Takapuna) by upgrading and improving the social infrastructure in and around these areas. As more move into the neighbourhood, the projects focus on enhancing the street environment to create a vibrant place where people want to live, work, and visit.

Key planning processes and upcoming projects which impact the land uses and infrastructure of the Weiti Estuary to Devonport SAP area include but are not limited to:

- Within Unit 15, upgrades to Northcroft Street are planned, creating an attractive and safe, people-focused environment to support Takapuna's growth (Eke Panuku Development

Auckland, 2024a). A new build-to-rent high-rise development is also planned for Takapuna, providing 358 state-of-the-art rental apartments at the corner of Northcroft and Huron Streets (Eke Panuku Development Auckland, 2024b). Additionally, 40 Anzac Street is proposed to become a new public space that will improve connections between the town centre and Takapuna Beach. Located in central Takapuna next to Potters Park, this site will be surrounded by a mix of new shops, offices, and homes (Eke Panuku Development Auckland, 2024c).

- Auckland Transport (n.d.) proposes road improvements at St Leonard’s Beach (Unit 15) and between Long Bay/Browns Bay (Units 5/6). St Leonard’s Beach improvements include enhanced travel choices and reliability along Lake Road and Esmonde Road between Takapuna and Devonport Peninsula. This will be achieved using a mix of new and repurposed transit lanes for higher-occupancy vehicles and public transportation, as well as incorporating walking and cycling facilities, and technology solutions for better trip information (Auckland Transport, n.d.).
- Between Long Bay and Browns Bay, Glenvar Road and East Coast Road improvements are designed to increase safety and provide better travel options for all road users. This includes sections of East Coast Road (approximately 1 km between Oteha Valley Road and Lonely Track Road) and Glenvar Road (approximately 2.1 km between East Coast Road and Ian Sage Avenue) (Auckland Transport, n.d.).
- To enhance connectivity between the North Shore and central Auckland, a new connection—either a tunnel or bridge—has been proposed over Waitematā Harbour (NZ Transport Agency, 2024). This initiative aims to improve transportation efficiency and accommodate future growth and development in both regions. (NZ Transport Agency, 2024).
- In relation to the SAP area, light rail tunnels from Wynyard Quarter to Smales Farm, via Belmont (Unit 11) and Takapuna (Unit 15) are part of the options proposed as part of the Waitematā Harbour Connections Project (NZ Transport Agency, 2023).
- Within Unit 8, Watercare plans to upgrade the East Coast Bays link sewer. Although this project is slightly outside the SAP area, it is relevant to Unit 8 (Watercare, 2024). It involves constructing a new larger 1.75 km wastewater pipeline from Windsor Park along Centorian Drive and Apollo Drive to Rosedale wastewater treatment plant. This new pipeline, along with the Sidmouth pump station upgrade currently under construction, will increase wastewater transmission capacity in the East Coast Bays catchment. It will also cater for growth while helping eliminate overflows to protect water quality.
- In Stillwater (Units 1 and 2) the O Mahurangi - Penlink Project is a major roading project which will see the construction of a 7 km stretch of highway connecting SH1 with the Whangaparāoa Peninsula. The highway is anticipated to improve connectivity and reduce travel times between these two parts of Auckland, and will allow for future development around the Weiti area. There will be an on-ramp provided in Stillwater (Unit 2) to allow residents access the highway (NZ Transport Agency Waka Kotahi, 2024).
- Making Space for Water Programme - aims to establish a practical and achievable programme of operational flood management works for the next six years by way of nine key operational initiatives. Including the blue-green network project for Wairau catchment in Unit 9 (refer to Section 1.0 for further detail).



Community use

The Weiti Estuary to Devonport area is well known for its varied coastal and recreation opportunities, which include a range of parks, reserves, beaches, and social infrastructure. While these amenities may not all be owned or managed by Auckland Council, they play a crucial role in supporting social activities and emergency responses within the community.

The coastline provides significant value to its residents as part of the area's identity, with many choosing to live on the North Shore to enjoy proximity to the coast, escaping the hustle and bustle of the central city. The community places high importance on coastal access and lifestyle, reflected in local living choices and supported by the Local Boards' strategies (Auckland Council, 2023a).

Most of the SAP area is suburban residential, featuring small village centres. Larger centres can be found in Browns Bay, Takapuna, Milford and Devonport. The northernmost coastline, extending from Silverdale to Okura, is predominantly private farmland and rural areas. While public coastal access is limited here, the landscape contributes to a serene environment that underpins community values for their connection to nature and offers a retreat from more urbanised areas.

In addition to residential and commercial areas, Units 15, 14, and 13 feature larger industrial and business areas, including Devonport Naval Base in Unit 13. This base functions as a vital operational hub for the Royal New Zealand Navy, offering logistics, training, maintenance operations, dry docks, and personnel barracks (New Zealand Defence Force, 2024). These areas underscore the SAP's diverse and dynamic value, reflecting its significance on both at a national and community level.

In general, the coast is easily accessible throughout most of this SAP area. It is more easily accessible in Units 4 – 14 which have a larger number of beaches (with associated parks and carparking areas) and less accessible in Units 1-3 and 15 where there are fewer beaches, and/or the surrounding areas became more rural in nature (as is the case with Units 1-3). In more densely populated areas such as Takapuna, Milford, Browns Bay and Mairangi Bay, beaches are easily accessible from multiple points with car parking, pathways, and bus stops. Most other beaches in the area can be accessed via car or through a combination of a bus plus a short walk. In more rural areas such as Okura, Stillwater and Silverdale, public transport options are more limited. In addition, these areas have fewer points at which the coast can be accessed, being largely rural in nature.

This SAP area is very popular for boating and other water sports, and this is facilitated through a range of coastal facilities. This includes marinas (Milford Marina and Bayswater Marina), wharves, boat ramps and ferry terminals including Devonport Ferry Terminal and Bayswater Marina Ferry Terminal. These terminals facilitate access to coastal areas throughout Waitematā Harbour and into the Auckland CBD and are used by communities for commuting purposes (Auckland Transport, 2024a).



Community buildings / assets

Beaches across the Weiti Estuary to Devonport SAP area are also home to a number of marine clubs such as Stillwater Boating Club, Sir Peter Blake Marine Education and Recreation Centre, Awatuna Sea Scouts, Torbay Sailing Club, Murrays Bay Sailing Club, Mairangi Bay Surf Club, Milford Cruising Club and Milford Sea Scouts, Takapuna Boating Club, Wakatere Boating Club, Devonport Yacht Club and the Calliope Sea Scout Group.



Emergency planning, 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 Devonport Takapuna and Hibiscus and Bays 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.

North Shore Hospital is located within the Westlake area, away from the coastal margin, inland from Lake Pupuke. Key critical transport links which serve the hospital traverse Units 9, 10 and Unit 14.

SH1 runs alongside most of the SAP area, with connections from most units. East Coast Bays Road and Beach Road are major local north-south roads. Lake Road and Esmonde Road play a pivotal role, servicing and providing key life-line services to Devonport, Narrow Neck and Takapuna.

The high residential population is well serviced by numerous bus routes, though frequency decreases in rural sectors to the north of the SAP area.

Ferry terminals offer alternative transport across Waitematā Harbour, serving as key lifeline infrastructure. Mairangi Bay Surf Life Saving Club is located within Unit 8, a key facility in this SAP area.



Landscape features and character

Portions of the SAP area are designated as having High Natural Character (HNC) and/or Outstanding Natural Features (ONF), with nine ONFs and six HNCs identified within the Weiti Estuary to Devonport SAP. Of particular note are two maunga located in Devonport (Takarunga / Mount Victoria and Maungauika / North Head); these are significant features in the local area and are identified as Outstanding Natural Features under the AUP:OP. In January 2019, the administration of Maungauika was transferred from DOC to Tūpuna Maunga Authority. This transition aims to focus efforts on restoring, protecting, and managing these taonga tuku iho (treasures handed down through generations) (Tūpuna Maunga Authority, 2019).

Listed below are locations designated as outstanding natural features or landscapes. These may hold significant community and regional values associated with their preservation and appreciation (Auckland Council, 2016), (Tūpuna Maunga Authority, 2019).

- Chenery Road [Unit 1, HNC]
- Cliff lava exposures [Unit 10, ONF]
- The Tor [Unit 5, HNC]
- Kennedy Park's deformed Waitematā strata [Unit 9, ONF]
- Long Bay [Units 4/3, HNC]
- Mt Victoria volcano/Takarunga [Unit 13, ONF]
- Narrow Neck structural discordance [Unit 12, ONF]
- North Head volcano/Maungauika [Unit 13, ONF]
- Okura River falls [Unit 3, HNC]
- Okura Estuary Headlands [Unit 4, ONL]
- St Leonards Beach in Takapuna-Flysch and Slump Unit/Rock Layer [Units 12/11, ONF]
- Shoal Bay chenier shell [Unit 15, ONF].
- Takapuna Reef fossil forest [Unit 10, ONF]
- Takapuna chabazite [Unit 11, ONF]
- Weiti River [Unit 1, HNC]
- Weiti River Shell Spits [Unit 2, ONF/HNC]



3.6 Community feedback

The purpose of community engagement is to identify how communities use and value their coastal areas including contemporary interests, issues and aspirations regarding their interaction and use of coastal areas. This assists with the development of broad community objectives which reflect shared contemporary outcomes or aspirations sought by each community for their coastal areas and are used to inform the selection of coastal adaptation strategies.

Community engagement for the Weiti Estuary to Devonport SAP ran in parallel to the development of the Waitemata Harbour West SAP and was open from 2 August – 26 September 2024. 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 in Figure 3-3 below. Feedback was received via the ‘AK have your say’ survey, social pinpoint and email submissions. Refer to the community engagement report for full details of the feedback received and to Volume 1 for more on the methodology used to plan and undertake community engagement.

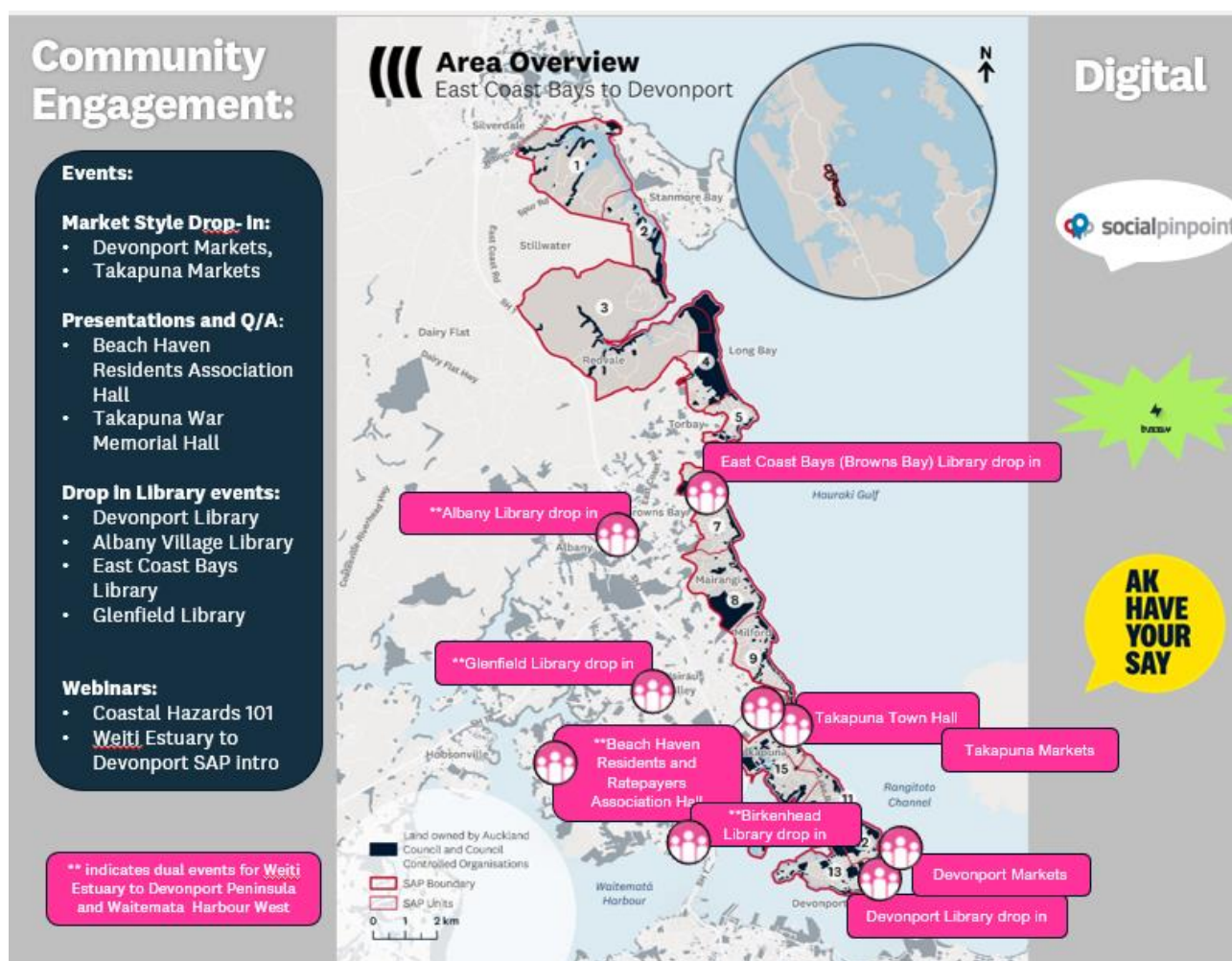
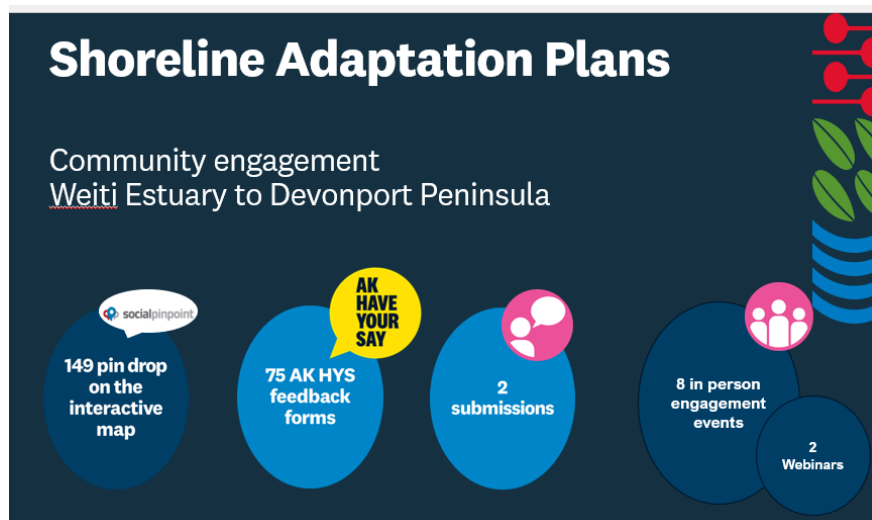


Figure 3-3: Community engagement feedback

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



Key themes that were identified from feedback and findings at a SAP scale are included in the discussion below. Volume 3 unit scale discussion also includes a more detailed analysis of the locally specific feedback alongside any quantitative community views of the draft adaptation strategies provided for engagement.



Community cultural values / comments

Responses highlighted the importance of maintaining and protecting natural landscapes, cultural heritage sites, and community spaces. There was a strong emphasis on preserving the beauty and function of the coastal environment, including historic sites such as Rahopara Pā and geological features such as the petrified forest reef. There was also concern for the increasing impact of climate change, especially erosion and pollution, which could affect both the natural environment and cultural assets. Ultimately, respondents advocated for sustainable planning that ensures public access, recreational opportunities, and environmental protection for future generations.



Community values and aspirations

Responses showcased a strong community connection to the coastal walkways, beaches, and natural landscapes. There was a desire for better accessibility and facilities, along with calls for the preservation of natural features and wildlife habitats. While people enjoyed a variety of recreational activities like walking, swimming, and dog walking, there were also concerns about overcrowding, dog management, and coastal path maintenance. Overall, the sentiment was one of wanting to maintain and enhance the natural beauty and accessibility of these spaces for future generations.



Community values of ecosystems

These responses underscored a deep commitment to preserving the natural beauty and ecological health of the region, with particular focus on the protection of marine life, native habitats, and water quality. Community involvement, education, and sustainable development were central to these efforts, alongside calls for better management of pollution and improved access to natural spaces for

future generations. The goal is to ensure that these treasured natural environments remain vibrant and accessible while fostering a stronger connection between people and the land.



Community experience of hazards / concerns

The overriding themes from these responses were the urgent need to address coastal erosion and stormwater pollution, and the desire to protect biodiversity and cultural heritage sites. Respondents were advocating for sustainable development, eco-friendly solutions, and long-term planning to manage the impacts of climate change, urban growth, and increasing recreational demand on these coastal areas. There was also a strong call to ensure that public spaces remain accessible and free from over development, while also maintaining the natural beauty and ecological health of the coastline for future generations. Local board feedback has identified that for some areas within the Weiti Estuary to Devonport Peninsula Shoreline Adaptation plan area, an aging and diverse population may present for equitable adaptation outcomes, due to the vulnerabilities of this group to the impacts of climate change.



Community suggestions for management and feedback on strategies

Responses reflected a strong commitment to preserving the natural beauty and ecological health of the coastline while ensuring that communities continue to have access to areas for recreation, education and enjoyment.

There was a clear call for sustainable management practices that balance development with conservation, as well as a desire for more safe and accessible walkways, better stormwater management and facilities to support family-friendly recreation.

As part of the regional transport network, the importance and need to protect key roading links such as Beach Road, East Coast Road, Esmonde Road and Lake Road, alongside water transport options, was noted.

Concerns and identification of the need for funding to support strategy implementation were identified by the Devonport Takapuna Local Board and raised through discussions with communities.



Community objectives for Weiti Estuary to Devonport SAP area

Community feedback received during the period of engagement was collated and reviewed to develop the following high-level objectives:

Coastal connections, use and access	Coastal infrastructure and assets support public access to the coast including: • Connections which maintain access to, and along, coastal areas are safeguarded and provide for a diverse range of transport types, lifeline services, coastal recreational, and enabling community connections to the coast. • Accessways and walkways provide for diversity of coastal users, are safe and designed for a dynamic and changing coastal environment, maintaining both the values of coastal landscapes and connectivity to and along the coast. • Public boat launching facilities ensure safe access to the harbour at all tides.
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Cultural	• Cultural and historical connections of local iwi and coastal communities are preserved and strengthened for future generations, including cultural landscapes and the natural environmental values.
Responding to risk	• Community resilience is increased and supported through continued sharing of information, alongside knowledge and support for increasing education in relation to coastal hazards and risk. • Equitable coastal access and sustainable long-term management of coastal areas are key drivers of the continued maintenance and use of coastal defences in areas exposed to coastal hazards. • Options for coastal risk mitigation include nature-based solutions and avoid large-scale hard engineering interventions.
Environmental	Restoration and protection of natural landscapes and coastal ecosystems is promoted through: • Considering opportunities to support environmental initiatives (i.e. native planting and coastal monitoring). • Community education in collaboration with local communities and mana whenua, safeguarding natural ecosystems to ensure a thriving habitat for native species. Initiatives to reduce pollution in waterways and beaches through integrated catchment management in coastal planning will be a key consideration in implementation of adaptation strategies (where feasible), working to: • Address storm drain maintenance and improve stormwater management to prevent further environmental degradation • Improve water quality in collaboration with local communities.

3

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:

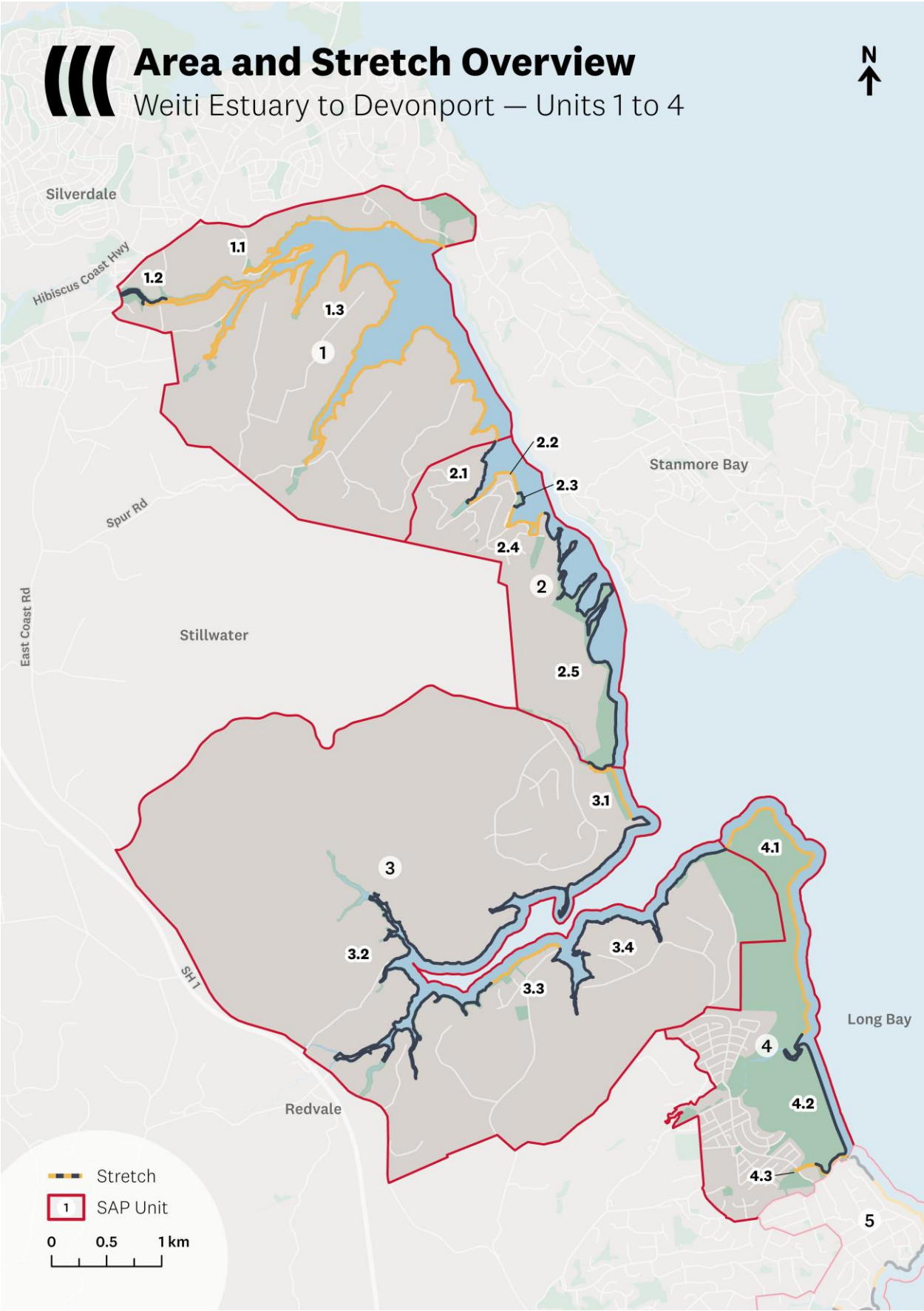
- Low (climate) change – sea-level rise
- Moderate (climate) change – sea-level rise
- High (climate) change – sea-level rise.

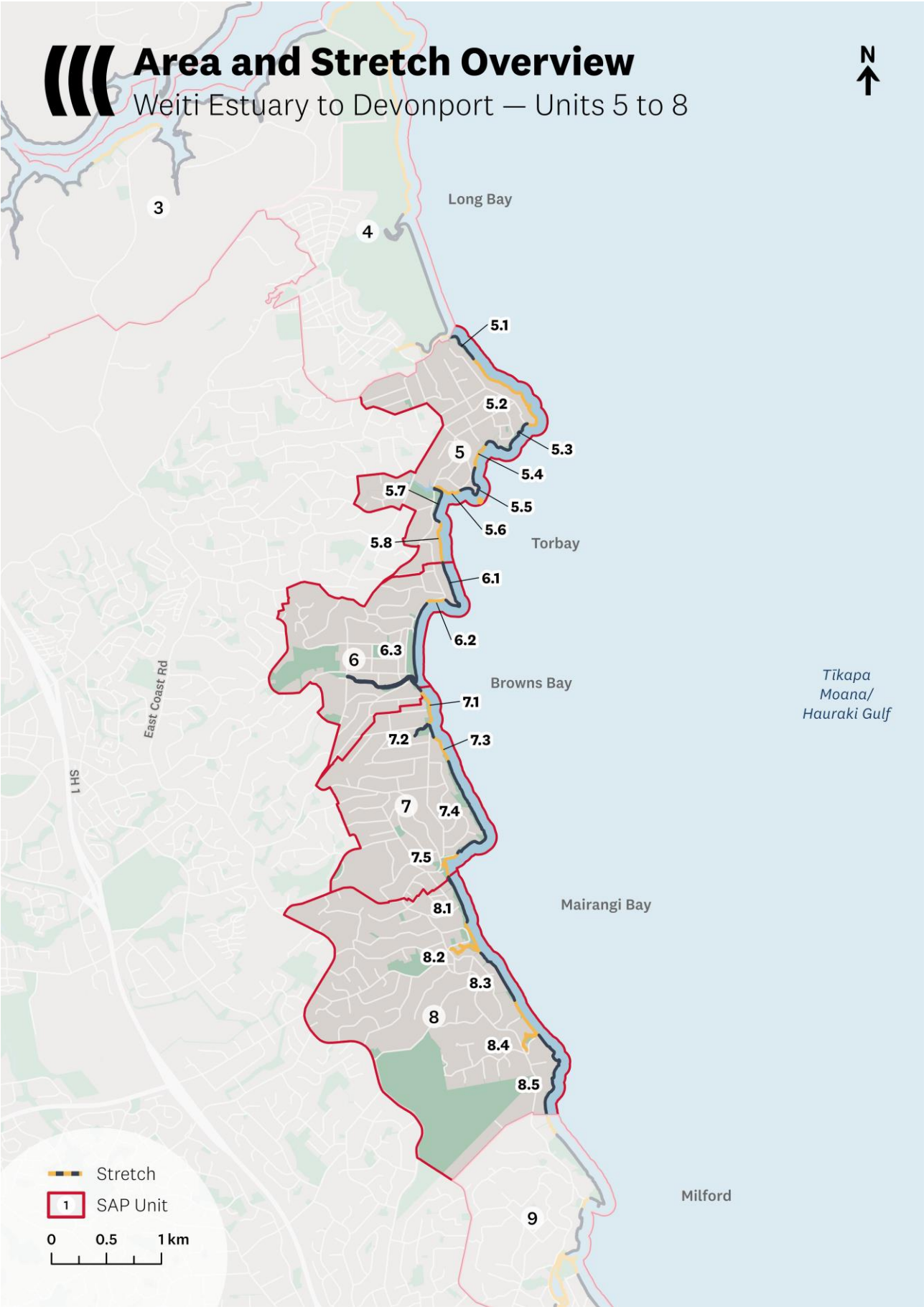
Scenarios are indicative only and transitions between strategies will be in response to identified changes in conditions at a given location (i.e. signals, triggers and thresholds).

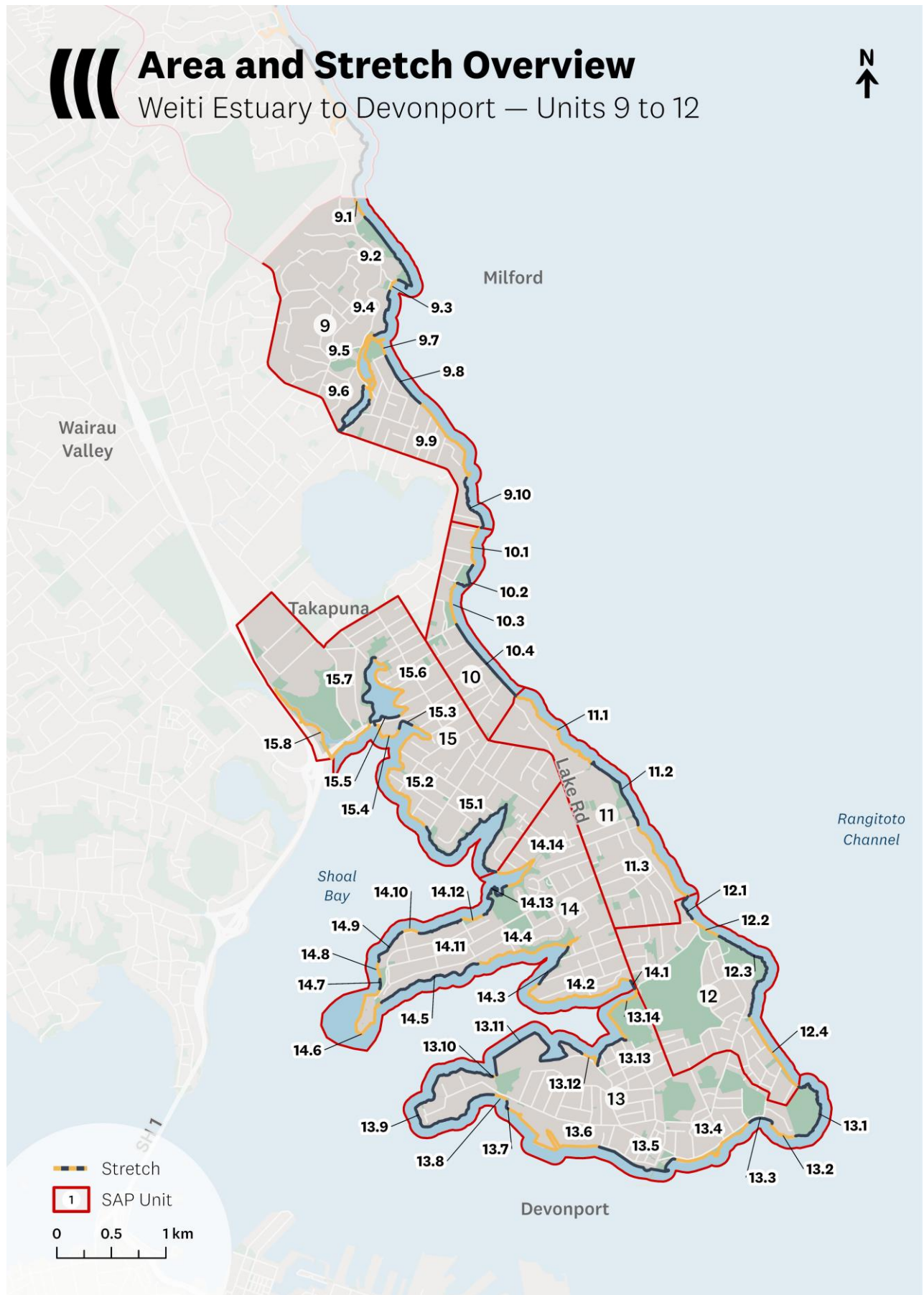
Auckland Council's adaptation strategies

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







Unit	Stretch	Adaptation Strategy		
		Low Change	Moderate Change	High Change
1 Silverdale & Weiti Estuary	1.1 Weiti Esplanade Reserve	No action	No action	No action
	1.2 Weiti River	Maintain	Maintain	Adaptation priority
	1.3 Norfolk Downs and Duck Creek	No action	No action	No action
2 Stillwater	2.1 Doctors Creek	No action	No action	No action
	2.2 Duck Creek/Stillwater North	Maintain	Maintain	Maintain
	2.3 Weiti Wharf (Buster Elliot)	Protect	Protect	Adaptation priority
	2.4 Duck Creek & Still Water Reserves	Maintain	Maintain	Adaptation priority
	2.5 Duck Creek South (Redvale)	Maintain	Maintain	Adaptation priority
3 Okura	3.1 Karepiro Bay	Maintain	Maintain	Adaptation priority
	3.2 Okura Estuary	No action	No action	No action
	3.3 Okura Village	Maintain	Maintain	Maintain
	3. 4 Okura East	No action	No action	No action
4 Long Bay	4.1 Long Bay Regional Park	Maintain	Maintain	Maintain
	4.2 Long Bay Beach	Maintain	Adaptation priority	Adaptation priority
	4.3 Beach Road & Marine Centre	Maintain	Adaptation priority	Adaptation priority
5 Torbay	5.1 Torbay North (Long Bay Beach Reserve)	Maintain	Maintain	Maintain
	5.2 Toroa/Gull Point	No action	No action	No action
	5.3 Winstones Cove & Cliff Road Coastal Access	Maintain	Maintain	Adaptation priority
	5.4 Winstones Cove South & The Tor	No action	No action	No action
	5.5 Rock Isle Beach & Road Access	Protect	Adaptation priority	Adaptation priority
	5.6 Waiake Beach North	Maintain	Maintain	Maintain
	5.7 Waiake Beach	Maintain	Adaptation priority	Adaptation priority
	5.8 Waiake Beach to Tipau Point	No action	No action	No action
6 Browns Bay	6.1 Ōmangaia Pā / Tipau Point	No action	No action	No action
	6.2 Manly Esplanade (Lotus Walk)	Maintain	Adaptation priority	Adaptation priority
	6.3 Browns Bay Beach Reserve	Protect	Adaptation priority	Adaptation priority

Unit	Stretch	Adaptation Strategy		
		Low Change	Moderate Change	High Change
7 Rothesay Bay & Murrays Bay North	7.1 Clifftop Walk (Browns to Rothsay)	Maintain	Maintain	Adaptation priority
	7.2 Rothsay Bay	Maintain	Maintain	Maintain
	7.3 Rothesay Bay south	No action	No action	No action
	7.4 Clifftop Walkway Reserve – Rothesay Bay to Murrays Bay	Maintain	Adaptation priority	Adaptation priority
	7.5 Murrays Bay	Protect	Maintain	Adaptation priority
8 Murrays Bay to Campbells Bay	8.1 Murrays Bay to Mairangi Bay	Maintain	Adaptation priority	Adaptation priority
	8.2 Mairangi Bay Beach	Maintain	Adaptation priority	Adaptation priority
	8.3 Mairangi Bay to Campbells Bay (inc Possum Ladder Park)	Maintain	Adaptation priority	Adaptation priority
	8.4 Campbells Bay	Maintain	Maintain	Adaptation priority
	8.5 Campbells Bay Esplanade Reserve South	No action	No action	No action
9 Castor Bay & Milford	9.1 Campbells to Kennedy park	No action	No action	No action
	9.2 Kennedy Park & walkway	Maintain	Maintain	Adaptation priority
	9.3 Castor Bay Beach	Maintain	Adaptation priority	Adaptation priority
	9.4 Castor Bay Beach to Wairau Creek	No action	No action	No action
	9.5 Wairau Creek (Milford Marina) to south of Inga Road	Maintain	Maintain	Adaptation priority
	9.6 Wairau Creek (Inlet)	Maintain	Maintain	Adaptation priority
	9.7 Milford Centre, Beach & Reserve	Maintain	Adaptation priority	Adaptation priority
	9.8 Onemaewao Milford Beach East	Maintain	Maintain	Maintain
	9.9 Oceanview to Black Rock Point	Maintain	Maintain	Adaptation priority
	9.10 Thorne Bay Beach	Maintain	Maintain	Adaptation priority
10 Takapuna	10.1 Takapuna Beach Accessways	Maintain	Maintain	Adaptation priority
	10.2 The Promenade (boat access and caravan park)	Protect	Protect	Adaptation priority
	10.3 Takapuna Beach (North)	Protect	Adaptation priority	Adaptation priority
	10.4 Takapuna Beach (Central & South)	Maintain	Adaptation priority	Adaptation priority

Unit	Stretch	Adaptation Strategy		
		Low Change	Moderate Change	High Change
11 St Leonards Beach	11.1 St Leonards North	No action	No action	No action
	11.2 St Leonards Beach and Accessways	Maintain	Maintain	Maintain
	11.3 St Leonards Beach South	No action	No action	No action
12 Narrow Neck & Cheltenham	12.1 Hamana Street	No action	No action	No action
	12.2 Narrow Neck Beach	Protect	Protect	Adaptation priority
	12.3 Fort Takapuna Historic Reserve	No action	No action	Maintain
	12.4 Cheltenham Beach	Maintain	Maintain	Maintain
13 Devonport & Stanley Point	13.1 Maungauika/ North Head	Maintain	Maintain	Maintain
	13.2 Torpedo Bay East	No action	No action	No action
	13.3 Cambridge Terrace & The Domain	Protect	Protect	Adaptation priority
	13.4 Torpedo Bay Reserve and Duders Beach	Protect	Protect	Protect
	13.5 Devonport Beach and Queens Parade Res	Protect	Protect	Adaptation Priority
	13.6 Devonport Naval Base	No action	No action	No action
	13.7 Stanley Bay Wharf and Ferry Terminal	Protect	Protect	Protect
	13.8 Stanley Bay Beach Reserve	Protect	Protect	Adaptation priority
	13.9 Stanley Point	No action	No action	No action
	13.10 Stanley Bay Sports Fields	Maintain	Adaptation priority	Adaptation priority
	13.11 Ngataranga (private) Sports Fields	No action	No action	No action
	13.12 Jim Titchener Parade/ Ngataranga Bay Reserves	Protect	Protect	Adaptation priority
	13.13 Ngataranga Bay	No action	No action	No action
	13.14 Ngataranga Park	Protect	Protect	Adaptation priority
14 Bayswater & Belmont	14.1 Lake Road	Protect	Maintain	Adaptation priority
	14.2 Wakakura Crescent (Mary Barrett Glade)	No action	No action	No action
	14.3 Duders Point North	Maintain	Maintain	Adaptation priority
	14.4 Plymouth Reserve and West	Maintain	Maintain	Maintain
	14.5 Bayswater Southern Coastline	No action	No action	No action
	14.6 Bayswater Marina	Protect	Protect	Protect

Unit	Stretch	Adaptation Strategy		
		Low Change	Moderate Change	High Change
	14.7 Marine Parade Reserve	Protect	Protect	Adaptation priority
	14.8 Quinton Park	Maintain	Maintain	Adaptation priority
	14.9 Bayswater Esplanade Reserve	No action	No action	No action
	14.10 Lansdowne Reserve	Protect	Maintain	Adaptation priority
	14.11 Lansdowne Reserve to Sandy Bay Res	No action	No action	No action
	14.12 Sandy Bay Reserve	Maintain	Maintain	Maintain
	14.13 O'Neills Point Cemetery	Maintain	Maintain	Adaptation priority
	14.14 Philomel Reserve	No action	No action	No action
15 Barrys Point	15.1 Northboro Reserve to Jutland Road	Maintain	Maintain	Adaptation priority
	15.2 Hauraki South	No action	No action	No action
	15.3 Esmonde Road	Protect	Protect	Protect
	15.4 Takapuna 2 Precinct (48 Esmonde Road Private landholding)	No action	No action	No action
	15.5 Esmond North	Protect	Protect	Protect
	15.6 Takapuna West	No action	No action	No action
	15.7 Barrys Point East	Maintain	Maintain	Maintain
	15.8 Esmonde Road	Protect	Protect	Protect

Table 4-1. Summary of adaptation strategies by stretch for Weiti Estuary to Devonport SAP area.

4.1 SAP monitoring and implementation

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

The SAP area reports are currently anticipated to be reviewed on a ten-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. A more detailed discussion regarding implementation of the Shoreline Adaptation Plan Programme can be found in Volume 1.

Current coastal monitoring activities in the Weiti Estuary to Devonport SAP area

Established beach profiles are surveyed at Long Bay, Browns Bay, Campbells Bay, Milford Beach, Takapuna Beach, and Cheltenham Beach as part of long-term monitoring of these beaches. Beach profiles are also surveyed at Torpedo Bay to monitor the performance of the beach replenishment at this site.

Fixed coastal monitoring cameras are present at Browns Bay Beach, to monitor the performance of the dune restoration work. At Takapuna Beach they gather further data on beach dynamics along the northern end of the beach which is particularly vulnerable to storm driven erosion. Fixed monitoring cameras are also proposed at Long Bay and Mairangi Bay.

4

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