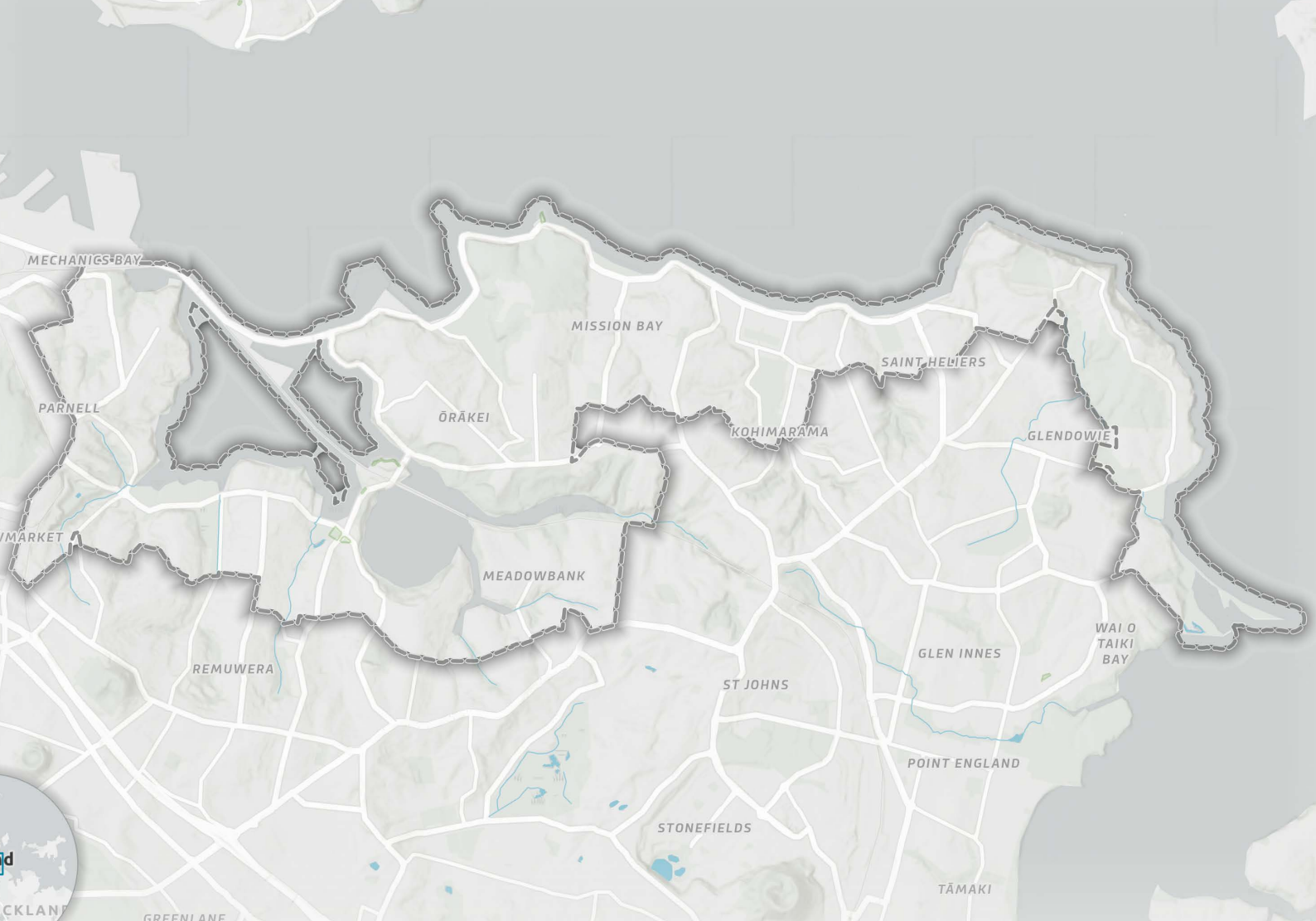




Ngā mahere whakaurutau mō te takutai

# Shoreline Adaptation Plan

Ōrākei to Tahuna Torea

Volume 2: Introduction to the SAP area

August 2025, Version 1.0

[aucklandcouncil.govt.nz](https://aucklandcouncil.govt.nz)



# Shoreline Adaptation Plan

## Ōrākei to Tahuna Torea

### Volume 2: Introduction to the SAP area

August 2025

Auckland Council

**ISBN (PDF)**

---

Reviewed and recommended for publication by:

---

Name: Natasha Carpenter

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

---

Approved for publication by:

---

Name: Paul Klinac

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

Recommended citation:

Auckland Council (2025). Shoreline Adaptation Plan Ōrākei to Tahuna Torea Volume 2: Introduction to the SAP area

©2025 Auckland Council, New Zealand

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

## **Acknowledgements**

The SAP team would like to acknowledge and thank all iwi and their representatives and Kaitiaki for their contributions to this document and all iwi who have been involved in this kaupapa as strategic observers and consulted throughout the development of this document.

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

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

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

## **Mātauranga Protection Statement (Disclaimer)**

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

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

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

# Contents

|                                                          |           |
|----------------------------------------------------------|-----------|
| <b>Quick Reference .....</b>                             | <b>i</b>  |
| Glossary .....                                           | ii        |
| Shoreline Adaptation Plan Areas.....                     | iv        |
| SAP areas, units & stretches .....                       | vi        |
| Climate change scenarios (timeframes for change) .....   | vi        |
| Auckland Council's adaptation strategies.....            | vii       |
| <b>1     SAP Area introduction .....</b>                 | <b>1</b>  |
| <b>2     What's happening .....</b>                      | <b>3</b>  |
| <b>2.1   Natural hazards &amp; climate change.....</b>   | <b>5</b>  |
| Coastal inundation (including sea-level rise) .....      | 5         |
| Coastal erosion (including sea-level rise) .....         | 7         |
| Catchment flooding and climate change.....               | 8         |
| Other hazards .....                                      | 9         |
| <b>2.2   Current coastal management practices .....</b>  | <b>10</b> |
| <b>2.3   Risk assessment.....</b>                        | <b>11</b> |
| <b>3     What matters most? .....</b>                    | <b>13</b> |
| <b>3.1   Auckland Council land and assets .....</b>      | <b>13</b> |
| Auckland Council land and parks .....                    | 16        |
| Co- governed parks.....                                  | 17        |
| Water Infrastructure .....                               | 17        |
| Facilities and structures .....                          | 17        |
| Roads and access .....                                   | 17        |
| Access to the coast .....                                | 18        |
| Harbour access .....                                     | 18        |
| <b>3.2   Te Ao Māori .....</b>                           | <b>19</b> |
| Context and information.....                             | 19        |
| <b>3.3   Working together- Local iwi engagement.....</b> | <b>20</b> |
| Local iwi aspirations, values and principles.....        | 20        |
| Ngāti Whātua Orākei.....                                 | 22        |
| Ngāti Pāoa.....                                          | 26        |
| <b>3.4   Ecological context.....</b>                     | <b>27</b> |
| Ecosystems and significant ecological areas .....        | 27        |
| Potential opportunities: nature based solutions.....     | 29        |
| <b>3.5   Social and policy context .....</b>             | <b>31</b> |
| Who lives here .....                                     | 31        |
| Community groups and organisations.....                  | 31        |
| Relevant Policy .....                                    | 32        |
| Community use.....                                       | 33        |
| Community buildings / assets .....                       | 35        |

|            |                                                                               |           |
|------------|-------------------------------------------------------------------------------|-----------|
|            | Key projects, critical infrastructure, facilities or key infrastructure ..... | 36        |
|            | Landscape features and character .....                                        | 37        |
|            | Historic and cultural heritage.....                                           | 37        |
| <b>3.6</b> | <b>Community Feedback .....</b>                                               | <b>38</b> |
|            | Who did we hear from .....                                                    | 40        |
|            | Community discussions.....                                                    | 40        |
|            | Local Board Views .....                                                       | 41        |
|            | Community uses / values.....                                                  | 41        |
|            | Community cultural values / comments .....                                    | 42        |
|            | Community values of ecosystems and impacts of climate change .....            | 42        |
|            | Community experience of hazards / concerns .....                              | 43        |
|            | Community values and aspirations .....                                        | 45        |
|            | Community suggestions for management and feedback on strategies.....          | 45        |
|            | Community objectives for the Ōrākei to Tahuna Torea SAP area .....            | 48        |
| <b>4</b>   | <b>What can we do about it?.....</b>                                          | <b>49</b> |
|            | Summary of adaptation strategies per unit.....                                | 49        |
|            | Auckland Council's adaptation strategies.....                                 | 49        |
| <b>4.1</b> | <b>SAP Monitoring and implementation.....</b>                                 | <b>53</b> |
| <b>5</b>   | <b>References &amp; Bibliography .....</b>                                    | <b>54</b> |

## Figures

|                                                                                                                                                                      |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1-1: Regional overview of Shoreline Adaptation Plans .....                                                                                                    | v  |
| Figure 1-1: Ōrākei to Tahuna Torea SAP area overview.....                                                                                                            | 2  |
| Figure 2-1: Wave overtopping and coastal inundation along Tamaki Drive during the January 2011 storm event (ex-tropical Cyclone Wilma) .....                         | 6  |
| Figure 2-2: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m, 1.5 m and 2 m sea-level rise.....                                    | 7  |
| Figure 2-3: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios.....                             | 8  |
| Figure 2-4: Flood Plain area 1% AEP hazard, for Ōrākei to Tahuna Torea, Auckland Council Flood Viewer.....                                                           | 9  |
| Figure 3-1: Location of Pourewā and Whenua Rangatira within the Ōrākei area.....                                                                                     | 22 |
| Figure 3-2: Dotterel in seagrass. Photo credit: Shaun Lee. ....                                                                                                      | 30 |
| Figure 3-3: Zoning (AUP(OP) for the Ōrākei to Tahuna Torea SAP area.....                                                                                             | 33 |
| Figure 3-4: Social Pinpoint screengrab showing the spatial location of community feedback for the Ōrākei to Tahuna Torea SAP area during the engagement window. .... | 39 |

Tables

Table 1: Risk assessment asset groupings and descriptions .....11

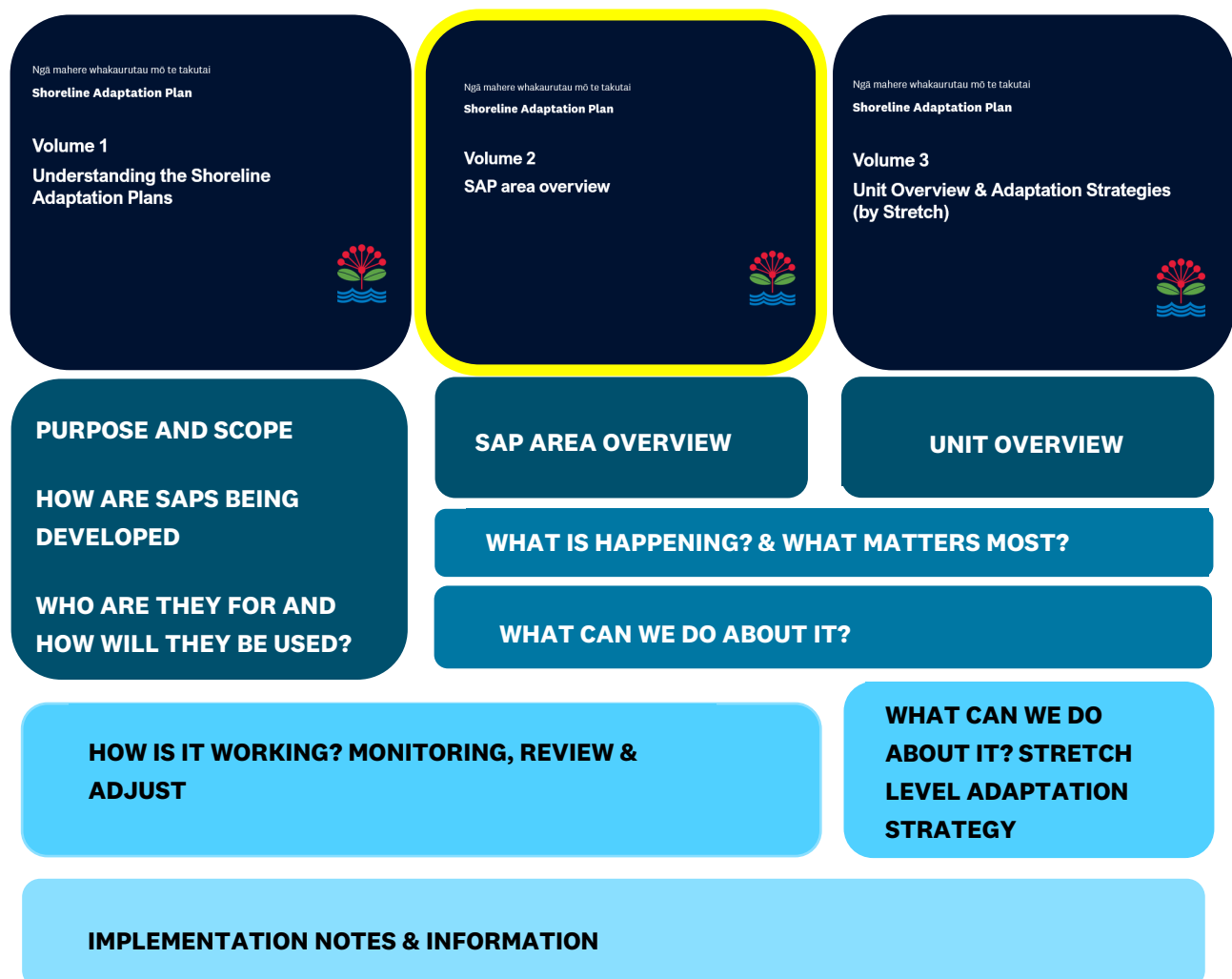
Table 2: Council-owned land, community facilities, transport infrastructure and water infrastructure risk ratings per unit ..... 12

Table 3: Summary by SAP unit of Ōrākei to Tahuna Torea vulnerable ecological features and values.....28

## Quick Reference

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

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



## Glossary

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

|                                                  | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Adaptive planning</b>                         | <ul style="list-style-type: none"> <li>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).</li> </ul> |
| <b>Annual Exceedance Probability (AEP)</b>       | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Biodiversity Focus Area (BFA)</b>             | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                         |
| <b>Catchment flooding</b>                        | <ul style="list-style-type: none"> <li>Flooding which occurs when the amount of rainfall exceeds the capacity of an urban stormwater network or the ground to absorb it.</li> </ul>                                                                                                                                                                                                                                                                                                          |
| <b>Climate hazard</b>                            | <ul style="list-style-type: none"> <li>The potential occurrence of climate-related physical events or trends that may cause damage and/or loss.</li> </ul>                                                                                                                                                                                                                                                                                                                                   |
| <b>Coastal erosion</b>                           | <ul style="list-style-type: none"> <li>The removal of the material forming the land due to natural processes, resulting in the coastline moving inland over time.</li> </ul>                                                                                                                                                                                                                                                                                                                 |
| <b>Coastal inundation</b>                        | <ul style="list-style-type: none"> <li>The flooding of low-lying coastal land that is normally dry, due to elevated sea levels.</li> </ul>                                                                                                                                                                                                                                                                                                                                                   |
| <b>Council-controlled organisation (CCO)</b>     | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                   |
| <b>Council</b>                                   | <ul style="list-style-type: none"> <li>Auckland Council</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cultural Heritage Inventory (CHI)</b>         | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                      |
| <b>Dynamic Adaptive Pathways Planning (DAPP)</b> | <ul style="list-style-type: none"> <li>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).</li> </ul>                                                                                                                                                                                                           |
| <b>Exposure</b>                                  | <ul style="list-style-type: none"> <li>The nature and degree to which a system is exposed to significant climate variations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hazardscape</b>                               | <ul style="list-style-type: none"> <li>The net result of natural and man-made hazards and the risks they pose to an area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |

| Term                                                 | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Indigenous biodiversity</b>                       | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Nature-based solution</b>                         | <ul style="list-style-type: none"> <li>A collection of approaches to address societal issues, including climate change, through the protection, management, and restoration of ecosystems.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>SAP</b>                                           | <ul style="list-style-type: none"> <li>Shoreline Adaptation Plan</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>SAP area</b>                                      | <ul style="list-style-type: none"> <li>An identified area for the purposes of the SAP development of Shoreline Adaptation Plans. There are 20 SAPs for the Auckland region.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>SAP stretch</b>                                   | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>SAP unit</b>                                      | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Sea-level rise</b>                                | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Significant Ecological Area</b>                   | <ul style="list-style-type: none"> <li>Significant Ecological Areas (SEAs) have been identified by the Auckland Unitary Plan (AUP: OP) for terrestrial areas, and parts of the coastal marine area.</li> </ul> <p><b>Marine Significant Ecological Area (SEA-M):</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><b>Terrestrial Significant Ecological Area (SEA-T):</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> |
| <b>Site and place of significance to Mana Whenua</b> | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Statutory Acknowledgement Areas (SAA)</b>         | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Social Infrastructure</b>                         | <ul style="list-style-type: none"> <li>Facilities and assets that support social activities, interactions, and wellbeing within a community.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Shoreline Adaptation Plan Areas

Tāmaki Makaurau, Auckland, is a coastal city, bounded to the east and west by the South Pacific Ocean and the Tasman Sea. The region has around 3,200 km of dynamic coastline and encompasses three major harbours: the Kaipara, Manukau and Waitematā. Due to its location, much of the city's urban development and supporting infrastructure is concentrated in coastal areas and exposed to coastal processes such as erosion and inundation. These natural processes are considered hazards when they impact on things or locations of value. Climate change related to greenhouse gas emissions is contributing to rising sea levels, which have a range of impacts including increasing the frequency and magnitude of coastal hazard events. Auckland Council began developing a series of Shoreline Adaptation Plans (SAPs) in 2021. These area-based plans form the first step for the SAP programme in achieving a resilient future for Auckland's coasts. A more detailed discussion on the SAP Program can be found in *Volume 1: Understanding the Shoreline Adaptation Plans*. Twenty SAPs make up Auckland's ~3200 km of coast as follows:

- Aotea Great Barrier and the outer Hauraki Gulf Islands
- Āwhitu
- Kahawairahi ki Whakatiwai / Beachlands and East
- Central Auckland
- Highbrook to Whitford
- Kaipara Harbour Moana
- Manukau Harbour East
- Manukau Harbour North
- Manukau Harbour South
- Ōrākei to Tahuna Torea
- Pahurehure Inlet
- Pākiri to Matheson Bay
- Snells Beach to Ōrewa
- Tāmaki Estuary
- Tī Point to Sandspit
- Waiheke Island and inner Hauraki Gulf islands
- Waimanawa Little Shoal Bay mini SAP
- Waitematā Harbour West
- Weiti Estuary to Devonport Peninsula
- Whangaparāoa
- Whatipu to South Head

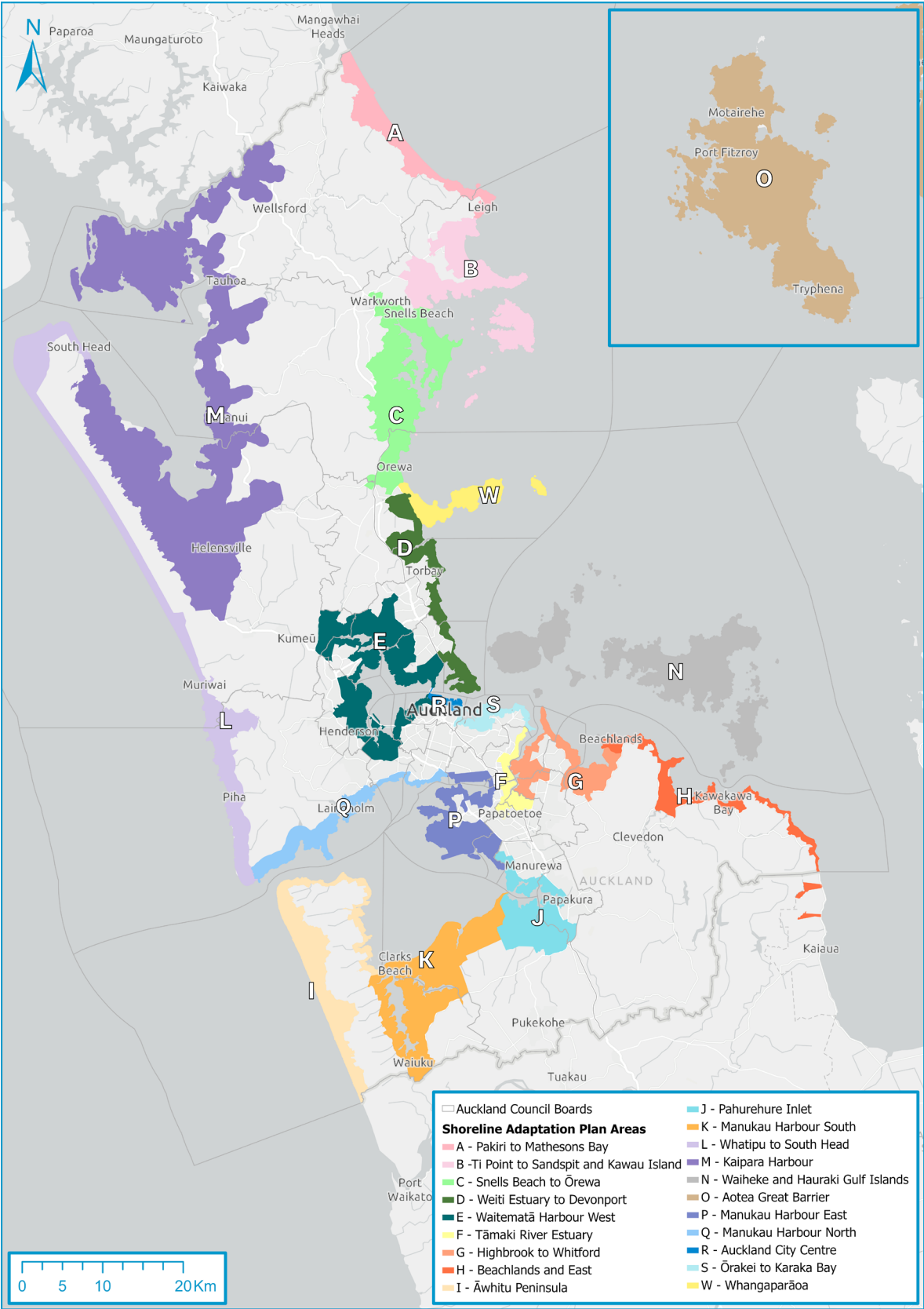
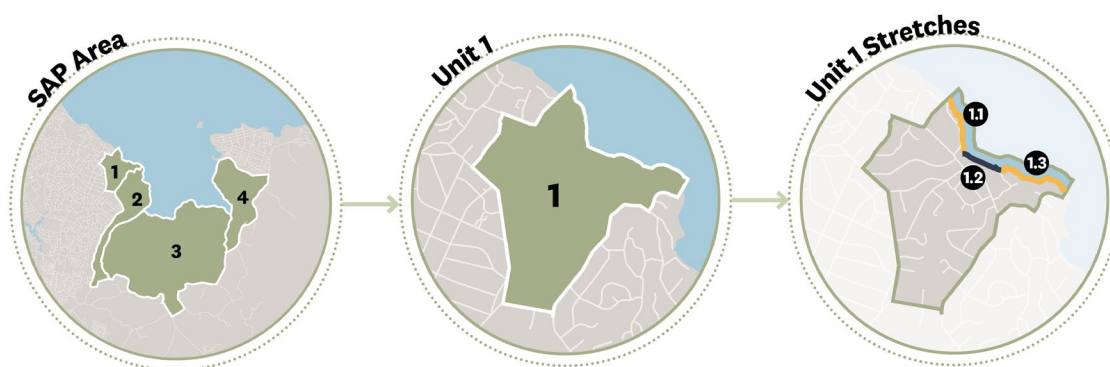


Figure 1-1: Regional overview of Shoreline Adaptation Plans

## SAP areas, units & stretches

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



## Climate change scenarios (timeframes for change)

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



**Sea-level Rise**



**Coastal Inundation**



**Coastal Erosion**



**Catchment  
flooding**

|                                | Sea-level Rise                                                                                          | Coastal Inundation                                                                                                            | Coastal Erosion                                                                                                                                                                        | Catchment flooding                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Low climate change</b>      | <ul style="list-style-type: none"> <li>Present day (relative) sea level</li> <li>Up to 0.5 m</li> </ul> | <ul style="list-style-type: none"> <li>1% AEP storm surge event</li> </ul>                                                    | <ul style="list-style-type: none"> <li>Erosion &amp; instability susceptibility line '2050'</li> <li>(RCP 4.5)</li> <li>includes consideration of 0.28 m of sea-level rise)</li> </ul> | 1% AEP rain fall event + climate change projections for rainfall |
| <b>Moderate climate change</b> | <ul style="list-style-type: none"> <li>0.5 m</li> <li>Up to 1 m</li> </ul>                              | <ul style="list-style-type: none"> <li>1% AEP storm surge event plus 0.5 m of sea-level rise</li> </ul>                       | <ul style="list-style-type: none"> <li>Erosion &amp; instability susceptibility line '2080 RCP 4.5 and 8.5'</li> <li>Includes consideration of 0.55 m of sea-level rise</li> </ul>     |                                                                  |
| <b>High climate change</b>     | <ul style="list-style-type: none"> <li>1.0 m</li> <li>Up to 2 m</li> </ul>                              | <ul style="list-style-type: none"> <li>1% AEP storm surge event</li> <li>plus 1.0 m, 1.5 and 2 m of sea-level rise</li> </ul> | <ul style="list-style-type: none"> <li>ASCIE 2130 (RCP8.5 and 8.5H+)</li> <li>Includes consideration of 1.18 m and up to 1.52 m of sea-level rise</li> </ul>                           |                                                                  |

## 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.



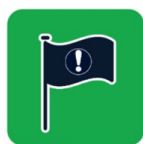
### Maintain

- 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 Ōrākei to Tahuna Torea SAP area extends from Judges Bay in the west to Tahuna Torea in the east. The SAP area follows the length of Tāmaki Drive running parallel to the Waitematā Harbour coastline and features a series of beaches and bays. Several communities are located close to the coast within this SAP area including Ōrākei, Mission Bay, St Heliers and Kohimarama. Communities including Parnell and Meadowbank are located slightly further inland from the coast. The total coastline is approximately 21 km in length. As shown in Figure 1-1, the area is divided into 5 SAP units with 32 stretches for the purposes of adaptation planning.

Most of the SAP area is urbanised, with residential neighbourhoods present across all units. The communities located along the coast typically include a mix of housing types with small local centres, including shops, eateries and community facilities such as libraries and community halls. Tāmaki Drive runs along the coast for much of the SAP area and includes a popular walking and cycling track which facilitates access to beaches as well as eateries and shops along the waterfront. Beaches such as Mission Bay and St Heliers are very popular with the local community as well as visitors from further afield. Unit 1 includes the larger commercial centre of Newmarket, which offers a mix of office buildings, commercial establishments, a major train station, and a large shopping mall.

The eastern coastline of the Ōrākei to Tahuna Torea SAP extends into the Tāmaki River Inlet, or Estuary as it is more commonly known, a shallow, drowned valley made up of extensive intertidal sand and mudflats fringed by mangrove forest and scrub transitioning into freshwater tributaries in the upper catchment. The intertidal mudflats and mangroves characterising Tāmaki Estuary provides habitat of regional significance for coastal shorebirds. Tahuna Torea, a 25 ha area with distinctive wildlife, sits on a long sandbank extending into the Tāmaki Estuary. This area is both an ecologically important environment and a culturally rich landscape, supporting a diverse range of native bird species and vegetation. The upper estuarine creeks of Tāmaki Estuary fall within a low energy, sheltered coastal environment where sea-level rise and coastal inundation are the main risks. More exposed cliffs and beaches at the entrance of the estuary are prone to coastal erosion.

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).



Figure 1-1: Ōrākei to Tahuna Torea SAP area overview

## 2

## What's happening

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

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

### Coastal context

The Ōrākei to Tahuna Torea coastline is characterised by the shallow estuarine environment of Hobson Bay, the impounded Ōrākei Basin and Ōrākei Creek, Waitematā sandstone coastal cliffs, shore platforms, large areas of reclamation, pocket beaches and replenished beaches (Auckland Council, 2024d). The eastern end of the Ōrākei to Tahuna Torea SAP features a diverse coastal geomorphology including the steep, bounding cliffs of West Tāmaki Point and Glendowie, the embayed beach of Karaka and the Sandspit that forms part of Tahuna Torea Nature Reserve. Predominately sheltered by the inner Hauraki Gulf islands from longer period swell events generated from some distance away, this coastline is still exposed to localised shorter period storm waves generated by strong onshore winds. During extreme events from the north to northeast angles, and elevated water levels, maximum wave heights in the order of 0.5 m – 1 m in height can impact the seawalls and beaches along this coastline (Auckland Council, 2024d).

The coastal cliffs along the Ōrākei to Tahuna Torea coastline are subject to slow, ongoing weathering and erosion, with occasional episodic failures or slips occurring (Auckland Council, 2024d). Hobson Bay and Judges Bay are enclosed by the reclaimed Tāmaki Drive causeway which provides a buffer to the longer fetch distances that Hobson Bay was historically exposed to. The Hobson Bay coastline is therefore now only exposed to very low fetch and depth-restricted waves generated within the bay (Auckland Council, 2024d). A relatively slow rate of net west to east longshore sediment transport occurs on the replenished beaches of Mission Bay, Kohimarama Beach and St Heliers. These beaches are contained within engineered headland or control features. Therefore, sand typically remains within these beach cells, with any sand transported offshore during storms migrating back onshore over time (Auckland Council, 2024d).

Karaka Bay is a distinctive and relatively secluded embayment located at the mouth of Tāmaki Estuary, accessible only by foot. It holds historical and cultural significance as one of the sites where the Treaty of Waitangi was signed. The bay is low-lying and vulnerable to coastal inundation, erosion, and land instability. South of Karaka Bay, heading towards Tahuna Torea, the cliffed coastline of Glendowie continues, fronted predominantly by exposed shore platforms, with intermittent beaches to the east of Karaka Bay and further south at Andersons Bay, adjacent to Glendowie Sailing Club. The cliffs are susceptible to coastal erosion and instability, which has been the focus of several past projects by Auckland Council and Auckland Transport. A series of sea caves are present south of Glendowie Boating Club which prompted some reconfiguration of cliff top parking on Glendowie Road and monitoring. The low-lying land between Glendowie Road and Tahuna Torea is known as Roberta

Reserve. Noting its low elevation, the land is exposed to coastal inundation and the edge is currently protected by gabion baskets. Tahuna Torea is the largest, most accessible and outstanding example of a cusped foreland formed from two sand/shell spits in the Auckland region. A low triangular shell and sandspit encloses salt marsh and ponds at the western end, with a narrow shell spit extending a further 1 km out across Tāmaki Estuary. The distal shell spit shifts in response to wind, wave and tidal action.

## 2.1 Natural hazards & climate change

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

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

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

### Coastal inundation (including sea-level rise)

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

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

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

Coastal inundation across the Ōrākei to Tahuna Torea coastline varies depending on local topography, proximity to the coast, and exposure to wave energy. The inundation extent will increase in the moderate to high change scenario with ongoing sea-level rise, impacting low-lying areas such as the spit feature at Tahuna Torea and Ōkahu Bay.

In Taurarua Judges Bay and Parnell, inundation is generally limited due to the predominantly cliffed coastline and steeper terrain. As such, impacts are largely confined to lower-lying areas such as

Judges Bay and the southern parts of the unit, where coastal walking paths are located near the shoreline. Moving east along the shores of Ōrākei, present-day inundation primarily affects low-lying areas around Thomas Bloodworth Park, Shore Road, and the Waitaramoa Inlet and Ōrākei Creek catchments. Under moderate and high scenarios, the northern extent of Ngapipi Road, where the land is low lying and adjacent to the coast, is likely to be impacted. Inundation within the Ōrākei Basin is more limited, and water levels are operationally managed via the sluice gates.

The coastline between Ōkahu Bay to St Heliers is characterised by the reclaimed Tāmaki Drive, the relatively large, replenished beaches of Mission Bay, Kohimarama and St Heliers, and coastal cliffs backing smaller pocket beaches such as Ladies Bay. Ōkahu Bay also features a relatively sheltered pocket beach, which is generally stable due to its protected setting. During extreme weather events from the north to northeast, wave heights of approximately 0.5 to 1 m can be expected, impacting seawalls and beaches along this stretch of coast, with wave overtopping along sections of Tāmaki Drive (projected to increase with sea-level rise) well documented<sup>1</sup>. These events have led to water breaching the seawall, which disrupts pedestrian and cycleway access, causes surface flooding, road closures, and damages low-lying reserves in the past. As an operational response to mitigate overtopping at coastal access points, wave gates have been installed along the Tāmaki Drive seawall between Kohimarama Beach and Pipimea Head.



Figure 2-1: Wave overtopping and coastal inundation along Tamaki Drive during the January 2011 storm event (ex-tropical Cyclone Wilma)

As set out in the coastal context above, Karaka Bay is a distinctive and relatively secluded embayment located at the mouth of the Tāmaki Estuary. This bay and wider landscape is low lying and vulnerable to coastal inundation, erosion, and land instability. Likewise, the low-lying land between Glendowie Road and Tahuna Torea (and Roberta Reserve) is exposed to coastal inundation and the edge is currently protected by gabion baskets.

---

<sup>1</sup> Tonkin & Taylor. (2019). *Tāmaki Drive wave overtopping study: Prepared for Healthy Waters, Auckland Council*. [https://infocouncil.aucklandcouncil.govt.nz/Open/2019/09/OR\\_20190919\\_AGN\\_7729\\_AT\\_files/OR\\_20190919\\_AGN\\_7729\\_A\\_T\\_Attachment\\_71760\\_1.PDF](https://infocouncil.aucklandcouncil.govt.nz/Open/2019/09/OR_20190919_AGN_7729_AT_files/OR_20190919_AGN_7729_A_T_Attachment_71760_1.PDF)

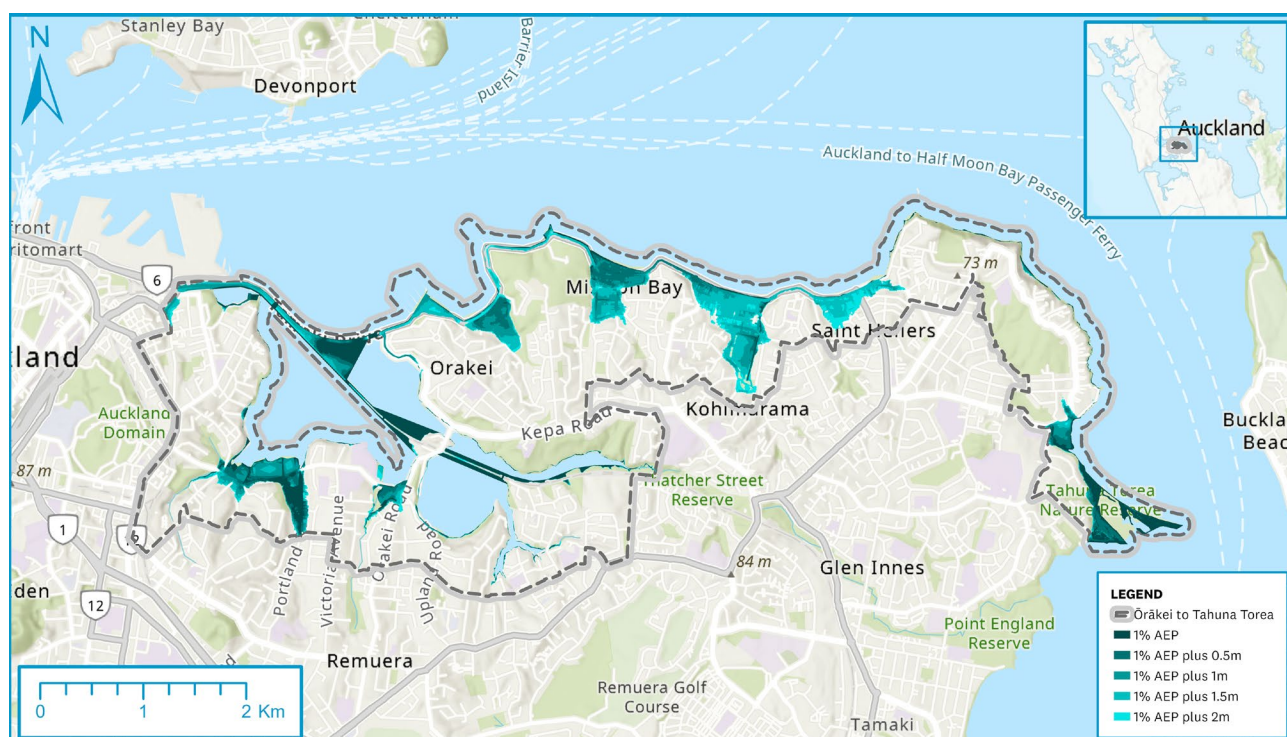


Figure 2-2: Coastal Inundation (CI) for 1% AEP storm surge for present day and with 0.5 m, 1 m, 1.5 m and 2 m sea-level rise.

### Coastal erosion (including sea-level rise)

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

The areas along the Ōrākei to Tahuna Torea 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*<sup>6</sup>. The regional scale assessment of the ASCIE provides a conservative or 'first pass' appraisal of the natural hazard extent. A more detailed site-specific assessment is required to quantify exposure and risk of localised land or assets of significant value.

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.

Figure 2-3 shows the resulting coastal instability and erosion hazard extents over changing climate scenarios and timeframes. 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.

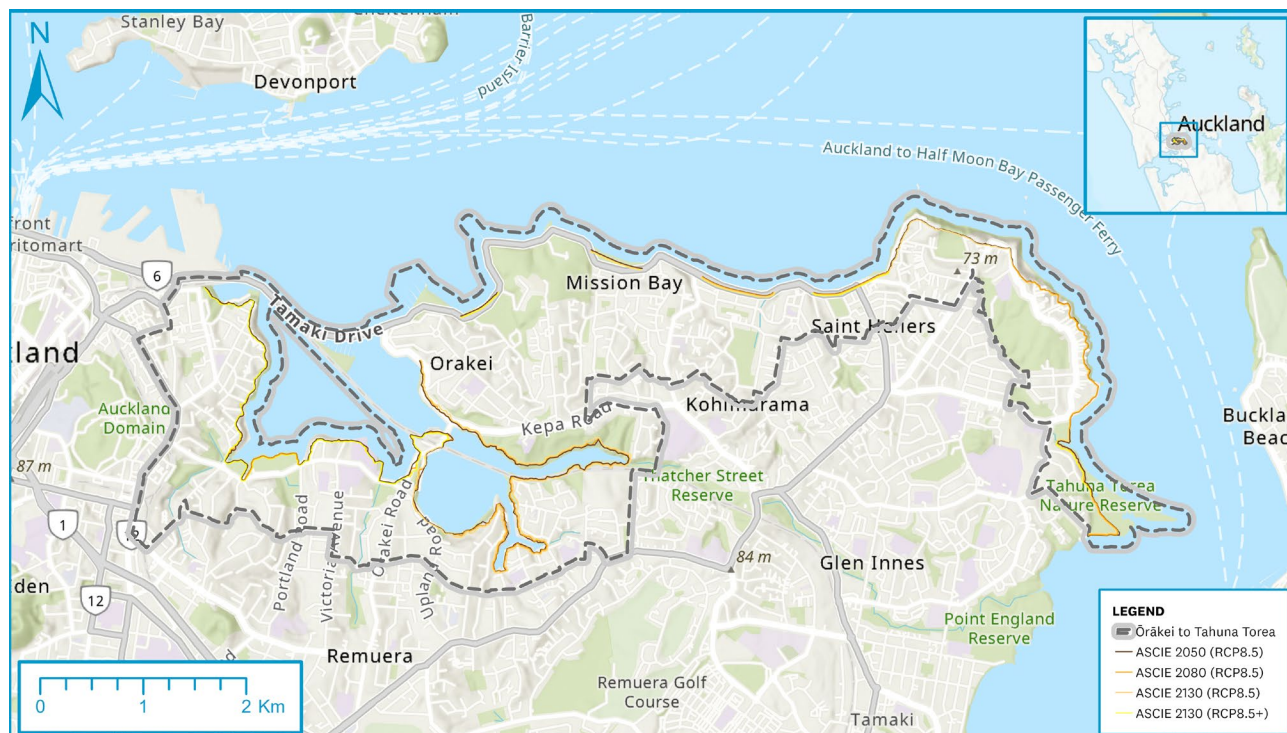


Figure 2-3: Coastal Instability and erosion susceptibility for 2050, 2080 and 2130 considering RCP4.5 and RCP8.5 emission scenarios

## Catchment flooding and climate change

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

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

Catchment flooding is a known issue around Ōkahu Bay. The Ōkahu Bay Stormwater network separation project, a partnership between Ngāti Whātua Ōrākei, Watercare and Auckland Council's Healthy Waters, commenced in October 2019 to improve water quality by reducing wet weather wastewater overflows.

St Heliers, and Mission Bay is affected by a combination of intense rainfall, limited stormwater capacity, and the low-lying coastal landscape. During storm events, water can accumulate rapidly, leading to surface flooding on roads, reserves, and adjacent properties.

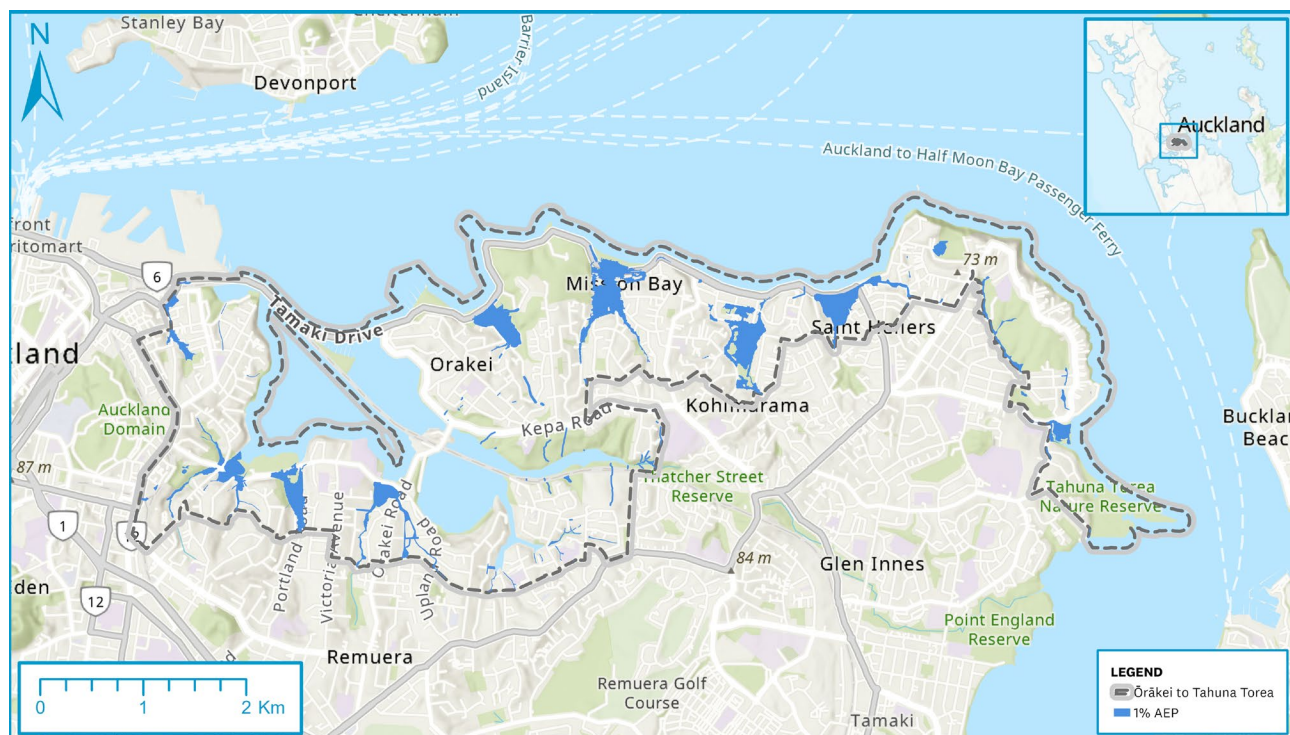


Figure 2-4: Flood Plain area 1% AEP hazard, for Ōrākei to Tahuna Torea, Auckland Council Flood Viewer.

## Other hazards

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

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 Ōrākei to Tahuna Torea SAP area, the relevant plans can be located [here](#).

## 2.2 Current coastal management practices

An overview of existing current coastal management across the Ōrākei to Tahuna Torea coastline is summarised in the table below and discussed in greater detail in *Shoreline Adaptation Plan Ōrākei to Tahuna Torea Volume 3: Adaptation Strategies*. A non-exhaustive summary of some of the key features is included in the table below:



### Flood control or management

- Tamaki Drive wave gates at the western end of Kohimarama mitigate wave overtopping at coastal access points during king tides and coastal storm events.



### Coastal protection

- Shoreline armouring is present along the Elam Street Walkway and Freda Kirkwood Walkway reserves, Takutai Reserve, and along Dove Myer Robinson Park and Judges Bay Road.
- A section of rock masonry seawall is present along the Hobson Bay coastline. Further rock revetment armouring is present where Ngapipi Road extends parallel to the Hobson Bay shoreline.
- Rock masonry seawalls armour Tāmaki Drive.
- Rock revetment armouring is present along sections of the Orakei Basin coastline.
- Gabion basket seawalls armour Karaka Bay Reserve and Roberta Reserve.
- Rock armouring and seven timber groynes armour the southern spit of Tahuna Torea.
- Grouted masonry seawall provides protection to the reserve, turning circle and Watercare infrastructure at the end of West Tāmaki Road.
- A section of the legacy masonry rock seawall was replaced with a mass concrete retaining wall at Andersons Beach.
- Mission Bay, Kohimarama and St Heliers beaches are backed by rock masonry seawalls, and have engineered beach-control structures at either end of these beaches.



### Nature-based options

- Much of the Unit 2 Hobson Bay shoreline is unarmoured, with established mangroves providing a buffer to the low wave climate.



### Sand replenishment/ soft or nature based engineering

- Dredging was previously undertaken in Judges Bay, in combination with a relatively small beach replenishment in 2010.
- While the Wilsons Beach replenishment was undertaken for recreational amenity reasons, it does provide some protection to the adjacent seawall from coastal processes.
- Periodic operational lowering of sand levels is undertaken where it builds up against and blows over the seawalls at the Mission Bay, Kohimarama and St Heliers beaches.
- Additional to enhancing recreational amenity values, an intent of the Mission Bay, Kohimarama and St Heliers beach replenishment projects, was to provide a buffer to the existing seawalls and adjacent reserves from coastal processes.

## 2.3 Risk assessment

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

The 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.

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

Table 1: Risk assessment asset groupings and descriptions

| Grouping                        | Description                                                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Council-owned land              | <ul style="list-style-type: none"><li>• Park and reserve land area.</li></ul>                                                                                           |
| Council community facilities    | <ul style="list-style-type: none"><li>• Carparks, accessways, paths and tracks, ramps, seawalls, wharves and jetties, community buildings and park amenities.</li></ul> |
| Transport infrastructure        | <ul style="list-style-type: none"><li>• Roads, bridges, ferry terminals and train stations.</li></ul>                                                                   |
| Water assets and infrastructure | <ul style="list-style-type: none"><li>• Publicly-owned three waters infrastructure.</li></ul>                                                                           |

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

| 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  | High                         | High        | High      | Low                      | Low         | Low       | Low                  | Moderate    | Moderate  |
|      | Inundation | Low                | Low         | Moderate  | High                         | High        | High      | Low                      | Low         | Low       | Low                  | Low         | Low       |
| 2    | Erosion    | High               | High        | Very high | Moderate                     | Moderate    | Moderate  | Very high                | Very high   | Very high | Moderate             | Moderate    | Moderate  |
|      | Inundation | High               | High        | High      | High                         | High        | High      | High                     | High        | High      | Moderate             | Moderate    | Moderate  |
| 3    | Erosion    | Low                | Low         | Low       | Low                          | Low         | Low       | Very low                 | Very low    | Low       | Low                  | Low         | Low       |
|      | Inundation | Moderate           | Moderate    | High      | High                         | High        | Very high | Very high                | Very high   | Very high | Low                  | Low         | Moderate  |
| 4    | Erosion    | High               | High        | High      | Moderate                     | Moderate    | High      | Moderate                 | Moderate    | High      | Moderate             | Moderate    | Moderate  |
|      | Inundation | Moderate           | High        | High      | High                         | Very high   | Very high | Low                      | Moderate    | High      | Low                  | Moderate    | High      |
| 5    | Erosion    | High               | High        | High      | Moderate                     | Moderate    | Moderate  | Moderate                 | Moderate    | Moderate  | Moderate             | Moderate    | Moderate  |
|      | Inundation | High               | High        | High      | Moderate                     | Moderate    | Moderate  | Moderate                 | Moderate    | Moderate  | Low                  | Moderate    | Moderate  |

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

## 3

## What matters most?



## 3.1

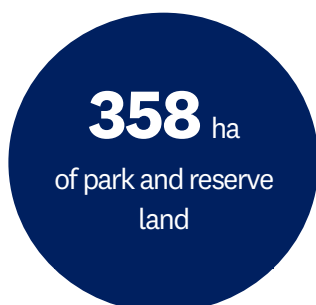
### Auckland Council land and assets

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

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

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

The Ōrākei to Tahuna Torea SAP area includes a wide range of Council-owned land and assets, including reserves and open spaces, boat ramps, wharfs, parks amenities and facilities and numerous Auckland Council or Council-controlled organisation (CCO)-owned buildings.



Of these assets, those that are along the coastline include:

- Facilities to support the access, use and enjoyment of local park areas and beach reserves including parking areas, toilets, playgrounds, and seating. These are distributed across all units in the SAP area but are most highly concentrated in Units 2 to 5.
- Over 120 buildings and structures (including accommodation, community buildings such as sports clubs, toilet blocks, maintenance sheds, and wharves). These are distributed across all units in the SAP area and are more prevalent in Units 1, 2, 3 and 5.
- Water infrastructure including 17 wastewater and water pump stations managed by Watercare Services Ltd. Water infrastructure is located in all five units.
- Extensive walking tracks and associated infrastructure in all units, including along Tāmaki Drive and around the Ōrākei Basin.
- Three closed landfills split across Units 1 and 2.
- A range of coastal infrastructure including seawalls, groynes and pontoons in all five units.

The figure overleaf shows the general location of Auckland Council land and assets located within the Ōrākei to Tahuna Torea 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

Ōrākei to Tahuna Torea



Tikapa  
Moana/  
Hauraki Gulf

Devonport

Waitematā  
Harbour

Mission  
Bay

Saint  
Heliers  
Bay

Okahu  
Bay

Parnell  
Hobson  
Bay

Ōrākei

Saint  
Heliers

Riddell Rd

Glen Innes

Remuera

St Johns Rd

St Heliers Bay Rd

Mount  
Wellington

Panmure

Tāmaki  
River

- Council building
- Closed landfill
- Water pump station
- Stormwater pump station
- Wastewater pump station

## Auckland Parks

- Park
- Sport & active recreation area
- Co-governed/co-managed area

## Land owned by Auckland Council and Council Controlled Organisations

- Auckland Council
- Watercare Services

0 0.5 1 km

NOTE: Only key Auckland Council assets are shown



## Auckland Council land and parks

There are approximately 115 parks and reserves within this SAP area. Many are located along the coastline, and most are small to medium in size. There are no regional parks in this SAP area. Where relevant, these parks and reserves have been reflected at the unit scale in Volume 3, with notable ones captured below (non-exhaustive list).

- Alberon Reserve
- Andersons Bay Reserve
- Aotea Reserve
- Apihai Reserve
- Awatea Reserve
- Ayr Reserve
- Bassett Reserve
- Bonnie Brae Reserve
- Dove Myer Robinson Park
- Endeavour Park
- Ewelme Cottage
- Fancourt Reserve
- Gladstone Park
- Hapua Reserve
- Heard Park
- Hobson Bay Esplanade Reserve
- Judge Arney Reserve
- Judges Bay Reserve
- Kelvin Reserve
- Kepa Bush Reserve
- Kohimarama Beach Reserve
- Lingarth Reserve
- Meadowbank Reserve
- Michael Joseph Savage Memorial
- Newmarket Park
- Ngapuhi Reserve
- Ōrākei Basin
- Ōrākei Creek Esplanade Reserve
- St Heliers Bay Reserve/ The Vellenoweth Green St Stephens Church and Cemetery
- Scarborough Reserve
- Selwyn Reserve - Mission Bay Point Resolution
- Shore Reserve
- Station Square
- Tagalad Reserve North
- Tahuna Torea Nature Reserve
- Takutai Reserve
- Tāmaki Drive (The Landing)
- Waitaramoa Reserve
- Wharua Reserve
- Wilson Beach Reserve

In addition to the parks and reserve listed above, the Ōrākei to Tahuna Torea SAP area features diverse coastal environments. Key coastal areas include the following:

- Achillies Point
- Andersons Bay
- Hobson Bay
- Judges Bay
- Karaka Bay
- Kohimarama Beach
- Ladies Bay Beach
- Mission Bay Beach
- St Heliers Beach
- Tahuna Torea
- Ōkahu Bay
- Whakatakataka Bay

Each beach offers various informal recreational activities such as swimming, kayaking, and boating. There are a range of amenities available at beaches across the SAP area including restrooms, boat ramps, picnic areas and walking paths. This is not an exhaustive list and smaller less accessible beaches/areas located along this coastline have not been included.

Throughout the SAP area, the coast is used for a wide range of informal recreation and organised sport. Beaches, particularly those in Unit 4 (Mission Bay, Kohimarama and St Heliers) are very popular with locals and visitors for swimming and picnicking, with cafes and eateries along the waterfront also being popular. Ōrākei Basin in Unit 2 is a popular location for water skiing and wakeboarding, while Tahuna Torea Nature Reserve encompasses 25 ha of unique wildlife sited on a long sandbank extending out into the Tāmaki Estuary, along with popular walking tracks and bird watching areas.



### Co- governed parks

Whenua Rangatira, is a 50 ha area of land managed by Ngāti Whātua Ōrākei (discussed under the community use section). This area includes key sites such as Bastion Point (Takaparawhau) and Ōkahu Bay as well as other land that overlooks Waitematā Harbour. These lands are culturally significant and offer green spaces that contribute to the ecological health and communities' well-being (Ngāti Whātua Ōrākei Reserves Board, 2022).



### Water Infrastructure

There are over 46 km of water pipes located across the Ōrākei to Tahuna Torea SAP area, with 14 pump stations. Much of the stormwater, wastewater and water infrastructure servicing local communities and settlements are managed by Auckland Council. Additionally, numerous pump sheds include but are not limited to:

- Averill Avenue
- Glendowie PS 14
- Karaka Bay
- Meadowbank Road
- Portland Road
- Pourewa Road
- Riddell Road
- Sage Road
- St Heliers
- Shore Road PS 7
- Tāmaki Yacht Club
- Tonks Street



### Facilities and structures

Council-owned facilities and structures are numerous, including but not limited to sports grounds, community buildings, campground facilities, playgrounds, sheds, toilets and reserves. These are distributed across all units in the SAP area but are most highly concentrated in Parnell (Unit 1), Ōrākei (Unit 2) and Ōkahu Bay (Unit 3).

Coastal areas within the Ōrākei to Tahuna Torea SAP area are also home to several marine clubs including but not limited to Ōrākei Sea Scouts Group, Auckland Water Ski Club, Auckland Sailing Club, the Royal Akarana Yacht Club, the Outboard Boating Club, and Kohimarama Yacht Club. Additionally, Churchill Park in Unit 5 hosts a number of Auckland Council-owned buildings used by various community groups such as Girl Guides, Scouts, and the Bowling and Tennis clubs.



### Roads and access

The SAP area is well connected by numerous main roads and an extensive transport network (discussed further under the Community Use section). The coastline of Hobson Bay is framed by St Stephens Avenue, Ayr Street, Shore Road, Ōrākei Road and Ngapipi Road, with Ōrākei Road traversing through Ōrākei Basin providing access to Ōrākei railway station. From Judges Bay, Tāmaki Drive traverses through Hobson Bay, parallel to the coast, until it reaches St Heliers Bay, where Tāmaki Drive transitions into Cliff Road, Glover Road and Riddell Road to provide entry to the eastern boundaries of the SAP area.

Coastal entry is also provided through footpaths/coastal walkways near key beaches. A non-exhaustive list of roads can be found below:

- Averill Avenue
- Ayr Street
- Brighton Road
- Glendowie Road
- Judges Bay Road
- Kepa Road
- Ngapipi Road
- Ōrākei Road
- Pattenson Avenue
- Roberta Avenue
- St Heliers Bay Road
- St Stephens Avenue
- Sage Road
- Shore Road
- Tāmaki Drive
- Tohunga Crescent
- Victoria Avenue
- West Tāmaki Road



### Access to the coast

The coast is easily accessed via roads, paths and bus services, with some areas accessible by train. The Newmarket, Ōrākei and Meadowbank train stations service the local and wider community, and there are extensive bus services throughout each unit which provides connectivity within to the SAP area and access to the major beaches.

A network of smaller footpaths and coastal walkways also connect to the coast from the surrounding suburbs. In some cases, coastal access can be obtained by walking between bays at low tide where walking paths are not directly provided, e.g. Hobson Bay Path.

In addition, numerous, highly valued walking tracking provide access and along the coast, including but not limited to:

- Elam Street Walkway
- Freda Kirkwood Walkway
- Gentlemans Walkway
- Glover Park Path
- Hobson Bay Walkway
- Kepa Bush Path
- Newmarket to Thomas Bloodworth Path
- Ngake Walkway
- Ōrākei Basin Path
- Roberta Reserve coastal Walkway
- Rukutai Walkway
- St Heliers to Mission Bay Path
- Tāmaki Drive Coastal Path
- Te Ara ki Uta ki Tai
- Wynyard Quarter to Mission Bay Path



### Harbour access

Along with the several marine clubs located in the SAP area, access to these harbour environments is through the following public boat ramps / coastal infrastructure and wharves (non-exhaustive list):

- Hakumau Reserve boat ramp
- Judges Bay Wharf and boat ramp
- Karaka Bay (hand launching ramp)
- Kohimarama Beach boat ramp
- Ōrākei Basin Wharf and boat ramp
- St Heliers Beach boat ramp
- Takutai Reserve boat ramp
- Tāmaki Drive (The Landing) Marina



## 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 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 Mana Whenua of 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 integration of mātauranga Māori and Te Ao Māori principles, has been crucial to the development of the Ōrākei to Tahuna Torea 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 identified on the AUP:OP maps, within the Cultural Heritage Inventory, legacy parks planning documents and research from other publicly available iwi planning documents. Overarching matters considered within the scope of the Ōrākei to Tahuna Torea, along with the wider programme, are discussed in further detail in *Volume 1: Understanding the Shoreline Adaptation Plans*.

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

### 3.3 Working together- Local iwi engagement

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

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

- Ngāti Whātua o Ōrākei
- Ngāi Tai ki Tāmaki
- Ngāti Maru Te Ahiwaru – Waiohūa
- Te Rūnanga o Ngāti Whātua
- Ngāti Tamaterā Ngāti Whanaunga
- Te Kawerau ā Maki
- Ngāti Whātua o Kaipara
- Te Patukirikiri
- Ngāti Pāoa

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.

#### Local iwi aspirations, values and principles

##### Holding statement:

*All Auckland Council Shoreline Adaptation Plans are considered living documents, noting that the SAP team is committed to ensuring that the values, aspirations and outcomes sought by Mana Whenua of 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 Mana Whenua for the Ōrākei to Tahuna Torea SAP, the 'Holding Statement' reflected above has been created. This serves as a reminder that this document, and any others which are developed because of this document, may be revised to incorporate additional cultural context provided by iwi when they choose to share it.

In addition, for each coastal stretch, iwi may share additional mātauranga through ongoing engagement occurring through the various stages of the SAP programme including through 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 cultural 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; 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 Ōrākei to Tahuna Torea SAP is effective, meaningful and aligned with the principles of Te Tiriti o Waitangi / Treaty of Waitangi, the following guidelines set out below should be followed for each stage of the SAP programme.

|                                    |                                                                                                                                                                                                                                                                                |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SAP Development Phase</b>       | <ul style="list-style-type: none"> <li>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.</li> </ul> |
| <b>Programming Phase</b>           | <ul style="list-style-type: none"> <li>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.</li> </ul>                                              |
| <b>Design and Consenting Phase</b> | <ul style="list-style-type: none"> <li>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.</li> </ul>    |
| <b>Implementation Phase</b>        | <ul style="list-style-type: none"> <li>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 Ōrākei to Tahuna Torea SAP.</li> </ul>       |

## Ngāti Whātua Ōrākei

The SAP team has worked with Ngāti Whātua Ōrākei on various SAP plans within their rohe, with the aim of gathering their feedback on the SAP programme and the individual plans. This ongoing partnership has extended to the development of the Ōrākei to Tahuna Torea SAP, noting that Ngāti Whātua Ōrākei has expressed interest in specific aspects of the Ōrākei to Tahuna Torea SAP that relate to their rohe. Following is a summary of Ngāti Whātua Ōrākei guiding principles, cultural values and aspirations in response to the SAP programme, acknowledging the Ōrākei to Tahuna Torea SAP as a key area of interest.

### Settlement overview:

As mana whenua of central Tāmaki Makaurau, Ngāti Whātua Ōrākei emphasise their historical relationship with the Crown, including the impacts of land loss and the significance of their Treaty settlement (2011), of which comprises three key components<sup>2</sup>:

- 1) Historical account and Crown acknowledgements – forming the basis for a formal Crown apology to Ngāti Whātua Ōrākei.
- 2) Cultural redress – recognising the iwi's deep cultural and spiritual connections to specific sites.

Under this cultural redress, land transfers of specific relevance to the coastline covered within the Ōrākei to Tahuna Torea include but are not limited to the Whenua Rangatira and the Pourewā Creek Conservation Area (33.64 ha) vested as a recreation reserve, noting that this redress also features a place name change: Purewa Creek renamed to Pourewa Creek.

- 3) Financial and commercial redress – supporting the iwi's economic development and self-determination.



Figure 3-1: Location of Pourewā and Whenua Rangatira within the Ōrākei area<sup>7</sup>.

Ngāti Whātua Ōrākei advocate for a shoreline adaptation approach that reflects their cultural values and ancestral responsibilities. Their aspirations include restoring the mauri of coastal ecosystems, protecting customary practices, and ensuring that adaptation strategies are co-developed with iwi leadership.

<sup>2</sup> Discussed in further detail in Ngāti Whātua Ōrākei Regional Response to the Shoreline Adaptation Plan Programme and in the Ngāti Whātua Ōrākei Deed of Settlement.

## Ngāti Whātua Ōrākei: Key documents

Ngāti Whātua Ōrākei have developed a series of key documents that demonstrate and express their vision and focus in regard to Te Taiao, further supporting and articulating a climate strategy focused on ecological restoration, cultural resilience, and achieving net-zero emissions by 2030. These documents also highlight the importance of integrating Mātauranga Māori and Kaitiakitanga into environmental governance.

Key documents of particular importance to the SAP programme are as follows:

- Hā Tuamatangi – Foundational Climate Position Statement<sup>3</sup>
- Te Pou o Kāhu Pōkere – Iwi Management Plan for Ngāti Whātua Ōrākei (2018)<sup>4</sup>
- Combined Reserve Management Plan.<sup>5</sup>

### Hā Tuamatangi – Foundational Climate Position Statement

In this document Ngāti Whātua Ōrākei acknowledges the environmental crisis and serious threat posed by climate change and the need to reduce emissions and limit global warming. Within this document, Ngāti Whātua Ōrākei set out major programmes of work as follows:

- Creating a regenerative papakāinga.
- Transport - Exploring and building more efficient modes of transport.
- Te Taiao – Restoring eco-systems and advocacy to protect intact systems.

#### Aspirations drawn from Hā Tuamatangi:

- To restore the mauri of coastal and marine ecosystems within our rohe.
- To ensure shoreline adaptation strategies reflect our cultural values and support customary practices.
- To achieve net-zero emissions by 2030 through climate action and sustainable development.
- To strengthen our role as kaitiaki through meaningful engagement and co-governance with Auckland Council and other partners.

#### Addressing the footprint of the organisation:

- With an aim to be net zero by 2030, Ngāti Whātua Ōrākei identified 7 major areas where they will lead the restoration of the mauri of te Taiao through climate action as follows:

- |                                          |                   |                      |
|------------------------------------------|-------------------|----------------------|
| • Restoration and protection of te Taiao | • Energy Kai/food | • Whare/ built forms |
| • Waka/ transport                        | • Pūtea           | • Wai/ water         |



<sup>3</sup> Ngāti Whātua Ōrākei. (2025, February 12). *Hā Tuamatangi – Ngāti Whātua Ōrākei: Foundational climate position statement* [PDF]. Ngāti Whātua Ōrākei. <https://ngatiwhatuaorakei.com/media/htwnrvlg/hatuamatangi-fa-dec2-76030.pdf>

<sup>4</sup> Ngāti Whātua Ōrākei. (2018). *Te Pou o Kāhu Pōkere: Iwi management plan for Ngāti Whātua Ōrākei* [PDF]. Ngāti Whātua Ōrākei.

<sup>5</sup> [https://ngatiwhatuaorakei.com/media/dezkgj2v/0002\\_nwo\\_combined-reserve-management-plan\\_digital-final-74775.pdf](https://ngatiwhatuaorakei.com/media/dezkgj2v/0002_nwo_combined-reserve-management-plan_digital-final-74775.pdf)

**Te Pou o Kāhu Pōkere – Iwi Management Plan for Ngāti Whātua Ōrākei (2018)**

Te Pou o Kāhu Pōkere is the iwi management plan for Ngāti Whātua Ōrākei, created to express the iwi's values, perspectives, and priorities in relation to resource and environmental management. It provides a cultural framework for engaging with Ngāti Whātua Ōrākei and promotes collaborative approaches to managing natural resources. Under the Resource Management Act (RMA), councils are required to take such iwi planning documents into account in their decision-making.

The central principle of the plan is embedding kaitiakitanga (guardianship) into planning and policy, working to outline desired outcomes and actions. Key outcomes and actions instrumental to the SAP programme include but are not limited to:

Key environmental and cultural outcomes:

- Enhanced public spaces with strong cultural identity and usability.
- Ecological restoration through native planting, pest control, and weed removal.
- Improved physical and cultural connectivity between key whenua (lands) such as Ōkahu Bay, Tāmaki Drive, Whenua Rangatira, and Pourewa Reserve.
- Incorporation of Mātauranga Māori and kaitiakitanga in ecological monitoring and initiatives.
- Strengthened partnerships and recognition of Ngāti Whātua Ōrākei's values in managing cultural and natural resources.
- Protection of customary practices, including kaimoana gathering, waka launching, and marae activities.

Environmental and landscape guidelines:

- Use locally sourced indigenous plants with cultural significance (e.g., harakeke, kiekie).
- Avoid reclamation and dredging activities.
- Maintain and enhance sites and landscapes of cultural significance.
- Require Cultural Impact Assessments for developments near culturally significant sites.
- Promote and celebrate Ngāti Whātua Ōrākei's cultural landscapes, while protecting sensitive areas as required by tikanga.
- Ensure public access and connectivity through cultural landscapes.
- Partner with Ngāti Whātua Ōrākei in managing maunga, streams, and coastal areas.
- Apply Accidental Discovery Protocols during earthworks, especially near significant sites.



## Principles and values from Te Pou ō Kahu Pōkere:

|                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Kaitiakitanga</b>    | <ul style="list-style-type: none"> <li>Guardianship of the environment, ensuring the health and wellbeing of land, water, and ecosystems for future generations.</li> </ul> |
| <b>Whanaungatanga</b>   | <ul style="list-style-type: none"> <li>Strengthening relationships and working collaboratively with iwi, hapū, communities, and agencies.</li> </ul>                        |
| <b>Manaakitanga</b>     | <ul style="list-style-type: none"> <li>Upholding respect, care, and hospitality in all interactions and decisions.</li> </ul>                                               |
| <b>Rangatiratanga</b>   | <ul style="list-style-type: none"> <li>Exercising self-determination and leadership in managing our whenua and resources.</li> </ul>                                        |
| <b>Mātauranga Māori</b> | <ul style="list-style-type: none"> <li>Integrating traditional knowledge systems and worldviews into planning and decision-making.</li> </ul>                               |

## Obligations of Te Kaunihera o Tāmaki Makaurau Shoreline Adaptation Response

Ngāti Whātua Ōrākei understand the importance of shoreline adaptation in protecting our lands and communities from the impacts of sea-level rise and coastal hazards. We seek a collaborative approach with Auckland Council that ensures our values, knowledge, and aspirations are embedded in all aspects of the SAP programme.

In turn, Ngāti Whātua Ōrākei advocate for a Te Tiriti-based framework in shoreline adaptation planning, placing importance on partnership, protection, and participation. Ngāti Whātua Ōrākei expect early, ongoing, and meaningful engagement from Auckland Council, with co-design of adaptation strategies and recognition of their role as kaitiaki.

Key engagement principles:

- Kanohi ki te kanohi: Face-to-face engagement to build trust and understanding.
- Partnership: Upholding the principles of Te Tiriti o Waitangi, including mutual respect and shared decision-making.
- Early engagement: Involving Ngāti Whātua Ōrākei at the outset of planning processes.
- Transparency and accountability: Clear communication and follow-through on commitments.

SAP implementation expectations:

- Regular hui and updates throughout the SAP development and implementation phases.
- Inclusion of Ngāti Whātua Ōrākei values, mātauranga, and aspirations in all SAP documents.
- Co-design of adaptation strategies, including nature-based solutions and cultural monitoring.
- Recognition of our role in decision-making and implementation within our rohe.

Acknowledging the narrative above and the korero shared by Ngāti Whātua Ōrākei, the SAP team will continue to work collaboratively with Ngāti Whātua Ōrākei to input into the implementation of the SAPs for the Ōrākei to Tahuna Torea area and other SAPs of interest within their rohe.

## Ngāti Pāoa

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

Ngāti Paoa signed a Deed of Settlement with The Crown in March 2021 and the Ngāti Paoa Claims Settlement Bill, was passed in 2023.

This settlement addresses Crown actions and omissions that caused immense harm to Ngāti Paoa, including land confiscation, the effects of native land laws, and Crown purchasing that left the iwi virtually landless. The settlement provides a Crown apology, cultural redress, and financial and commercial redress.

Council must ensure that sites specific to Settlements are acknowledged accordingly when the SAPs are being implemented and we will continue to engage with Ngāti Paoa to determine their aspirations and needs when implementing the SAPs in Ngāti Paoa areas of interest.

Ngāti Paoa also have interest in the following Collective settlements:

- Ngā Mana Whenua o Tāmaki Makaurau Collective: Ngāti Paoa is part of this collective, which addresses shared interests in the Auckland region.
- Pare Hauraki Collective: The iwi is a member of this collective of 12 iwi with interests in the Hauraki region.
- Marutūāhu Collective: Ngāti Paoa is one of the Marutūāhu iwi (alongside Ngāti Maru, Ngāti Tamaterā, Ngaati Whanaunga, and Te Patukirikiri) that signed a collective redress deed for shared interests. Several hui have been undertaken with Ngāti Paoa and we will continue to work with them to ensure that their perspective and aspirations are met when SAP implementation begins in their areas of interest.



### 3.4 Ecological context



The Ōrākei to Tahuna Torea SAP is located within the Tāmaki Ecological District (McEwen, 1987) and is bounded to the north by several beaches that form part of the coastal and marine environment of the Hauraki Gulf. The ecosystems of this SAP area are largely modified, however, they do maintain a degree of natural character and ecological value, despite being located so close to Auckland city centre. The bays across this area provide roosting, foraging, and breeding habitat for a wide range of At Risk coastal birds, and the mangrove inlets provide habitat for cryptic wetland birds including banded rail (*INaturalist*, n.d.; Sullivan et al., 2009).

#### Ecosystems and significant ecological areas

There are 7 indigenous ecosystem types that cover approximately 121.6 ha within the boundaries of this area. These include nine forest ecosystems, one cliff ecosystem, one dune ecosystem, three regenerating ecosystems, one coastal saline ecosystem, five wetland ecosystems, and three regional variants, as described by the regional ecosystem classification system (Singers N. , et al., 2017). Taonga species within the area will be informed based on local iwi recommendations, as different hapū and iwi associate with different taonga species.

A more detailed discussion of the key features, located within each unit, is included in Volume 3. This includes ecological features and values that may influence the selection of adaptation strategies or are vulnerable to climate change hazards. The table below has been informed by Significant Ecological Area (SEA) schedules and descriptions (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 Ōrākei to Tahuna Torea is reflected in several national and regional policy documents and more specifically, local board plans for the two local boards (Waitematā Local Board Plan 2023 and the Ōrākei Local Board Plan 2023). Taonga species within the area will be informed based on local iwi recommendations, as different hapū and iwi associate with different taonga species.

Table 3: Summary by SAP unit of Ōrākei to Tahuna Torea vulnerable ecological features and values.

| Unit | Summary of ecological features and values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <p>Unit 1 encompasses the coastal environment between Dove-Myer Robinson Park to Newmarket Stream, an artificially-lined watercourse that drains into Hobson Bay.</p> <ul style="list-style-type: none"> <li>Dove-Myer Robinson Park is classified as coastal broadleaved forest. This forest is contiguous with several parks/reserves to the east, including Hobson Bay Esplanade Reserve and Awatea Reserve which are classified as pōhutukawa treeland.</li> <li>Hobson Bay is a modified, tidal bay that has maintained a degree of natural character and ecological value despite being located so close to the CBD. The fringes of Hobson Bay are characterised by expanding areas of mangrove forest which provide important wading habitat for a variety of avifauna, including white-fronted tern, variable oystercatcher and Caspian tern (New Zealand eBird, n.d.).</li> <li>Hobson Bay is also recognised as important breeding habitat for a variety of shag species. Banded rail, a cryptic wetland bird, has also been recorded within the mangroves to the north of Shore Road Reserve (iNaturalist, n.d.).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 |
| 2    | <p>Unit 2 includes the coastal land between Thomas Bloodworth Park to the northern banks of Purewa Creek.</p> <ul style="list-style-type: none"> <li>Waiatarua Reserve is located to the south of Shore Road Reserve and is the largest urban wetland restoration project in the country (Auckland Council, 2024). Mangrove forest from Hobson Bay grades into raupō reedland which grades into a small area of broadleaved scrub. <i>Pimelea tomentosa</i> can be found within the vegetation of this reserve.</li> <li>Ōrākei Basin is a tidal basin that was created by a now-extinct volcano in Auckland's volcanic field. It is surrounded by planted, mixed, native-exotic vegetation. It is recognised as an important breeding area for pied shag, little pied shag, and little black shag.</li> <li>Coastal broadleaved forest makes up several of the reserves surrounding Purewa Creek, including Kepa Bush Reserve and Tahapa Reserve East. This coastal forest transitions into some of the largest mangroves in the Tāmaki Ecological District which grow along the stream edges. A variety of native freshwater fish have been recorded within Purewa Creek and its upper tributaries (NIWA, n.d.). There are several patches of seagrass found along the tidal flats near the stream (Department of Conservation, 2011).</li> <li>Ngāpipi Cliff Reserve and Paratai South Reserve also comprise coastal broadleaved forest with ancient pōhutukawa individuals located along the cliff line.</li> </ul> |
| 3    | <p>Unit 3 includes a series of reserves and parks, namely Tāmaki Drive Reserve, Paratai North Reserve, Ōkahu Park, Ōrākei Domain and Takaparahwau / Bastion Point. There are some small areas of coastal broadleaved forest dotted along the rocky cliffs which surround these reserves.</p> <ul style="list-style-type: none"> <li>A number of coastal avifauna are often found roosting at Takaparahwau / Bastion Point, including New Zealand dotterel, Caspian tern, white-fronted tern, South Island pied oystercatcher, and variable oystercatcher.</li> <li>Seagrass is recorded within Ōkahu Bay Beach (Department of Conservation, 2011).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Unit | Summary of ecological features and values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4    | <p>Unit 4 encompasses several beaches (Mission Bay, Kohimarama and St Heliers), Achilles Point and the coastal cliffs located to the east of St Heliers.</p> <ul style="list-style-type: none"> <li>There is minimal indigenous vegetation within this unit, with the exception of one small area of pōhutukawa treeland adjacent to Kohimarama Yacht Club and a thin layer of coastal broadleaved forest located at the eastern cliffs.</li> <li>A wide variety of coastal avifauna have been recorded along the entire unit, including variable oystercatcher, South Island pied oystercatcher, white-fronted tern, and royal spoonbill (iNaturalist, n.d.).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5    | <p>Unit 5 includes the northwestern coastal cliffs of Karaka Bay and several reserves, including Anderson's Beach Reserve, are bordered by coastal broadleaved forest. Small areas of seagrass have been recorded at Karaka Bay (LAWA, 2023), which is Nationally Declining.</p> <ul style="list-style-type: none"> <li>The Tahuna Torea Nature Reserve is a SEA consisting of a 1 km sand spit that extends across the estuary channel. All the ecosystems present at this reserve are vulnerable to coastal hazards (Bishop &amp; Landers, 2019). These include saltmarsh, shell barrier beach and mangrove scrub. Regenerating broadleaved scrub is also present. The site also has freshwater raupō reedland wetlands that forms an ecological sequence with the coastal marine ecosystems. This reserve is recognised as a key shorebird roost and attracts a wide variety of avifauna, including South Island pied oystercatchers and Caspian tern.</li> <li>The site is also a BFA and Auckland Council, in collaboration with community volunteers is actively involved in managing and restoring the ecological features and values of this reserve. A notable ongoing effort by the Council involves the removal of mangroves, prompted by the disappearance of a high-tide bird roost due to encroachment (J. Andrews, pers. comms. 2024).</li> </ul> |

## Potential opportunities: nature based solutions

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

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

The Ōrākei to Tahuna Torea coastline features an array of ecosystems, supporting and providing habitat for a range of species across the SAP area, particularly for shorebirds in areas around Tahuna Torea.

The resilience of native fauna populations is dependent on the protection or provision of alternative, suitable sites as part of adaptation strategies where in-situ management is not feasible.

In the context of shoreline adaptation planning, the following ecological objectives merit consideration:

- Maintaining and enhancing indigenous vegetation and ecological corridors, working to contribute to the adaptive capacity of fragmented coastal vegetation and support ecosystem services for the coastal environment.
- Minimising impacts on nearshore marine habitats, noting the impact of sedimentation and encroachment into the near-shore mangrove forest and scrub, soft sediment habitats and intertidal reefs, which are known to be particularly vulnerable to coastal squeeze as sea level rises with limited adaptive capacity.
- Minimising impacts on threatened and at-risk species, such as shorebirds, cryptic wetland birds (banded rail), seagrass, marine mammals, freshwater fish and copper skink.

To meet these objectives, opportunities for nature-based solutions should be factored into decision making in implementation, with some of these opportunities including but not limited to:

- Wetland restoration for Unit 5: Potential restoration areas include Tahuna Torea.
- Restoration of coastal terrestrial vegetation: Removal of pest plants (e.g. pines, agapanthus, pampas). Retention of indigenous vegetation such as pōhutukawa and toetoe.
- Restoration and protection of vulnerable and uncommon coastal ecosystems: This is particularly relevant to Unit 5 (with a focus on the Tahuna Torea salt marsh and seagrass at Karaka Bay), noting that the restoration and protection of salt marsh and seagrass ecosystems can also aid in reducing and dissipating wave and tidal energy and sequester carbon.

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



Figure 3-2: Dotterel in seagrass. Photo credit: Shaun Lee.



## 3.5 Social and policy context

The social (and policy) context provides a foundation of knowledge for testing adaptation 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

At the time of the 2023 Census, there was a slight decrease in usual residents in the wider Waitematā and Ōrākei local board areas, noting that the Ōrākei local board area represents approximately 5% of the Auckland population, whilst the Waitematā local board area represents approximately 4.9% of the Auckland population as a whole. According to the 2023 census, the median age across the wider Ōrākei to Tahuna Torea area is the 34.5 years, which is ever so slightly below the regional median of 36.

Within the Ōrākei to Tahuna Torea SAP area, the majority of the population identify as being of New Zealand European ethnicity which is significantly higher than the regional proportion of 49.8%. Other prominent ethnicities include those who identified as Asian, Māori and Pacific Peoples, with smaller percentages for those that identify as Middle Eastern, Latin American, and African.

### Community groups and organisations

Based on desktop research, approximately 36 active community organisations have been identified within the Ōrākei to Tahuna Torea SAP area. This review of organisations will be supplemented by consultation and engagement feedback that furthers understanding of the range of activities that the community is involved in.

The majority of these groups are located within Units 2, 4 and 5. These community organisations include:

- Glendowie Boating Club
- Glendowie Scout Hall
- Kohimarama Yacht Club
- Glendowie Bowling Club
- International Taekwon – Do
- Tāmaki Yacht Club
- Glendowie Girl Scouts
- Glendowie

Popular local sporting clubs include, but are not limited to:

- Eastern Suburbs AFC
- Glendowie Tennis Club
- Parnell Cricket Club
- Glendowie Bowling Club
- Grammar Tec Rugby Club

Community Groups include:

- Mission Bay-Kohimarama Residents' Association
- Ōrākei RSA
- Parnell Rotary Club
- Newmarket Rotary Club
- Parnell Business Association

Additionally, environmental protection and restoration is also a key focus for many community groups within this SAP area. Volunteer efforts are often place-based, with notable initiatives led by groups such as the Revive Our Gulf Project, Auckland East Community Network, and the Eastern Bays Songbird Project, working in partnership with local iwi across the coastline. Many other local groups undertake ecological restoration in other parks, reserves and water courses throughout the SAP area. The Tāmaki Estuary Environmental Forum (TEEF) and the Tāmaki Estuary Protection Society are two other prominent groups operating along this part of the coastline, with a strong focus on environmental outcomes for the wider Tāmaki Estuary (i.e. restoring the Tāmaki Estuary and surrounding waterways).

Each of these organisations have their own values and serve a unique function in the community. Changes to the assets which these groups and organisations use will need to be considered as part of adaptation planning and will be informed by community engagement processes. It is important to acknowledge the social and community values held by these groups and organisations while also recognising any changes to the assets they use will likely affect the current use and interest of these community groups and organisations. It is also highly likely that following extreme weather events and emergencies, such as those experienced in Auckland in 2022, new groups and organisations may temporarily form across the wider coastline/ coastal communities.



## Relevant 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 key plans and documents of relevance to the Ōrākei to Tahuna Torea SAP development. Key documents are identified as applicable to the programme in Volume 1 and at a unit scale in Volume 3.

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

- Asset-specific asset management plans (various including Auckland Transport, Stormwater Asset Management Plan, Watercare Services, Open Space Strategic Asset Management Plan, and Community Facilities Strategic Asset Management Plan)
- Auckland Council Long Term Plan 2024 – 2034 (Auckland Council, 2024)
- Auckland Unitary Plan 2016
- Hobson Bay Action Plan (Auckland Council, 2012)
- Ōrākei Local Board Natural Environment Enhancement Plan (2019)
- Ōrākei Local Path (Greenways) Programme Plan (Auckland Council, 2016b)
- Parnell Plan 2019 (Auckland Council, 2019b)
- Point Resolution Taurarua Plan 2015 (Auckland Council, 2015)
- Tāmaki Drive Master Plan (Auckland Council, 2013)
- The Landing Concept Plan (Auckland Council, n.d (b))
- The Ōrākei Sport and Active Recreation Facility Plan (Auckland Council, 2021)

- Ōrākei Local Board Plan 2023
- Waitematā Greenways Plan (2013)
- Combined Reserve Management Plan (Ngāti Whātua Ōrākei Reserves Board, 2021)
- Waitematā Local Board Open Space Network Plan 2019 – 2029 (Auckland Council, 2019a)
- Kēpa Bush Reserve Integrated Plan. Auckland Council. (2018).



### Community use

This section provides an overview of the key land uses within the Ōrākei to Tahuna Torea area. Although this includes uses and activities outside Council or CCO-owned land, this aids with understanding the wider context, the potential levers that influence development, and how the area is used by communities.

The coastline across the Ōrākei to Tahuna Torea SAP area is predominantly urban and suburban, with a mix of residential areas, parks, and nature reserves. Most suburbs within the SAP area have small village/town centres with retail areas and eateries. Key commercial hubs include Ōrākei Bay Village, Newmarket, Mission Bay promenade, Glendowie, Parnell shops and St Heliers.

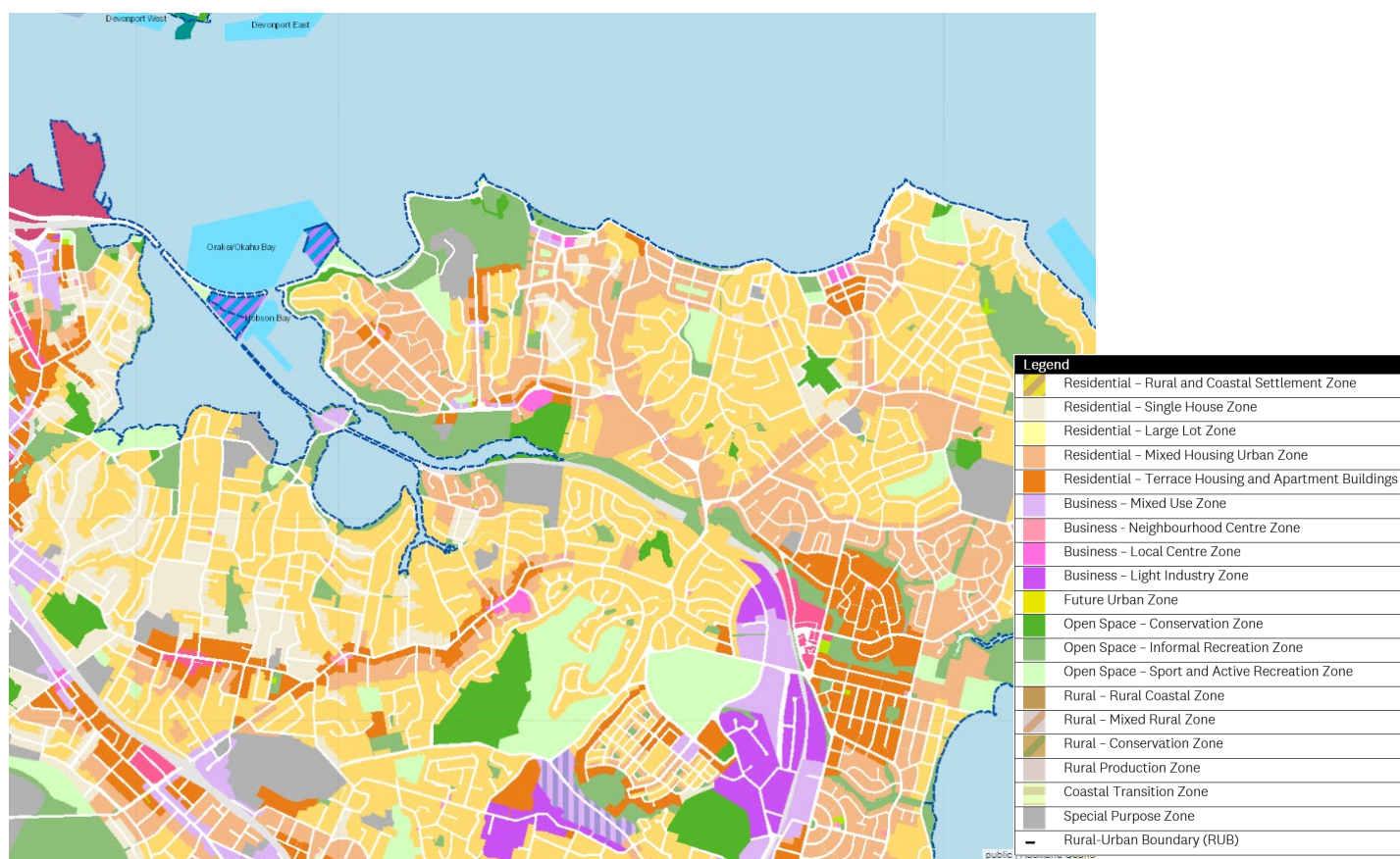


Figure 3-3: Zoning (AUP(OP) for the Ōrākei to Tahuna Torea SAP area

There is an extensive and well-connected transport network across the SAP area, main arterials, bus routes and railway stations. Key transport routes via car or bus include Tāmaki Drive which is a scenic waterfront road running parallel to the coast and connecting Parnell, Ōrākei, Mission Bay, Kohimarama, and St Heliers. Shore Road and Kēpa Road are also major connecting roads within the SAP area. Active modes of transport are also provided for. The Tāmaki Drive Coastal Path starts in

the Auckland city centre, near the Ports of Auckland, and follows the coastline eastward. It passes through Parnell, and Mission Bay before ending at St Heliers. It passes through Units 1, 3 and 4 (Auckland Council, 2024 f). The Glen Innes to Tāmaki shared path also provides for walking and cycling, connecting from Glen Innes through to Ōrākei.

The Ōrākei and Meadowbank stations are located within Unit 2. They are part of the Eastern line and serve as crucial nodes in the area's public transportation network, providing connections throughout East Auckland and to and from the CBD (Auckland Transport, 2024d). Newmarket train station (Unit 1) services both the Western and Southern lines and is a major transport hub.

Throughout the SAP area, there are numerous recreational facilities. These are concentrated in and around the southernmost units of the SAP area. Recreational facilities of note include:

- Parnell Baths outdoor swimming pool facility (Unit 1).
- Parnell Rose Garden (Unit 1).
- Royal Akarana Yacht Club and the Outboard Boating club provide boat access to the Waitematā Harbour (Unit 3) as well as private boat mooring.
- Kelly Tarlton's Aquarium wildlife attraction, featuring marine animals and over 30 exhibits. (Sea Life Kelly Tarltons Auckland, n.d) (Unit 3).
- Function and events centres popular for weddings: Ōkahu Functions and Events, Mantells Tāmaki Drive and Five Knots (Unit 3).
- Sports facilities and fields across the SAP area include Shore Road Reserve (Unit 1), Ōrākei Domain (Unit 3), Madill's Farm (Unit 4), Vellenoweth Green (Unit 4) and Glover Park (Unit 4).

There are several conservation areas located throughout the SAP providing for conservation efforts within the region as well as recreational facilities for sports and community activities. Conservation areas include Kepa Bush Reserve (Unit 2), Ōrākei Basin (Unit 2), Pourewa Reserve (Unit 2) and Waitaramoa Reserve (Unit 1), and Tahuna Torea (Unit 5).

Future land use intentions (both planned and aspirational) for the Ōrākei to Tahuna Torea area anticipate significant growth, with several key projects currently underway or in the planning stages. Key development aspirations for these local boards include the following outcomes:

- Working with Ngāti Whātua Ōrākei to develop a multi-use sports facility in the Ōrākei Domain and improve connectivity between Ōkahu Bay, Tāmaki Drive, and Pourewa Reserve.
- Exploring new funding mechanisms to acquire and enhance open spaces.
- Supporting a 'sponge city' approach with effective blue-green networks, in response to climate change impacts such as coastal inundation and silt accumulation.
- Enhancing the ecology of the Pourewa Valley in collaboration with Ngāti Whātua Ōrākei, including the use of plants from the Ngāti Whātua Ōrākei plant nursery on Kepa Road. This includes delivering on the objectives of the Pourewa Valley Integrated Management Plan (Ōrākei Local Board, 2020).
- Progressing the remaining stages of Te Ara ki Uta ki Tai shared path.
- Progressing the Hobson Bay Tunnel Project to increase sewerage capacity.

There are also a number of aspirations relating specifically to land within the SAP area managed by Ngāti Whātua Ōrākei. This includes Whenua Rangatira<sup>6</sup>, a 50 ha recreational reserve that encompasses Takaparawhau/Bastion Point and Ōkahu Bay. This reserve is managed by the Ngāti Whātua Ōrākei Reserves Board, a statutory authority established under the Ngāti Whātua Ōrākei Settlement Act 2012 (and prior to that the Ōrākei Act 1991) to co-govern the Whenua Rangatira and Pourewa Creek Recreation Reserve (Ngāti Whātua Ōrākei, 2018).

The Ōrākei Masterplan (Ngāti Whātua Ōrākei, 2022) and the Combined Reserve Management Plan<sup>7</sup> for Whenua Rangatira and Pourewa Valley (Ōrākei Local Board, 2020) propose a range of future developments for Whenua Rangatira. These include cultural infrastructure, Kaiinga Tuarua housing with higher-density options such as apartments, road upgrades, environmental conservation initiatives, enhancements to Kepa Bush with increased planting and a wider network of walking tracks, stream daylighting, better pedestrian links, waka ama launch points, relocation of key roads (including Tāmaki Drive), stormwater upgrades, energy networks, sporting facilities, and marine education centres.



### Community buildings / assets

Social infrastructure, which may be located on Auckland Council-owned land or other landholdings identified by the community are relevant when considering adaptation strategies. Social infrastructure can play a pivotal role during extreme weather events, as a common meeting point and shelter during extreme weather and climate induced disasters, including those within coastal environments. This infrastructure is distributed throughout the SAP area but is concentrated more highly in Units 2 and 4.

Most of the key settlements contain a community hall or sports club which serve as central meeting places for the communities, including the following (noting this is not an exhaustive list). In addition to those listed below, key social infrastructure services and formal community spaces are reflected where relevant/ appropriate at a unit scale in Volume 3.

- |                                          |                           |                                |
|------------------------------------------|---------------------------|--------------------------------|
| • Akarana Marine Sports Charitable Trust | • Glendowie Scout Hall    | • Parnell Sat Water Baths      |
| • Auckland Water Ski Club                | • Grammar Tec Rugby Club  | • Royal Akarana Yacht Club     |
| • Eastern Suburbs AFC                    | • Ōrākei Community Centre | • St Heliers Community Library |
| • Kohimarama Yacht Club                  | • Outboard Boarding Club  | • Tāmaki Yacht Club            |
| • Glendowie Bowling Club                 | • Parnell Cricket Club    |                                |

<sup>6</sup> Ngāti Whātua Ōrākei. (n.d.). *Whenua Rangatira*. In *Toi Taiao*. Ngāti Whātua Ōrākei. Retrieved August 18, 2025, from <https://ngatiwhatuaorakei.com/toi-taiao/whenua-rangatira/>

<sup>7</sup> **Ngāti Whātua Ōrākei Reserves Board.** (n.d.). *Combined Reserve Management Plan: Whenua Rangatira and Pourewa Creek*. Ngāti Whātua Ōrākei. Retrieved August 18, 2025, from [https://ngatiwhatuaorakei.com/media/dezkgj2v/0002\\_nwo\\_combined-reserve-management-plan\\_digital-final\\_-74775.pdf](https://ngatiwhatuaorakei.com/media/dezkgj2v/0002_nwo_combined-reserve-management-plan_digital-final_-74775.pdf)

Local educational facilities in proximity to the coast include but are not limited to:

- Unit 2
  - Victoria Avenue School
  - Saint Kentigern Boys School
  - Saint Kentigern Girls School
  - Baradene College
  - Mt Carmel School
  - Ōrākei School
- Unit 4
  - St Ignatius School
- Unit 5
  - Churchill Park School



### Key projects, critical infrastructure, facilities or key infrastructure

In the Ōrākei to Tahuna Torea area, several projects are set to improve mobility, foster sustainable environments, enhance public spaces, and stimulate economic growth in Auckland's city centre. The majority of these proposed initiatives are located within Unit 2 of the SAP area. Notable projects include (non-exhaustive):

- **Ōrākei main sewer repair** and relining work to rehabilitate the damaged section of the sewer and the sinkhole on St Georges Bay Road (Unit 2) (Watercare, 2024).
- **Meadowbank community centre**, highlighted in the Community Facilities Network and Action Plan, will be upgraded to a high-quality facility to better serve the local communities. The new centre will be double the size of the current one, offering a place for people to gather, learn, and enjoy more services and programs. The centre will be on the ground floor with homes above and will continue to provide some services currently located at 22 Tahapa Crescent, Meadowbank, and formerly at 4 Victoria Avenue, Remuera. Located within the SAP area (Unit 2), this new community centre aims to support community engagement and growth (Eke Panuku, 2024).
- **Glen Innes to Tāmaki Drive shared path / Te Ara Ki Uta Ki Tai:** Auckland Transport and the NZ Transport Agency are creating a shared path for cyclists and pedestrians from Merton Road near Glen Innes Station to Tāmaki Drive, allowing people to walk, run or cycle from Auckland's eastern suburbs to Waitematā Harbour. Stages 1-3 have been completed. Stage 4, the final stage of Te Ara Ki Uta Ki Tai, is an 870 m bridge and boardwalk in Hobson Bay, connecting from Ōrākei Road to Whakatakataka Reserve (Unit 2) (Auckland Transport, 2024(b)) which is currently under construction.

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 Ōrākei and Waitematā 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 found on the Auckland Council website [here](#). Civil defence centres and hubs identified in these plans are generally set back from the coastal edge and may be identified in Volume 3 where applicable to coastal adaptation strategies.

## Landscape features and character



Portions of the SAP area are designated as Outstanding Natural Features (ONF), with nine ONFs identified within the Ōrākei to Tahuna Torea SAP. Listed below are locations designated as ONF or landscapes. These may hold significant community and regional values associated with their preservation and appreciation (Auckland Council, 2016a), (Tūpuna Maunga Authority, 2019).

- Parnell Baths Parnell Grit, (Unit 1)
- Ōrākei Basin volcano (Unit 2)
- Ōrākei Greensand Miocene fossils, Hobson Bay (Unit 2)
- Kepa Rd landslip (Unit 2)
- Pourewa Estuary (Unit 2)
- Ōkahu Bay bayhead fill (Unit 3)
- Mission Bay Thrust (Unit 2)
- St Heliers - Karaka Bay Waitematā Group and shoreline (Unit 4)
- Tahuna Torea cusped foreland and shell spit (Unit 5)

Tāhuna Tōrea in Unit 5 is the largest, most accessible and outstanding example of a cusped foreland formed from two sand/shell spits in the Auckland region. A low triangular shell and sandspit encloses salt marsh and ponds at the western end, with a narrow shell spit extending a further 1 km out across Tāmaki Estuary. The distal shell spit shifts in response to wind, wave and tidal action



## Historic and cultural heritage

This Ōrākei to Tahuna Torea SAP area contains 52 historic and cultural heritage areas, including several pā sites, middens, plaques and various types of buildings under the Auckland Unitary Plan (AUP:OP) with 27 in Unit 1, six in Unit 2, six in Unit 3, ten in Unit 4, and three in Unit 5. The majority of these historic heritage areas are in Parnell (Unit 1) with 28 of the 52 historic heritage areas in this location, 11 of which are listed as Category A sites recognised for their outstanding significance well beyond their immediate environment (Auckland Council, 2016a). A more detailed discussion of the key cultural landscapes and historical features, located within each unit, is included in Volume 3. This includes cultural sites and heritage features/ structures that may influence the selection of adaptation strategies or are vulnerable to climate change hazards.

Whenua Rangatira, which is a 50 ha area of land managed by Ngāti Whātua Ōrākei (discussed under the community use section) includes key sites such as Bastion Point (Takaparawhau) and Ōkahu Bay as well as other lands that overlook Waitematā Harbour. These lands are culturally significant.

The foreshore area at Karaka Bay in Unit 5, below Peacock Street, is of significance to mana whenua as it is the site of several battles and the location of signing Te Tiriti o Waitangi.

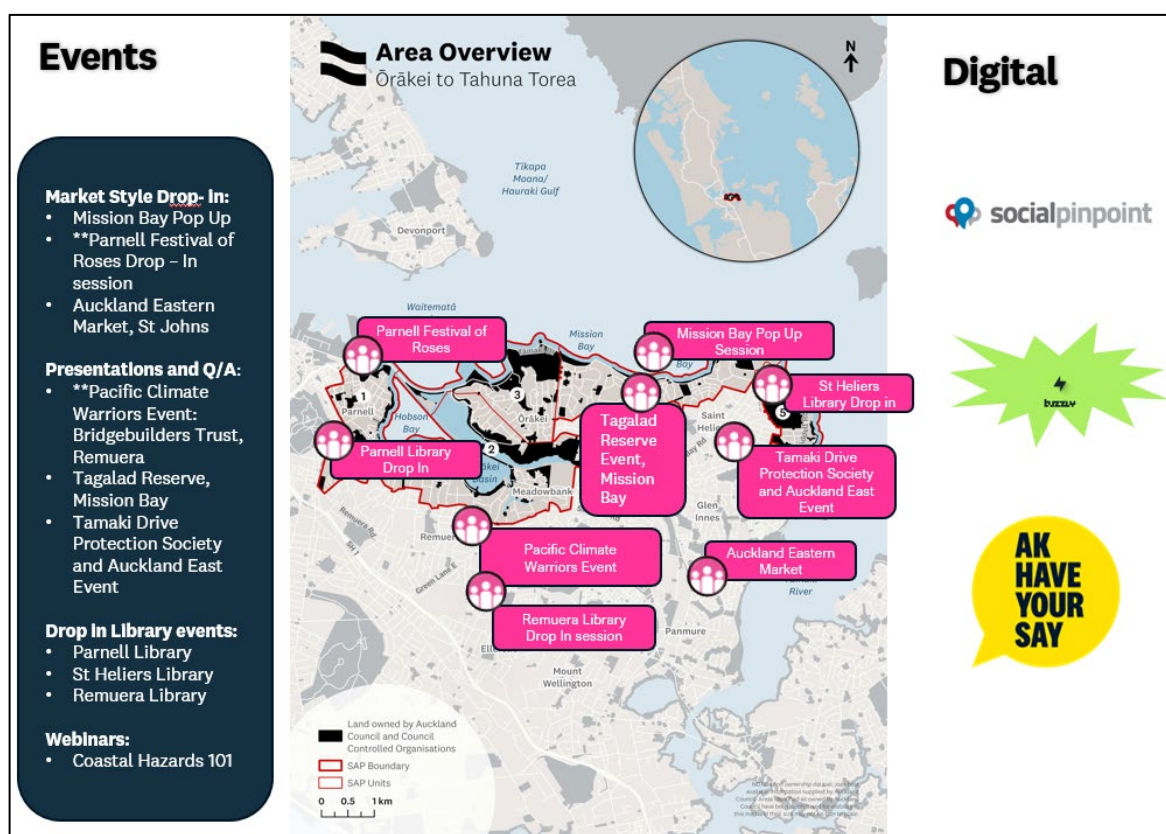
Heritage features are identified at a unit and stretch level in Volume 3. Engagement with Heritage New Zealand may be needed to understand whether any heritage features are exposed to climate hazards or are likely to be impacted by the implementation of adaptation strategies.



## 3.6 Community Feedback

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

Community engagement for the Ōrākei to Tahuna Torea SAP was open from the 29 October - 18 December 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 the figure below, with notes from each event capturing basic attendance observations and key issues or matters discussed. The key call to action at both in-person events and digital engagement platforms during the community engagement window was to identify ‘what matters most’ to communities about public coastal areas and their associated facilities, socialise and seek feedback on draft coastal adaptation strategies, educate communities on coastal hazard risks, and understand future aspirations. Refer to Volume 1 for more on the methodology used to plan and undertake community engagement.



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

- Approximately 37 comments were received via the digital platform Social Pinpoint.
- 46 surveys were completed via the ‘AK Have Your Say’ Platform.
- Feedback captured during meetings and discussions with key stakeholders (i.e. Tāmaki Drive Protection Society, Tāmaki Estuary Environmental Forum, Auckland East Protection Society), as well as site-specific information and recommendations from groups with interests in specific areas.
- Community submissions (discussed further below).

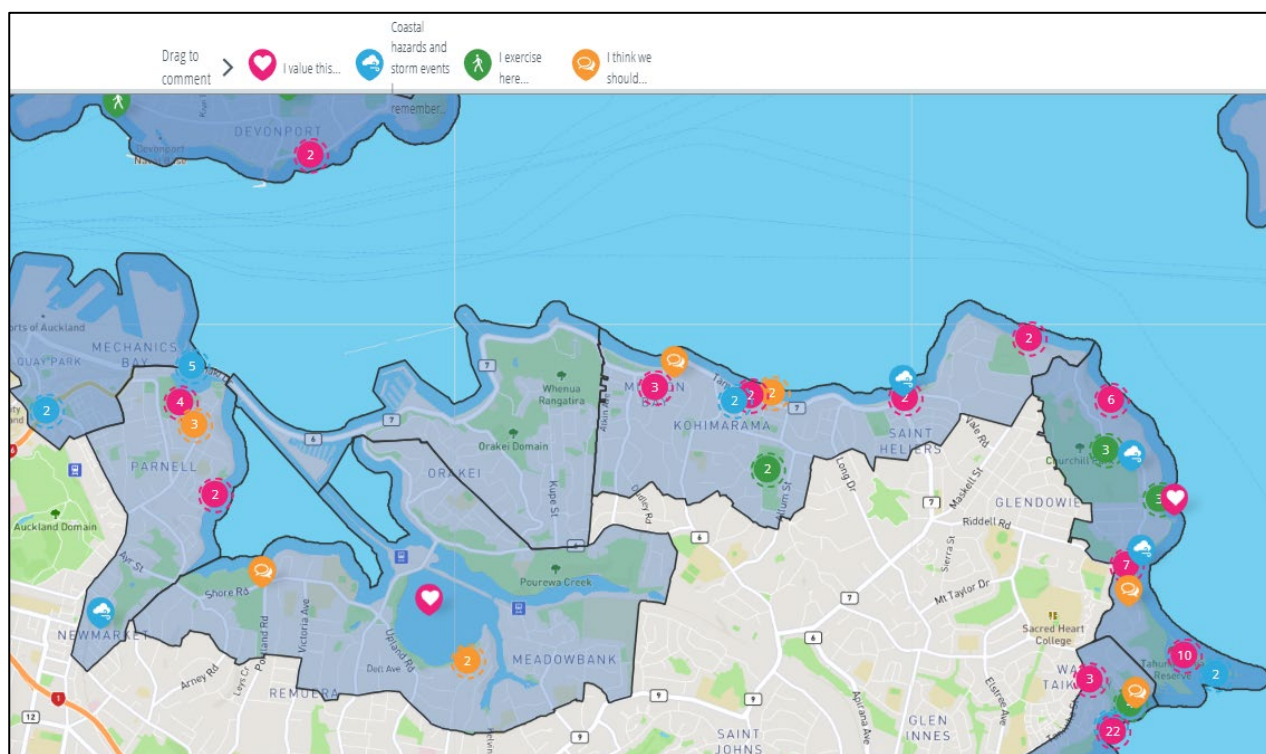


Figure 3-4: Social Pinpoint screengrab showing the spatial location of community feedback for the Ōrākei to Tahuna Torea SAP area during the engagement window.

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

## Who did we hear from

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

|                                |                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Connection to the coast</b> | <ul style="list-style-type: none"> <li>The majority of submitters lived within the Ōrākei to Tahuna Torea SAP area, with others visiting the coast for recreational purposes.</li> </ul>                  |
| <b>Local board area</b>        | <ul style="list-style-type: none"> <li>The majority of submitters identified with the Ōrākei Local Board (89%), followed by Waitematā (7%), Maungakiekie-Tāmaki (2%) and Albert – Eden (2%).</li> </ul>   |
| <b>Gender</b>                  | <ul style="list-style-type: none"> <li>A slightly higher percentage of males (27) than females (19) responded to the Have your Say survey.</li> </ul>                                                     |
| <b>Ethnicity</b>               | <ul style="list-style-type: none"> <li>A significant portion in this area say the ethnic group they belong to is Pākehā /NZ European, followed by those whole selected ‘Asian’ and ‘Pasifika’.</li> </ul> |
| <b>Age group</b>               | <ul style="list-style-type: none"> <li>Of those who engaged in digital feedback, the majority are aged 55-64 or 65+, followed by those aged between 35- 54.</li> </ul>                                    |

## Community discussions

In addition to digital engagement platforms and in-person events, feedback was also received via submissions sent to the SAP in box. These were primarily from residents and community groups (Tāmaki Estuary Protection Society, the Tāmaki Drive Protection Society) associated with the SAP area.

Over the course of engagement, webinars and direct engagement with key community groups also took place, including a Coastal Hazards 101 deep dive webinar and presentations to the Auckland East Society and the Tāmaki Drive Protection Society, as well as the Tāmaki Estuary Environmental Forum. Additionally, with a focus on capturing a wide array of demographics, the SAP Team ran a youth-targeted campaign in late 2024 via Buzzly.nz, a youth-targeted platform run via a partnership with Auckland Council and the Mission Impact Foundation<sup>8</sup>.

As highlighted in *Volume 1: Understanding the Shoreline Adaptations Plans*, and under the local board views section above, SAPs are living documents, with a note that initial community engagement over the course of developing the Ōrākei to Tahuna Torea SAP marks the beginning of an ongoing dialogue with communities about how we adapt our coastlines (room for further engagement with local communities in implementation of this plan).

<sup>8</sup> <https://buzzly.nz/challenge-hub/details/7>

## Local Board Views

During the development of the Ōrākei to Tahuna Torea SAP, locals boards (Ōrākei and Waitematā) highlighted a range of considerations, including but not limited to:

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Plain language</b>                   | <ul style="list-style-type: none"> <li>• Advocacy for plain language in coastal management and adaptive planning.</li> <li>• Local boards supported the shift toward using clear, accessible language, particularly in communicating adaptation pathways. Reflecting this, terminology describing the overarching strategies within the SAP report has been updated.</li> </ul>                                                                                                                                                                                     |
| <b>Engagement and education</b>         | <ul style="list-style-type: none"> <li>• A key matter raised was the importance of ensuring that community feedback accurately reflects the voices of those across the area.</li> <li>• The need for continued engagement with local communities, iwi, and local boards through educational workshops and in-person events located within local board areas was noted.</li> <li>• This acknowledges that adaptive planning is a complex kaupapa, requiring time, trust, and sustained relationship-building to ensure meaningful and inclusive outcomes.</li> </ul> |
| <b>Living documents</b>                 | <ul style="list-style-type: none"> <li>• The importance of recognising SAPs as living documents, marking the beginning of an ongoing dialogue with communities about how we adapt our coastlines.</li> </ul>                                                                                                                                                                                                                                                                                                                                                        |
| <b>Signals, triggers and thresholds</b> | <ul style="list-style-type: none"> <li>• Consideration of signals, triggers and thresholds in the implementation of coastal adaptation strategies and the need for coastal monitoring.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Critical infrastructure</b>          | <ul style="list-style-type: none"> <li>• Recognition of critical infrastructure and roading connections.</li> <li>• Feedback emphasised the need to identify and account for key roading links and essential lifeline infrastructure (particularly around Tāmaki Drive).</li> </ul>                                                                                                                                                                                                                                                                                 |
| <b>Landslides and instability</b>       | <ul style="list-style-type: none"> <li>• Experience from the 2023 storm events highlighted vulnerabilities in many of the coastal communities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Stormwater management</b>            | <ul style="list-style-type: none"> <li>• The need for integrated catchment management planning.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



## Community uses / values

During community feedback, respondents were asked, ‘*when thinking about the coastal areas they use in the Ōrākei to Tahuna Torea area, which values matter the most to them*’. The most popular centred around recreation and amenity (e.g. general enjoyment, swimming and water sports at the coast), closely followed by ecosystem health (e.g. coastal habitats and biodiversity, fauna and flora) and a sense of connection to the coast. Access to the coast via boat launching facilities for water-based activities (swimming, sailing) was also a common theme in community feedback.

### Uses, access and frequency

The majority of respondents (approx. 57%) said they most often go to the coast by via walking or cycling, closely followed by those who use a private vehicle (35%). Just over half (59%) said they visit

the coast daily or ‘most days’; whilst approx. 28% visit the coast at least once a week. When it came to beaches, the majority visited Mission Bay and Kohimarama the most, closely followed by Ōkahu Bay, Karaka Bay and Hobson Bay. The most popular parks appeared to be Tahuna Torea and The Landing.

### Activities

Activities enjoyed were quite varied across the various units within the Ōrākei to Tahuna Torea covering passive recreation, water-based activities, open-water activities, walking / cycling and nature-watching, etc. Overall, the three most popular were:

- Walking or running on the beach, walkways or roads, e.g. for exercise, dog walking, etc, noting that many respondents commented on their use of popular coastal walkways to get to and from the coastal environment.
- Passive recreation, e.g. sitting, relaxing, picnicking, sunbathing.
- Nature watching, e.g. birds, marine mammals etc.



### Community cultural values / comments

Community responses highlighted:

|                            |                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cultural connection</b> | <ul style="list-style-type: none"> <li>• A strong expression of cultural connection to the land and coastline, particularly in areas of historical significance, e.g. Karaka Bay.</li> <li>• This included recognition of traditional Māori use of the space and appreciation for educational elements such as plaques that explain the cultural history associated with the coast.</li> </ul> |
| <b>Role of local iwi</b>   | <ul style="list-style-type: none"> <li>• The presence and role of local iwi is acknowledged with support expressed for their involvement in planting and conservation initiatives, acknowledging co-governed owned whenua and restoration initiatives around Whenua Rangatira and Pourewa Creek Recreation Reserve.</li> </ul>                                                                 |



### Community values of ecosystems and impacts of climate change

Reoccurring themes across the Ōrākei to Tahuna Torea coastline included, but were not limited to:

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biodiversity and natural landscapes</b> | <ul style="list-style-type: none"> <li>• The coastline is highly valued for its rich biodiversity, natural beauty, and sense of tranquillity.</li> <li>• Local residents strongly support the preservation of natural environments/ landscapes to ensure that future generations can continue to enjoy the area, not only as a biodiversity hotspot but also as a place for quiet recreation and connection with nature.</li> </ul> |
| <b>Water quality and pollution</b>         | <ul style="list-style-type: none"> <li>• A recurring concern was the decline in water quality along the coastline, especially at beaches used for swimming and recreation (i.e. Mission Bay and Kohimarama).</li> </ul>                                                                                                                                                                                                             |

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | <ul style="list-style-type: none"> <li>Contributing factors include sewage overflows, stormwater runoff, and sediment discharge, which are particularly problematic following periods of heavy rainfall. These issues impact both environmental health and public enjoyment of the coast.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Ecosystem changes and sedimentation</b> | <ul style="list-style-type: none"> <li>Feedback highlighted noticeable shifts in local ecosystems, particularly in estuarine environments such as the Ōrākei Basin and Pourewa Creek:               <ul style="list-style-type: none"> <li><u>The spread of mangroves in</u> some areas (specifically around Ōrākei Creek) was seen as both an indicator of ecological change and a contributor to reduced water flow and sediment accumulation. Feedback noted that this expansion of mangroves (whilst not always negative) reflects broader shifts in the health and dynamics of the estuarine environment (growing community concerns around water quality and safe recreational use).</li> <li><u>Pourewa Creek</u>, long-term residents noted a steady buildup of sediment, which was perceived to coincide with a decline in water clarity and habitat quality. These changes were noted as shaping the coastal environment and influencing how it can be used and enjoyed.</li> </ul> </li> </ul> |
| <b>Marine debris</b>                       | <ul style="list-style-type: none"> <li>Concerns were raised regarding accumulation of seaweed, marine debris, and potentially harmful organisms, such as sea slugs, along the shoreline, particularly in poorly maintained areas.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Litter and waste management</b>         | <ul style="list-style-type: none"> <li>Littering was identified as a persistent issue, particularly around public access points and reserves (i.e. Mission Bay).</li> <li>Submissions called for stronger enforcement of existing regulations and better public education to promote responsible behaviour. While this issue falls outside the immediate scope of the SAPs, it has been referred to the relevant Council departments for further action.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Loss of shorebird roosting habitats</b> | <ul style="list-style-type: none"> <li>Respondents highlighted the need to consider shorebird populations across the coastline, with concerns raised about the impacts of sea-level rise on shorebird roosting and feeding grounds, particularly around Tahuna Torea.</li> <li>The impact of sea-level rise on seagrass meadows was also highlighted.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



### Community experience of hazards / concerns

Rainfall flooding (from extreme flood events) and coastal erosion was the most common concern cited by respondents, closely followed by coastal storms and coastal inundation. These insights are identified in Volume 3 in relation to each unit area, with a high-level summary of key themes detailed below:

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stormwater infrastructure and overland flow paths</b> | <ul style="list-style-type: none"> <li>Widespread concern was raised about the capacity and condition of existing stormwater infrastructure along the coastline.</li> <li>Locals questioned whether current systems, e.g. pipes and drains, can effectively manage heavy rainfall or increased surface runoff, with reports of surface flooding and water pooling in multiple locations.</li> </ul> |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ōkahu Bay</b>                                   | <ul style="list-style-type: none"> <li>Flooding of the reserve across the road was seen as contributing to sediment runoff and a visible decline in water quality.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Kohimarama</b>                                  | <ul style="list-style-type: none"> <li>Increased flood risk was reported in central Kohimarama, attributed to poor waterway maintenance and blocked overland flow paths and stream channels.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Ōrākei Basin</b>                                | <ul style="list-style-type: none"> <li>It was felt there was a need for more proactive water-level management, such as lowering the basin before major storms to provide additional capacity and reduce overflow risks, especially when high rainfall coincides with high tides.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Shore Road playing fields</b>                   | <ul style="list-style-type: none"> <li>The playing fields are frequently waterlogged after rain, making them difficult to use.</li> <li>Concerns were also raised about sewage contamination in the creek from Hapua Street (across the reserve), which is perceived to worsen after storms and leads to avoidance of the area by some locals.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Flooding, inundation, and access disruption</b> | <ul style="list-style-type: none"> <li>General flooding in low-lying coastal areas is becoming more frequent, especially when storm surges, high tides, and heavy rainfall coincide. Areas highlighted include but are not limited to: <ul style="list-style-type: none"> <li><u>Te Waitaramoa / Hobson Bay</u>: Coastal storm events have previously made Shore Road and Portland Road impassable, cutting off access to Lower Portland Road and the Waitaramoa Creek Valley. Community concern is that these events will become more frequent with sea-level rise and more intense storm events.</li> <li><u>Ōkahu Bay and Tāmaki Drive</u>: Both areas frequently flood during storms, with Tāmaki Drive inundated by seawater, posing safety risks and disrupting access. Ōkahu Bay also struggles with poor drainage, worsening the impact of heavy rain.</li> <li><u>Flooding during storms</u> often disrupts recreational access to reserves at Waitaramoa Creek and along Shore Road, severing key links between Remuera and Parnell.</li> <li><u>Storms regularly overtop the seawall</u> along Tāmaki Drive, flooding the pedestrian pathway, spilling onto the road, creating unsafe conditions for walkers and drivers.</li> <li><u>Tāmaki Drive</u> is often avoided during storms due to coastal flooding and stormwater runoff, which often leads to beach pollution and deters public use after weather events/ storm impacts.</li> </ul> </li> </ul> |
| <b>Slips, land instability, and erosion</b>        | <ul style="list-style-type: none"> <li>Slips have been observed in Parnell, including at the Parnell Rose Gardens, where heavy rain and saturated soils triggered land instability, particularly on steep or poorly vegetated slopes.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>2023 weather events</b>                         | <ul style="list-style-type: none"> <li>After the 2023 February storms, multiple slips and fallen trees made large parts of the coast inaccessible, highlighting vulnerability during major weather events.</li> <li>Community feedback suggested that more frequent extreme weather due to climate change will increase the likelihood of cliff collapses/ land slips, with some residents arguing that natural erosion processes should be allowed, rather than pursuing artificial cliff stabilisation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Sand availability and coastal erosion</b>       | <ul style="list-style-type: none"> <li>Perception that Kohimarama Beach is experiencing sand loss, especially at its western end, due to increased storm frequency and wave energy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Community values and aspirations



### Values and aspirations for the future

Respondents were asked, when considering overall how they access and use coastal areas across the Ōrākei to Tahuna Torea coastline and what they value about them, what type of values they'd like to see maintained, enhanced, or restored in the future. A broad range of values, aspirations and suggestions were provided, with the highest mentions for 'more/better access to water line....' and 'more shared walking paths'. The next level down was 'improvement of water quality'.



## Community suggestions for management and feedback on strategies

Key themes and topics mentioned included but were not limited to:

### Recreational infrastructure, roading connections and public access:

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Judges Bay</b>                             | <ul style="list-style-type: none"> <li>Support for reinstating the swimming pontoons and constructing a coastal protection structure to enhance recreational use and protect against erosion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Walkway repairs and connectivity</b>       | <ul style="list-style-type: none"> <li>Strong support for restoring and maintaining coastal walkways (e.g. Taurarua/Judges Bay, Parnell, Awatea Reserve), particularly those damaged by slips or blocked by private properties.</li> <li>Advocacy also included a new pedestrian connection to Parnell Baths and repairing the cliff-damaged link between Bloodworth Park and Awatea Street.</li> </ul>                                                                                                                                                                                                                                                                                                                   |
| <b>Coastal connections</b>                    | <ul style="list-style-type: none"> <li>Advocacy for permanent, elevated walkways around Ōrākei and Hobson Bay, with a focus on maintaining year-round access, especially in flood-prone areas.</li> <li>Commentary that extending the Hobson Bay walkway to connect with Shore Road Reserve would establish a continuous coastal route, enhancing public access and creating a buffer for areas vulnerable to flooding.</li> </ul>                                                                                                                                                                                                                                                                                        |
| <b>Parking facilities</b>                     | <ul style="list-style-type: none"> <li>Improve public parking infrastructure to support access to the coastline and beaches, with community feedback highlighting that current reliance on already congested streetside parking is proving unsustainable, particularly as high-density apartment developments continue to be approved with limited on-site and visitor parking.</li> </ul>                                                                                                                                                                                                                                                                                                                                |
| <b>Cycleways and future connections</b>       | <ul style="list-style-type: none"> <li>Community aspirations to complete the final section of the cycleway along the eastern edge of Hobson Bay, up to the boatsheds, was also supported in feedback, with a note that this would work to strengthen active transport networks.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Proactively managing key road networks</b> | <ul style="list-style-type: none"> <li><u>Tāmaki Drive</u>: Strong support for maintaining/ protecting Tāmaki Drive as a key waterfront arterial route/ roading connection, while balancing this with traffic management and alternate routing (e.g. via Kepa Road) during peak periods.</li> <li><u>Vulnerability of Shore Road and Portland Road</u> to coastal storm inundation and flooding in Te Waitaramoa / Hobson Bay, which has impacted/ disrupted community access during storm events. Residents stressed the need for proactive protection of these critical roading connections, including support for the construction of a stopbank along Shore Road to reduce flood risk and maintain access.</li> </ul> |

Coastal protection and coastal hazard management:

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sand replenishment and groyne maintenance</b> | <ul style="list-style-type: none"> <li>Strong community support for an ongoing sand replenishment and groyne maintenance at highly valued coastal locations such as Mission Bay, Kohimarama, and St Heliers.</li> <li>Other feedback points emphasised protection of coastal assets and recreation areas and ensuring high-quality sand that is safe and comfortable for beach users (in contrast to dark coloured sand with sharp shells). Note: The limitations of available sand sources and consenting requirements should be noted with respect to this.</li> </ul> |
| <b>Seawalls</b>                                  | <ul style="list-style-type: none"> <li>Community aspirations to raise and maintain seawalls, especially in areas vulnerable to storm surges and sea-level rise.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Tāmaki Beach</b>                              | <ul style="list-style-type: none"> <li>Feedback that a reduction in sand and damage to boat ramps are limiting access; community support for sand replenishment at this location to improve usability, along with improved boat launching facilities. Note: a range of factors including sand retention structures e.g. groynes would need to be considered in re-establishing a beach at this location.</li> </ul>                                                                                                                                                      |

Stormwater, drainage, and infrastructure pressures:

|                                                |                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stormwater-wastewater management</b>        | <ul style="list-style-type: none"> <li>A key issue was in relation to the continued mixing of sewage and stormwater, leading to pollution in areas such as Hobson Bay (strong advocacy for further investment in separated systems to improve water quality).</li> </ul>                                                                                |
| <b>Wastewater resilience</b>                   | <ul style="list-style-type: none"> <li>Prioritise the protection of key infrastructure, particularly the wastewater network to prevent overflows and contamination during periods of high demand or extreme weather.</li> </ul>                                                                                                                         |
| <b>Stormwater runoff and urban development</b> | <ul style="list-style-type: none"> <li>Increased impervious surfaces due to infill housing and intensification, was placing significant pressure on existing infrastructure; calls for more permeable surfaces, improved drainage planning, and better debris/ leaf litter management (e.g. particularly for trees near storm drains).</li> </ul>       |
| <b>Improving local drainage systems</b>        | <ul style="list-style-type: none"> <li><u>Awatea Reserve</u>: Drainage upgrades to manage runoff and reduce sedimentation in Hobson Bay, protecting sensitive shellfish beds.</li> <li><u>Ōkahu Bay</u>: Support for restoring wetlands and reopening culverts west of the cemetery to enable natural estuary function and flood mitigation.</li> </ul> |

Native coastal vegetation and ecosystem management:

|                                    |                                                                                                                                                                                                                                                                            |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pōhutukawa trees</b>            | <ul style="list-style-type: none"> <li>Strong community support for preserving ‘iconic coastal pōhutukawa’, with a focus on pruning (reducing overtopping) while maintaining aesthetic and ecological values.</li> </ul>                                                   |
| <b>Improved rubbish management</b> | <ul style="list-style-type: none"> <li>Along beachfronts (i.e. Mission Bay), native planting, and removal of invasive weeds to maintain the cleanliness, safety, and natural character of beachfront reserves.</li> </ul>                                                  |
| <b>Restoration efforts</b>         | <ul style="list-style-type: none"> <li>Recognise and collaborate with community groups involved in restoration efforts.</li> <li>Some comments spoke to mangrove overgrowth becoming a significant issue in waterways, impacting ecological balance and access.</li> </ul> |

|                                                          |                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Natural landscapes and biodiversity</b>               | <ul style="list-style-type: none"> <li>Residents emphasised the importance of preserving natural character of the shoreline for future generations and balancing development with environmental stewardship, ensuring the coast remains accessible, resilient, and ecologically diverse.</li> </ul>                           |
| <b>Restoring coastal margins</b>                         | <ul style="list-style-type: none"> <li>Native plantings to buffer coastal impacts and support wildlife like roosting shorebirds.</li> <li>Concerns raised regarding the impact of sea-level rise on vulnerable coastal habitats and the need to proactively support species to adapt.</li> </ul>                              |
| <b>Ecological restoration</b>                            | <ul style="list-style-type: none"> <li>To include pest control and weed removal in beachfront reserves.</li> </ul>                                                                                                                                                                                                            |
| <b>Supporting bird habitats</b>                          | <ul style="list-style-type: none"> <li>Some suggestions to explore dune systems for nesting areas where appropriate (advocacy for nature-based solutions and coastal stability initiatives that support the natural coastline).</li> </ul>                                                                                    |
| <b>Waitaramoa Creek &amp; Te Waitaramoa / Hobson Bay</b> | <ul style="list-style-type: none"> <li>These are recognised as critical ecological and recreational zones.</li> <li>Community feedback strongly advocates for all future efforts in Waitaramoa Reserve, Shore Road Reserve, and Thomas Bloodworth Park to prioritise ecosystem health and biodiversity protection.</li> </ul> |

### Infrastructure resilience:

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rail Infrastructure over Hobson Bay</b>      | <ul style="list-style-type: none"> <li>The railway line built on a causeway over Hobson Bay (across Units 1-3) presents a unique opportunity for Auckland Council to support an innovative engineering solution aimed at protecting critical electric rail infrastructure (encouragement for proactive planning and investment to ensure the long-term resilience of this vital transport asset).</li> </ul> |
| <b>Other suggestions</b>                        | <ul style="list-style-type: none"> <li>Community suggestions included exploring elevated jetties, raising road segments if required, and supporting resilient walkways to adapt to future sea-level rise.</li> </ul>                                                                                                                                                                                         |
| <b>Future planning and community resilience</b> | <ul style="list-style-type: none"> <li>Ongoing community engagement, education, and on-the-ground involvement in climate adaptation initiatives.</li> </ul>                                                                                                                                                                                                                                                  |

Key feedback from communities and local boards has been the need for further and ongoing conversations regarding adaptation and further work on adaptation options alongside decision-making responsibilities. There was general acknowledgement that this is a long-term intergenerational conversation.



## Community objectives for the Ōrākei to Tahuna Torea SAP area

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

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Coastal connections, use and access</b> | <ul style="list-style-type: none"> <li>• Highly valued recreational walking links, such as those between Remuera and Parnell, remain accessible during and after storms by improving flood resilience of pathways and reserves, especially around Waitaramoa Creek and Shore Road.</li> <li>• The importance of enabling recreational activities/ use at the coast is prioritised, with supporting infrastructure and assets (i.e. walkways, boat ramps) maintained and protected where possible.</li> </ul>                                                                                                                                                                                                                                                                   |
| <b>Social and Cultural</b>                 | <ul style="list-style-type: none"> <li>• Recognise and strengthen cultural connections to the coastline by supporting the active role of local iwi in restoration, conservation, and governance, particularly in culturally significant areas such as Karaka Bay, Whenua Rangatira, and Pourewa Creek Recreation Reserve, and by enhancing public understanding of cultural heritage through interpretive and educational elements.</li> <li>• Collaborate with local communities, iwi, and stakeholders to develop locally meaningful indicators and thresholds that reflect the changing coastal environment and impacts of sea-level rise, guiding informed adaptation decisions and building awareness of coastal change and hazard risks across the coastline.</li> </ul> |
| <b>Responding to risk</b>                  | <ul style="list-style-type: none"> <li>• Improve coastal and recreational water quality by advocating for upgraded stormwater and wastewater infrastructure to reduce sewage overflows and runoff, and by supporting ongoing monitoring and remediation efforts at key swimming beaches such as Mission Bay and Kohimarama.</li> <li>• A resilient and connected transport network safeguarded to ensure reliable access throughout the Ōrākei to Tahuna Torea area. This includes maintaining key road links, supporting a range of transport modes, and protecting critical lifeline infrastructure, such as power, telecommunications, public transport, wharves, and boat ramps, ensuring continued access for emergency services and the wider community.</li> </ul>      |
| <b>Environmental</b>                       | <ul style="list-style-type: none"> <li>• Protect shorebird roosting sites and seagrass meadows by supporting monitoring and conservation efforts and supporting nature-based solutions in coastal management, particularly around Tahuna Torea mitigating the impacts of sea-level rise on these and other sensitive coastal habitats.</li> <li>• Manage ecosystem changes and sedimentation by restoring catchments and waterways in estuarine areas such as Pourewa Creek and Ōrākei Basin, whilst monitoring and managing mangrove spread to balance ecological health, recreational access, and water quality.</li> </ul>                                                                                                                                                  |

## 4

## What can we do about it?

### Summary of adaptation strategies per unit

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

#### Climate scenarios

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

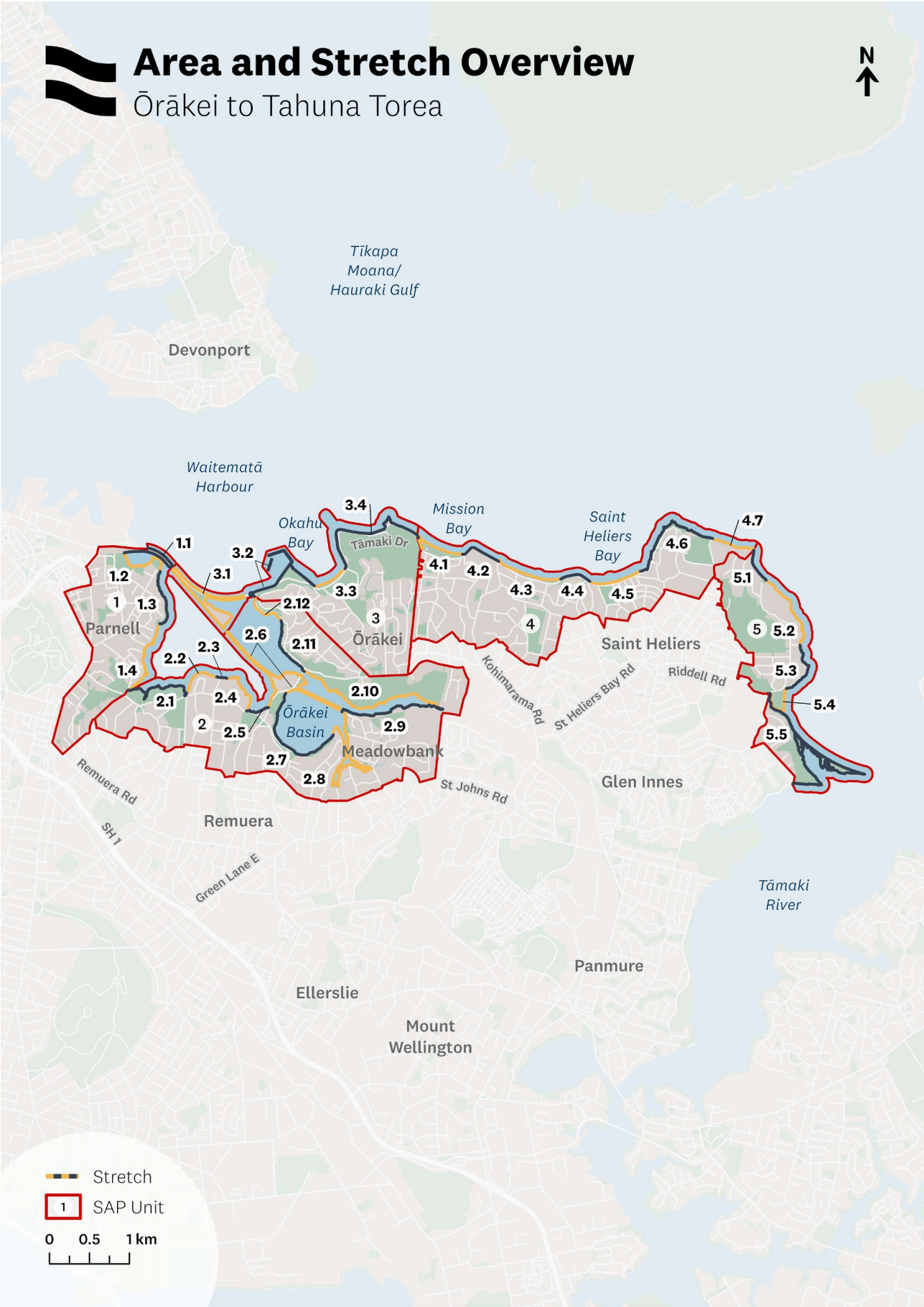
- Low (climate) change – sea-level rise
- Moderate (climate) change – sea-level rise
- High (climate) change – sea-level rise.

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

#### Auckland Council's adaptation strategies

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

| Icon                                                                                | Acronym / colour | Adaptation strategy        |
|-------------------------------------------------------------------------------------|------------------|----------------------------|
|  |                  | <b>No Action</b>           |
|  |                  | <b>Maintain</b>            |
|  |                  | <b>Protect</b>             |
|  |                  | <b>Adaptation Priority</b> |



| Unit                                              | Stretch                                                        | Adaptation Strategy |                     |                     |
|---------------------------------------------------|----------------------------------------------------------------|---------------------|---------------------|---------------------|
|                                                   |                                                                | Low                 | Moderate            | High                |
| <b>1 - Taurarua Judges Bay &amp; Parnell</b>      | 1.1: Tāmaki Drive                                              | Protect             | Protect             | Protect             |
|                                                   | 1.2: Taurarua Judges Bay & Point Resolution                    | Maintain            | Maintain            | Adaptation priority |
|                                                   | 1.3: Hobson Bay west                                           | No action           | No action           | No action           |
|                                                   | 1.4: Hobson Bay south and Newmarket Valley                     | Maintain            | Maintain            | Maintain            |
| <b>2 - Ōrākei</b>                                 | 2.1: Shore Road west                                           | Protect             | Protect             | Adaptation priority |
|                                                   | 2.2: Burwood Crescent                                          | No action           | No action           | No action           |
|                                                   | 2.3 Tinana Wilson's Beach                                      | Maintain            | Maintain            | Adaptation priority |
|                                                   | 2.4: Hobsons Bay Walkway (Tinana Wilson's Beach to Shore Road) | Maintain            | Maintain            | Maintain            |
|                                                   | 2.5: Ōrākei Creek                                              | Protect             | Maintain            | Adaptation priority |
|                                                   | 2.6: Ōrākei Road & Railway Station                             | Protect             | Protect             | Protect             |
|                                                   | 2.7: Ōrākei Reserve west and central                           | Maintain            | Maintain            | Maintain            |
|                                                   | 2.8: Ōrākei /Meadowbank                                        | No action           | No action           | No action           |
|                                                   | 2.9: Pourewa (Pūrewa) Creek South                              | Maintain            | Maintain            | Maintain            |
|                                                   | 2.10: Pourewa (Pūrewa) Creek North                             | Maintain            | Maintain            | Maintain            |
|                                                   | 2.11: Ngapipi Cliff Reserve                                    | Maintain            | Maintain            | Adaptation priority |
|                                                   | 2.12: Ngapipi Road North                                       | Protect             | Protect             | Protect             |
| <b>3 - Ōkahu Bay</b>                              | 3.1: Hakumau Reserve                                           | Protect             | Protect             | Protect             |
|                                                   | 3.2: Tāmaki Drive (The Landing)                                | Protect             | Protect             | Protect             |
|                                                   | 3.3: Ōkahu Bay                                                 | Maintain            | Adaptation priority | Adaptation priority |
|                                                   | 3.4: Tāmaki Drive Takaparawha Point (Whenua Rangatira)         | Protect             | Adaptation priority | Adaptation priority |
| <b>4 - Mission Bay, Kohimarama and St Heliers</b> | 4.1: Mission Bay                                               | Protect             | Protect             | Adaptation priority |
|                                                   | 4.2: Tāmaki Drive Pipimea Point (Mission Bay to Kohimarama)    | Protect             | Protect             | protect             |
|                                                   | 4.3: Kohimarama Beach                                          | Protect             | Protect             | Adaptation priority |
|                                                   | 4.4: Tāmaki Drive Gower Point                                  | Protect             | Protect             | Protect             |
|                                                   | 4.5: St Heliers Beach                                          | Protect             | Protect             | Adaptation priority |
|                                                   | 4.6: Cliff Road to Glover Park                                 | Maintain            | Maintain            | Adaptation priority |
|                                                   | 4.7: Waitaka Road to West Tāmaki Head                          | No action           | No action           | No action           |

|                                         |                                    |           |                     |                     |
|-----------------------------------------|------------------------------------|-----------|---------------------|---------------------|
| <b>Unit 5 Karaka Bay to Tahua Torea</b> | 5.1: Karaka Bay                    | Maintain  | Adaptation priority | Adaptation priority |
|                                         | 5.2: Karaka Bay to Clouston Street | No action | No action           | No action           |
|                                         | 5.3: Anderson Beach Reserve        | Maintain  | Adaptation priority | Adaptation priority |
|                                         | 5.4: Roberta Reserve               | Maintain  | Adaptation priority | Adaptation priority |
|                                         | 5.5: Tahuna Torea                  | Maintain  | Maintain            | Adaptation priority |

## **4.1 SAP Monitoring and implementation**

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

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

Coastal monitoring activities in the Orakei to Tahuna Torea SAP area will be considered in implementation to inform signals triggers and thresholds. A more detailed discussion regarding implementation of the Shoreline Adaptation Plan Programme can be found in Volume 1.

## 5

**References & Bibliography**

Orakei Marina . (2024). *Orakei Marina* . Retrieved from <https://orakeimarina.co.nz/marina-info/facilities/>

Akarana. (2024). *Hyundai Marine Sports Centre*. Retrieved from <https://akarana.co.nz/>

Auckland Council . (n.d (b)). *The Landing Concept Plan* . Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/docseasternparksmasterplan/eastern-parks-masterplan-madills.pdf>

Auckland Council. (2010). *Orakei Basin Managemet Plan*. Auckland.

Auckland Council . (2012). *Hobson Bay Action Plan*. Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/Documents/hobson-bay-action-plan.pdf>

Auckland Council . (2013). *Tāmaki Drive Masterplan*. Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/docstamakidrivemasterplan/tamaki-drive-masterplan-part1.pdf>

Auckland Council. (2015). *Point Resolution Taurarua Plan*. Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/waitemata-local-board/Documents/point-reserve-aurarua-plan.pdf>

Auckland Council. (2016a). *Auckland Unitary Plan Operative in part - Updated 23 May 2024*. Retrieved 2024, from [https://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan\\_Print](https://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print)

Auckland Council . (2016b). *Ōrākei Local Paths (Greenways) Programme Plan*. Retrieved from Ōrākei Local Board: <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/Documents/orakei-local-path-programme-plan-2016.pdf>

Auckland Council. (2018a). *Kepa Bush Reserve Integrated Plan 2018*. Auckland: Auckland Council.

Auckland Council. (2018b). *Kepa Bush Reserve Plan*. Auckland.

Auckland Council. (2019a). *Waitemata Local Board Open Space Network Plan 2019-2029*. Retrieved from [https://infocouncil.aucklandcouncil.govt.nz/Open/2019/09/WTM\\_20190917\\_AGN\\_9449\\_AT\\_files/WTM\\_20190917\\_AGN\\_9449\\_AT\\_Attachment\\_71671\\_1.PDF](https://infocouncil.aucklandcouncil.govt.nz/Open/2019/09/WTM_20190917_AGN_9449_AT_files/WTM_20190917_AGN_9449_AT_Attachment_71671_1.PDF)

- Auckland Council . (2019b). *Parnell Plan* . Retrieved from <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/area-plans/Documents/parnell-plan.pdf>
- Auckland Council. (2021). *Ōrākei Sport and Active Recreation Facility Plan 2021*. Retrieved from Ōrākei Local Board: <https://www.aucklandcouncil.govt.nz/about-auckland-council/Documents/orakei-sport-active-recreation-facility-plan.pdf>
- Auckland Council. (2023a). *Ōrākei Local Board Plan*.
- Auckland Council. (2023b). *Ōrākei Local Board Plan 2023*. Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/Pages/orakei-plans-agreements-reports.aspx>
- Auckland Council. (2024a). *Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan*. Retrieved from <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/Pages/te-taruke-a-tawhiri-ACP.aspx>
- Auckland Council. (2024). *Regional Parks Management Plan 2022*  
<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/parks-sports-outdoor-plans/regional-parks-management-plans/Pages/regional-parks-management-plan-2022.aspx>
- Auckland Council. (2017). *Coastal Management Framework for the Auckland Region*.  
<https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/Documents/coastal-management-framework-2017.pdf>
- Auckland Council. (2023, December 8). *Auckland Unitary Plan Operative in Part*. Retrieved January 31, 2024, from [https://unitaryplan.aucklandcouncil.govt.nz/Pages/Plan/Book.aspx?exhibit=AucklandUnitaryPlan\\_Print](https://unitaryplan.aucklandcouncil.govt.nz/Pages/Plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print)
- Bishop, C., & Landers, T. (2019). *Climate change risk assessment for terrestrial species and ecosystems in the Auckland Region*. Auckland Council Research and Evaluation Unit (RIMU) and Chief Sustainability Office. <https://knowledgeauckland.org.nz/media/hy1hicvy/tr2019-014-climate-change-risk-terrestrial-species-ecosystems-auckland-final.pdf>
- Carpenter, N., Roberts, R., & Klinac, P. (2020). *Auckland's exposure to coastal inundation by storm-tides and waves*. Auckland Council. <https://knowledgeauckland.org.nz/media/2070/tr2020-024-auckland-s-exposure-to-coastal-inundation-by-storm-tides-and-waves.pdf>
- Foley, M. M., & Carbines, M. (2019). *Climate change risk assessment for Auckland's marine and freshwater ecosystems*. Auckland Council Research and Evaluation Unit (RIMU) and Chief Sustainability Office. <https://knowledgeauckland.org.nz/media/1083/tr2019-015-climate-change-risk-marine-freshwater-final.pdf>
- iNaturalist. (n.d.). *iNaturalist Observations*. Retrieved January 31, 2024, from <https://www.inaturalist.org/observations>

- Ngāti Whātua Ōrākei . (2018). *Te Pou O Kāhu Pōkere Iwi Management Plan for Ngāti Whātua Ōrākei 2018*. Retrieved from Iwi Management Plan for Ngāti Whātua Ōrākei.
- Ngāti Whātua Ōrākei. (2024a). *Pourewa Reserve*. Retrieved from <https://ngatiwhatuaorakei.com/toi-taiao/pourewa/>
- Ngāti Whātua Ōrākei. (2024b). *Whenua Rangatira*. Retrieved from <https://ngatiwhatuaorakei.com/toi-taiao/whenua-rangatira/>
- Ngāti Whātua Ōrākei. (2024c). *Ōrākei Marae*. Retrieved from <https://ngatiwhatuaorakei.com/ngati-whatua-orakei/orakei-marae/>
- Ngāti Whātua Ōrākei. (n.d). *Ōrākei marae*. Retrieved from Ngāti Whātua Ōrākei: <https://ngatiwhatuaorakei.com/ngati-whatua-orakei/orakei-marae/>
- Ngāti Whātua Ōrākei Reserves Board. (2022). [https://ngatiwhatuaorakei.com/media/dezkgj2v/0002\\_nwo\\_combined-reserve-management-plan\\_digital-final\\_-74775.pdf](https://ngatiwhatuaorakei.com/media/dezkgj2v/0002_nwo_combined-reserve-management-plan_digital-final_-74775.pdf). Retrieved from Ngati Whatua Orakei.
- NZ SeaRise. (2024). *Takiwa - Map Page*. Retrieved May 2024, from NZ SeaRise Programme: <https://www.searise.nz/maps-2>
- OBC. (2024). *Outboard Boating Club Auckland*. Retrieved from <https://www.obc.co.nz/>
- Ōrākei Local Board . (2020). *Pourewa Valley Integrated Management Plan* .
- Ōrākei Local Board. (2013). *Hobson Bay Action Plan*. Retrieved from <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/orakei-local-board/Documents/hobson-bay-action-plan.pdf>
- Orakei Local Board. (2020). *The Pourewa Valley Integrated Plan*.
- Parnell Markets @ Buono Parnell. (n.d). *Parnell Markets @ Buono Parnell*. Retrieved from <https://parnellmarkets.co.nz/>
- Remuera Heritage. (2022). *Wilson's Beach and Jetty*. Retrieved from <https://remueraheritage.org.nz/story/wilsons-beach-and-jetty/>
- Robertson, H., Baird, K., Elliot, G., Hitchmough, A., McArthur, N., Makan, T., . . . Michel, P. (2021). *Conservation status of birds in Aotearoa New Zealand, 2021*. Wellington: Department of Conservation.
- Scouts Aotearoa. (2024). *1st Orakei Sea Scouts*. Retrieved from <https://scouts.nz/group/1st-orakei-sea-scouts/>
- Singers, N., Osborne, B., Lovegrove, T., Jamieson, A., Boow, J., Sawyer , J., Hill, K., Andrews, J., Hill, S., & Webb, C. (2017). *Indigenous terrestrial and wetland ecosystems of Auckland*. Auckland Council. <https://knowledgeauckland.org.nz/media/1399/indigenous-terrestrial-and-wetland-ecosystems-of-auckland-web-print-mar-2017.pdf>
- Statistics New Zealand (2018). Census Data. <https://www.stats.govt.nz/topics/census>

The Reserves Act 1977. (2019).

<https://www.legislation.govt.nz/act/public/1977/0066/latest/DLM444305.html>

The Local Government Act 2002. (2019).

<https://www.legislation.govt.nz/act/public/2002/0084/latest/DLM170873.html>

Tūpuna Maunga Authority. (2019, September 25). Tūpuna Maunga Integrated Management Plan. Auckland, New Zealand.

Waitangi Tribunal . (n.d). *The Treaty* . Retrieved from

<https://www.waitangitribunal.govt.nz/en/about/the-treaty/about-the-treaty>