

Wai Manawa / Little Shoal Bay Mini Shoreline Adaptation Plan

Webinar: Community Objectives

2022

The presentation will begin shortly



Welcome

Karakia

Presentation Overview

Format

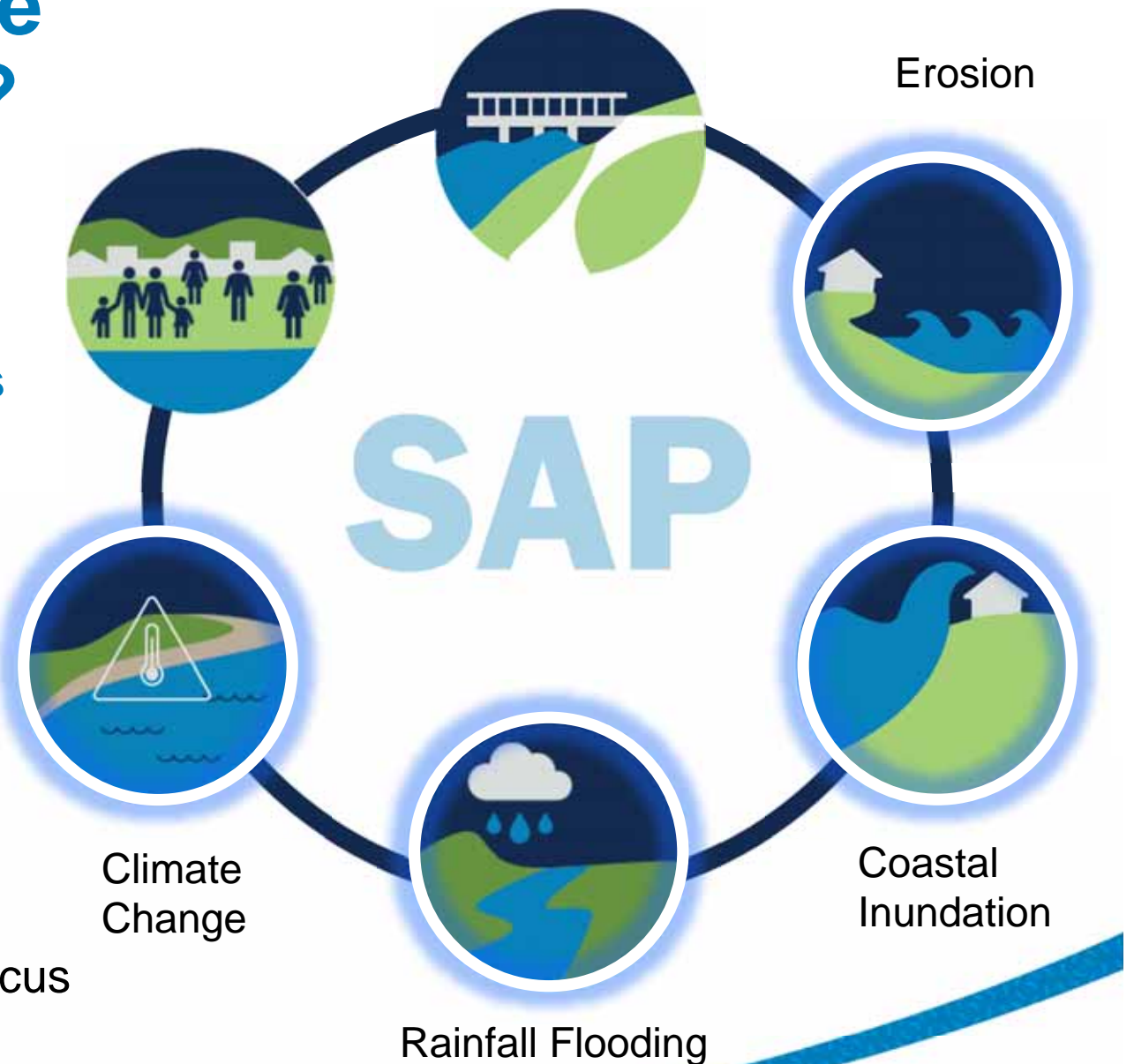
12:00-12:05	Introduction and welcome
12:05-12:20	Project Introduction
12:20-12:30	Little Shoal Bay
12:30-12:40	Community Objectives
12:40-1:00	Discussions



What are Shoreline Adaptation Plans?

An adaptive plan that informs the long-term management of **Council-owned land and assets** on the coast and within the reserve, taking into account the impacts of **coastal hazards** and **climate change** and the values of the **local community** and **mana whenua**.

Mini Shoreline Adaptation Plans focus on a **single coastal reserve area**.



Adaptation Strategies

No active
intervention



Allow natural processes to continue

Hold the
line



Defend the current coastline

Limited
intervention



Maintain existing

Managed
realignment

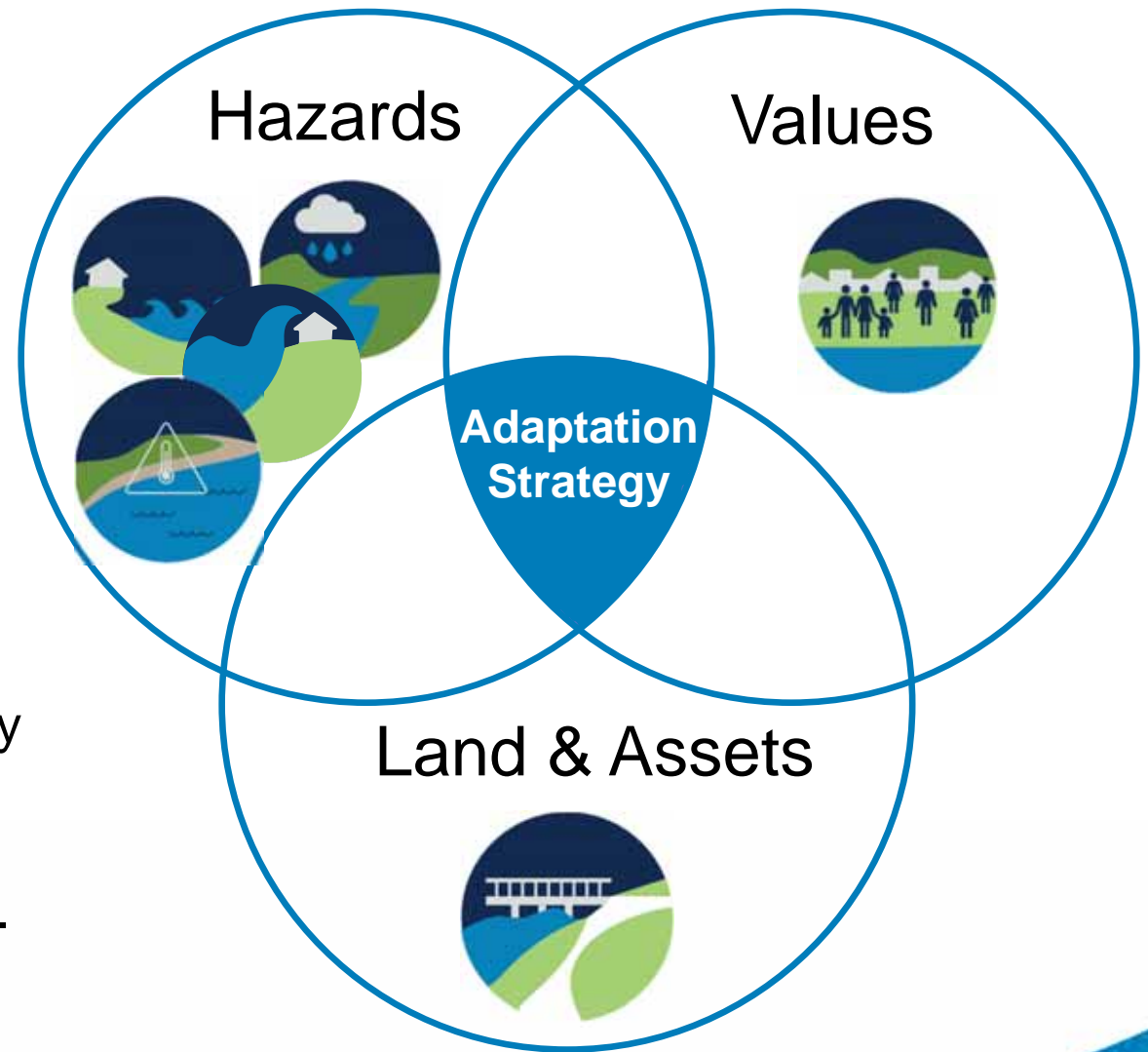


Move assets and infrastructure back

Adaptation

For low impact areas or where there is high natural values, an adaptation strategy of **no active intervention** is likely to be the preferred response.

Only areas of the coast that are exposed to **hazards**, are **valued** by the local community, and have **Council-owned land or assets** require other adaptation strategies.

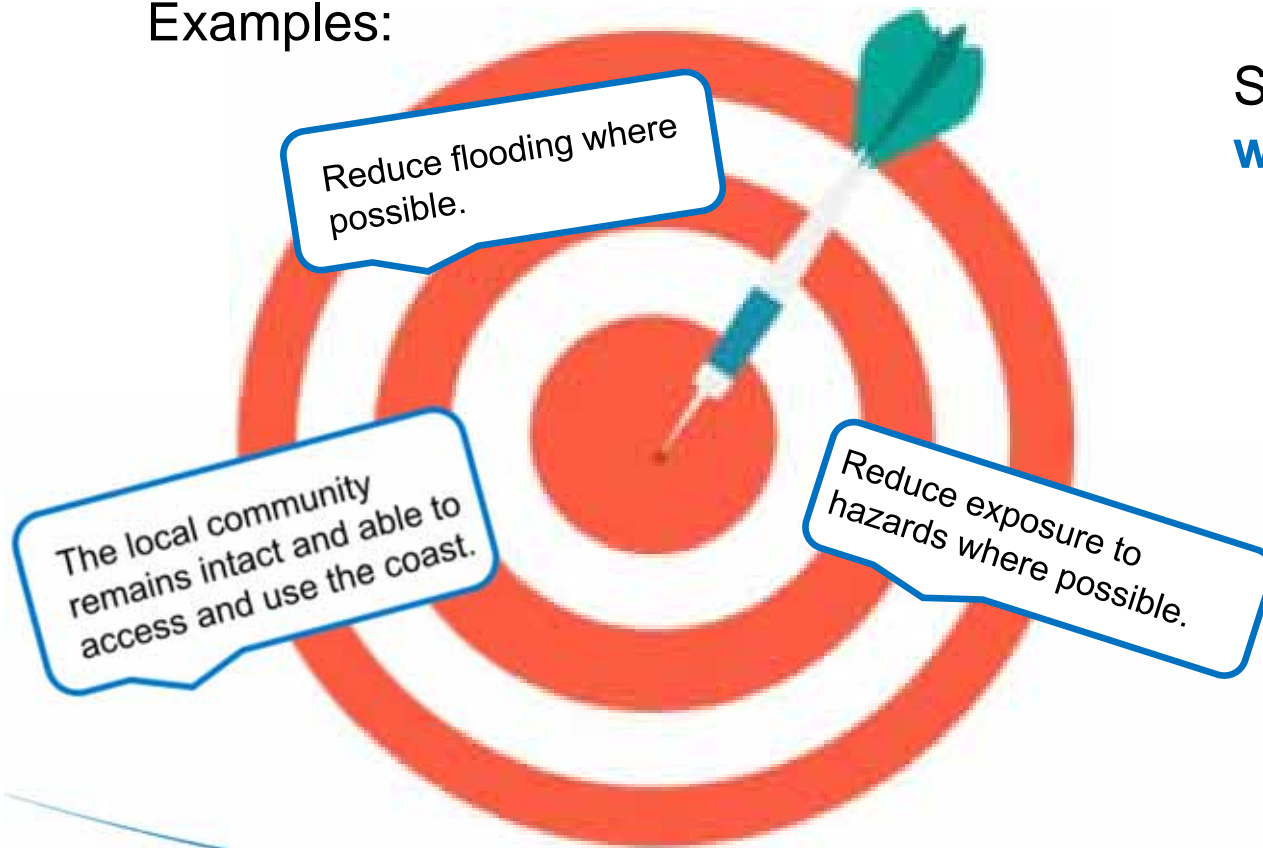


Objectives

Adaptive strategies need to **incorporate the values** of the local community and **meet the requirements** of assets owners and infrastructure providers.

To make good decisions, we need **clear objectives**.

Examples:



SAP objectives are **developed with:**

- mana whenua
- technical experts
- infrastructure providers
- input from the community

Community Input



The Mini Shoreline Adaptation Plan will include workshops with the local community.

To learn more visit:

www.akhaveyoursay.aucklandcouncil.govt.nz/little-shoal-bay

Impact of climate change



We will need to adapt to this ever-changing 'new normal'

Rainfall is expected to increase

Sea-level rise over the next 100 years will be significant

Extreme weather events are expected to increase

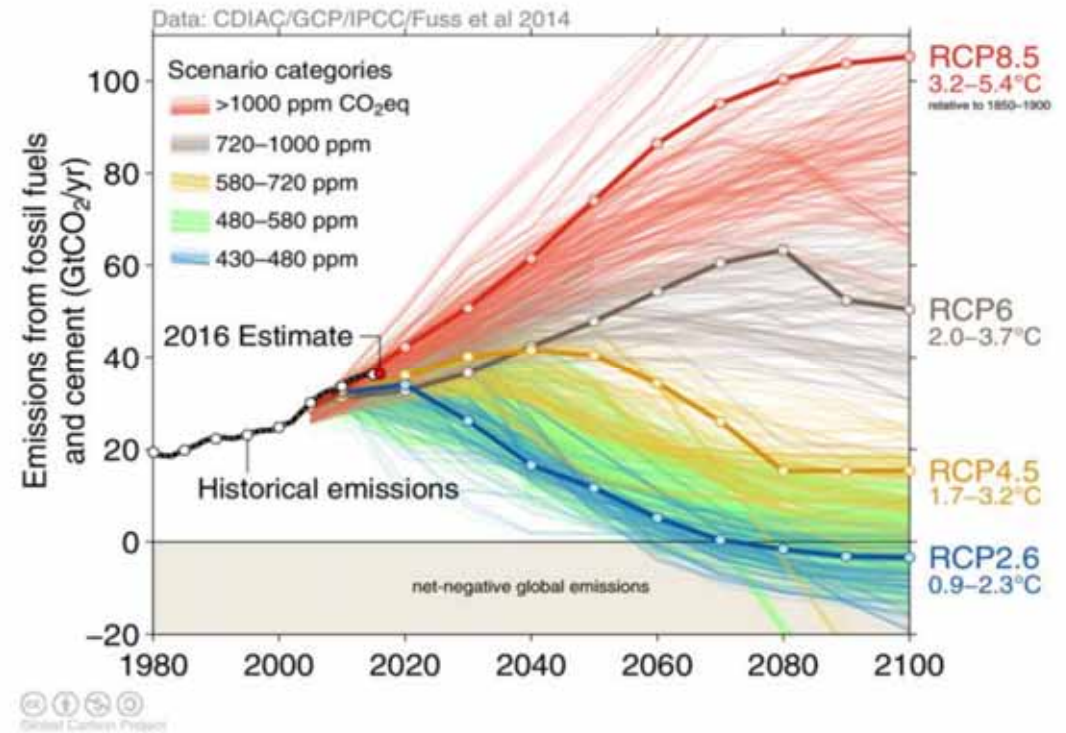
It isn't possible to protect everything

Council owned land and assets on the coast are highly exposed

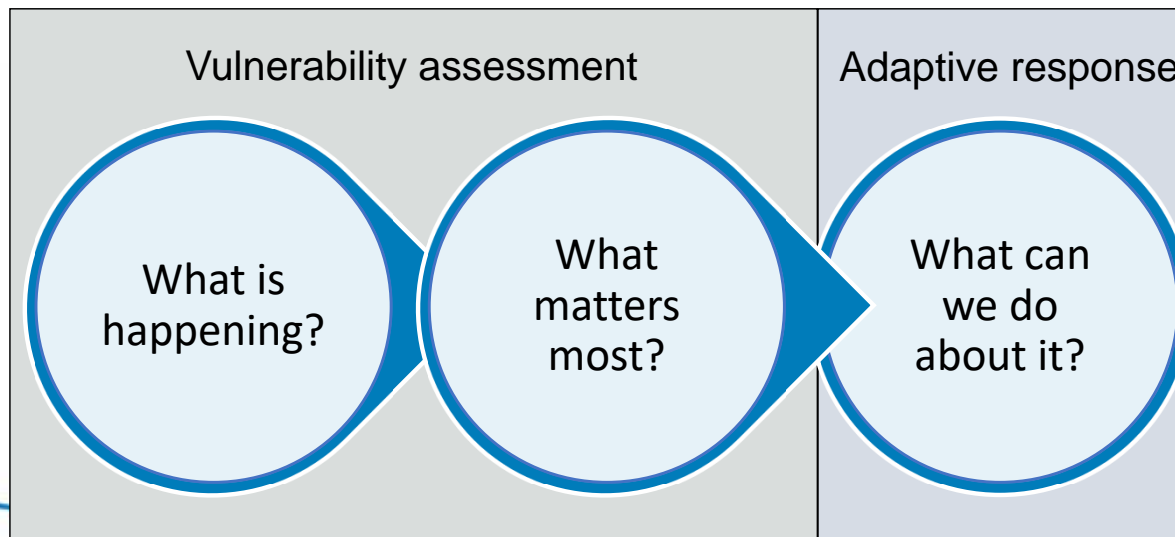
Climate Change

First understand the **issues**:

- Sea level rise
- Increasing rainfall
- Increasing extreme weather events

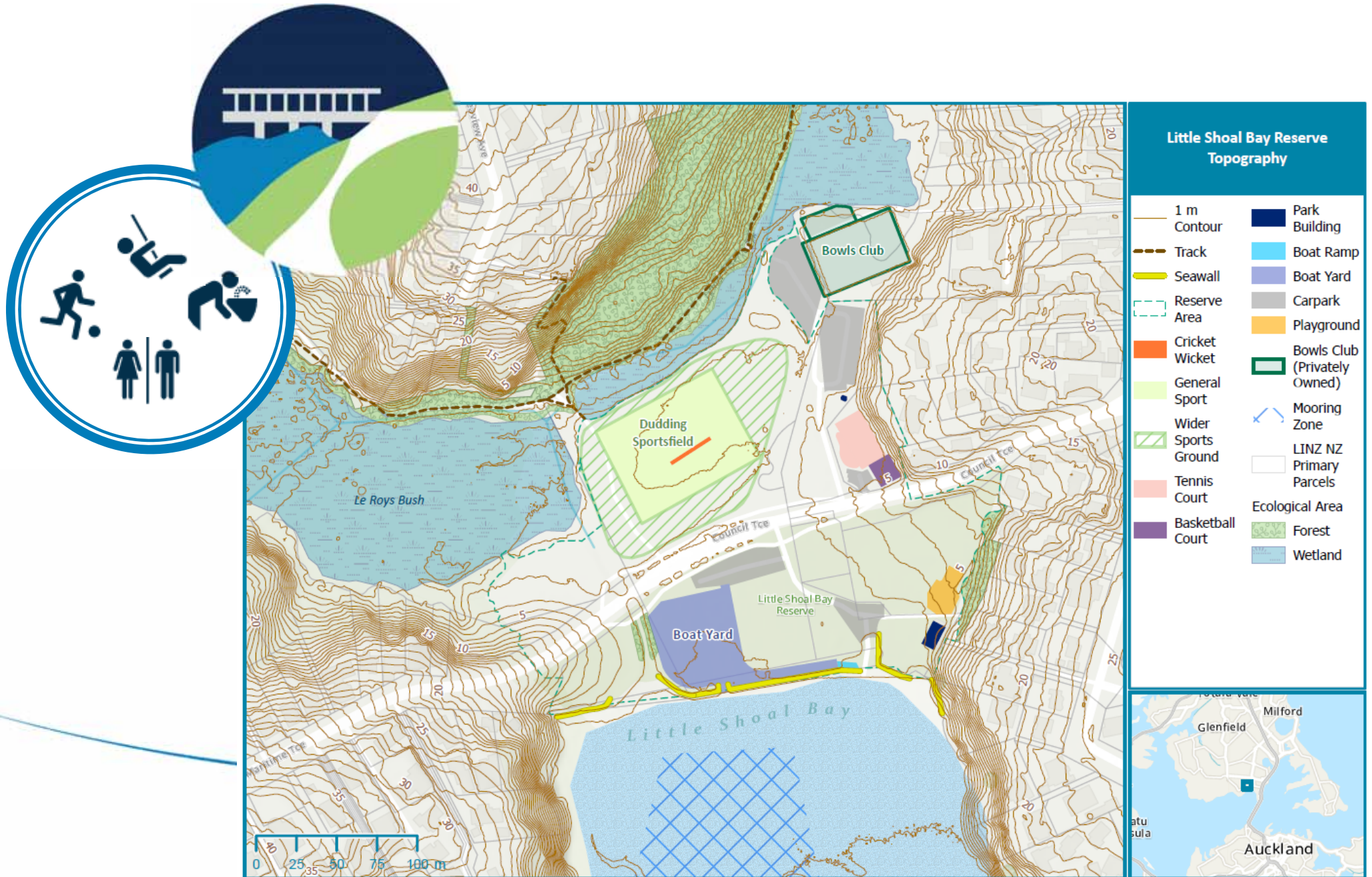


Then we gather information on the **elements at risk** and evaluate the **impacts**.

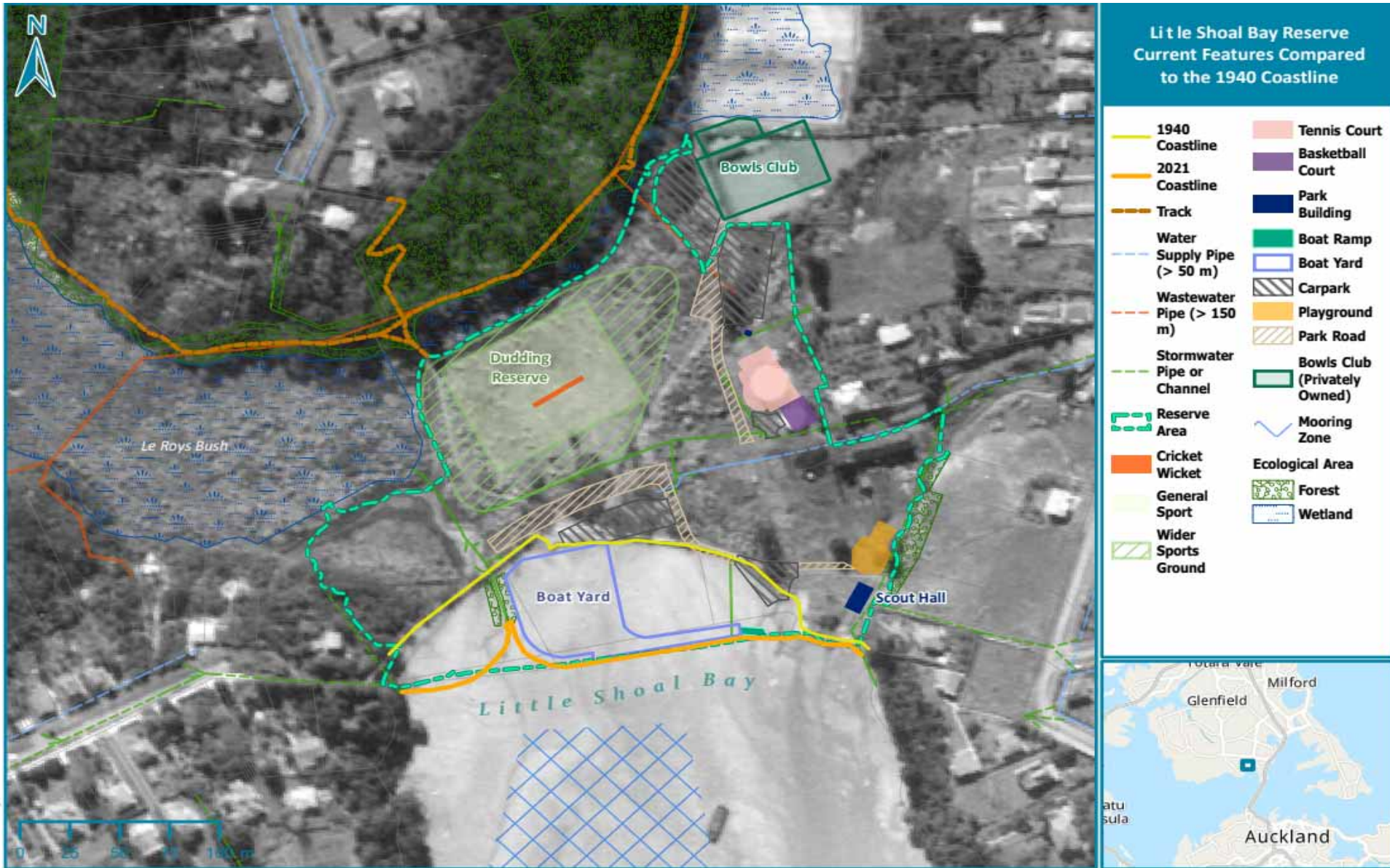


Wai Manawa / Little Shoal Bay

Auckland Council Owned Land and Assets



Wai Manawa / Little Shoal Bay



To learn more visit: www.akhaveyoursay.aucklandcouncil.govt.nz/little-shoal-bay

Assets include open space and areas of ecological significance



Unitary Plan Zones

- Open Space - Conservation Zone
- Open Space - Informal Recreation Zone
- Open Space - Sport and Active Recreation Zone
- Coastal - General Coastal Marine Zone [rcp]
- Coastal - Mooring Zone [rcp]

Unitary Plan Management Layers

- Significant Ecological Areas Overlay
 - Terrestrial [rp/dp]
 - Marine 1 [rcp]
- Historic Heritage Overlay Extent of Place [rcp/dp]

Aucklandville: Hazard Park



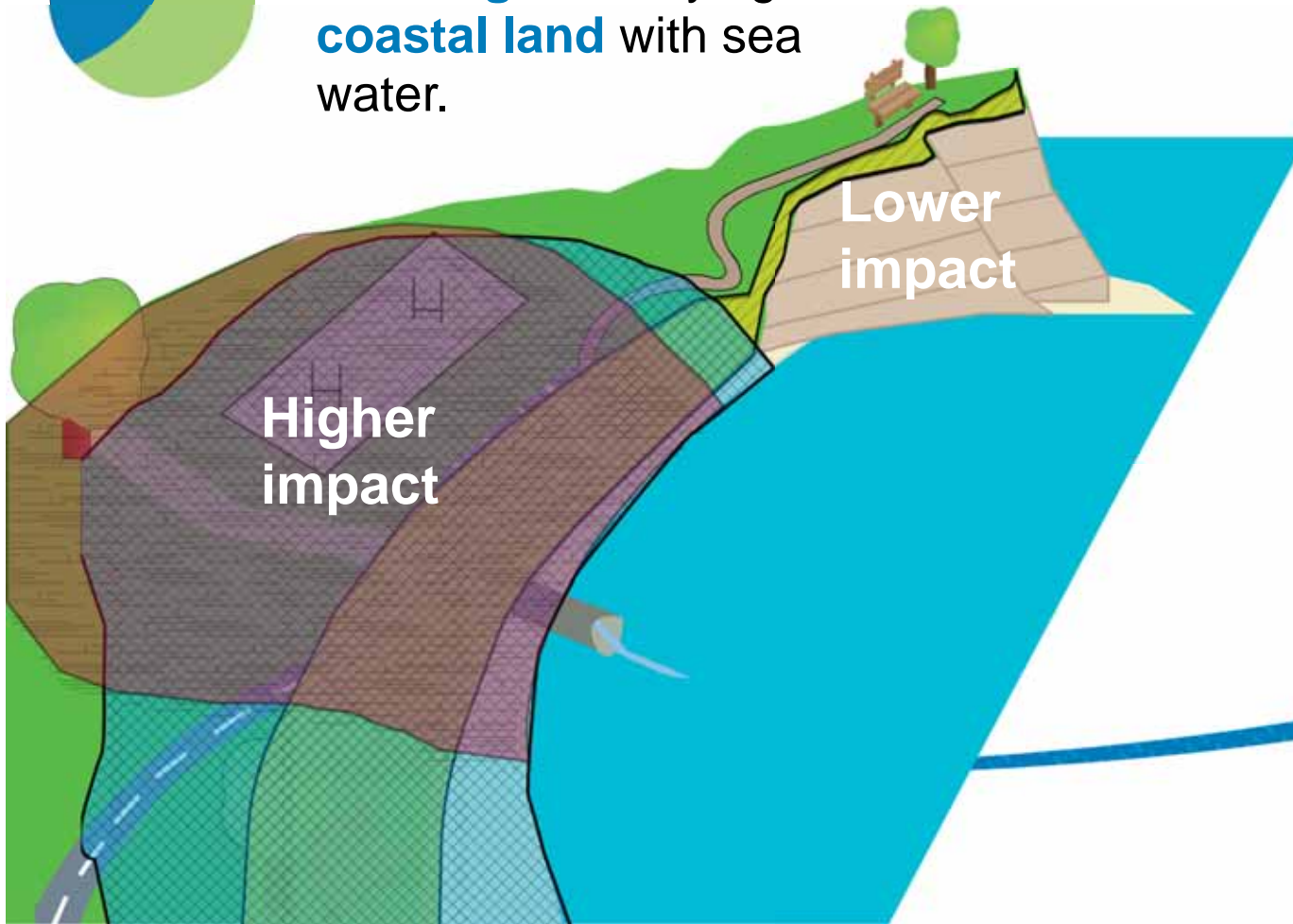
Coastal erosion is the **loss of land** due to **coastal processes**.



Rainfall flooding occurs when a **rainfall event** overwhelms the **drainage capacity** of an area.

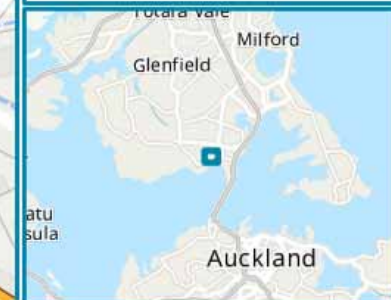
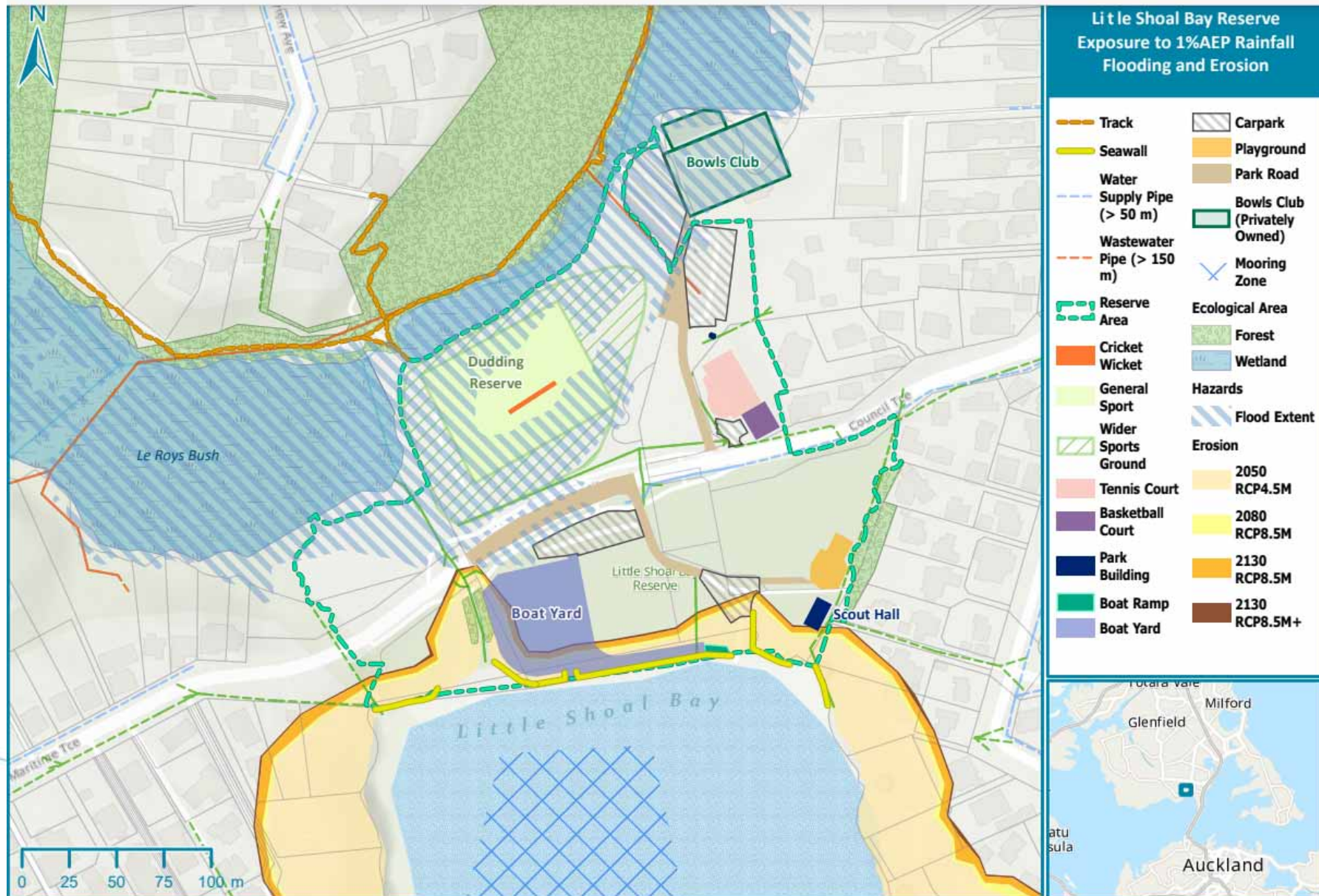


Coastal inundation is the **flooding** of low-lying **coastal land** with sea water.

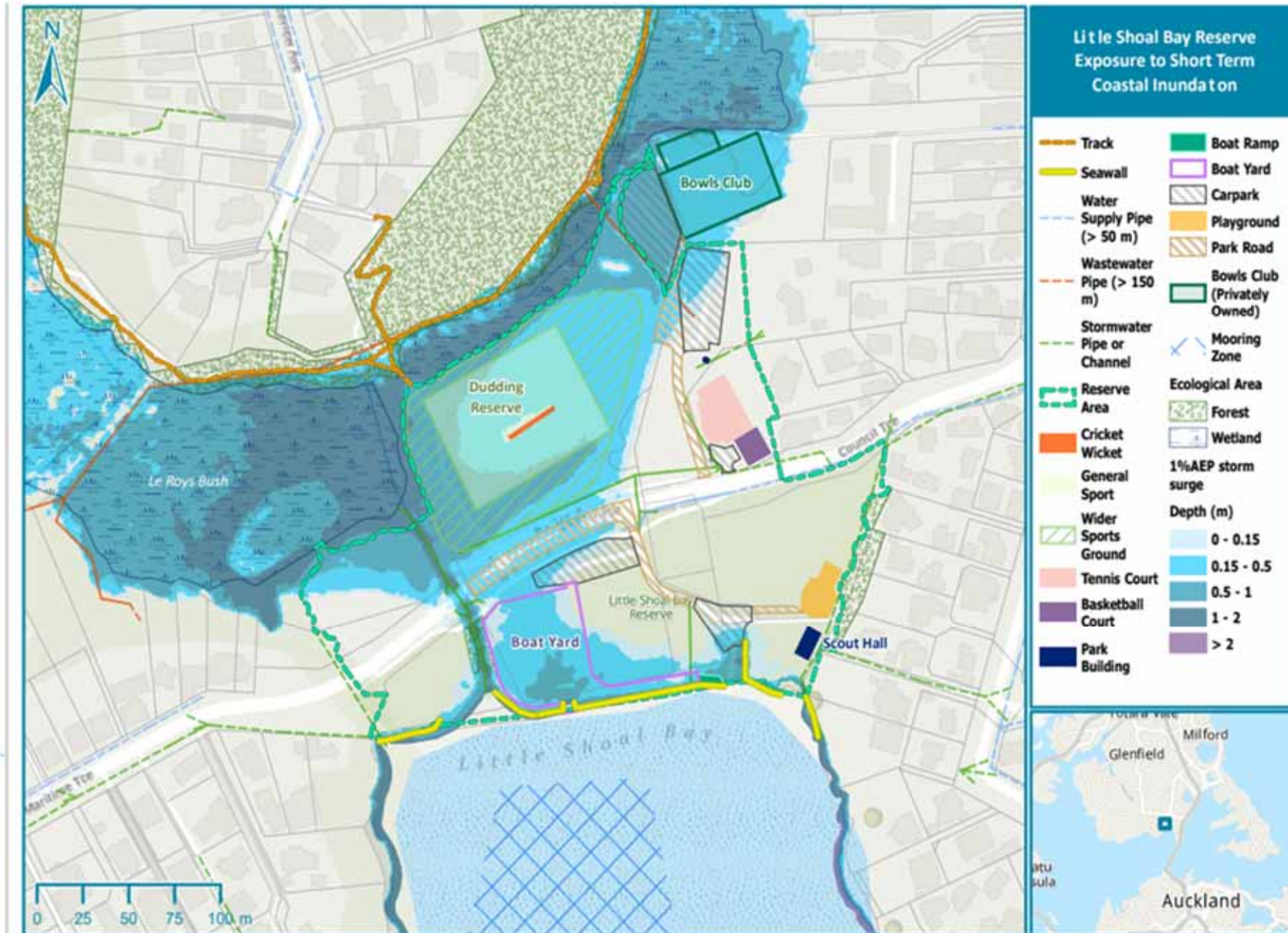


Mapping the hazards helps us understand both the **type** and **scale** of impact.

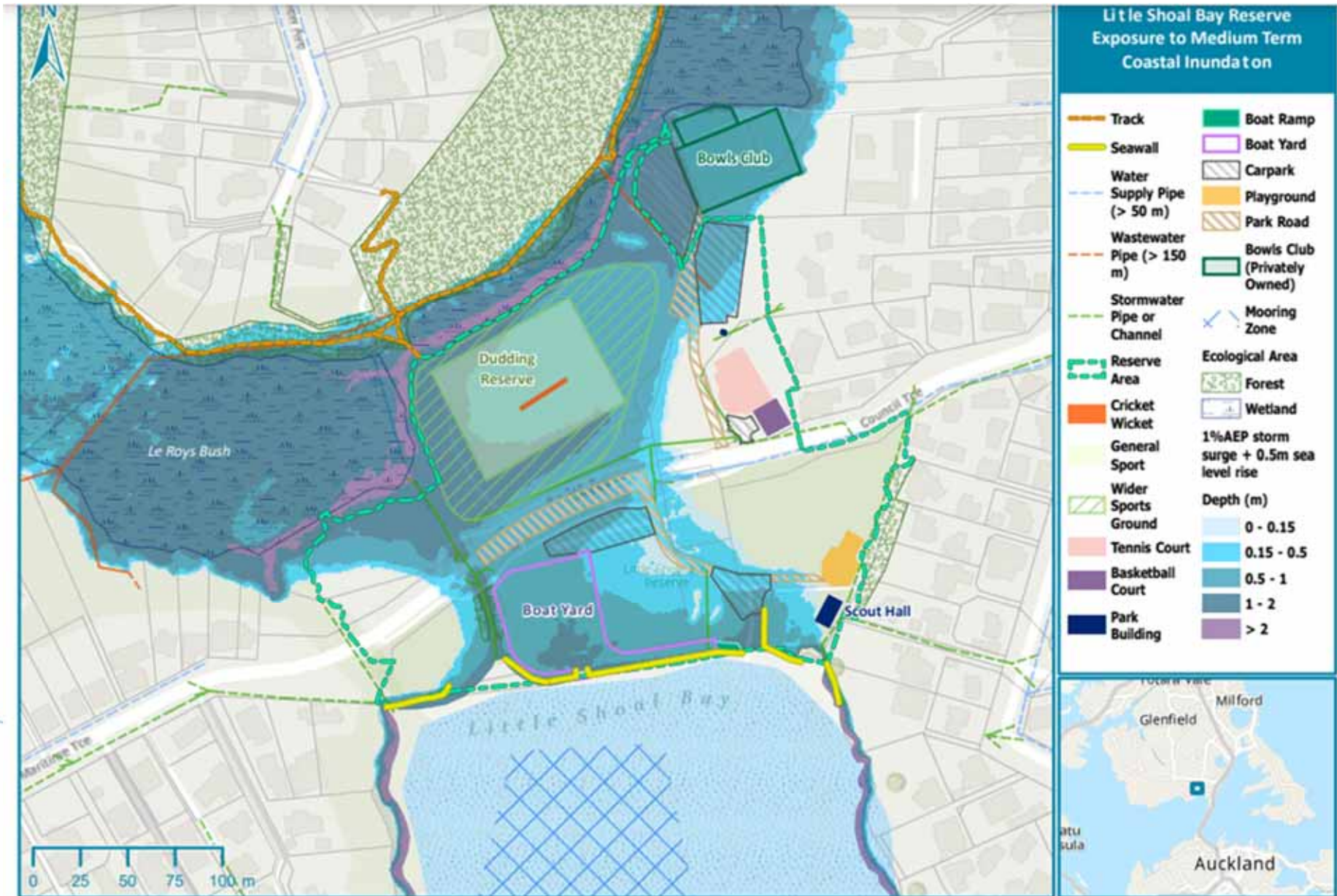
Erosion and Rainfall Flooding



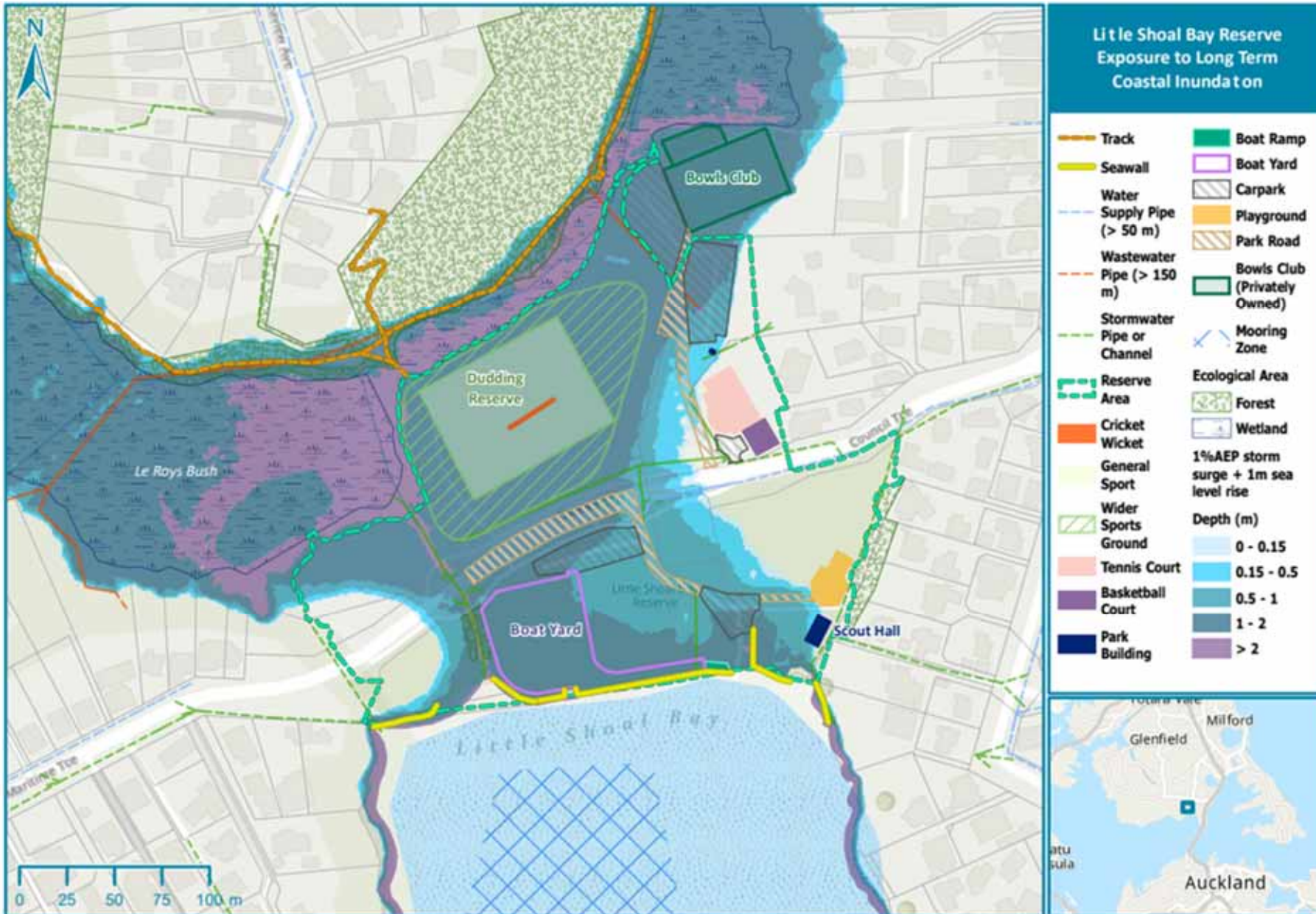
Short term coastal inundation (1% AEP Storm Surge)



Medium term coastal inundation (1% AEP Storm Surge +0.5m Sea Level Rise)



Long Term Coastal Inundation (1% AEP Storm Surge + 1 Sea Level Rise)



Increasing Risk

Key areas of risk are due to storm surge inundation, and water depths will increase with increased sea level rise

Risk will **increase over time** due to climate change, and eventually, we'll reach a **trigger**.

A trigger is a point where the risk is **no longer acceptable**.

When we reach a trigger, we need to **change strategies**.



Previous Work

There have been many previous community engagements related to this reserve.

Interceptor survey results for areas visited at Little Shoal Bay Reserve

- 83 % visited the reserve area
- 74% visited the beach area
- 47% visited the sports park area
- 48% visited urban forest/wetland



Current plans for Little Shoal Bay:

- Reserve Management Plan for Little Shoal Bay and Le Roys Bush (1999)
- Little Shoal Bay Stormwater Catchment Management Plan (2013)
- Kauri dieback recreational assessment: Little Shoal Bay Reserve, 2018 (KLB AC)
- Little Shoal Bay Reserve, 2020 (KLB AC)
- Little Shoal Bay Reserve Services Assessment, 2020 (KLB AC)

We've compiled that information into key objectives for discussion.

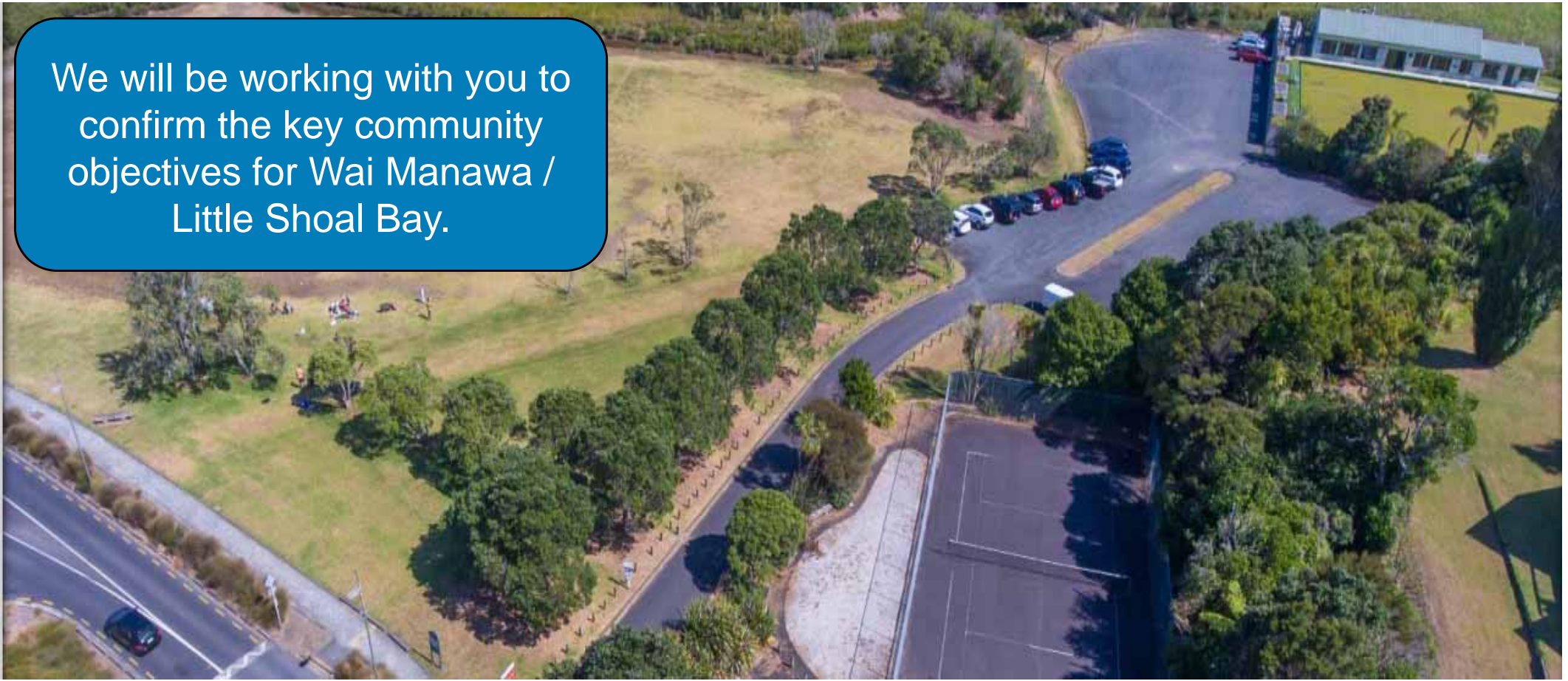
Community Objectives

Community objectives for Wai Manawa / Little Shoal Bay have been broken up into 6 categories:

- Environment
- Access (pedestrian and cars)
- Passive Recreation
- Recreational Water Access
- Active Recreation
- Community, Cultural and Heritage



We will be working with you to confirm the key community objectives for Wai Manawa / Little Shoal Bay.



Environment

- To protect and enhance the natural environment.
- To manage stream erosion.
- Protect and enhance the freshwater ecosystem in the western side of the reserve.
- To reduce gross pollutants entering the marine environment.
- Existing inanga spawning areas will be retained in their present condition, as far as practicable and where it is within Council's ability to control.



Passive Recreation



- To provide for appropriate physical development for the purpose of enhancing recreational and environmental quality.
- To provide for reasonable use of the reserved while ensuring the degraded effects of use are minimised.
- Enhance opportunities for passive recreational experiences around the foreshore, particularly around the popular eastern areas.

Active Recreation

- Retain and enhance the existing recreational opportunities and sporting activities in Dudding Park Sport's field.
- Retain an open grass area suitable for informal community sporting activities to the north of the road.
- Enhance opportunities for active recreational experiences around the eastern side of reserve north of the road.



Access (pedestrian and cars)



- To maintain existing public access within the stream corridor.
- Retain and enhance the access to the park from Valley Road, Fairfax Avenue, Glade Place, Dudding Park Sports field and Seaview Avenue.
- Retain and enhance access to Little Shoal Bay from Dudding Park Sports field.
- Retain and enhance the connectivity of the track network from Wilding Avenue to Le Roys Bush.
- Retain a low-speed road connection for public vehicle access through the reserve.

Recreational Water Access

- Consider options for rationalisation of the boat hard stand, boat ramps and coastal access provision.



Community, Heritage and Cultural Values



- To recognise and protect heritage and cultural values of the stream and environs.
- Encouraging current and future community involvement in stream management.
- Provide the ability for community volunteers to work with the local board on environmental restoration.

Next Steps



AK Have Your Say

Webinars

Workshop 1

Develop Options

Workshop 2

Finalize Options

Mana whenua engagement

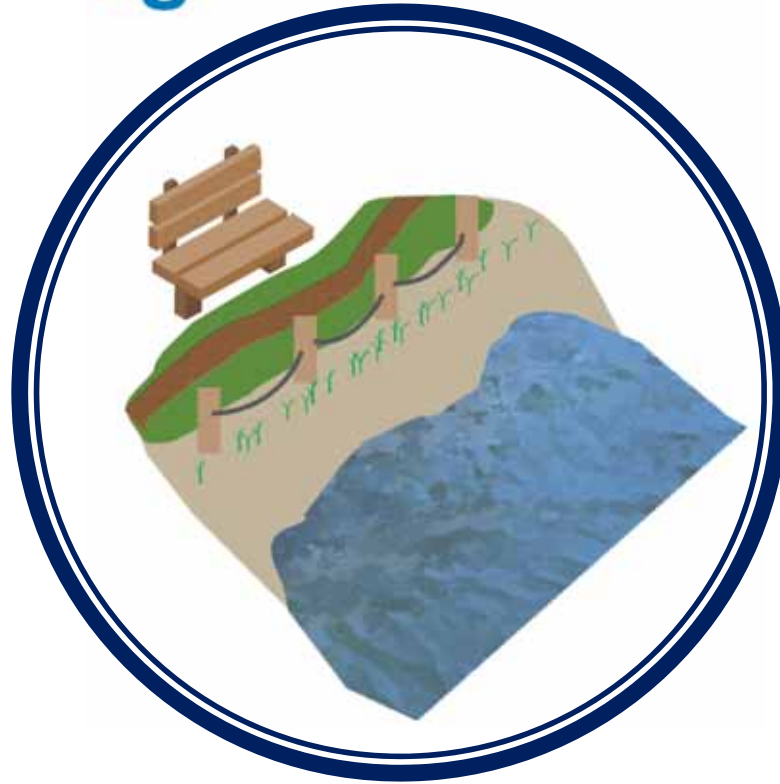
Recommendation to local board

Shoreline Adaptation Plans

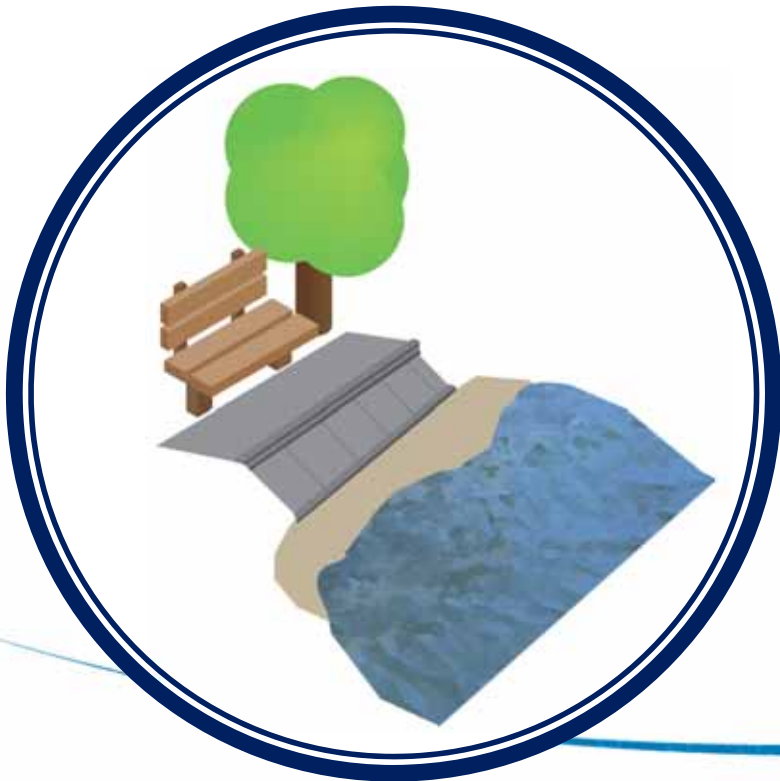
Question and Answers

Coastal Engineering

Coastal **engineering** is the **modification** of coastlines using either **hard** or **natural** or **nature-based** options.



Natural or nature-based options **work with nature** and support natural processes.



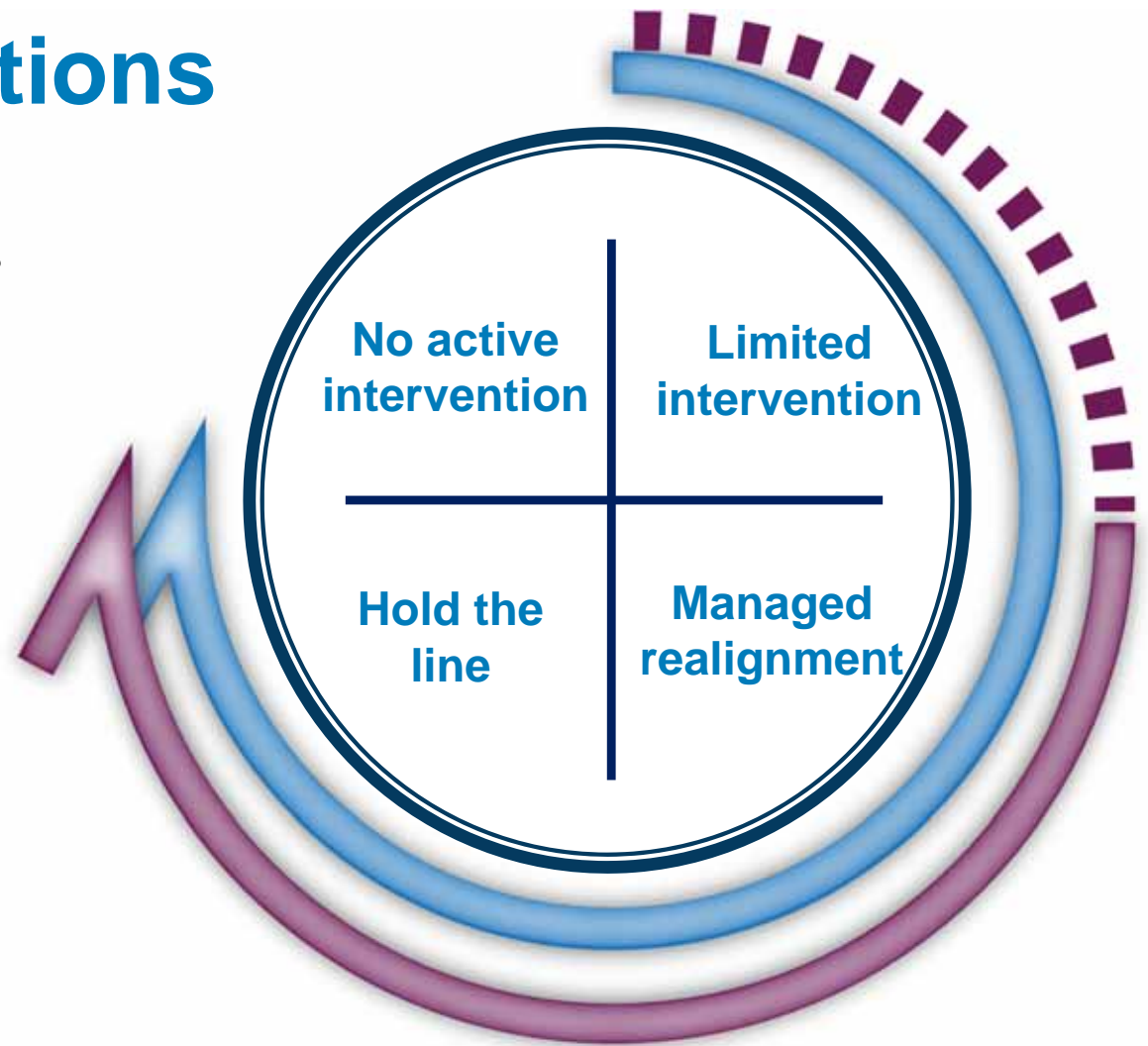
Hard options are **engineered structures** that alter the course of natural processes.

Strategies and Options

Natural and **nature-based** options can be used to **implement** any of the strategies.

Hard options will **mostly be used** to hold the line or retreat the line.

Maintenance of existing structures is considered limited intervention.



Low

Cost to implement

High



No active intervention

Limited intervention/
Managed Realignment

Managed
Realignment

Hold the
line

Case Studies: Kawakawa Bay

Limited Intervention:

Kawakawa Bay experiences **significant erosion**.

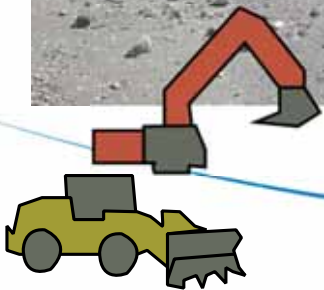
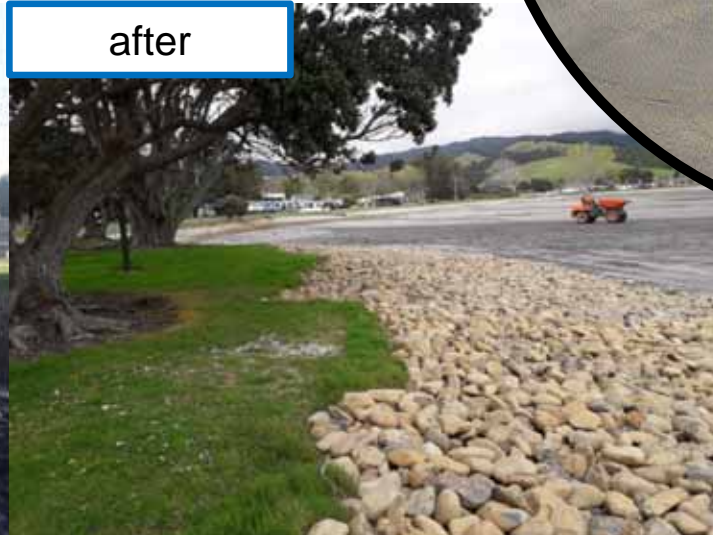
To slow the process, **cobbles** are added to the front of the esplanade. These **dissipate the wave energy**, reducing erosion.



before



after



Case Studies: Wattle Downs, Pahurehure Inlet

Hybrid approach:



In 2008, the **esplanade reserve** at Wattle Downs experienced **significant erosion**.

To **protect** the reserve and critical infrastructure from erosion and improve habitat, a **protected saltmarsh** was created.



The saltmarsh now acts as a **natural buffer**, dissipating wave energy and decreasing erosion.



Case Studies: Muriwai

Managed retreat

- Naturalised the coastline
- Services maintained



2011

