Waitākere Ranges Local Board Workshop Record

Workshop record of the Waitākere Ranges Local Board held at the Waitākere Ranges Local Board office, 39 Glenmall Place, Glen Eden, Auckland on Thursday 9 May 2024, commencing at 10.15am.

PRESENT

Chairperson:	Greg Presland
Members:	Michelle Clayton Mark Allen Linda Potauaine Liz Manley Sandra Coney
Apologies:	
Also present:	Adam Milina, Brett Lane, Natasha Yapp and Rebecca Winham

Workshop Item	Summary of Discussions
Shoreline Adaptation Plan Manukau North and Whatipu to Southhead Taylor Farrell, Relationship Advisor Sage Vernall, Coastal Adaptation Specialist, Resilient Land and Coast Lara Clarke, Principal Coastal Adaptation Specialsit 10.15am – 11.00am	Staff led the discussion to further engage with the Board on coastal adaptation strategies regarding the Shoreline Adaptation Plan Manukau North and Whatipu to Southhead.
Bethell's/Te Henga Public Use Survey Thomas Dixon, Principal Parks Advisor Brad Congdon, Parks and Places Specialist Gerry Fitzgerald, Parks and Places Team Leader Nicki Malone (Xyst) Glenn Riddell, Senior Land Use Advisor Greer Clark, Manager Area Operations 11.15am – 12.00pm	Board was provided with an overview of the final report for the Te Henga/Bethells Public Use Study.

Workshop Item	Summary of Discussions
Waitākere Ranges regional park and track network update Jack Jones, Senior Ranger Recreation and Education 12.00pm – 1.00pm	Board provided with an update on the Waitākere Ranges regional park and its track network.
Auckland Transport monthly update Owena Schuster, Elected Member Relationship Partner Rahul Gowtham, Project Manager 1.45pm – 3.45pm	Auckland Transport staff provided the Board with an update on the current work being carried out in the Waitākere Ranges local board area.

The workshop concluded 3.45pm.

Shoreline Adaptation Plans: Waitākere Ranges

Local Board Workshop May 2024

Todays workshop

Purpose: update the Board on the SAP programme, including an update on Manukau North SAP, and updates on Tranche 2 (Whatipu to South Head)

1. **Manukau North:** Presentation on community objectives, engagement and next steps
2. **Working together:** Whatipu to Southhead update on community engagement and timeframes

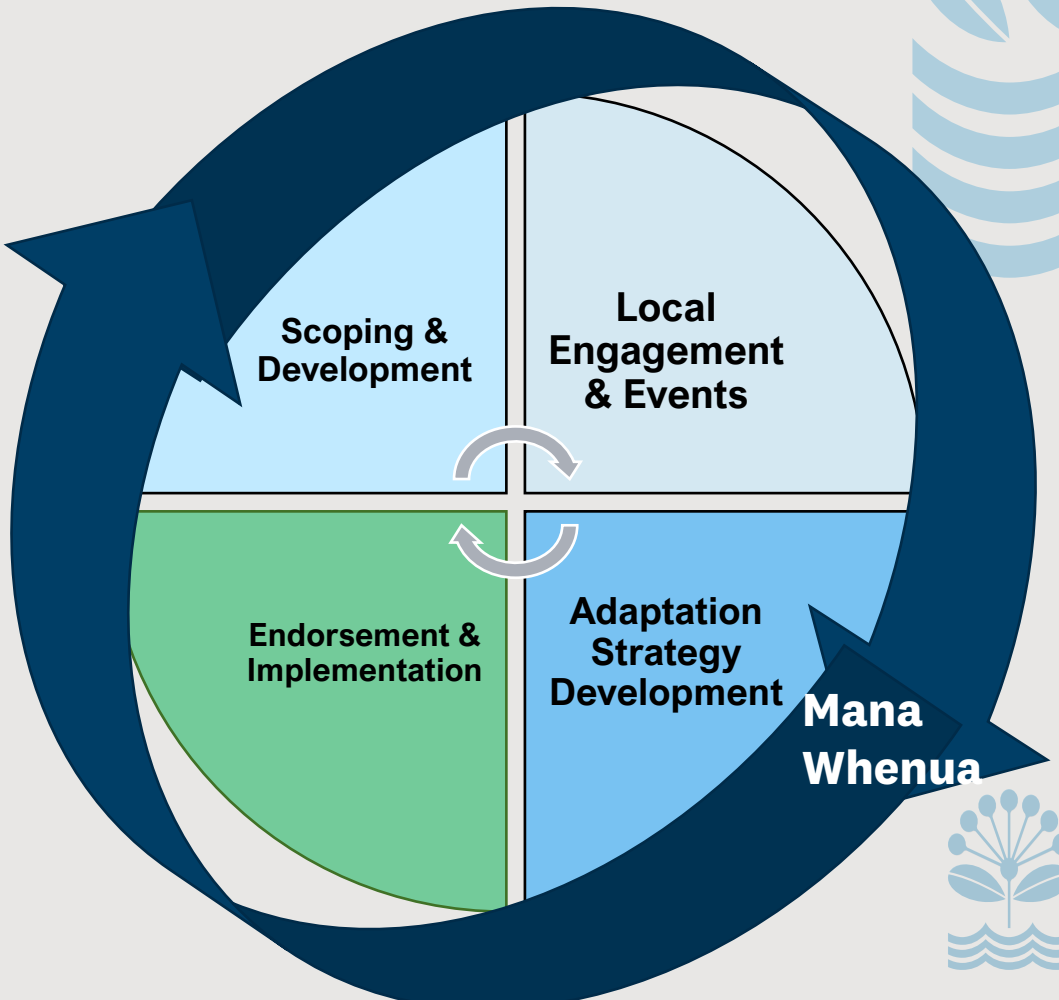
Manukau North Shoreline Adaptation Plan: Updates

Shoreline Adaptation Plans: Process & Outputs

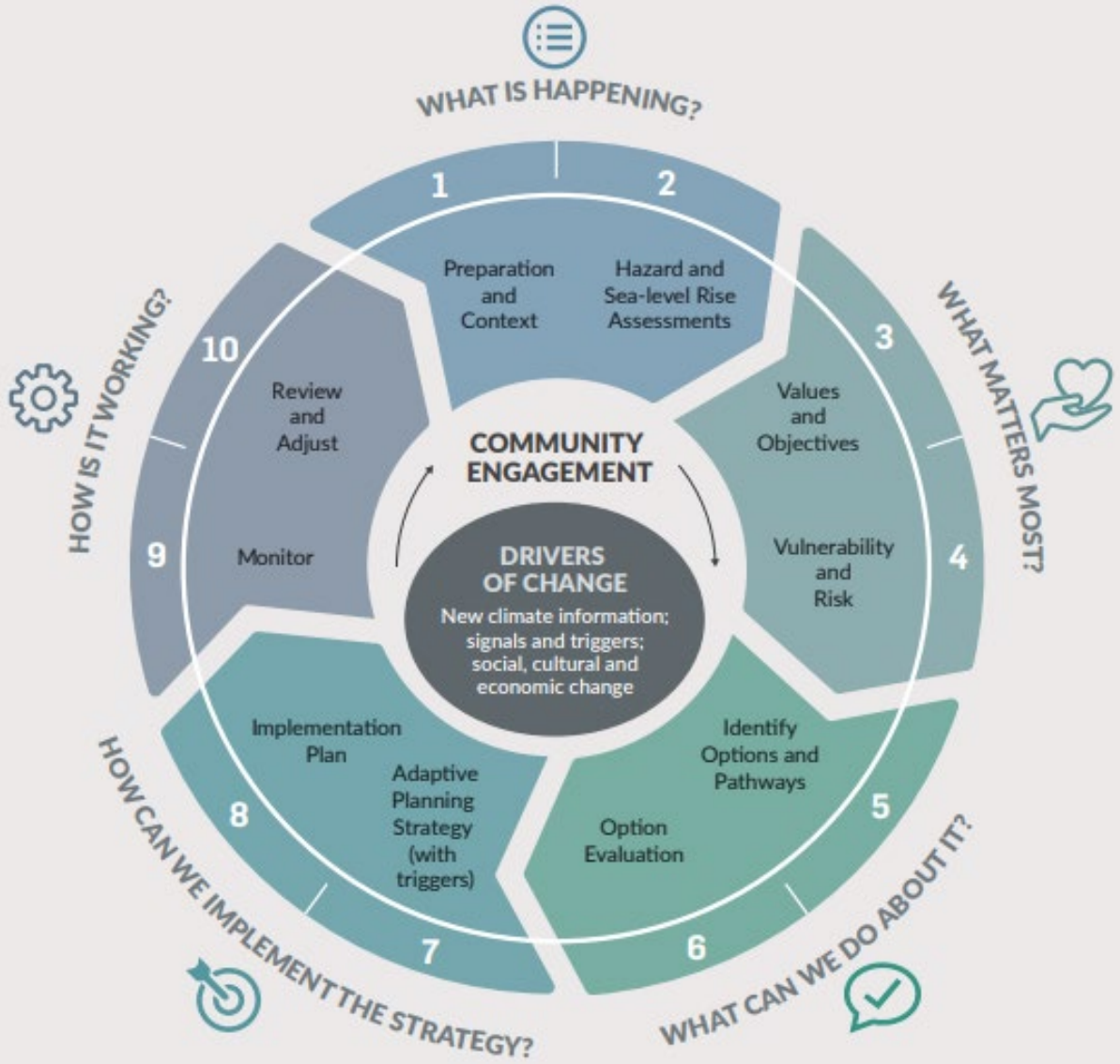
Outputs:

- SAP Area Plans: unique context, iwi values, community objectives
- Adaptation strategies for each coastal area (Unit/Stretch) over 3 timeframes:
  - Short (0- 20 years)
  - Medium (20-60 years)
  - Long Term (60+)

Process:



Shoreline Adaptation Plans: Process & Outputs



Auckland's Shoreline Adaptation Plans

Our pathways

Allow natural processes to continue

Defend the current coastline

Support existing

Move assets and infrastructure back

Natural hazards and climate change (uncertainty)

Short	Medium	Long \
now-20 years	20-60 years	60-100+ years

The strategies

Strategy	Examples/explanation
No Active Intervention (NAI)	• **Includes no investment** in the provision or maintenance of any hazard protection structures associated with coastal hazards and flood protection (does not apply to the management of land stability or subsidence or other hazard risk management) • **Natural processes are allowed to continue.** • This strategy is identified for areas of the coastline where **council owned land and assets** are not exposed/vulnerable to coastal hazard and catchment flooding risk.
Limited Intervention (LI)	• Works are undertaken to ensure assets **remain safe and functional**; noting the level of service may not be maintained to the same level. • Works may support **small scale, localised realignment** of **individual asset classes** (e.g. realignment of a staircase further back in the same reserve) • Works may be undertaken to **extend the assets life (e.g. repairs)** • **Does not support a fixed coastline** • May include both **engineered and nature-based measures**
Hold the Line (HTL)	• The coastal edge is **fixed at a certain location.** • An identified use or service is **maintained within its existing location**. For example, a road is maintained in a fixed location or Parks land uses are maintained in an existing location. • Defence of the coastal edge may be through **nature-based options** (e.g. beach nourishment) or hard structures (e.g. sea walls). • **Nature-based options are the preferred method where possible**.
Managed Retreat (MR)	• Assets and land uses are **relocated or realigned from hazard-prone areas** to reduce risk to assets and maintain identified values (ecological, cultural). • **Retreat and/or relocation is planned and undertaken proactively over time.** • May be used to **signal** the requirement of **long-term planning and coordination** of a comprehensive approach to asset management and land use (***requires future planning)**

Shoreline Adaptation Plans: Implementation

Local implementation, from now:

- directs **operational responses** (post storm, maintenance)
- preferred options within **Coastal Renewals Programme** (where existing budget available)
- supports regional **Coastal Asset Management Plan** and risk-based decision making.
- Inform implementation of and updates to statutory plans e.g., **Local & Regional Parks Plans**
- Ongoing collaboration with **mana whenua / Local iwi**

Regional implementation, from mid-2025:

- **Regional risk-profile**
- **Future funding** requirements
- **Prioritization schema** for future works.

Shoreline Adaptation Plans: Implementation

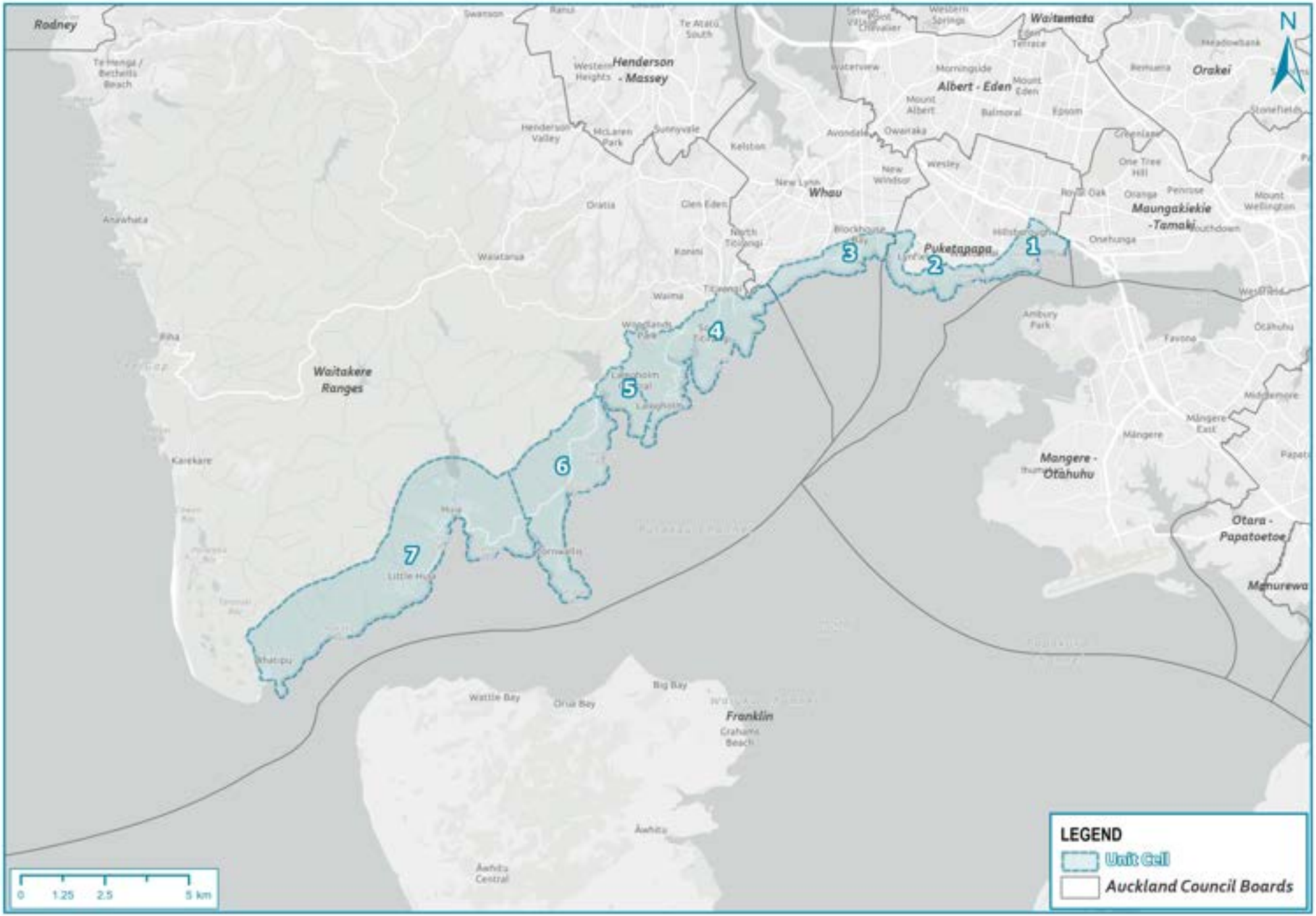
Living documents

First generation of **non-statutory** plans: Foundation for Dynamic Adaptive Planning

Ongoing consultation through implementation

SAP Plans for the Waitākere Local Board area

Two plans (Manukau North and Whatipu to South Head)


Rodney
Henderson - Massey
Waitemata
Albert - Eden
Orakei
Whau
Maungakiekie -Tamaki
Puketapapa
Waitakere Ranges
Mangere - Otahuhu
Otara - Papatoetoe
Manurewa
Franklin
1
2
3
4
5
6
7
N
0 1.25 2.5 5 km
LEGEND
Unit Cell
Auckland Council Boards

Manukau North Community Engagement

Original Engagement Period

- Feedback collected through in-person events:
  - Ecomatters Environmental Trust, New Lynn
  - Titirangi Beach Hall, Titirangi
  - Welsley Market, Mt Roskill
  - Huia Community Hall, Huia*
- Feedback received from Local Boards, local iwi (Te Kawerau ā Maki, Ngāti Whanaunga, Waikato Tainui) and key stakeholders

Collation and analysis of feedback from digital platforms

  - 98 comments left on the interactive Social Pinpoint map
  - 205 survey submissions relevant to the Manukau Harbour North area
- Community Submissions received including Titirangi Residents and Ratepayers Group, Disabled Persons Assembly.
- Site specific information and recommendations shared by groups with interests in the Titirangi, Huia, Cornwallis area*.

Manukau North Community Engagement

Extended Engagement Period

- Officer interviews with Fringe Magazine: March Article
- Officer site visit (Fosters Bay to Little Huia) with Cllr Turner
- Additional meeting with Huia Cornwallis Resident and Ratepayer Association (19/03)
- Community meeting at the Huia Hall (14/04)
- Re-opening of digital engagement platform (Social Pinpoint)

The further feedback received through the above has been incorporated into Community Objectives and considered in review of draft adaptation strategies

Community objectives are/ will be shared via AK Have Your Say and email correspondence with those who provided feedback:

- High level summary pdf with key feedback themes to be socialised {NOW}
- Full, comprehensive Manukau North Community Engagement Report {Post endorsement}
- In the final Manukau North Shoreline Adaptation Plan Report {Post endorsement}

Manukau North: Community Objectives:

Coastal connections, use and access

1. A network of resilient roads that are able to support access to and across the Manukau Harbour North area is safeguarded and provides for a diverse range of transport types, lifeline services and recreational uses

2. Safe accessways to and along the coast are upheld to respond to the dynamic and changing environment of the Manukau North coastline and to support the diversity of recreational uses of the area and accommodate all modes of mobility

3. The dynamic landscape, remote and untamed natural character, amenity, features and values of the west coast are protected to maintain a sense of connectedness

4. The innate social value of enabling recreational activities at the coast is recognised, and supporting infrastructure and assets continue to be maintained and provided for across both urban and rural coastal settlements of the Waitakere Ranges

5. Boat launching facilities are maintained and improved to provide for safe access to the harbour at a range of tide levels for a range of mobilities where possible, recognising the importance of access to the harbour

Key Themes: Connection to the natural env, importance of safe accessibility to and along the coast. Hot spots include but are not limited to Huia, Cornwallis, French Bay, Wood Bay, Armour Bay etc

Manukau North: Community Objectives:

Cultural

6. The cultural and historical ties of coastal people and communities are enhanced and maintained for future generations in a manner which is sensitive to the natural environment.

7. The values of key cultural areas, portages, and historic features, sites and structures are preserved and restored, providing for a range of traditional and contemporary coastal uses.

Responding to risk

8. Information and mapping of natural hazards, particularly coastal erosion, and climatic impacts is shared and understood to enable; proactive management of risks and support the resilience of community infrastructure, roading connections, critical lifeline assets and infrastructure alongside the resilience of communities

Key Themes: value of history of embayment's and portages, accessing/ gathering shellfish or fishing, damage to assets, infrastructure and roading connections in 2023 storm events highlighting vulnerable connections and lifeline services

Manukau North: Community Objectives:

Environmental

9. Adaptation strategies preserve and enhance the natural environment and ecosystems, considering opportunities to protect habitats and support improvements in fresh and harbour water quality.

10. Walking trails are designed and located in a manner that is sensitive to the natural environment, in which they are located, considering opportunities to maintain a natural coastal edge and support ecosystem corridors

Key Themes: importance of preserving and accessing the coast and natural features, proximity to the city, native species and biodiversity, aspirations include fostering a balanced approach that safeguards ecosystem integrity while ensuring recreational enjoyment and cultural significance.

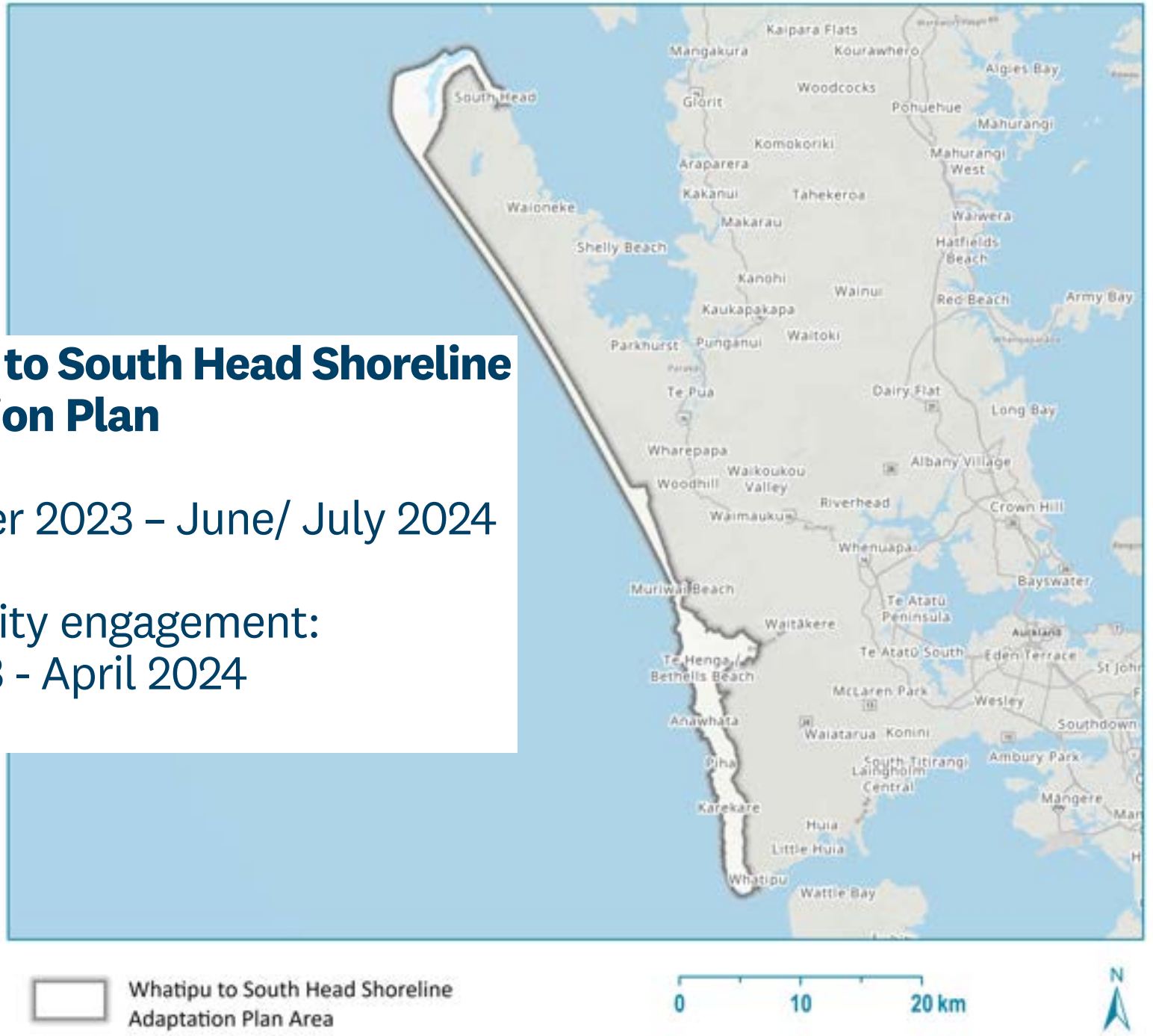
Next Steps for Manukau North...

UPDATE: Whatipu to Southhead

Whatipu to South Head Shoreline Adaptation Plan

November 2023 – June/ July 2024

Community engagement:
Nov 2023 - April 2024



Whatipu to South Head

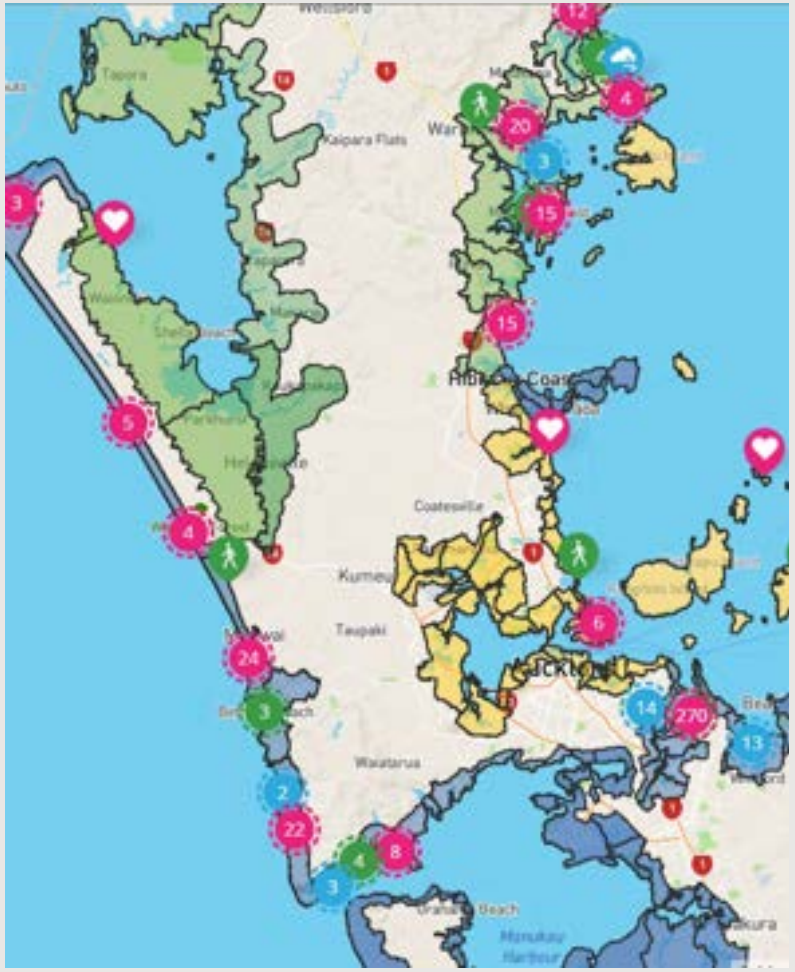
Next steps:

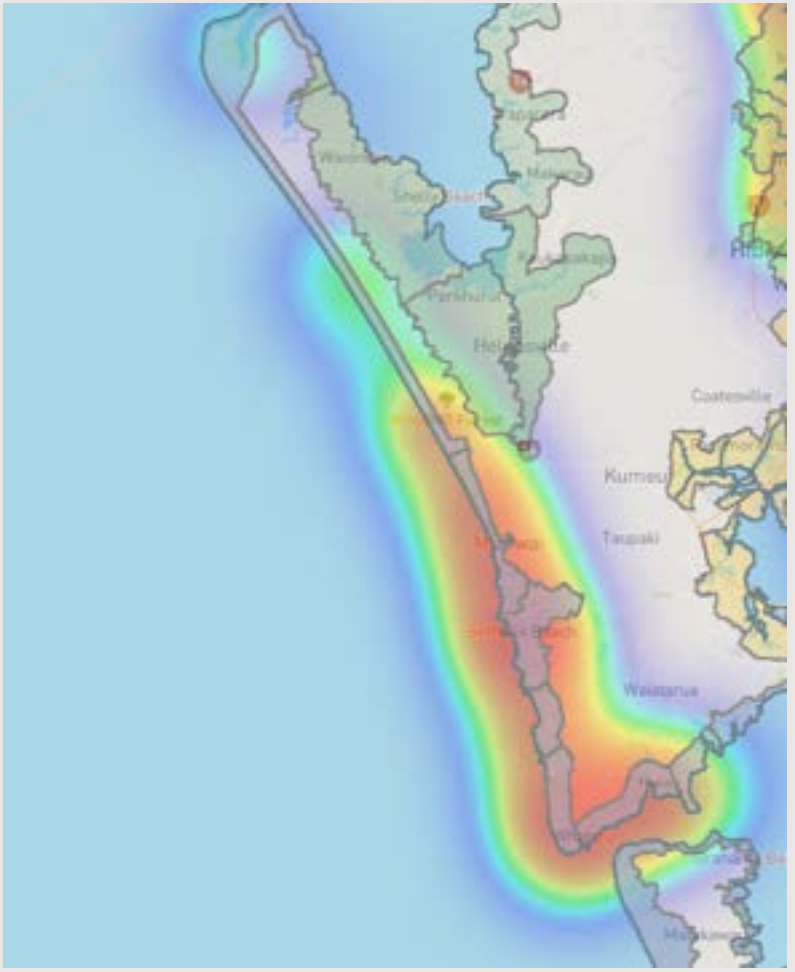
- **Nov to present:** ongoing: iwi engagement, one-on-one engagement and additional collective hui
- **APRIL:** Analysis of community engagement (events and analysis supported by Ecomatters)
- **MAY:** Developing draft strategies for review/feedback
- ➢ Seeking iwi, CCO and asset owner feedback on draft strategies from 3rd May – 23rd May
- ➢ Working with iwi on cultural inputs (and cultural statements – chapter for T2)
- **June/July:** Plan finalisations for approval (iwi to review final strategies and cultural inputs

West Coast key themes:

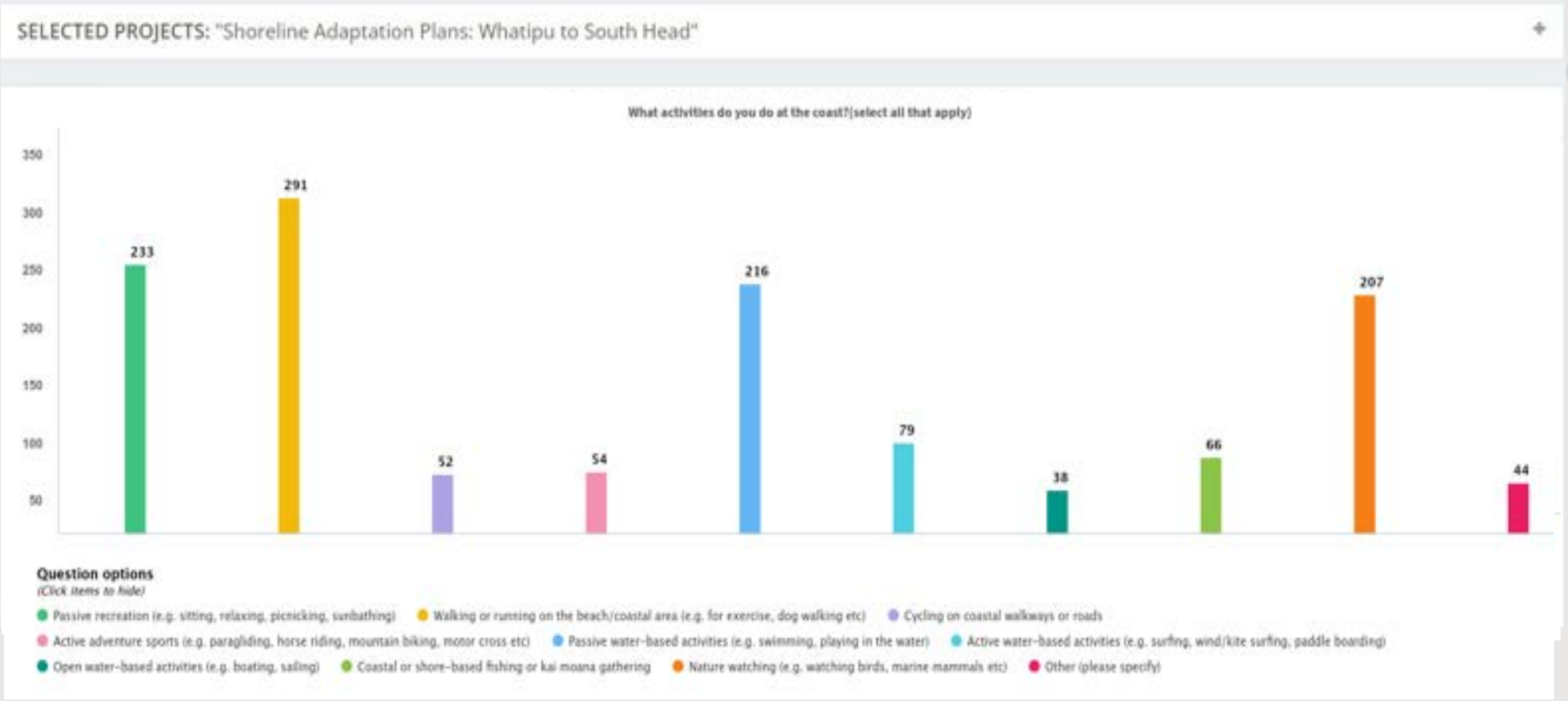
- Storm response/recovery
- Access to west coast beaches
- Coastal walkways
- Coastal communities

Social Pinpoint:





Ak Have Your Say: 356 Surveys



Community Feedback currently being analysed and documented:
Feedback summaries and community objectives will be socialised via Ak Have your Say and email correspondence with those who provided feedback

Recap & next steps

Manukau North

1. **[NOW]** closing the loop with the local community by socialising community objectives. Incorporate into adaptation strategies and guidance notes for implementation
2. **[JUNE]**– endorsement Manukau North sought

Whatipu To South head

1. **[NOW]** analysis of community engagement
2. **{NOW}** Drafting of strategies: review by iwi, CCOs and asset owners
3. **June/July**: Plan finalisations for approval (iwi to review final strategies and cultural inputs

**Further workshops – on request

Pātai
Questions and discussion

WAITĀKERE RANGES LOCAL BOARD

Te Henga/Bethells Public Use Study

May 2024

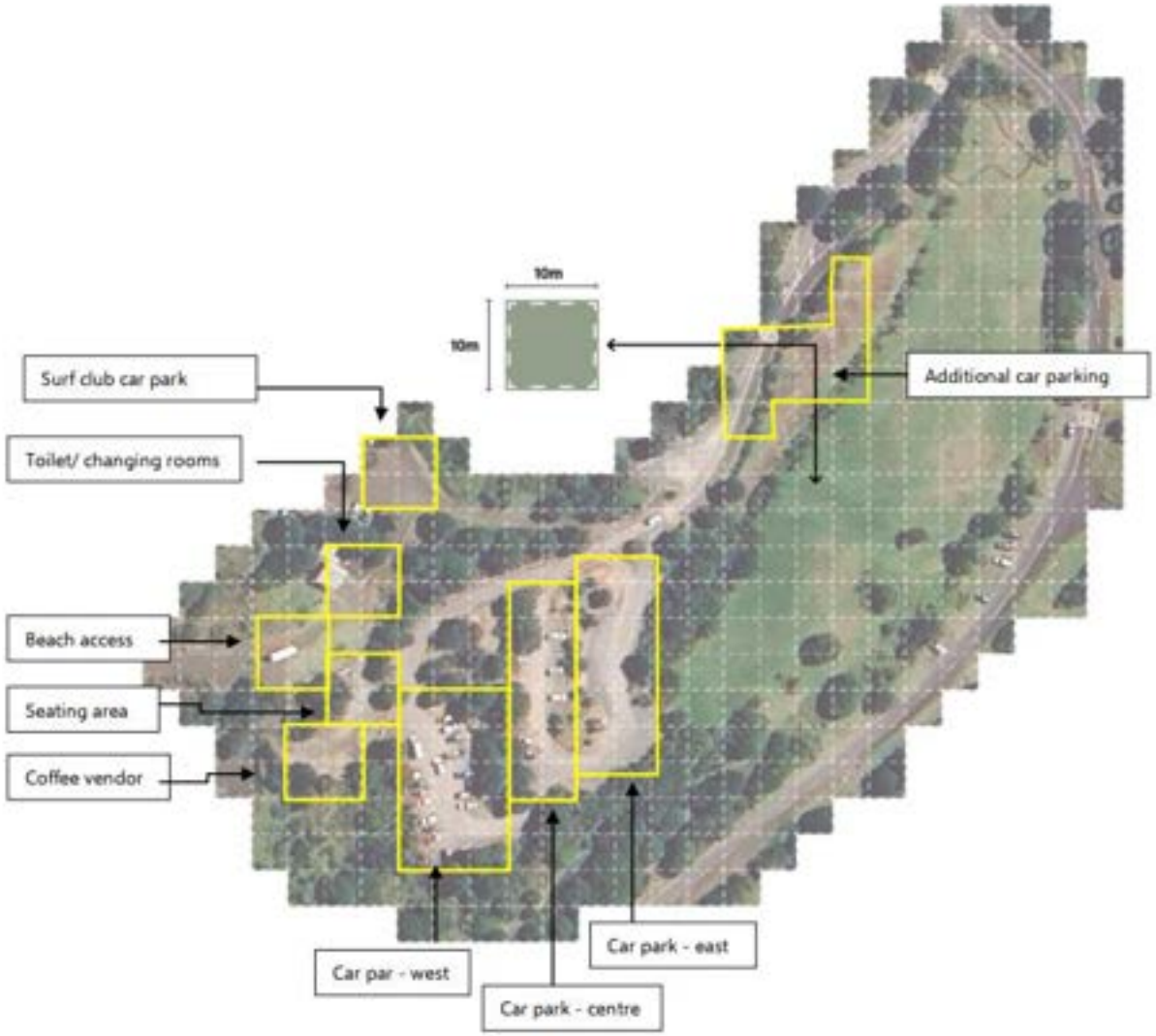
Brad Congdon, Parks & Places Specialist

Thursday 9th May 2024

Purpose of Study

- The Bethells Beach Surf Life Saving Patrol (BBSLSP) have undertaken a Feasibility Assessment Report at Te Henga Park. This report outlines a number of candidate locations for a new facility within the park.
- To help inform further investigation into the feasibility of these locations, an assessment on the use of Te Henga Park was undertaken to gather data on public use within the park.
- The purpose of this assessment was to gain a better understanding of use of various areas of Te Henga Park, to provide supporting information on potential impacts of proposed development by the BBSLSP.
- The study provides insight into why people visit Te Henga Park, the experiences they value, which areas people congregate within, as well as future challenges and opportunities.

Data Collection - Approach



- Drone flights + Panorama Aerials
- Intercept surveys
- Observational studies
- Heat maps

Drone Flights + Panorama Aerials

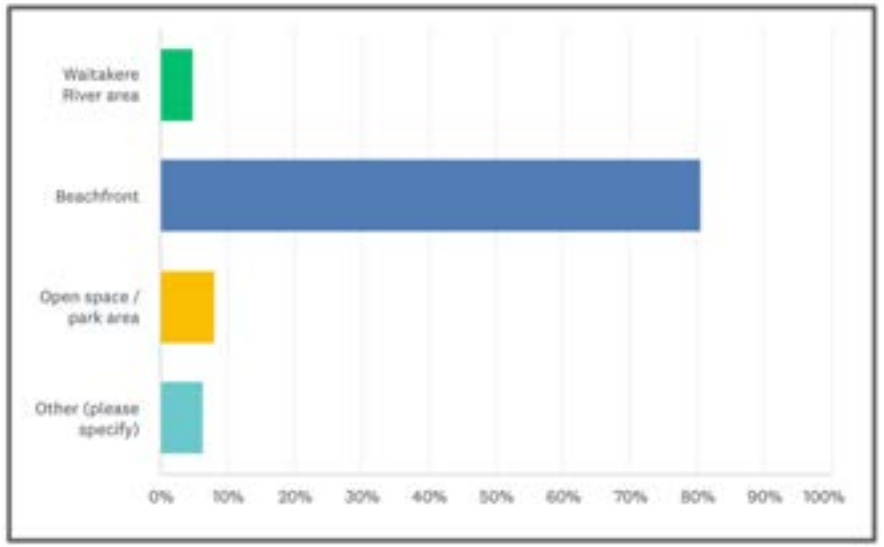
Drone Flight Path

3D Panorama Aerials

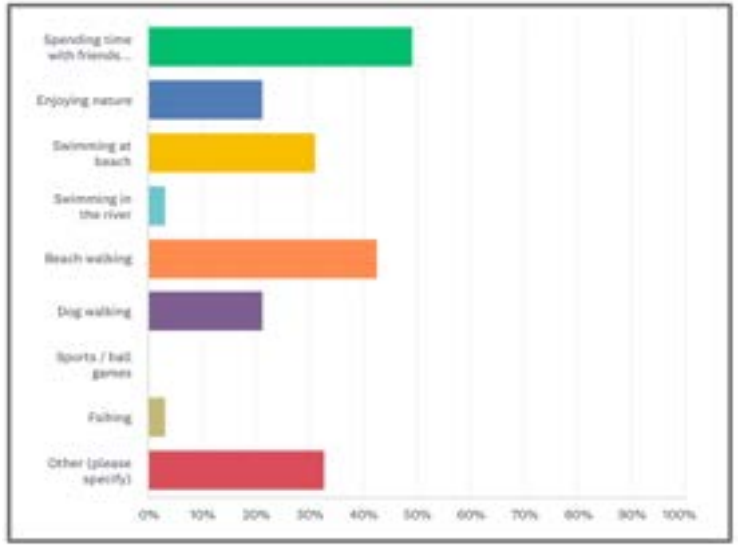
Drone Imagery (Sunday 14th January 3.30pm)

Intercept Surveys

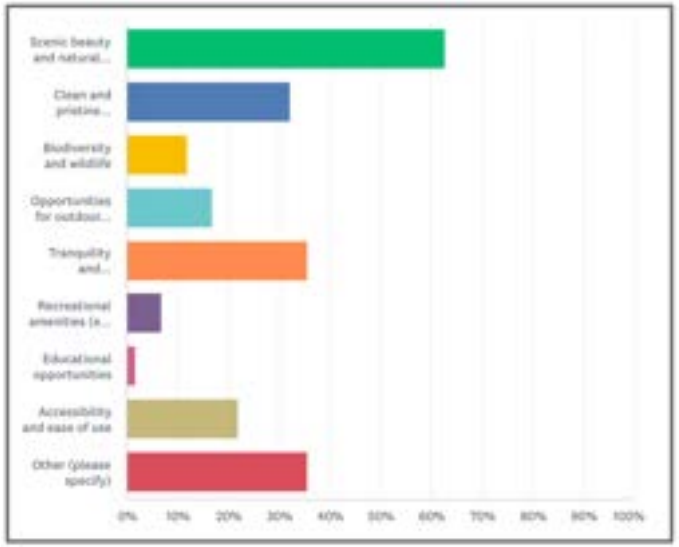
- Location within the park
- Main activities
- Reason for visiting
- Time spent
- Frequency of visits



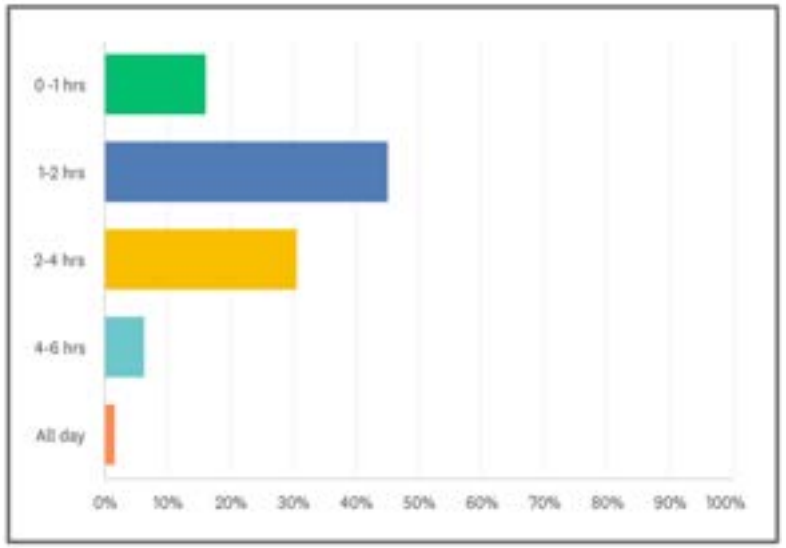
Location



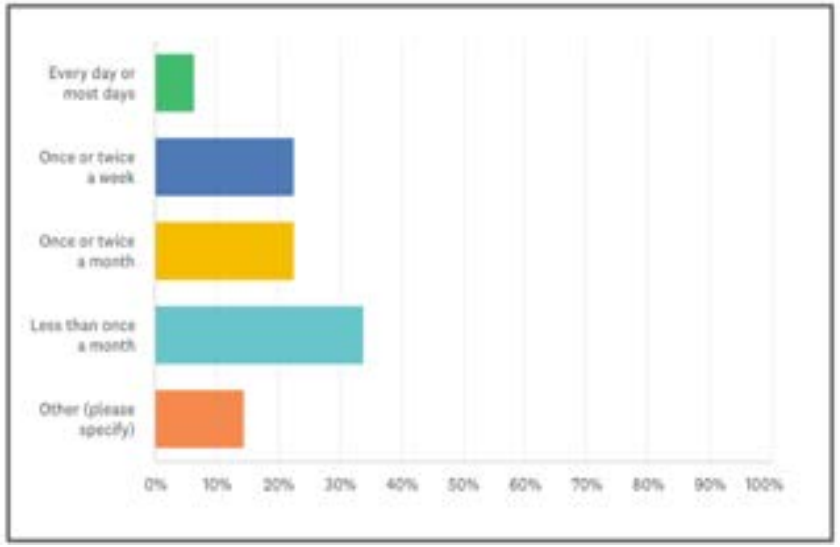
Main activity



Reason for visit



Time spent



Frequency

Observational Studies

Area A – Eastern end of large open space

- Very little utilisation – 6 people
- 3 individuals only walked through (w dogs) – 0-3 min
- Family group of 3 using pump track

Area B - Western end of large open space

- Slightly higher levels of utilisation – 29 people
- More couples and groups/families
- Most passing through 0-3 min

Area C – Car park

- Highly utilised – 220 people
- more couples and groups/families than individuals
- Most 0-3 min – going to & from beach

Area D – grassed area to westerns side of car park

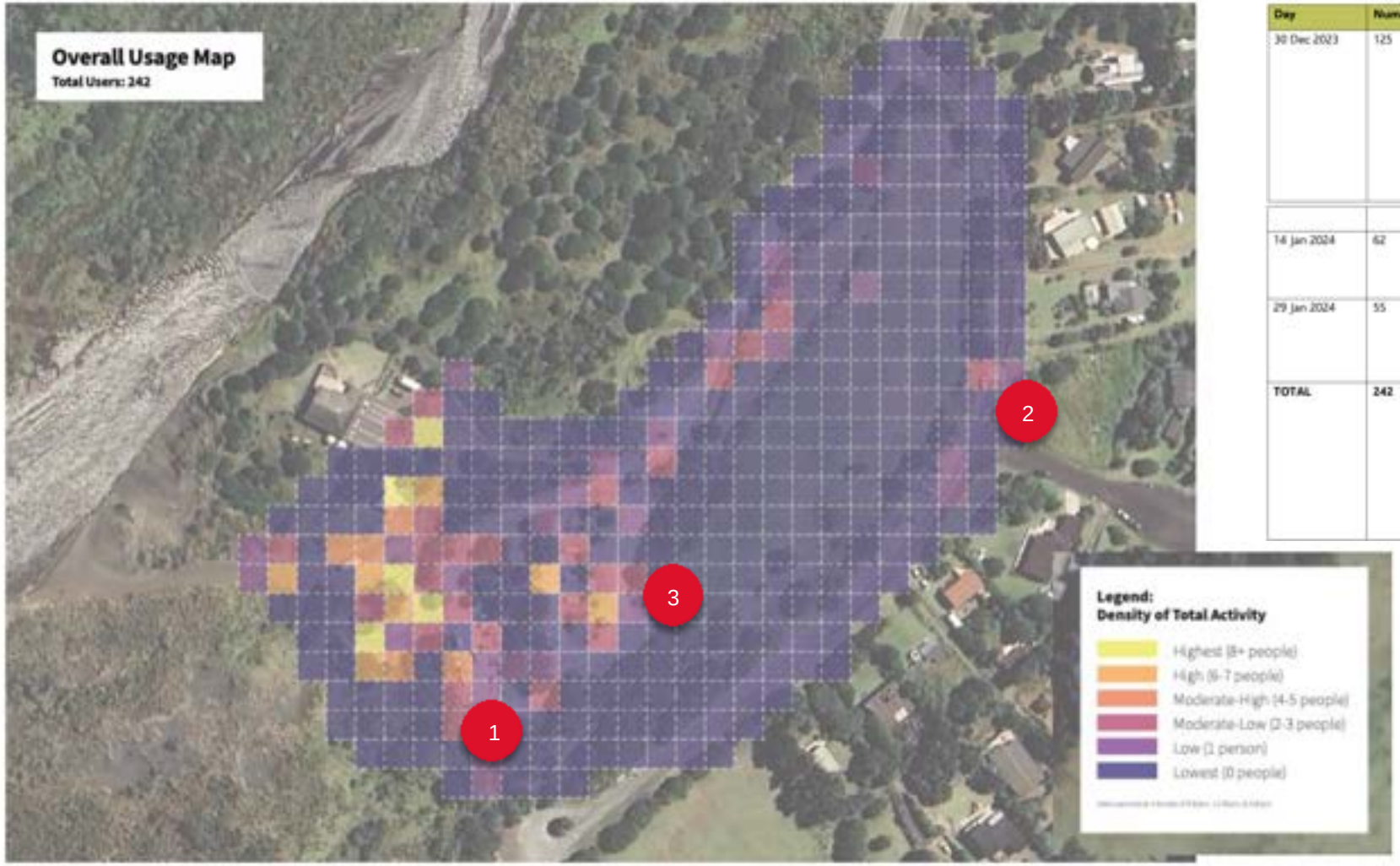
- Highest use – 325 people
- more couples and groups/families than individuals
- 68 % - 0-3 minutes to and from beach
- 4+ min – toilet/ changing room and coffee cart
- 22% with dogs

Heat Map

Heat Map

Heat Map

Park Usage Composite Heat Map



Day	Number of users	Use Observations
30 Dec 2023	125	Highest use areas (8+ people): • at beach access, • surf club car park and • mobile coffee vendor location. High use (6-7 people): • areas adjacent to highest use areas plus • toilet/ changing rooms
		• middle car park
14 Jan 2024	62	No areas had more than 8 visitors during observation time. High use areas (6-7 people) in vicinity of the toilet/changing rooms.
29 Jan 2024	55	No areas had more than 8 visitors during observation time. High use areas (6-7 people) at beach access, followed by moderate use around mobile coffee vendor location and eastern car park (4-5 people).
TOTAL	**242**	Highest use areas (8+ people): • surf club car park, • at toilet/changing rooms, • beach entrance, • mobile coffee vendor location. High use (6-7 people) in areas adjacent to high use areas plus eastern car park.

Top Three Candidate Site Locations outlined in Veros Report 2023

Conclusions

- Most people visiting Te Henga/Bethells Beach on the 3 survey days (30 December 2023, 14 and 29 January 2024) were from Auckland, particularly West Auckland. International tourists and visitors from outside Auckland made up a very small percentage of the visitors.
- Most respondents were repeat visitors who come once or twice a week or less but spent 1-4 hours visiting the area.
- While for many people they select this beach because it is close to home. Many travel past other beaches to get to Te Henga/Bethells Beach because of its scenery, rugged natural beauty and wild nature, and because of the quality of the beach and surf.
- Most people visiting Te Henga/Bethells Beach access it by private cars.
- Car parking did not appear to be a constraint for visitation, though this is a known issue for the park.
- Many vehicles (12-18 cars) were parked at the Lake Wainamu entrance each afternoon even though this area was closed.
- The key destination for people visiting this area is the beach, to undertake beach activities such as swimming, surfing, play and picnicking, spending time with friends and family, and to walk dogs.
- When leaving or entering the carpark, many people make use of the mobile vendor selling coffees, and the public toilet facility.
- There is little use of the grassed area to the east of the car park for picnicking or other activities.

Recommendation

- The proposal to relocate the BBSLSP facility needs to be assessed against the effects of the building and associated activities on Te Henga Park and its users.
- To enable a more thorough assessment of the impacts of a new BBSLSP facility on Te Henga Park it is recommended that the BBSLSP prepare high level concept plans for the **three top ranked** BBSLSP facility location options outlined in the Veros Bethells Beach Surf Life Saving Facility Feasibility Assessment March (2023) – attached.
- These concept plans should then be tested with Te Kawerau ā Maki, the Te Henga community, Auckland Transport, DOC and the wider public prior to deciding on the BBSLSP landowner approval and lease request.

Memorandum

24/04/2024

To: Te Poari ā-Rohe o Waitākere / Waitākere Ranges Local Board

Subject: **Te Henga/Bethells Public Use Study**

From: Brad Congdon – Parks & Places Specialist

Contact information: brad.congdon@aucklandcouncil.govt.nz

Purpose

1. To update the Waitākere Ranges Local Board on the Te Henga/Bethells Public Use Study undertaken over the summer period 2023/24.

Summary

2. The Bethells Beach Surf Life Saving Patrol (BBSLSP) Club's facility suffered severe damage due to Cyclone Gabrielle in 2023, prompting the club to consider options for a replacement facility. The club has proposed a number of options to relocate to within Te Henga Park.
3. An assessment on the use of Te Henga Park was undertaken on three days over the summer period of 2023/2024 (30 December 2023, 14 and 29 January 2024).
4. The assessment included drone flights, intercept surveys and observational studies.
5. The purpose of this assessment was to gain a better understanding of public use of the park, as a tool to inform potential impacts of future development on public use.
6. A number of conclusions have been drawn from the study relating to key experiences that the public value when visiting the park as well as key areas that the public congregate and recreate.
7. It is recommended that BBSLSP Club prepare high level concept plans for the three top ranked BBSLSP Club facility location options outlined in the Veros Bethells Beach Surf Life Saving Facility Feasibility Assessment (2023) - attached.
8. These concept plans should be tested with relevant stakeholders, including but not limited to, Te Kawerau ā Maki, the Te Henga community, Auckland Transport, DOC and the wider public prior to making a decision on the BBSLSP Club's landowner approval and lease application.

Context

9. The BBSLSP Club's Bethells Beach Surf Life Saving Facility Feasibility Assessment Report recommends a number of candidate locations for a new facility within Te Henga Park.
10. To help inform further investigation into the feasibility of these locations, an assessment on the use of Te Henga Park was commissioned to gather data on public use within the park.
11. The purpose of this assessment was to gain a better understanding of use of various areas of the Te Henga Park, to provide supporting information on potential impacts of proposed development by the BBSLSP Club.

12. The study provides valuable insight into why people visit Te Henga Park, experiences they value, which areas people congregate within, as well as future challenges and opportunities.

Discussion

13. It is noted that the timing of this assessment, less than one year after the devastating Cyclone Gabrielle event and two years after Covid lockdowns may mean that visitation was distorted from normal peak summer levels pre-Covid.

14. The purpose of this assessment was to get a better understanding of public use of the park, through the following three separate but complimentary methods:

    a) Three drone flights to create an orthomosaic aerial of the site allowing for “snapshot” of public use of the area at these times and 360 panoramic shots from each survey location

    b) Intercept surveys

    c) Observation studies.

Conclusions

15. Most people visiting Te Henga/Bethells Beach on the 3 survey days (30 December 2023, 14 and 29 January 2024) were from Auckland, particularly West Auckland. International tourists and visitors from outside Auckland made up a very small percentage of the visitors.

16. Most respondents were repeat visitors who come once or twice a week or less but spent 1-4 hours visiting the area.

17. While for many people they select this beach because it is close to home. Many travel past other beaches to get to Te Henga/Bethells Beach because of its scenery, rugged natural beauty and wild nature, and because of the quality of the beach and surf.

18. Most people visiting Te Henga/Bethells Beach access it by private cars.

19. Car parking did not appear to be a constraint for visitation, though this is a known issue for the park.

20. Many vehicles (12-18 cars) were parked at the Lake Wainamu entrance each afternoon even though this area was closed.

21. The key destination for people visiting this area is the beach, to undertake beach activities such as swimming, surfing, play and picnicking, spending time with friends and family, and to walk dogs.

22. When leaving or entering the carpark, many people make use of the mobile vendor selling coffees, and the public toilet facility.

23. There is little use of the grassed area to the east of the car park for picnicking or other activities.

Next steps

24. The proposal to relocate the BBSLSP Club facility needs to be assessed in terms of the effects of the building and associated activities on other Te Henga Park users.

25. To enable a more thorough assessment of the impacts of a new BBSLSP Club facility on Te Henga Park it is recommended that BBSLSP Club prepare high level concept plans for the three top ranked BBSLSP Club facility location options outlined in the Veros Bethells Beach Surf Life Saving Facility Feasibility Assessment March (2023) – attached.

26. These concept plans should then be tested with Te Kawerau ā Maki, the Te Henga community, Auckland Transport, DOC and the wider public prior to deciding on the BBSLSP Club's landowner approval and lease request.

Attachments

Te Henga/Bethells Public Use Study (2024)
Veros Bethells Beach Surf Life Saving Facility Feasibility Assessment (2023)

TE HENGA/BETHELLS BEACH PUBLIC USE STUDY

Summary of Summer 2023/2024 Intercept Surveys and Observation Study

2 February 2024

REPORT INFORMATION

Version	Author	Date	Status
Issue 1.0	Nicki Malone	2 February 2024	For client review

CONTENTS

EXECUTIVE SUMMARY

Approach

Xyst assessed the use of Te Henga Park through intercept surveys of park users, observation studies and drone flights on three days over the 2023/2024 summer (30 December 2023, 14 and 29 January 2024).

The purpose of this assessment was to get a better understanding of use of various areas of the park. The following three methods were used to assess visitation to Te Henga/Bethells Beach:

- Three drone flights to create an orthomosaic aerial of the site allowing for "snapshot" of public use of the area at these times and 360 panoramic shots from each survey location,
- Intercept surveys, and
- Observation studies.

It is noted that the timing of this assessment, less than one year after the devastating Cyclone Gabrielle event and two years after Covid lockdowns may mean that visitation was distorted from normal peak summer levels pre-Covid.

Key findings from the drone flights are:

- The highest number of park **users** were observed on **30 December 2023** (125 users).
- The areas of highest use within the park were the **surf club car park, the toilets/ changing room area, the seating area between the coffee vendor** and **the beach access** and in the area where the coffee vendor is located.
- The highest number of cars was observed in the **car park on 14 January 2024** (155 cars[1]).

Key findings from intercept surveys

Who are the visitors? 	**Most visitors:** • come from Auckland, specifically West Auckland (77%) • are in groups of 2-4 people (79%) • have visited before (97%) • visit less often than once per month (34%)
What do visitors do at Bethells? 	**Most visitors:** • spend between 1 and 4 hours here (1-2 hours – 45%, 2-4 hours – 31%) • come to spend time with family and friends (49%) or walk on the beach (43%) • spend most of their time at the beachfront (81%)
Why do visitors come to Bethells? 	**Most visitors** • value scenic beauty and natural landscapes (63%), the tranquility and peacefulness (36%), the clean and pristine environment (32%), and the accessibility and ease of use (22%).

[1] The maximum occupancy of the car park within the park, including main car park area, overflow parking, parking along the park access road and surf club parking, is estimated to be 160 cars.

- come here because it is close to home (26%) and because of its scenery/rugged natural beauty/wild nature (23%).
- visit to spend time with friends/whanau (49%), go beach walking (43%), swim at the beach (31%), enjoy nature (21%), surf/boogie board (21%) and/or walk their dog (21%).

Key findings form observational studies

Area A – Eastern end of large open space
- Very little utilisation – 6 people
- 3 individuals only walked through (w dogs) – 0-3 min
- Family group of 3 using pump track

Area B - Western end of large open space
- Slightly higher levels of utilisation – 29 people
- More couples and groups/families
- Most passing through 0-3 min

Area C – Car park
- Highly utilised – 220 people
- more couples and groups/families than individuals
- Most 0-3 min – going to & from beach

Area D – grassed area to westerns side of car park
- Highest use – 325 people
- more couples and groups/families than individuals
- 68 % - 0-3 minutes to and from beach
- 4+ min – toilet/ changing room and coffee cart
- 22% with dogs

1. INTRODUCTION

1.1 Assessment purpose

The purpose of this assessment was to get a better understanding of use of various areas of the Te Henga Park at Bethells. Information collected may be used to support the assessment of open space impacts of the proposed Surf Club relocation.

1.2 Report Structure

The structure of this report is as follows:

Section 1: Provides background to the assessment

Section 2: Describes the assessment approach

Section 3: Analyses the intercept survey responses

Section 4: Analyses the observation study findings

Section 5: Analyses the drone flight results

Section 6: Outlines key findings and provides a conclusion.

2 ASSESSMENT APPROACH

2.1 Assessment approach

The following three methods were used to assess visitation to Te Henga/Bethells Beach:

- Three drone flights to create an orthomosaic aerial of the site allowing for "snapshot" of public use of the area at these times and 360 panoramic shots from each survey location,
- Intercept surveys, and
- Observation studies.

The assessment occurred over the following three days in the summer 2023/2024 period:

Table 1 Overview of drone flight dates and weather observations

Date	Weather
Saturday 30 December 2023	Sunny 11 – 21 degrees Heavy rain during early morning period, clouds clearing to become a fine day. Light NW winds.
Sunday 14 January 2024	Sunny 15 – 25 degrees Scattered clouds, light NW winds, hot afternoon.
Monday 29 January 2024 (Auckland Anniversary Day)	Sunny 17 – 24 degrees.

	Scattered cloud with short rain showers throughout day. Strong W winds.

2.2 Drone flights

Drone flights of the area identified in Appendix 1 occurred at approximately 9.30am, 12.30pm and 3.30pm on the three identified dates. The images from these flights were used to create an orthomosaic aerial of the site allowing for "snapshot" of public use of the area at these times.

360 degree panoramic shots which allow for a wider view from the five locations as shown in Appendix 2 were also taken.

2.2.1 Heat maps

Xyst engaged Hook Consultants to analyse open park space use, by creating use heat maps based on drone imagery. Hook Consultants uses in-house algorithmic and parametric modelling to capture the spatial usage of park visitor/s in each of 10mx 10m cells, which the park was divided into. Different colours are used to indicate usage levels—yellow for high usage and blue/ purple for low usage.

It should be noted that, as people walk/move through a site, they may pass through multiple cells at the time of surveying which can result in double counting. To resolve this, Hook Consulting de-duplicates and removes the data of duplicate visitors to only count one visitor spatially per cell per hour.

Four heat maps were created, showing daily use and an aggregate map to show the use over three days. Figure 1 below shows the study area and areas of interest within it.

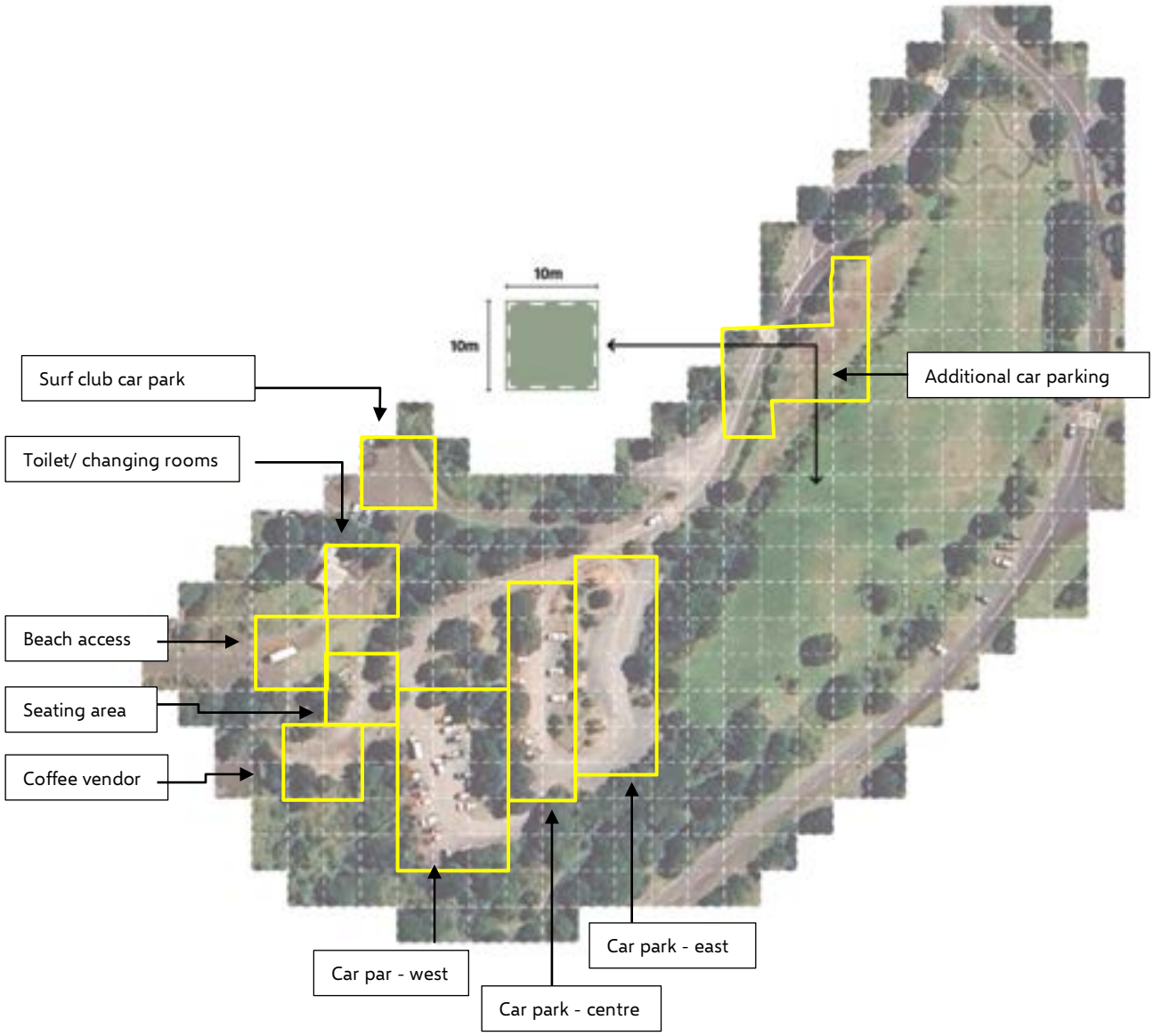


Figure 1 Overview of study area with 10m x 10m grids and usage scale

2.3 Intercept survey approach

A quick inter-active surveys of park visitors was undertaken on the three days to gain the following information:

- where they have travelled from,
- number of people in the group,
- how long they plan to visit the park / beach area, and
- what activities they intend to participate in.

See Appendix 3 for the specific survey questions.

62 surveys were collected between the observational studies and the drone flights at 9.30am, 12.30pm and 3.30pm.

The intercept surveys took approximately 2-4 minutes per survey and responses were recorded and analysed in Survey Monkey.

2.4 Observation study approach

Observation (non-interactive) site assessments at four locations within the park were undertaken to assess the following aspects of visitation:

- visitor's use of an area of the park,
- how long they are in the area for, and
- what activities they are undertaking.

Observation studies were undertaken at arrival at the park and between the three drone flights at 9.30am, 12.30 pm and 3.30pm. The four locations are shown in the map and table below (see larger scale location map in Appendix 4):

Figure 2 Map showing location of observational study

Table 2 Overview of observation study locations

Location	Location description
Location A	Observation from table by pump track, including north part of grass area. Excluded adjacent carpark area
Location B	Observation from tree with seat, including southern part of grass area
Location C	Observation from grass area in carpark, of vehicles / groups in immediate area. Excluded vehicles driving through this area
Location D	Observation of people using grass area adjacent to carpark; including people entering into / passing through site. Excluded mobile coffee cart on 30 Dec and 14 Jan.

Observations were recorded on a simple data collection form.

3 INTERCEPT SURVEY RESULTS

The results of the intercept surveys are summarised below and shown in full in Appendix 5.

3.1 Survey Respondents

- Most of the respondents (79%) were part of a group of 2-4 people. Only 11% of respondents visited the park on their own. See Figure 3 below.
- The majority of the 62 respondents lived in Auckland (92%); with most of these residents living in Auckland West (77%). See Figure 4 below.

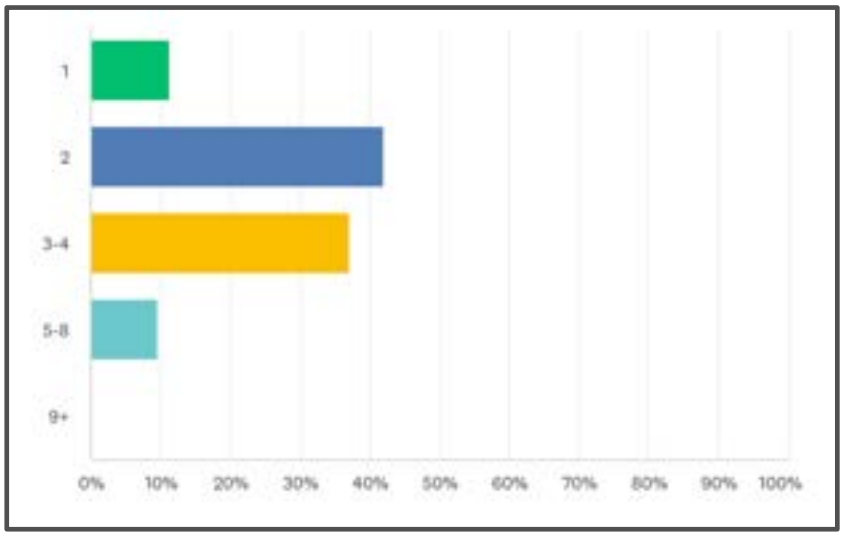


Figure 3 Size of group that intercept survey respondents are in on the day of the survey (N=62)

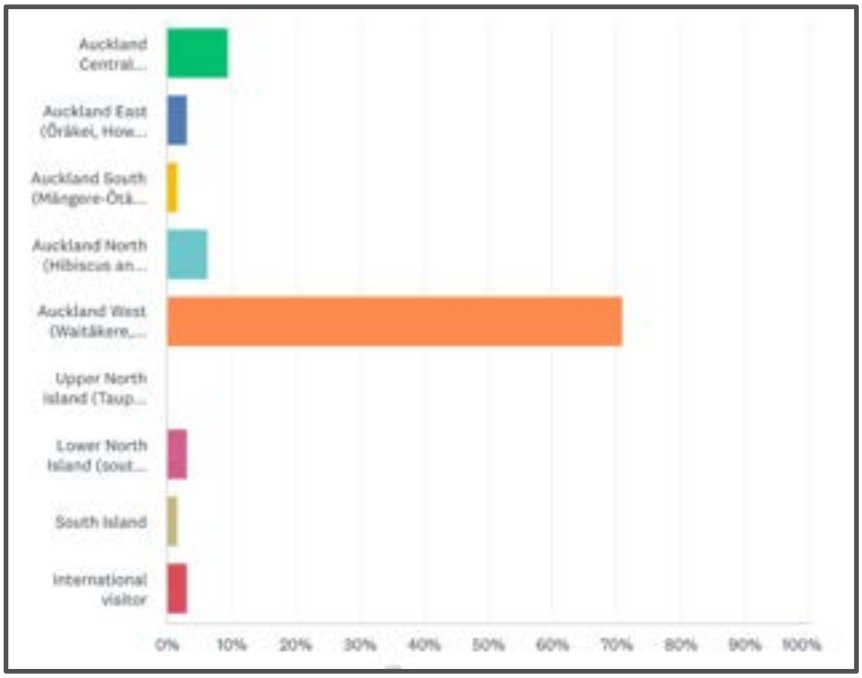


Figure 4 Intercept survey respondents residence location (N=62)

3.2 Intercept Survey Findings

- Most visitors (81%) **spent the majority of their visit** at the beachfront. A small number were based at the Waitakere River area (5%) and the open space park area (8%). Only one respondent specified they were going to O'Neills Beach. See Figure 5 below.
- The most common **reasons for visiting** Te Henga/Bethells Beach were spending time with friends/whanau (49%), beach walking (43%), swimming at the beach (31%), enjoying nature (21%), surfing/boogie boarding (21%) and dog walking (21%). Only a few people go to fish, swim in the river (3%), run and go to the café. See Figure 6 below.
- **Repeat visits:** Most respondents had been to the area before. It was the first visit for only 3 of the 62 respondents.
- **Visitation frequency:** Most respondents visited either once or twice a week (23%), once or twice a month (23%) or less than once a month (34%). Only a few people visit the beach daily (6%). See Figure 8 below.
- The **length of visit** for most people ranged from 1-4 hours; 1-2 hours (45%) or 2-4 hours (31%). Only 16% stay for less than one hour and only 8% stay for longer than 4 hours. See Figure 7 below.
- The most highly **valued characteristics** of Te Henga/Bethells Beach were:
    - the scenic beauty and natural landscapes (63%),
    - the tranquility and peacefulness (36%),
    - the clean and pristine environment (32%), and

- the accessibility and ease of use (22%).

- **Other characteristics that respondents valued** included opportunities for outdoor activities (including surf, dog walking, hiking, running), recreational amenities (including picnic area and pump track), the ability to get a coffee and education opportunities. See Table 3 below.
- The key **reasons for visiting Te Henga/Bethells Beach rather than elsewhere** were that it was close to home/accessible (26%), its scenery/rugged natural beauty/wild nature (23%), that it's a great beach (8%), to explore (8%) and to surf or boogie board (8%). See Figure 9 below.
- One respondent advocated for the opening of Lake Wainamu; noting that visitors quickly realise there is no danger and so go anyway and that people need places to go.

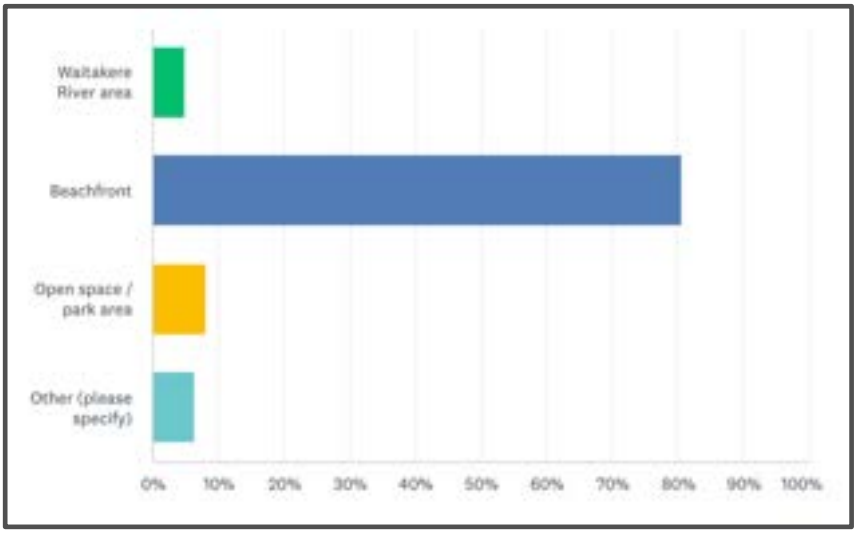


Figure 5 Location that respondents were mainly based at on the day of the survey (N=62)

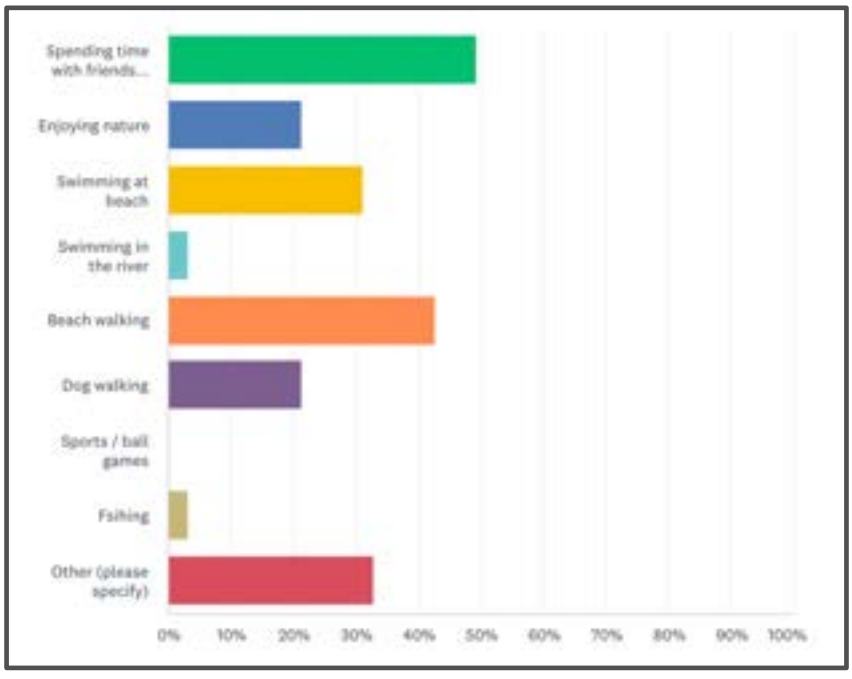


Figure 6 Three main activities that respondents came to Te Henga/Bethells Beach for (N=62)

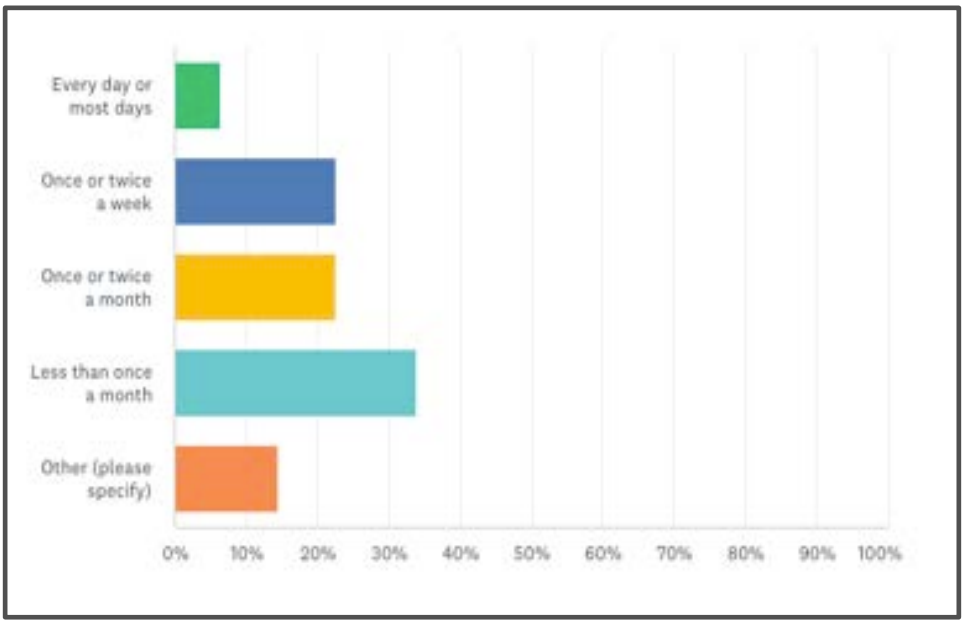


Figure 8 Visitation frequency Te Henga/Bethells Beach (N=62)

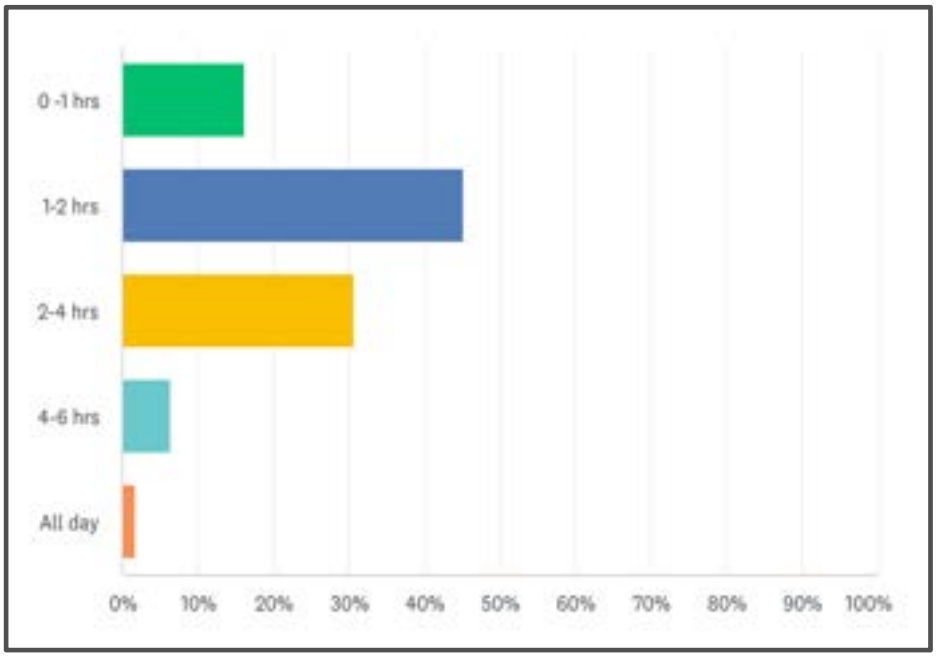


Figure 7 Time spent at Te Henga/Bethells Beach on the day of the survey (N=62)

Table 3 What respondents value most about Te Henga/Bethells Beach (N=59)

PRIMARY REASON FOR VISITING	NUMBER OF RESPONDENTS	PERCENTAGE
Closest beach to home/accessible beach	16	26%
Scenery/rugged natural beauty/wild nature	14	23%
Great beach	5	8%
Exploring	5	8%
Surfing/boogie boarding	5	8%
Off lead dog area/dog walking	4	6%
Fishing	3	5%
Day outing	4	6%
Lack of crowds compared to other beaches	3	5%
Lake Wainamu	2	3%
Accommodation	1	2%
Coffee	1	2%
Meeting friends	1	2%

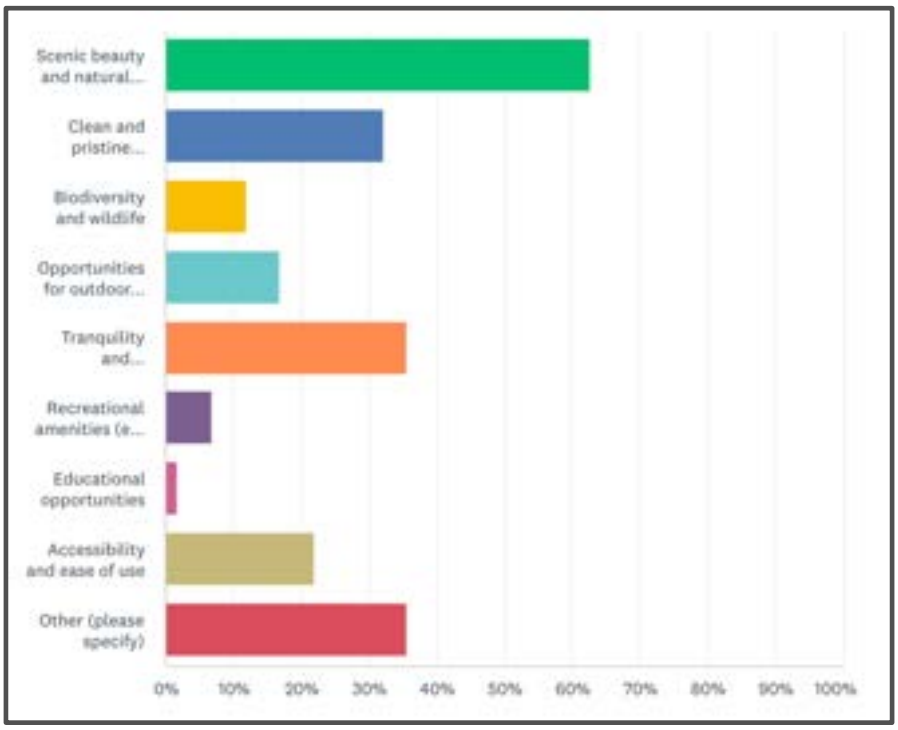


Figure 9 Reasons why respondents were at Te Henga/Bethells Beach (N=57 however 67 responses as responses were free form)

4 OBSERVATION STUDY FINDINGS

Key observations about park use at the four locations are set out in detail in Appendix 6 and summarised in Figure 10 below.

Figure 10 Summary of observation study findings

4.1 Other observations

Table 4 below summarises additional observations made while on site. They relate to car park design and use, drainage and lack of signage.

Table 4 Additional findings from observation study

DATE	OBSERVATIONS
30/12/2023	3 vehicles parked at Lake Wainamu on arrival. 12 vehicles when departing.
	5 cars parked outside locked gate area
	2 horse trailers in overflow carpark area
	Carpark not well laid out
	Hard to find access point to beach from some areas of carpark if you are new to the area
	Large open space green area - ponding of water at southern end (heavy rain last night)
	Locals don't want to lose open green space area
	Once carpark full - other cars park in areas which restrict access through the carpark. Some inconsiderate parking of vehicles
	No use of green space - only people walking through it

	Mix of local and international visitors
	Coffee truck was busy
14/01/2024	6 cars at Lake Wainamu carpark on arrival. 18 cars when departing. Only 1 on road edge.
	8 cars at locked gate
	5 cars on end of Bethells Road
	Groups using trees around small grass area for shade
	Use of all seats in this area
	1 family group on pump track for short period
	Many cars only staying 1-2 hours then leaving
	Some large groups under trees
	2 groups used grass area - looking for shade
	Lines of people at toilet waiting to wash sand of feet and bodies
	Lots of surface water flow from run-off from shower
	Cars not to tightly packed in as previous visit, though more people
	Lots of family / groups with trolleys going to the beach
	Coffee truck busy
29/01/2024	No cars at Lake Wainamu on arrival. 12 cars when departing
	No cars at locked entrance area
	2 large groups of Pasifika people had been at beach and were leaving 8.30-9.00 am
	No mobile coffee truck
	Groups using seats in shade - small grass area
	Large number of arrivals just after lunch

5 DRONE FLIGHT FINDINGS

5.1 Drone Flight Images

Drone flight footage and 360 panoramic aerial images were taken on all three days at the locations shown in Appendix 1 and 2. All images will be provided in digital form. Sample images for the four locations are included in Appendix 7.

5.2 Park Usage Heat Maps

The four heat maps that created based on drone footage, showing use one each of the three days. A fourth map show aggregated use over three days. See Appendix 8 for maps.

Figure 11 below shows the aggregated usage over the three flight days. As can be seen, the areas receiving the highest use over the three days are in the vicinity of the toilet/changing rooms, surf club car park and the area where the mobile coffee vendor is located.

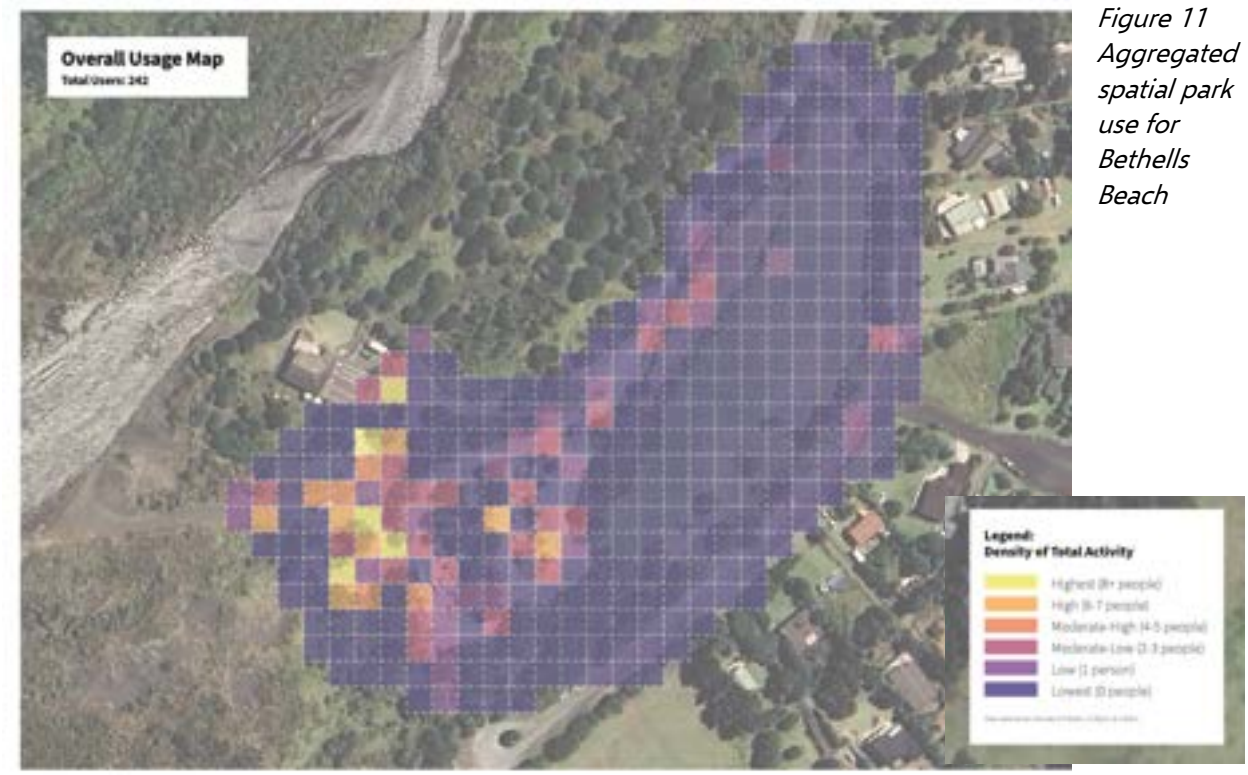


Figure 11 Aggregated spatial park use for Bethells Beach

Key observations of park users based on heat maps are summarised in Table 5 below. Key observations of car park use and occupancy based on drone images are summarised in Table 6.

Observations include the numbers of park users in each heat map and locations of high use.

Table 5 Summary of observations from heat maps

Day	Number of users	Use Observations
30 Dec 2023	125	Highest use areas (8+ people): • at beach access, • surf club car park and • mobile coffee vendor location. High use (6-7 people): • areas adjacent to highest use areas plus • toilet/ changing rooms

		• middle car park
14 Jan 2024	62	No areas had more than 8 visitors during observation time. High use areas (6-7 people) in vicinity of the toilet/changing rooms.
29 Jan 2024	55	No areas had more than 8 visitors during observation time. High use areas (6-7 people) at beach access, followed by moderate use around mobile coffee vendor location and eastern car park (4-5 people).
TOTAL	**242**	Highest use areas (8+ people): • surf club car park, • at toilet/changing rooms, • beach entrance, • mobile coffee vendor location. High use (6-7 people) in areas adjacent to high use areas plus eastern car park.

Observations for car park occupancy include counts of the numbers of cars parked in the main car park, at the surf club, along the access road, at the overflow car park and along the end of Bethells Road, with car numbers shown in brackets. Maximum number of cars observed on across all three days and times is shown in **bold**.

Based on observations across the three days, the maximum occupancy of the car park is estimated to be approximately 160 cars at any given time. This includes cars parked along the access road. Additional cars were parked at the lower end of Bethells Road, with a maximum number of 11 cars observed during the study.

Table 6 Summary of observations for car park occupancy based on drone images

Day	Time	Number of cars	Location
30 Dec 2023	9.30am	53	Main car park approximately half full (38), some cars along access road and in overflow car park (5).
	12.30pm	83	Main car park nearly full (71). One car at overflow car park. Few cars along Bethells Road
	3.30pm	129	Main car park largely full (80); parking along access road full (17), overflow car park more than half full (21).

14 Jan 2024	9.30am	64	Main car park more than half full (51) , few cars in overflow car park and few along road (total 5).
	12.30pm	**155**	Busiest time observed in car park overall. Main car park nearly full (80). Most cars observed in overflow car park (**38**) and along access road (21) across all 3 days and times.
	3.30pm	150	Second busiest time in car park. Main car park maximum occupancy observed (**86**). Overflow car park busy (22). Highest number of cars parked along access road (**22**)
29 Jan 2024	9.30am	9	Lowest number of cars observed overall, all at front car park.
	12.30pm	52	Main car park approximately half full (44). No cars in overflow car park and along access road.
	3.30pm	84	Main car park nearly full (73). Few cars in overflow car park (5), none along access road. 3 visible at Bethells Road.

6 CONCLUSIONS

- The majority of people visiting Te Henga/Bethells Beach on the 3 survey days were from Auckland, particularly West Auckland. International tourists and visitors from outside Auckland made up a very small percentage of the visitors.
- Most respondents were repeat visitors who come once or twice a week or less but spent 1-4 hours visiting the area.
- While for many people they select this beach because it is close to home, many travel past other beaches to get to Te Henga/Bethells Beach because of its scenery/rugged natural beauty/wild nature and because of the quality of the beach and surf.
- Most people visiting Te Henga/Bethells Beach access it by private cars.
- During our visits, car parking did not appear to be a constraint for visitation, though this is a known issue for the park.

- A large number of vehicles (12-18 cars) were parked at the Lake Wainamu entrance each afternoon even though this area was closed.
- The key destination for people visiting this area is the beach to undertake beach activities such as swimming, surfing, playing and picnicking, spend time with friends and families and walk the dog.
- In between leaving or returning to the carpark or their homes, many people make use of the mobile vendor selling coffees and the public toilet facility.
- There is little use of the grassed area to the east of the car park for picnicking or other activities.

7 APPENDICES

Appendix 1 Drone flight path

Appendix 2 Panoramic aerial locations

Appendix 3 Intercept survey questions

Public use of Te Henga Park area

Auckland Council would like to find out how Te Henga Park is used, what people value about the area and what could be improved (map of park area is in Appendix 1)

By participating in this survey, you have agreed to Auckland Council's Privacy Policy

1. Which area do you live in?

- ○ **Auckland Central** (Waitematā, Albert-Eden, Waiheke, Great Barrier Local Board)
- ○ **Auckland East** (Ōrākei, Howick Local Board, Maungakiekie-Tāmaki Local Board)
- ○ **Auckland South** (Māngere-Ōtāhuhu, Ōtara-Papatoetoe, Manurewa, Papakura, Franklin Local Board)
- ○ **Auckland North** (Hibiscus and Bays, Takapuna-Devonport , Kāipatiki, Upper Harbour, Rodney Local Board)
- ○ **Auckland West** (Waitākere, Henderson-Massey, Whau, Puketāpapa Local Board)
- ○ Upper North Island (Taupo north)
- ○ Lower North Island (south of Taupo)
- ○ South Island
- ○ International visitor

2. Select the **three** main activities that you have come for here today?

- ☐ Spending time with friends, whanau / hang out / picnic
- ☐ Enjoying nature
- ☐ Swimming at beach
- ☐ Swimming in the river
- ☐ Beach walking
- ☐ Dog walking
- ☐ Sports / ball games
- ☐ Fsihing
- ☐ Other (please specify)

3. Will you be based mainly at the following location?

- ○ Waitakere River area
- ○ Beachfront
- ○ Open space / park area
- ○ Other (please specify)

4. How much time are you planning on spending here today?

- ◯ 0 -1 hrs
- ◯ 1-2 hrs
- ◯ 2-4 hrs
- ◯ 4-6 hrs
- ◯ All day

5. How often to do you visit Te Henga Bethells Beach?

- ◯ Every day or most days
- ◯ Once or twice a week
- ◯ Once or twice a month
- ◯ Less than once a month
- ◯ Other (please specify)

6. How many people are in your group?

- ◯ 1
- ◯ 2
- ◯ 3-4
- ◯ 5-8
- ◯ 9+

7. What do you most value about Te Henga / Bethells?

- ☐ Scenic beauty and natural landscapes
- ☐ Clean and pristine environment
- ☐ Biodiversity and wildlife
- ☐ Opportunities for outdoor activities (e.g. hiking, bird watching)
- ☐ Tranquility and peacefulness
- ☐ Recreational amenities (e.g. picnic area, pump track)
- ☐ Educational opportunities
- ☐ Accessibility and ease of use
- ☐ Other (please specify)

8. What attracts you to come here rather than elsewhere (please specify)?

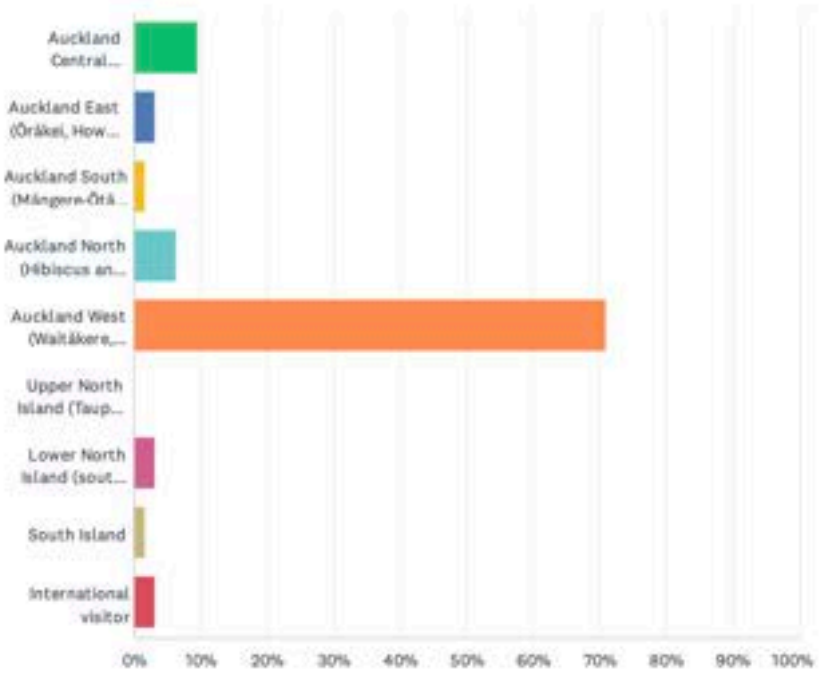
Appendix 4 Observation study site locations

Appendix 5 Intercept survey results

Te Henga Park - Bethells Beach SurveyMonkey

Q1 Which area do you live in?

Answered: 62 Skipped: 0

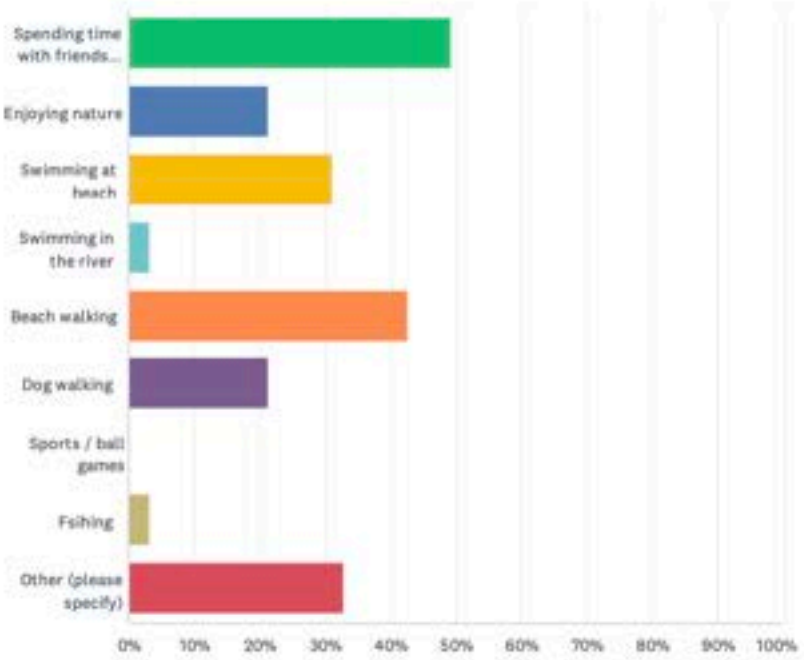


ANSWER CHOICES	RESPONSES	
Auckland Central (Waitematā, Albert-Eden, Waiheke, Great Barrier Local Board)	9.68%	6
Auckland East (Ōrākei, Howick Local Board, Maungakiekie-Tāmaki Local Board)	3.23%	2
Auckland South (Māngere-Ōtāhuhu, Ōtara-Papatoetoe, Manurewa, Papakura, Franklin Local Board)	1.61%	1
Auckland North (Hibiscus and Bays, Takapuna-Devonport , Kāipatiki, Upper Harbour, Rodney Local Board)	6.45%	4
Auckland West (Waitākere, Henderson-Massey, Whau, Puketāpapa Local Board)	70.97%	44
Upper North Island (Taupo north)	0.00%	0
Lower North Island (south of Taupo)	3.23%	2
South Island	1.61%	1
International visitor	3.23%	2
TOTAL		62

Te Henga Park - Bethells Beach SurveyMonkey

Q2 Select the three main activities that you have come for here today?

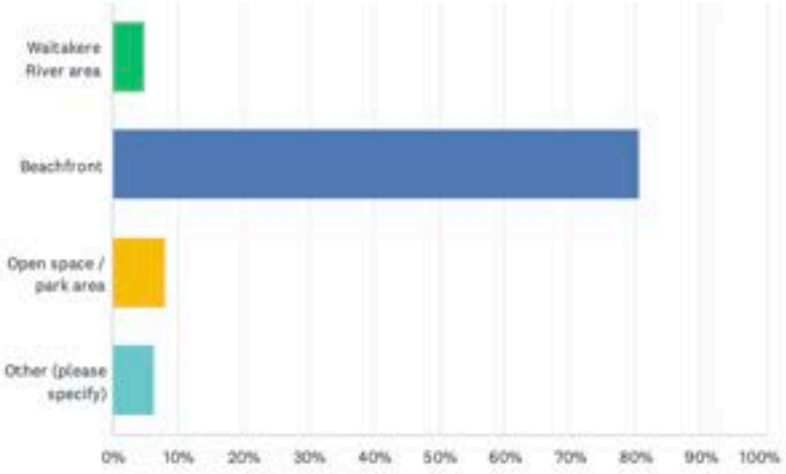
Answered: 61 Skipped: 1



ANSWER CHOICES	RESPONSES	
Spending time with friends, whanau / hang out / picnic	49.18%	30
Enjoying nature	21.31%	13
Swimming at beach	31.15%	19
Swimming in the river	3.28%	2
Beach walking	42.62%	26
Dog walking	21.31%	13
Sports / ball games	0.00%	0
Fishing	3.28%	2
Other (please specify)	32.79%	20
Total Respondents: 61		

Q3 Will you be based mainly at the following location?

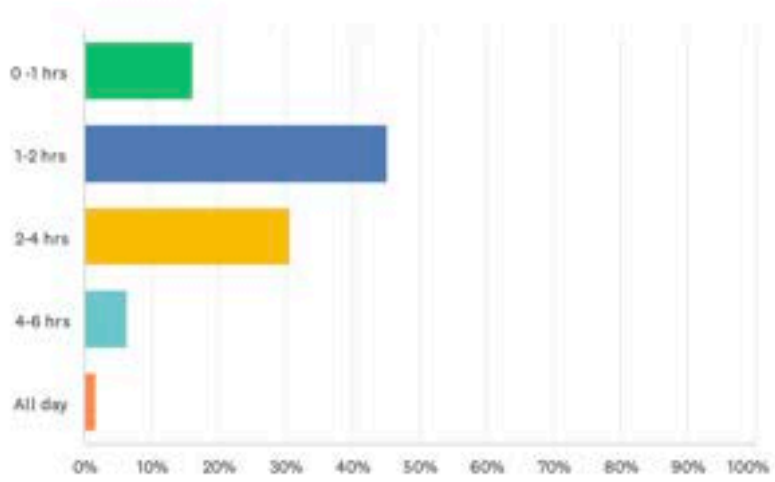
Answered: 62 Skipped: 0



ANSWER CHOICES	RESPONSES	
Waitakere River area	4.84%	3
Beachfront	80.65%	50
Open space / park area	8.06%	5
Other (please specify)	6.45%	4
TOTAL		62

Q4 How much time are you planning on spending here today?

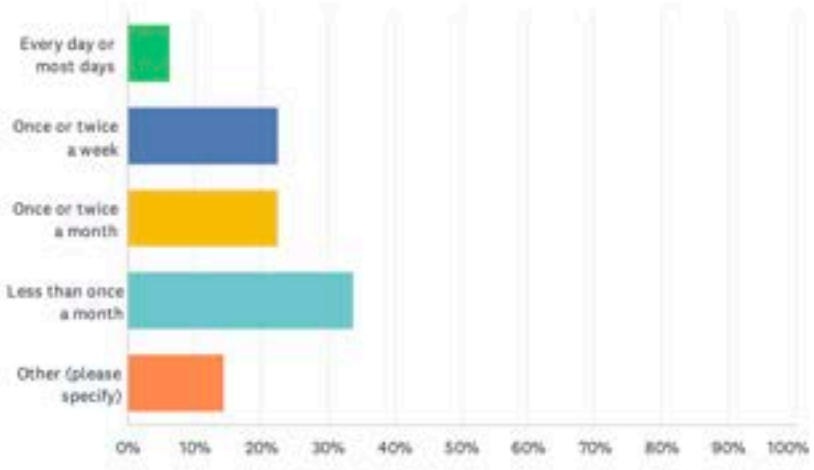
Answered: 62 Skipped: 0



ANSWER CHOICES	RESPONSES	
0 -1 hrs	16.13%	10
1-2 hrs	45.16%	28
2-4 hrs	30.65%	19
4-6 hrs	6.45%	4
All day	1.61%	1
TOTAL		62

Q5 How often to do you visit Te Henga Bethells Beach?

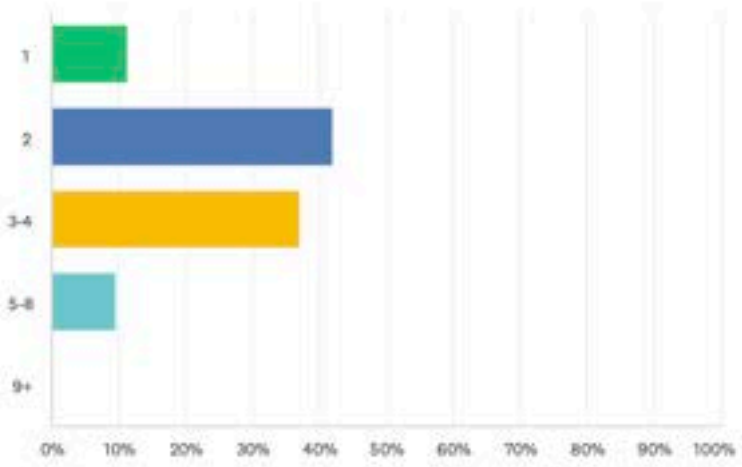
Answered: 62 Skipped: 0



ANSWER CHOICES	RESPONSES	
Every day or most days	6.45%	4
Once or twice a week	22.58%	14
Once or twice a month	22.58%	14
Less than once a month	33.87%	21
Other (please specify)	14.52%	9
TOTAL		62

Q6 How many people are in your group?

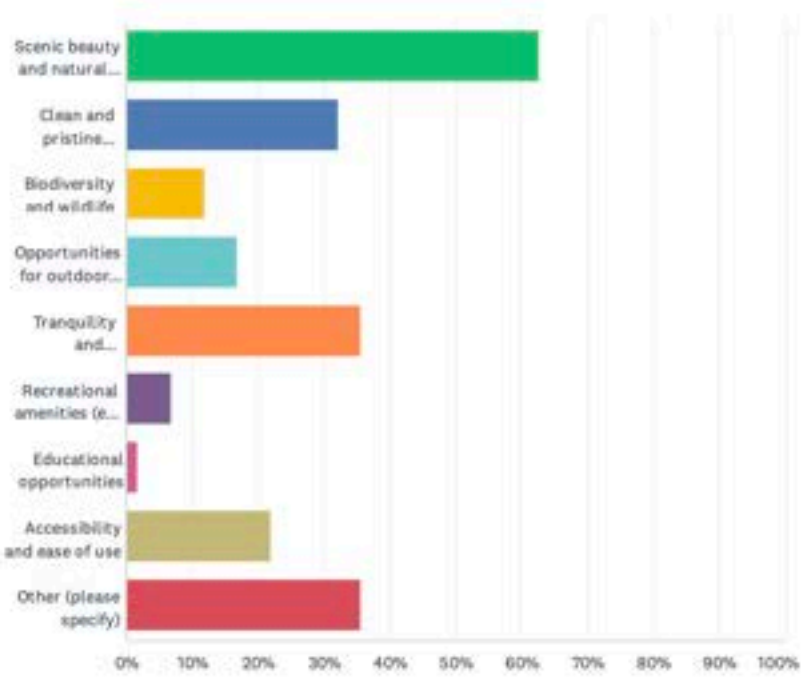
Answered: 62 Skipped: 0



ANSWER CHOICES	RESPONSES	
1	11.29%	7
2	41.94%	26
3-4	37.10%	23
5-8	9.68%	6
9+	0.00%	0
TOTAL		62

Q7 What do you most value about Te Henga / Bethells?

Answered: 59 Skipped: 3



ANSWER CHOICES	RESPONSES	
Scenic beauty and natural landscapes	62.71%	37
Clean and pristine environment	32.20%	19
Biodiversity and wildlife	11.86%	7
Opportunities for outdoor activities (e.g. hiking, bird watching)	16.95%	10
Tranquility and peacefulness	35.59%	21
Recreational amenities (e.g. picnic area, pump track)	6.78%	4
Educational opportunities	1.69%	1
Accessibility and ease of use	22.03%	13
Other (please specify)	35.59%	21
Total Respondents: 59		

Q8 What attracts you to come here rather than elsewhere (please specify)?

Answered: 57 Skipped: 5

Appendix 6 Observation study results

6.1 Location A - Eastern end of large green space

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
30/12/23	9.00 am	Nil					
	10.00 am	Nil					
	11.00 am	Nil					
	12 noon	Nil					
	1.00 pm	Nil					
	2.00 pm	Nil					
	3.00 pm	Nil					
14/01/24	9.00 am	Nil					
	10.00 am	Family	3	Walking	0-3 min	Other	Father and two children using pump track
	11.00 am	Nil					
	12 noon	Nil					
	1.00 pm	Solo	1	Walking	4 + min	Other	Single person walking through site
	2.00 pm	Nil					
	3.00 pm	Nil					
29/01/24	9.00 am	Nil					

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	10.00 am	Solo	1	Walking	0-3 min	Dog	Single person walking dog through site
	11.00 am	Nil					
	12 noon	Solo	1	Walking	0-3 min	Dog	Single person walking dog through site
	1.00 pm	Nil					
	2.00 pm	Nil					
	3.00 pm	Nil					

6.2 Location B - Western end of large green space

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
30/12/23	9.10 am	Couple	2	Walking	0-3 min	Other	Passing through site
	10.10 am	Nil					
	11.10 am	Nil					
	12.10 pm	Solo	1	Walking	0-3 min	Other	Surfer - from car or local - unknown
	1.10 pm	Family	4	Walking	0-3 min	Other	Passing through site
	2.10 pm	Nil					
	3.10 pm	Nil					

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
14/01/24	9.10 am	Nil					
	10.10 am	Family	5	Walking	0-3 min	Other	Heading towards beach
	11.10 am	Group	3	Walking	0-3 min	Other	Walking towards beach
	12.10 pm	Nil					
	1.10 pm	Family	7	Car	4 + min	Picnic	Asian family having lunch
	1.10 pm	Couple	2	Car	4 + min	Picnic	Couple finding shade for picnic Stayed in area for over 1 hour
	2.10 pm	Nil					
	3.10 pm	Nil					
29/01/24	9.10 am	Solo	1	Walking	0-3 min	Other	Single person walking dog through site
	10.10 am	Nil					
	11.10 am	Solo	1	Walking	0-3 min	Dog	Single person walking dog through site
	12.10 pm	Solo	1	Car	0-3 min	Dog	Walked dog into grass area, then returned to carpark
	1.10 pm	Group	2	Car	0-3 min	Other	2x surfers heading to beach
	2.10 pm	Nil					
	3.10 pm	Nil					

6.3 Location C – Carpark

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
30/12/23	9.20 am	Group	3	Car	0-3 min	Dog	Returning with dog
	9.20 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	9.20 am	Solo	1	Car	4 + min	Other	Surfer heading out
	9.20 am	Group	3	Car	0-3 min	Other	Fishing group
	10.20 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	10.20 am	Family	4	Car	0-3 min	Other	Heading out to beach
	10.20 am	Group	3	Car	0-3 min	Other	Heading out to beach
	11.20 am	Couple	2	Car	0-3 min	Dog	Returning with dog
	11.20 am	Group	5	Car	0-3 min	Other	2x couples plus toddler plus dog going to beach
	11.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	11.20 am	Family	4	Car	0-3 min	Other	Going to beach
	12.20 pm	Couple	2	Car	0-3 min	Other	Returning from beach
	12.20 pm	Family	3	Car	0-3 min	Other	Couple with toddler returning from beach
	1.20 pm	Family	4	Car	0-3 min	Other	Going to beach
	1.20 pm	Couple	2	Car	0-3 min	Dog	Going out with dog
	1.20 pm	Couple	2	Car	0-3 min	Other	Returning from beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	1.20 pm	Group	3	Car	0-3 min	Other	Returning from beach
	2.20 pm	Family	5	Car	0-3 min	Other	Going to beach
	2.20 pm	Group	3	Car	0-3 min	Other	Going to beach
	2.20 pm	Group	4	Car	0-3 min	Other	Going to beach
	3.20 pm	Couple	2	Car	0-3 min	Other	Returning from beach
	3.20 pm	Couple	2	Car	4 + min	Dog	Returning with dog
	3.20 pm	Family	5	Car	4 + min	Other	Going to beach
	3.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
14/01/24	9.20 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	9.20 am	Group	3	Car	0-3 min	Dog	Going out with dog
	9.20 am	Group	3	Car	4 + min	Other	3x surfers heading to beach
	10.20 am	Family	6	Car	0-3 min	Other	Going to beach
	10.20 am	Solo	1	Car	0-3 min	Dog	Going out with dog
	10.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	10.20 am	Group	4	Walking	0-3 min	Other	Going to beach - came through track from B
	10.20 am	Family	3	Car	4 + min	Other	Couple with toddler going to beach
	11.20 am	Family	5	Car	0-3 min	Other	Going to beach
	11.20 am	Couple	2	Car	0-3 min	Other	Returning from beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	11.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	11.20 am	Solo	1	Car	0-3 min	Other	Going to beach
	11.20 am	Family	4	Car	4 + min	Other	Going to beach
	11.20 am	Couple	2	Car	0-3 min	Dog	Returning with dog
	12.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	12.20 pm	Group	3	Car	0-3 min	Other	Going to beach
	12.20 pm	Couple	2	Car	0-3 min	Other	Returning from beach
	1.20 pm	Family	5	Car	0-3 min	Other	Going to beach
	1.20 pm	Family	4	Walking	0-3 min	Other	Going to beach - came through track from B
	1.20 pm	Couple	2	Car	0-3 min	Other	Returning from beach
	1.20 pm	Couple	2	Car	0-3 min	Dog	Going out with dog
	1.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	2.20 pm	Family	4	Car	0-3 min	Other	Returning from beach
	2.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	2.20 pm	Group	5	Car	0-3 min	Other	Going to beach
	3.20 pm	Family	5	Car	4 + min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	3.20 pm	Group	3	Car	0-3 min	Other	Returning from beach
	3.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	3.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
29/01/24	9.20 am	Solo	1	Car	0-3 min	Dog	Going out with dog
	9.20 am	Couple	2	Walking	0-3 min	Dog	Going out with dog - came through track from B
	9.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	9.20 am	Group	3	Car	4 + min	Other	Returning from beach
	9.20 am	Group	4	Car	4 + min	Other	Returning from beach
	10.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	10.20 am	Family	3	Car	0-3 min	Other	Going to beach
	10.20 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	11.20 am	Family	4	Car	0-3 min	Dog	Going out with dog
	11.20 am	Couple	2	Car	0-3 min	Other	Going to beach
	11.20 am	Group	2	Walking	0-3 min	Other	2x surfers going to beach
	12.20 pm	Group	3	Car	0-3 min	Other	Returning from beach
	12.20 pm	Family	3	Car	0-3 min	Other	Going to beach
	1.20 pm	Family	4	Car	4 + min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	1.20 pm	Group	4	Car	0-3 min	Other	Returning from beach
	1.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	1.20 pm	Solo	1	Car	0-3 min	Other	Going to beach
	2.20 pm	Family	4	Car	4 + min	Other	Returning from beach
	2.20 pm	Solo	1	Car	0-3 min	Other	Returning from beach
	2.20 pm	Couple	2	Car	0-3 min	Other	Going out with dog
	2.20 pm	Couple	2	Car	0-3 min	Other	Going to beach
	3.20 pm	Family	5	Car	0-3 min	Other	Going to beach
	3.20 pm	Family	4	Car	0-3 min	Other	Returning from beach
	3.20 pm	Group	3	Car	0-3 min	Other	Going to beach

6.4 Location D – Grass area western side of carpark

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
30/12/23	9.50 am	Couple	2	Unknown	0-3 min	Other	Passing through site back to carpark
	9.50 am	Couple	2	Unknown	0-3 min	Dog	Going out with dog
	9.50 am	Family	4	Unknown	4 + min	Other	Mobile cafe / coffee
	9.50 am	Solo	1	Unknown	0-3 min	Dog	Returning with dog

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	9.50 am	Solo	1	Unknown	4 + min	Dog	Going out with dog
	10.30 am	Group	2	Bike	4 + min	Other	Mobile cafe / coffee, 2 x guys
	10.30 am	Couple	2	Unknown	4 + min	Other	Mobile cafe / coffee
	10.30 am	Family	4	Unknown	4 + min	Other	Going to beach - using toilet
	10.30 am	Solo	1	Unknown	0-3 min	Other	Going to beach
	10.30 am	Couple	2	Unknown	0-3 min	Dog	Going out with dog
	10.30 am	Group	3	Unknown	0-3 min	Dog	Going out with dog
	11.30 am	Solo	1	Unknown	4 + min	Dog	Going out with dog - getting coffee
	11.30 am	Family	5	Unknown	0-3 min	Other	Going to beach
	11.30 am	Group	3	Unknown	0-3 min	Other	Returning from beach
	11.30 am	Couple	2	Unknown	4 + min	Other	Going to beach - using toilet
	11.30 am	Solo	1	Unknown	0-3 min	Dog	Returning with dog
	11.30 am	Group	3	Unknown	0-3 min	Other	Going to beach
	11.30 am	Solo	1	Bike	0-3 min	Other	Surfer going to beach
	12.50 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	12.50 pm	Group	4	Unknown	0-3 min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	12.50 pm	Couple	2	Unknown	4 + min	Other	Mobile cafe / coffee
	12.50 pm	Family	4	Unknown	4 + min	Other	Mobile cafe / coffee
	12.50 pm	Family	6	Unknown	0-3 min	Other	Going to beach
	12.50 pm	Couple	2	Unknown	0-3 min	Dog	Returning with dog
	1.30 pm	Family	4	Unknown	4 + min	Other	Going to beach - using toilet
	1.30 pm	Group	3	Unknown	4 + min	Other	Returning from beach - using toilet
	1.30 pm	Family	3	Unknown	4 + min	Other	Mobile cafe / coffee
	1.30 pm	Couple	2	Unknown	4 + min	Other	Going to beach
	1.30 pm	Family	4	Unknown	0-3 min	Other	Going to beach
	1.30 pm	Couple	2	Unknown	4 + min	Other	Going to beach - getting coffee
	2.30 pm	Couple	2	Motorbike	4 + min	Other	Going to beach - getting coffee
	2.30 pm	Family	6	Unknown	4 + min	Other	Returning from beach - using toilet
	2.30 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	2.30 pm	Solo	1	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Couple	2	Unknown	4 + min	Other	Returning from beach - using toilet

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	3.50 pm	Family	5	Unknown	4 + min	Other	Returning from beach - using toilet
	3.50 pm	Couple	2	Unknown	0-3 min	Dog	Going out with dog
	3.50 pm	Couple	2	Unknown	0-3 min	Other	Going to beach
14/01/24	9.50 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	9.50 am	Couple	2	Unknown	4 + min	Dog	Returning with dog
	9.50 am	Solo	1	Unknown	0-3 min	Dog	Going out with dog
	9.50 am	Group	3	Unknown	0-3 min	Other	Going to beach
	9.50 am	Couple	2	Unknown	0-3 min	Other	Going to beach
	9.50 am	Group	5	Unknown	0-3 min	Other	Returning from beach
	10.30 am	Couple	2	Unknown	4 + min	Dog	Going out with dog - getting coffee
	10.30 am	Family	5	Unknown	4 + min	Other	Going to beach - using toilet
	10.30 am	Solo	1	Unknown	4 + min	Dog	Returning from beach - getting coffee
	10.30 am	Couple	2	Unknown	0-3 min	Dog	Going out with dog
	10.30 am	Family	4	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Other	Returning from beach
	11.30 am	Family	5	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Dog	Returning with dog
	11.30 am	Couple	2	Unknown	4 + min	Other	Returning from beach - using toilet

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	11.30 am	Group	6	Unknown	4 + min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Other	Returning from beach
	12.50 pm	Solo	1	Unknown	0-3 min	Other	Going to beach
	12.50 pm	Group	4	Unknown	4 + min	Other	Going to beach - getting coffee
	12.50 pm	Couple	2	Unknown	4 + min	Other	Returning from beach - using toilet
	12.50 pm	Family	5	Unknown	4 + min	Other	Going to beach - using toilet
	1.30 pm	Couple	2	Unknown	4 + min	Other	Mobile cafe / coffee
	1.30 pm	Group	3	Unknown	4 + min	Other	Mobile cafe / coffee
	1.30 pm	Group	12	Unknown	4 + min	Picnic	Large group having picnic under shade with music; Observed to have stayed in the area for between 31 and 60 minutes;
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	1.30 pm	Family	4	Unknown	4 + min	Other	Mobile cafe / coffee
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	2.30 pm	Couple	2	Unknown	0-3 min	Other	Going out with dog
	2.30 pm	Family	3	Unknown	4 + min	Other	Going to beach - getting coffee
	2.30 pm	Family	5	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Couple	2	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Group	4	Unknown	4 + min	Other	Going to beach - getting coffee
	2.30 pm	Group	3	Unknown	0-3 min	Other	Returning from beach
	2.30 pm	Family	4	Unknown	0-3 min	Other	Going to beach
	3.50 pm	Group	5	Unknown	0-3 min	Other	Going to beach
	3.50 pm	Solo	1	Unknown	0-3 min	Other	Going to beach
	3.50 pm	Group	3	Unknown	0-3 min	Other	Returning from beach
	3.50 pm	Couple	2	Unknown	0-3 min	Other	Mobile cafe / coffee
29/01/24	9.50 am	Couple	2	Unknown	0-3 min	Dog	Returning with dog
	9.50 am	Couple	2	Car	0-3 min	Dog	Going out with dog
	9.50 am	Solo	1	Unknown	0-3 min	Other	Going to beach
	9.50 am	Couple	2	Unknown	0-3 min	Other	Going to beach
	9.50 am	Solo	1	Unknown	0-3 min	Dog	Going out with dog
	9.50 am	Group	4	Unknown	0-3 min	Dog	Going out with dog
	10.30 am	Family	4	Unknown	0-3 min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	10.30 am	Couple	2	Unknown	0-3 min	Dog	Going out with dog
	10.30 am	Couple	2	Unknown	0-3 min	Other	Going to beach
	10.30 am	Family	3	Unknown	0-3 min	Dog	Returning with dog
	10.30 am	Family	4	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Dog	Returning with dog
	11.30 am	Couple	2	Unknown	0-3 min	Other	Returning from beach
	11.30 am	Family	4	Unknown	4 + min	Other	Going to beach - using toilet
	11.30 am	Group	4	Unknown	0-3 min	Other	Going to beach
	11.30 am	Group	4	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Other	Going to beach
	11.30 am	Couple	2	Unknown	0-3 min	Other	Returning from beach
	12.50 pm	Family	6	Unknown	0-3 min	Other	Going to beach
	12.50 pm	Group	3	Unknown	0-3 min	Other	Going to beach
	12.50 pm	Family	4	Unknown	4 + min	Other	Picnic in shade
	1.30 pm	Solo	1	Unknown	0-3 min	Other	Returning from beach
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Going to beach

Date	Time	Group Type	Group Size	Access	Time Spent	Activities	Comments
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Going to beach
	1.30 pm	Family	5	Unknown	4 + min	Other	Returning from beach - using toilet
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	1.30 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	1.30 pm	Group	4	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Solo	1	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Group	3	Unknown	0-3 min	Other	Going to beach
	2.30 pm	Group	4	Unknown	0-3 min	Dog	Returning with dog
	2.30 pm	Group	3	Unknown	0-3 min	Other	Going to beach
	3.50 pm	Couple	2	Unknown	0-3 min	Other	Returning from beach
	3.50 pm	Couple	2	Unknown	0-3 min	Other	Going to beach
	3.50 pm	Family	6	Unknown	4 + min	Other	Returning from beach - using toilet
	3.50 pm	Family	5	Unknown	0-3 min	Other	Returning from beach

Appendix 7 Sample Drone Images

7.1 Saturday, 30 December 2023, 9.30am

7.2 Saturday, 30 December 2023, 12.30pm

7.3 Saturday, 30 December 2023, 3.30pm

7.4 Sunday, 14 January 2024, 9.30am

7.5 Sunday, 14 January 2024, 12.30pm

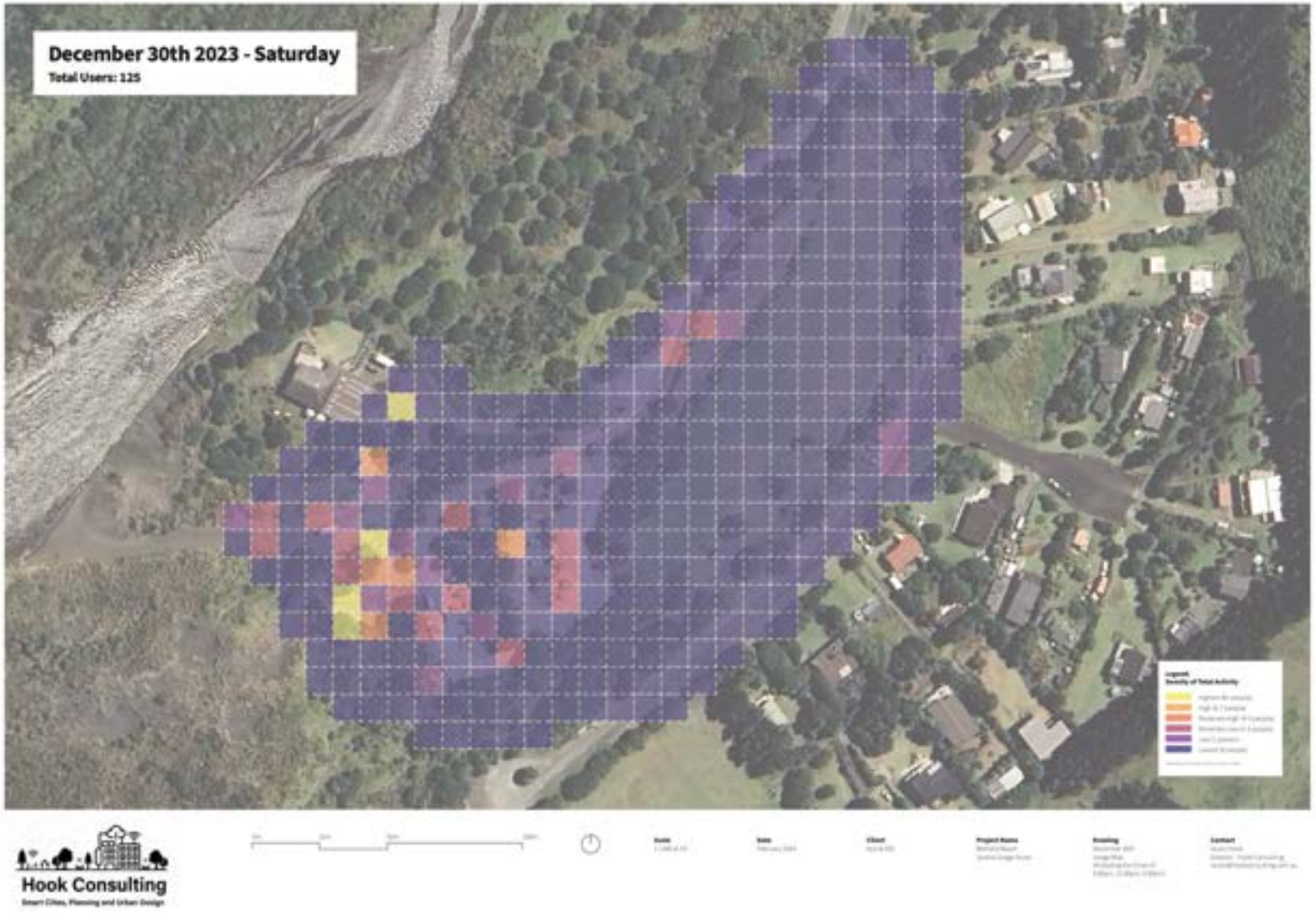
7.6 Sunday, 14 January 2024, 3.30pm

7.7 Monday, 29 January 2024, 9.30am

7.8 Monday, 29 January 2024, 12.30pm

7.9 Monday, 29 January 2024, 3.30pm

Appendix 8 Park use heat maps




January 14th 2024 - Sunday
Total Users: 62
Legend:
Density of Total Activity
Hook Consulting
Smart Cities, Planning and Urban Design

Hook Consulting
Smart Cities, Planning and Urban Design

Hook Consulting
Smart Cities, Planning and Urban Design

Bethells Beach Surf Life Saving Facility

Feasibility Assessment March 2023

Veros

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PREPARED FOR:

PREPARED BY:

DOCUMENT ACCEPTANCE:

Action	Name	Signed	Date
Author:	Aaron Fergusson Property Advisor		March 2023
Author:	Chase Cahalane Strategic Advisor		March 2023
Final approved for issue:	Scott Bicknell Senior Development Manager		March 2023

Contents

1 Introduction

1.1 Executive Summary

The Bethells Beach Surf Life Saving Patrol (BBSLSP) is a long established and vital community organisation. It has provided patrol and rescue services to the Bethells Beach (Te Henga) coastline for 65 years. These early lifeguarding services were about making our beaches safer, responding to the increasing popularity of the beaches for recreation.

Today, Surf Lifesaving is about more than just patrolling between the flags. Coastal development and the ever-increasing popularity of the age-old kiwi past-time of a day spent at the beach, continues to see recreational use of the coastline increase. Nationally we see people exploring new beaches and new walkways that lead people to different parts of our coastline. Windsurfers, surfing, boogie boards – even wetsuits which we take for granted today, have all had a significant impact on when, where and how people use our beaches.

Surf Lifesaving Clubs provide a hub of water safety opportunities, with membership training for all ages, competitive lifesaving sport, community education programmes, as well as providing patrolling, search, and rescue operations.

The current Bethells Beach surf lifesaving facility is a split-level building located within the Te Henga Reserve, towards the end of Bethells Road. A purpose-built structure when built in the 1950's, the facility has served the Patrol and community well over the last 65-years. It is now at the end of its serviceable life and no longer fit for purpose. Recent damage caused by the Cyclone Gabrielle event has restricted the ongoing operational capacity of the facility and has accelerated the need for its replacement.

Six potential location options including the existing location have been considered (See Figure 1). The characteristics of each option have been examined via a series of desktop site investigations, including preliminary planning, ecological, three waters and geotechnical assessments by third party technical experts (See Table 1). Additional privately owned options have been pursued and analysed, however the risks associated with these locations have outweighed their potential benefits.

Figure 1: Site Location Options

Item	1 Existing	2 Reserve	3 Corner	4 Carpark	5 Road End	6 Dunes
Planning	●	●	●	●	●	●
Natural Character	●	●	●	●	●	●
Ecology	●	●	●	●	●	●
Visual Impact	●	●	●	●	●	●
Wastewater	●	●	●	●	●	●
Stormwater	●	●	●	●	●	●
Overland Flow Paths	●	●	●	●	●	●
Coastal inundation	●	●	●	●	●	●
Geotechnical	●	●	●	●	●	●
Access - Beach	●	●	●	●	●	●
Access - Emergency	●	●	●	●	●	●
Overall Ranking	**5**	**3**	**2**	**1**	**4**	**6**

● No constraint/can be mitigated ● Constraint exists/investigation required ● Significant constraint exists/mitigation unlikely

Table 1: Option Ranking Summary

This assessment has led to the identification of a recommended location for the new facility. This site (Option 4 - Carpark) is located within a planted reserve area, situated between the existing carpark and Bethells Road (See Figure 1). Strengths of this location include:

- avoidance of overland flow path and flood prone areas
- ability to effectively manage stormwater and wastewater
- relatively favourable planning provisions
- access provisions to the beach walkway and emergency services
- avoidance of Outstanding Natural Landscape and High Natural Character Overlays.

Whilst Option 3 – Corner was strongly considered, its benefits were outweighed by planning, stormwater and access constraints. It is recommended to either retain location Option 3 – Corner for future club storage requirements or to consider selling to achieve funding requirements.

The design process assessed both the current and future spatial requirements of BBSLSP and applied these size requirements to the Surf Lifesaving New Zealand (SLSNZ) reference facility designs. An initial concept design for a facility at the Option 4 – Carpark site was completed. The modular nature of the initial concept design allows for flexibility and scalability of future needs.

The design response has undergone preliminary cost analysis to identify the construction costs and ongoing maintenance and operations costs. As at the date of this report, approximate costs to deliver and operate the concept design are:

- $4.6 million capital build requirement (Stage 1A and Stage 1B)
- $51,500 per annum operating costs.

Figure 2: Initial concept design

Due to funding constraints and the urgency to provide a replacement facility, achieving the entire capital build requirement may be difficult.

Consequently, it is recommended that the project is staged. Overall funding risk can be managed by including a reduced floor area plan to secure long term operational capacity if insufficient funding is secured.

This involves submitting staged resource and building consents, with a smaller building delivered initially to reduce upfront cost and allow the balance to be completed later. Development costs for this initial build (Stage 1A) is $3.8 million, with ongoing operating costs of approximately $41,500 per annum.

Figure 3:Proposed staging of initial concept design

This approach provides BBSLSP the ability to scale the first stage of delivery to align with the funding they manage to secure. The balance of the project can be progressed as additional funding is secured. The modular nature ensures that staging does not add significant costs to the project.

Next Steps

The next steps to advance the project are outlined below.

1. Engage with community stakeholders, securing their support for the project
2. Obtain a long-term lease on the preferred site location
3. Develop and implement a funding plan, including the development of a project story and identifying and approaching all possible funding sources that align with project story to secure funding
4. Prepare and implement a funding action plan, seeking financial support to prepare a detailed business case and design package suitable for a resource consent application in the first instance
5. Advance the design and technical assessments required to refine the initial concept to a point at which resource consent can be sought and a design and build lump sum tender process can be initiated.

We recommend this process is managed by a suitability qualified professional with sufficient experience in the design and financial management of all components of a development, ensuring the development remains viable and delivered in a timely manner.

Overall, the Bethells Beach Surf Lifesaving Facility Project represents a viable development opportunity that is grounded on an evidence-based needs assessment. It provides a scalable and flexible design solution that mitigates the risks of the development while providing future opportunities to partner with other community groups and maximise community impact.

1.2 Project Background

1.2.1 Location & Surrounding Area

Te Henga (Bethells Beach) is located on the west coast of the upper North Island. This beach is situated on the northern fringe of the Waitākere Ranges Regional Park and is some fifteen kilometres west of Swanson, South Auckland.

Te Henga is located between Murawai to the north and Piha to the south, and has approximately 1.75 kilometres of coastline, excluding neighbouring bays. These beaches are characterised by dark iron-sand, and a southwest aspect, toward the predominant swell and wind directions. Consequently, the coastline is regularly exposed to high energy surf, leading to very strong rip currents that can be treacherous for water users. The presence of the Waitākere River-mouth at the northern end of Bethells Beach contributes to rip formation, particularly during and following rainfall events.

This location attracts large seasonal visitor numbers, particularly in summer months, with the main beach and the Te Henga walkway being frequented by the wider Auckland population.

The Bethells Beach Surf Life Saving Patrol (BBSLSP) clubrooms are located off the public carpark, at the end of Bethells Road. This 1950s era building has an approximate floor area of 397m^2, is constructed over split levels and occupies approximately 2,500m^2 of surrounding site area. This site area includes carparking for BBSLSP members and beach access for patrol equipment.

There is approximately 4,200m^2 of unsealed public carpark adjoining the existing BBSLSP facility. The carpark is predominantly used by beach goers and its capacity is often greatly exceeded during summer months.

An approximately 8,500m^2 area of open park area is situated between the clubrooms and Bethells Road, this is part of the wider Te Henga Reserve.

Lakes Wainamu and Kawaupaka are located to the north-east, with public access provided at Lake Wainamu. Bethells Beach has limited residential development and no established commercial services. The nearest commercial and schooling facilities are located in Waitākere and Swanson to the east.

Figure 4: BBSLSP Facility Location, and wider Te Henga features

1.2.2 Existing Facilities

The current BBSLSP clubroom facility includes:

- an open function room
- first aid room
- bathrooms and changing rooms
- two bunk rooms
- kitchen and dining area
- an equipment storage area.

Direct vehicle access to the beach is provided to the north of the existing facility, adjoining the Waitākere River. The BBSLSP Committee has advised that this access is prone to washouts from the river during heavy rainfall events, restricting the club's ability to access the beach safely and quickly for patrol activities.

The site is owned and administered by Auckland Council, with the building owned by BBSLSP. The existing lease is due to expire in September 2025.

In 2020, BBSLSP undertook investigations into the refurbishment and extension of their existing facilities. In November 2020, Colliers International completed a building condition assessment The report findings are as follows;

- Many of the building elements have not reached their life expectancy and whilst the building still fulfils its function (of providing surf lifesaving facilities) it would require significant upgrading and replacement of major elements in order to meet modern acceptable commercial standards.
- The practicality of completing this work is unlikely to be economically viable without wholesale redevelopment.
- On that basis, it can be considered that the building in its current form has effectively exceeded its life expectancy.

The report found that there would be little in the way of reusable material that would meet current building consent criteria, should the building be extended and refurbished. Consequently, the refurbishment investigations ended.

In 2021, Surf Life Saving New Zealand (SLSNZ) commissioned Veros to undertake a nationwide condition assessment of all existing club facilities with the intent to develop a long-term facilities management plan. The assessment of the BBSLSP facility found the existing building to be in a poor condition, with the existing facilities not meeting the immediate needs of the club. The building was noted as requiring significant internal and external refurbishment, or replacement. The assessment further concluded that a rebuild of the main club building was required within the next three years. It was noted that rebuilding would provide an opportunity to address the site location issues, including beach access and flood damage to the lower clubroom level.

The conclusion of the 2021, nationwide facilities assessment and subsequent long-term facilities management plan identified the BBSLSP facility as one of those in the highest need category, requiring urgent refurbishment or replacement.

Cyclone Gabrielle

Flooding to the Waitākere River during the Cyclone Gabrielle event caused embankment erosion that affected the facility in the following ways:

- Loss of the clubroom deck
- Several piles supporting the upper level of the building area were exposed

- the clubs beach access path was washed away.

Figure 5: Cyclone Gabrielle erosion damage

As a result, the building has been "Yellow Stickered" by Auckland Council, restricting access to the building, damage assessments are ongoing.

Preliminary investigations indicate that the lounge and bunkrooms are the at risk areas and will require removal. The first aid area is considered suitable for use.

To re-establish and maintain operational capacity, BBSLSP has proposed the following solutions;

- Immediate: Until April 2023. Prioritise establishment of beach access, secure storage and first aid facilities to safely provide surf lifesaving services.
- Short term: From May 2023. Remove lounge and bunkrooms to operate from the current location and secure alternative location to operate overflow services from, until long term solution is established.
- Long term: Return to normal operations at the new facility, at a location to be determined.

The Bethells community notes that they would consider BBSLSP operations as a factor for re-opening the beach to the public.

BBSLSP have advised that damage caused by erosion and flooding was excluded in their insurance policy.

1.2.3 Purpose

Following the findings of the Colliers and the nationwide site assessment, SLSNZ provided funding o BBSLSP to undertake a preliminary feasibility assessment to determine whether to proceed with a full redevelopment or refurbishment of the existing facility. Working closely with key stakeholders, the assessment delivers a clear and transparent conclusion and recommendations that will inform the next steps of decision making on the future of the existing facility.

1.3 Methodology

Veros completed the following eight key steps to deliver the preliminary feasibility assessment:

1. Examine the national and regional **strategic context** in which the project resides. Specifically, assess the strategic alignment of the project in relation to SLSNZ and Local Governments' strategic direction on capital investments in lifesaving facilities.
2. Testing the "**case for investment**", establishing the need and level of demand for a lifesaving facility at Bethels Beach. This report examines the current training, development, and operational aspects of BBSLSP and their future growth aspirations in order to determine their current and future spatial requirements. In addition, it explores the opportunities for other community users to be involved, what form this may take and the current and future spatial requirements.
3. With consideration to the strategic context, case for investment and subsequent design brief as informed through sections 2 and 3 of this report, the need to investigate alternative facility locations was identified. Six potential site locations were identified for further desktop **site investigations** into planning, three waters and geotechnical implications for each site. Two privately owned potential locations were also explored with their owners.
4. With consideration to the strategic context, case for investment, site investigations, as well as ongoing consultation with BBSLSP and Design Group Stapleton Elliot (DGSE), an initial concept design has been prepared as a **design response**. This report provides a high-level overview of the concepts' characteristics, including a high-level building specification.
5. Utilising comprehensive industry experience and current best practice, a set of assumptions on operating structures were made. This identified reasonable financial performance indicators to understand the viability of developing and operating a facility of this nature. This includes a **financial analysis** and interrogation of the total project costs of the facility, assessment of the expected revenue and operating costs, and an assessment of funding requirements and potential funders.
6. With consideration to the findings of the strategic context, case for investment, design response and financial analysis, a **preferred development outcome was identified**. This includes a project risk and impact analysis and a high-level development programme.
7. An investigation into **governance and management** options for the facility was carried out, giving consideration to the community function of both the BBSLSP and the facility itself. Examples from other community facilities have been investigated for comparative purposes.
8. Based on the findings of the above and with consideration to the preferred development outcome, an outline of the **next steps** to advance the project in a timely and efficient manner is provided.

2 Strategic Context

The following section examines the national and regional strategic context in which the project resides. Specifically, it assesses the strategic alignment of the project in relation to SLSNZ and Local Governments' strategic direction on capital investments in lifesaving facilities.

2.1 Surf Life Saving New Zealand's National Strategic Direction

Surf Life Saving New Zealand is the leading beach and coastal safety, drowning prevention and rescue authority in New Zealand. The organisation delivers proactive lifeguarding and essential emergency rescue services, a range of public education beach safety programmes, member education, training and development, as well as a highly respected sport.

The vision of SLSNZ is that "no one drowns on New Zealand's beaches". The strategic purpose is "to lead and support Surf Life Saving in New Zealand in partnership with member clubs".

A charity, SLSNZ is the national association representing 74 surf lifesaving member clubs with over 18,000 members and 4,500 volunteer Surf Lifeguards. These lifeguards patrol over 80 locations each summer and provide emergency call-out rescue services throughout New Zealand.

Each member club is typically an incorporated society, independent of the national association. As a result, each club is responsible for the maintenance and refurbishment of their facilities, with a broad spectrum of land tenure and building ownership structures in place across New Zealand.

As a result, surf lifesaving facility refurbishments and re-builds have historically been led and delivered by its member clubs, with SLSNZ support role predominantly being limited to that of an advocate. This has led to bespoke designs with substantial variations in building size, specification, and construction methodology and management between clubs. However, it is noted that there are clear and logical similarities in lifesaving operational spaces, such as equipment storage, observation, first aid, and training facilities.

Variations are seen in sporting and junior programme storage spaces, largely dependent on the strength of these groups in each club. Variations in non-surf lifesaving specific spaces are also seen, with some clubs incorporating commercial kitchens, bars and function space, and some clubs incorporating function spaces and meeting rooms with the intention of use by wider community groups.

Nonetheless, supporting the provision of fit for purpose facilities are essential in the delivery of surf lifesaving operations and consistent with SLSNZ's strategic priorities, being:

- Support clubs
- Excellence & innovation
- Leadership
- Resilience

As such, SLSNZ's role in supporting club capital projects has evolved over time, first in securing Central Government contributions to the costs of club capital projects (2020) and secondly undertaking a nationwide facility assessment to understand the status of existing club facilities and develop a long-term facilities management plan (2021).

2.1.1 Nationwide Facility Assessment

As outlined in Section 1.2 Project Background, SLSNZ undertook a Nationwide Assessment of SLSNZ's member clubs' facilities in 2021 with an intent to both understand the status of existing club facilities and develop a long-term facilities management plan.

The purpose of the assessment was to understand the long-term needs and priorities of frontline Surf Lifesaving infrastructure on an affordable and sustainable basis, informing future decisions on how to best distribute annual government funding for capital projects, and to ensure funding is directed to the right projects at the right time, maximising the effectiveness of frontline water safety and response services.

The assessment included an inspection of all SLSNZ member club facilities and the production of individual site inspection summary reports. It also included a club survey that identified any club capital projects planned to commence within the next 10 years.

The assessment highlighted the volume of immediate works required to bring existing facilities to an acceptable standard. Combined with the potential growth in service demand, the need for SLSNZ to seek efficiencies both financially and in terms of the time commitment required from volunteers was identified.

Replacement of the BBSLSP facility was identified as being of higher urgency under this assessment.

2.1.2 Club Capital Project Fund

In May 2020, the New Zealand Finance Minister announced a perpetual Central Government contribution to the costs of surf lifesaving operations of $9.4m per year.

This funding is broken into three different elements. The first and largest portion being for club operational expenses, followed by a fund for club capital projects (buildings), and the balance to replace high risk revenue streams at the SLSNZ level.

Funding of $2.75m per year was allocated to fund club capital projects. The 2020-2033 Water Safety Services Service Level Agreement (SLA) between SLSNZ and the Crown (via the Search and Rescue Council) outlines that the purpose the Club Capital Project Funding is to provide a long-term sustainable revenue base for rebuilding or upgrading Surf Life Saving Club infrastructure. These works are anticipated to enable the delivery of more efficient and effective frontline water safety and response services.

With consideration to the large volume of club capital projects known to exist, funding was intended to only be available to fund a portion of the total development cost for each project. As the backlog clears SLSNZ intends to transition into being more of a 'cornerstone' funder over time. Rather than representing the final funder, it is anticipated that funding will likely be sought upfront for feasibility studies.

However, the 2021/22 funding period identified a significant bottleneck of large scale ($4-7million per club) club capital projects with significant funding shortfalls that continue to be delayed. Having already made significant investments to advance through design and consent phases, the ability and appetite for clubs to redesign or stage the project has been limited.

The need to transition the Club Capital Project Fund criteria and objectives to improve the delivery of fit for purpose of lifesaving operational infrastructure through a more equitable and targeted approach was identified. Specifically, the utilisation of the balance of the funds available to support investigative studies that would assist in mitigating these risks.

In summary, it was identified that a greater level of investment was required at the front end of projects to ensure the size, scope and management of club capital projects are appropriate to each locations

club and community needs. This will also reduce the financial and potential public relations risks associated with unnecessary large scale capital builds.

2.1.3 GNS Science

In January 2023, SLSNZ commissioned an Inundation and Sea Level Rise report from GNS Science Ltd, attached as Appendix 14: GNS Science Inundation Report. The purpose of this nationwide report was to identify club facility locations that were most at risk from coastal inundation.

The report identified the current BBSLSP facility location as being at risk of coastal inundation during a 100-year flooding event, assuming a sea level rise of up to 170 centimetres. There is no inundation at current sea levels, nor was the current facility identified as being one of the ten 'Priority Clubs" at risk of inundation.

2.1.4 SLSNZ Reference Facility

With many member club facilities in need of significant refurbishment or reconstruction, Veros and SLSNZ have recently completed the Spatial Assessment, Design and Development Guide to provide best practice guidance on a fit for purpose lifesaving facility on New Zealand's coastline. This project aligns with all four of SLSNZ's strategic pillars.

The purpose of this report is to reduce the upfront scoping work associated to facility design. Four core reference concepts designs have been developed to cater for the expected needs of each lifesaving facility type.

- Lifesaving Station (Extra Small)
- Local Lifesaving Facility (Small)
- Regional Lifesaving Facility (Medium)
- National Lifesaving Facility (Large)

Spatial requirement tools have been developed to identify the short term and long term needs of an individual club. These spatial requirements are then aligned with the appropriate reference design which forms the baseline for preliminary design.

The reference concepts designs are modular, which:

- allows for future expansion of the facility to cater for the growth areas identified by each club
- assists with standardising construction cost forecasts
- provides confidence to funders that cost escalation risk is lower compared to a bespoke design. allows for a staged approach to development, enabling clubs to manage and align the cost of construction with the level of funding available more effectively.

This approach provides a club flexibility to scale up a development if it is able to secure sufficient funding and future proof the facility for future extensions, so they may realise their long-term aspirations.

2.1.5 National Direction for Lifesaving Sports

SLSNZ have a strategic vision to improve the opportunities and experiences for lifesaving sport participants – athletes, administrators, coaches, officials and event support. A key performance indicator for SLSNZ to achieve this vision is to see an improvement of attendance of athletes at the 11 main annual events hosted by SLSNZ.

SLSNZ strongly encourage and support participation in Lifesaving Sport activities and acknowledge the role this plays in creating and maintaining a strong sense of comradery and culture, leading to a strong avenue of recruitment and retention of surf lifesaving club members and lifeguards.

2.1.6 Junior Surf

SLSNZ have a strategic priority to review and redevelop the organisation's Junior Surf and Rookie Lifeguard programmes. SLSNZ acknowledge that one of the largest cohorts of the organisation's membership is juniors under the age of 14 years. At the age of 14, members can then qualify as a lifeguard and are no-longer considered part of 'Junior Surf'.

SLSNZ also acknowledge that the largest source of new lifeguards comes from Junior Surf and Rookie Lifeguard programmes. SLSNZ aims to support their member clubs in developing and maintaining strong Junior Surf and Rookie Lifeguard programmes as this is considered critical for the ongoing success of each surf lifesaving club.

Through training and competition, Junior Surf members are empowered with the skills required to identify the difference between safe and dangerous places to enjoy the water at the beach, what to do if they are in difficulty, or if they see someone in difficulty. These are vital lifesaving skills that empower each individual for life.

2.2 Surf Life Saving Northern Region Strategic Direction

Surf Life Saving Northern Region (SLSNR) is an organisation that provides support to, the 18 northernmost clubs, across the Northland, Auckland and Waikato regions. BB is part of this region.

SLSNR seeks to provide "the resource and capability to ensure our clubs have the flags go up on their beach". Their strategic priorities are to;

- Attract new members to Junior Surf Pathways as a means to building future lifeguards
- Grow the capability of SLSNR to deliver quality programmes across all areas of the organisation
- Retain senior members though the development of a culture and experiences that engages members
- Enhance delivery of Lifeguard, Surf Sport, Junior Surf and Diversity & Inclusion programmes to ensure clubs are supported to build necessary capability with minimal barriers.

In addition to assisting in the operational needs of its member clubs, past SLSNR strategic priorities have included the redevelopment of current lifesaving facilities. This priority identified an opportunity for the northern region clubs to collectively seek funding from Auckland Council, and the Surf 10:20 Programme was developed.

2.2.1 Surf 10:20 Programme

The Surf 10:20 Programme was formed within SLSNR in 2012 with a vision of upgrading or renewing the facilities of the ten surf lifesaving clubs within the territorial boundary of Auckland Council. The initiative aims to achieve a co-ordinated funding approach where clubs are not competing to secure Long Term Plan Funding (LTP) from Auckland Council.

The initiative seeks to improve funding outcomes by providing a pathway to secure Council funding agreements. These agreements represent "cornerstone" funding and give confidence to other funding organisations to commit funds to a project.

SLSNR has outlined the Auckland Council criteria as follows;

- The project has an approved priority with the 10:20 committee, qualifying it to engage with the Council's finance group
- The project has an approved resource consent, with costs met by the club
- The project has a feasibility study undertaken to Lotteries Commission Standard, including 10% contingency and 10% escalation

- Current costings that align with the original plans and include any subsequent revisions, approved by the 10:20 committee at the time of application
- The project has an agreed funding plan on the basis of:
  a) Up to 35% Council funding (to the lifesaving footprint only)
  b) Up to 35% of facilities funders grants i.e., Foundation North, Lotteries, Central Government
  c) Balance via local funders i.e., Community trusts, donors and club fundraising
- The project appoints a project manager to oversee construction and financial management
- The project has a post construction management plan.

Once these criteria are met, the Surf 10:20 Committee can resolve that the club is given approval to engage in executing a tripartite funding agreement.

To date, approximately $7million in cumulative funding has been secured from Auckland Council, contributing to the rebuilds of facilities at Omaha, Muriwai, Red Beach and Karekare.

Current Surf 10:20 funding allocations have been made to United North Piha and Karioitahi, with Orewa and Mairangi Bay currently identified as having higher priority than BBSLSP and Piha. There may be an opportunity for BBSLSP's priority ranking to be reassessed based on recent facility damage and the restricted nature of operations until a replacement building is provided.

It is recommended to progress discussions with SLSNR to understand if the recent damage to the current facility may alter funding priorities.

2.3 Local Government Strategic Direction

2.3.1 Auckland Council

There are a number of local government guiding strategy and policy documents which influence the ongoing management and strategic direction of the Bethells Beach / Te Henga area. This is reflective of the size and jurisdiction of the Auckland Council, which as a super-city encompasses the responsibilities of both regional and district/city council traditionally seen across New Zealand.

Bethells Beach / Te Henga is considered a significant heritage area, and forms part of the wider Waitākere Ranges Heritage Area, which is governed by the Waitākere Ranges Heritage Area Act 2008. Through this act, Local Area Plans for managing the area are legislated.

The Auckland City Council are committed through these strategic documents to preserving and enhancing the natural characteristics of the area, whilst maintaining and promoting public access and enjoyment in a sustainable way. This section of the report examines some of the key points highlighted within these documents.

2.3.1.1 Te Henga (Bethells Beach) Local Area Plan

In response to the legislative requirements outlined within the The Waitākere Ranges Heritage Area Act 2008 (WRHAA), the Waitākere Ranges Local Board adopted the Local Area Plan for Te Henga (Bethells Beach) and the Waitākere River Valley ("the LAP") in October 2015. This plan provides a long-term (30 year) direction for Council, iwi and community action in the area.

There are four key components to the LAP:

1. The boundary which defines the area
2. the heritage features that are important to and valued by the community
3. a statement of the existing character and amenity of the area
4. a vision for the future of the area and the objectives and actions proposed to achieve that vision.

The LAP recognises the numerous opportunities for wilderness experiences and recreation, including swimming, surfing, and rock fishing. It also acknowledges BBSLSP, alongside the local fire brigade, as providing *"essential emergency services and facilities, and are important for community networking and cohesion"*.

The LAP outlines a number of outcomes and key actions. Whilst most of these outcomes and subsequent actions indirectly affect the BBSLSP, Outcomes 6, 8, 10, and 11 have a direct impact on the operations of the club and/or the future development of their facilities.

Outcome 6 seeks for the community to contribute to making the area safe and welcoming, preparing and implementing an action plan to address visitor management issues and monitor visitor impact on the area in collaboration with local residents and businesses, parks rangers, Bethells Valley Rural Fire Force, NZ Police and Bethells Beach Surf Life Saving Club.

Outcome 8 seeks to ensure that public services are maintained to an adequate level, with sufficient flexibility to accommodate fluctuating visitor demand. It also seeks for new infrastructure to be designed in harmony with this environment and notes the need to investigate the need for water safety facilities at Lake Wainamu.

Outcome 10 seeks for the area to be well connected, with adequate telecommunication and transport infrastructure. This includes advocating for appropriate telecommunication services. Specifically, a fibre optic cable extension to Te Henga (Bethells Beach) for improved broadband services and access to emergency telecommunication services at the beach.

Outcome 11 seeks to ensure the community is provided with the tools to communicate and network effectively across the area, engaging with its youth and children. It also highlights the need to implement and maintain a Community Response Plan for emergency management.

2.3.1.2 Parks and Open Spaces Strategy

Published in 2013, the Auckland Council Parks and Open Spaces Strategy outlines the council's approach to the provision, management, and improvement of Auckland's parks and open spaces to meet the Auckland Plan target:

> *Maintain and extend an integrated network of quality open spaces across the region that meet community needs and provide a diverse range of recreational opportunities by 2040.*

The strategy identifies the coastal environment as a defining feature of Auckland's landscape, one that needs to be carefully managed in an integrated way to sustain and enhance their natural values whilst balancing easy access to the coastline, and protection of the environment with the increasing pressures of a growing population. To achieve this, the strategy identifies several actions, including research and monitoring of public access to the coastal environment, with a lens to assess how the growing population may impact the open spaces and facilities. The impact of climate change, as well as the potential management implications and responses are also identified as a research and monitoring action.

The Auckland Council Parks and Open Spaces Strategy clearly outlines the importance of the Auckland coastline and the importance of maintaining public access to be able to recreate and relax in this environment.

2.3.1.3 Auckland Regional Amenities Funding Board

The Auckland Regional Amenities Funding Board (ARAFB) distributes grants to organisations that deliver arts, culture, recreational, heritage, rescue and other facilities and services to the Auckland region. Established by the by the Auckland Regional Amenities Funding Act 2008. ARAFB receive

funding from the Auckland City Council for distribution to the named amenities which deliver the above regional services.

Surf Lifesaving Northern Region are a named amenity of ARAFB, and specifically receive funding support toward the operational costs of providing paid lifeguarding services on Auckland's more frequented beaches, including Te Henga / Bethells Beach. These paid services are managed directly by SLSNR, however, utilise the local surf lifesaving club facilities and equipment for service provision, as well as employ lifeguards from within the volunteer ranks of local surf lifesaving clubs. In 2021, SLSNR were granted $1,390,000 toward operational services, and have been provisionally allocated $1,447,450 for the upcoming 2023/2024 season.

This funding is not provided for facility development and maintenance, however, demonstrates Auckland City Councils commitment to providing safe access for the public to the coastal environment. Provision of council funding toward facilities is carried out through the Surf 10:20 Programme, summarised in section 2.2 of this report.

2.3.1.4 Long-Term and Annual Plans

Specific support for a new or refurbished facility for BBSLSP does not feature in the Auckland Council's Long Term or Annual Plan. Funding allowances for the surf club are provided for under the surf 10:20 scheme as part of the annual or long-term plan consultation process.

The Waitākere Ranges Local Board identifies funding priorities for local activities that will contribute to achieving their planned outcomes. Key performance measures for Local Community Services include;

- Providing safe and accessible parks, reserves, beaches, recreation programmes and facilities to get Aucklanders more active, more often; and
- To fund, enable and deliver services, programmes, and facilities (art facilities, community centres, hire venues, and libraries) that enhance identity, connect people, and support Aucklanders to participate in community and civic life.

It is recommended that any submission should reference the alignment of the surf lifesaving facility and associated community uses with the performance outcomes sought above.

2.3.1.5 Waitākere Ranges Local Board

Local boards provide governance at the local level within Auckland Council. They enable democratic decision making by, and on behalf of communities within the local board area. There are 21 local boards, with the Waitakere Local Board area extending from Whatipu and Titirangi in the south, to Waitākere and O'Neill Bay in the north. Local boards are charged with decision-making on local issues, activities and services, and provide input into regional strategies, policies, plans and decisions.

Inline with council long term planning processes, local board plans are developed and implemented on a three yearly basis. The plans set out the direction for the local area that reflect community aspirations and priorities. Figure7 shows how the council plans are interrelated into the wider council planning context.

Figure 6: Auckland City Council & Local Board Plans and Budget Relationship

The Waitākere Ranges Local Board Plan 2020 outlines seven outcomes to guide their work and make Waitākere Ranges a better community for all. Whilst all outcomes indirectly impact the BBSLSP operations and facility development, the following outcomes and objectives are of particular significance to the rebuild context:

Outcome 1 seeks to protect and enhance the Waitākere Ranges Heritage Area, strengthening the connections with surrounding communities. Specifically, it looks to deliver a range of local activities across all local board plan outcomes that help deliver on the objectives of the WRHAA. These include local programmes for community development, local economic development, local events, community facilities, and community initiatives.

Outcome 4 seek to create strong and resilient communities by supporting community access to specialised skills, knowledge, resources and positive choices which support behaviour change and reduction of their environmental and carbon footprints. It also seek to make small grants to local groups for projects or actions which will have a positive impact on community resilience.

Outcome 5 relates to communities experiencing a sense of wellbeing, belonging and participation. This encompasses support for projects and activities that realise the aspirations of local people for the benefit of their communities. In particular, assisting local communities to grow their organisational skills and capacity with neighbourhood development expertise, community-based training programmes, and placemaking resources. It also seeks to support a breadth of projects and activities to ensure funding allocations reflect our wide range of communities, including Māori, Pasifika, and other social and ethnic groups.

3 Case for Investment

This section tests the "case for investment", establishing the need and level of demand for a lifesaving facility at Bethels Beach. It examines the current training, development, and operational aspects of BBSLSP and their future growth aspirations and projections in order to determine their current and future spatial requirements. The capacity of the existing facility to meet the current and future of the club is also considered.

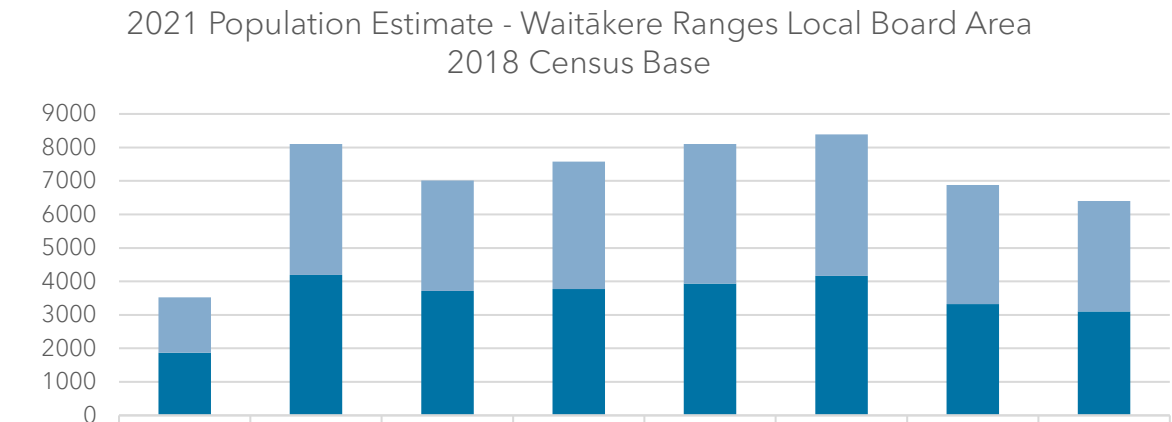
In addition, it explores the opportunities for other community users to be involved, what form this may take and their current and future spatial requirements.

3.1 Demographics & Drowning Risk Profile

The Auckland west coast beaches are a popular place to recreate for people from all across the Auckland region. As such, it is important to consider the demographic information both in the local area and the wider Auckland region. This section outlines the population demographics of both the Waitākere Ranges Local Board Area and the Auckland region as a whole, and examines the potential demographic risk of drowning injury on the Waitākere coastline, which link directly to the lifesaving service and facility demands at Bethells Beach.

3.1.1 Demographics

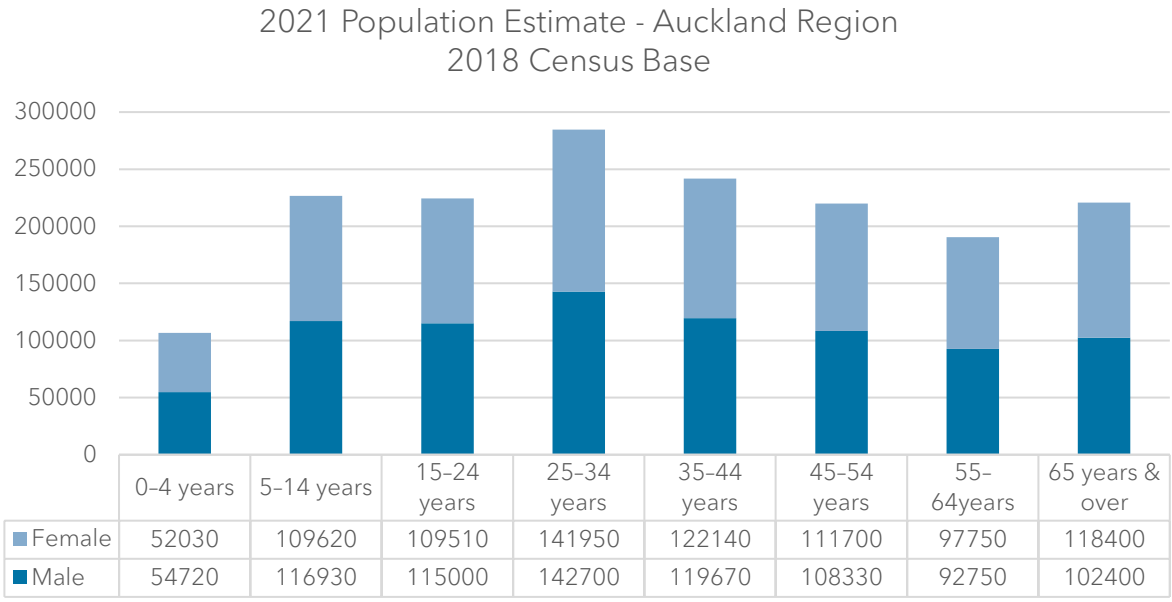
The total usually resident population for the Waitākere Local Board Area as per the 2018 census was 52,095, with a median age of 36.8 years, consisting of 25,887 males and 26,205 females. The estimated total population in 2021 was 56,000.



	0–4 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64years	65 years & over
Female	1650	3910	3290	3810	4160	4230	3560	3300
Male	1870	4190	3720	3770	3940	4160	3320	3100

Graph 1: Waitākere Ranges population estimate

The total usually resident population for the Auckland Region as per the 2018 census was 1,571,718, with a median age of 34.7 years, consisting of 776,979 males and 794,742 females. The estimated total population in 2021 was 1,715,600 people.



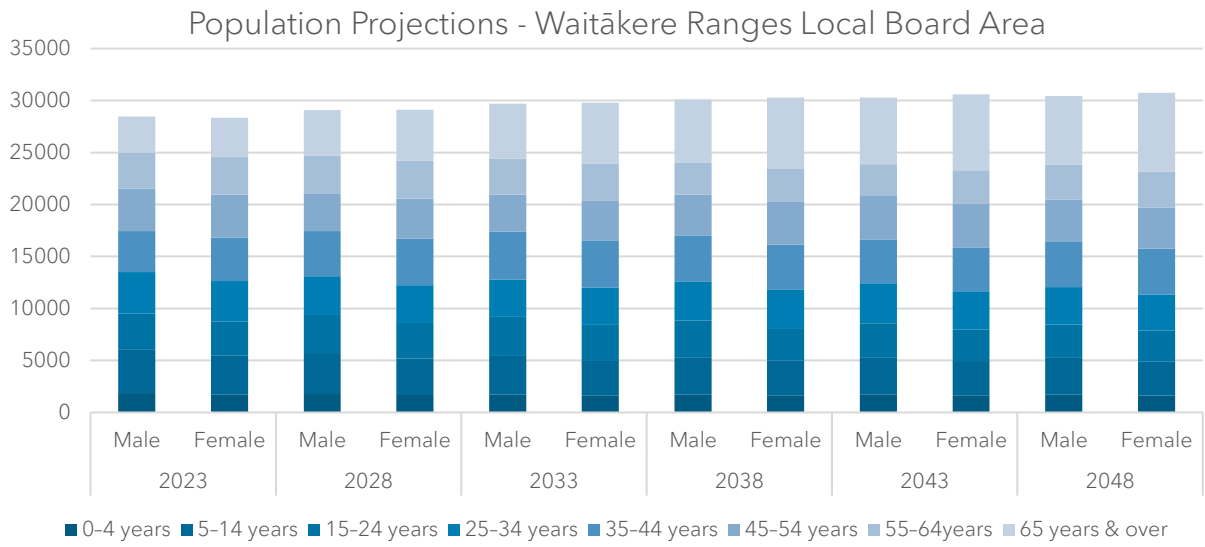
	0–4 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64years	65 years & over
Female	52030	109620	109510	141950	122140	111700	97750	118400
Male	54720	116930	115000	142700	119670	108330	92750	102400

Graph 2: Auckland region population estimate

Population projections are provided by Statistics New Zealand and are based on a medium projection model, assuming medium fertility, medium mortality, and medium net migration.

Waitākere Ranges Local Board Area

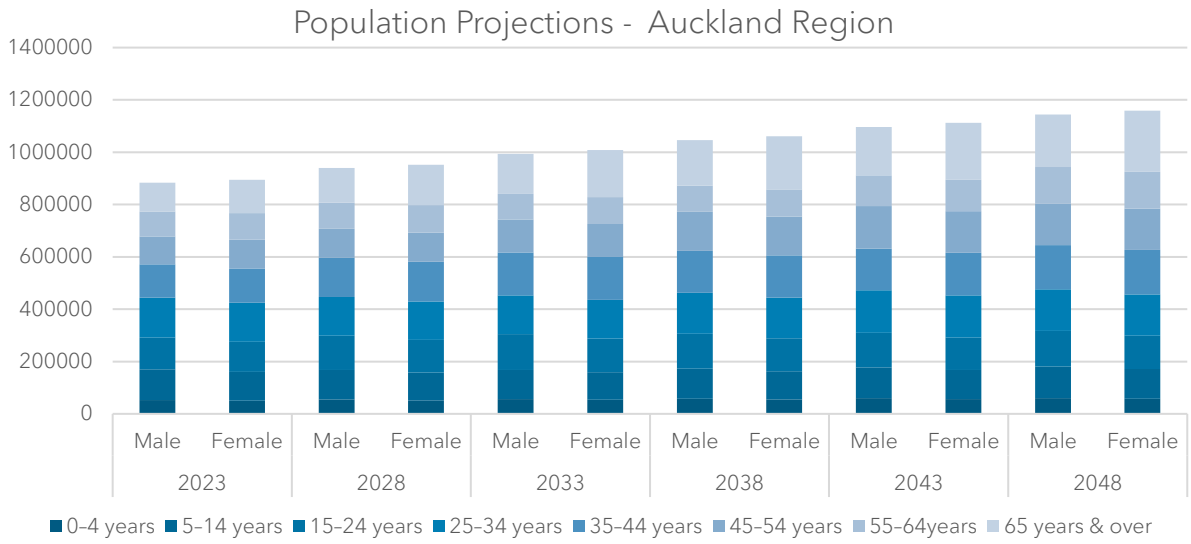
Population growth for the Waitākere Ranges area is expected to be low, with five-yearly growth predictions not exceeding 2.5% from 2021 to 2048. Projection data indicates a total anticipated population growth of 5,100 people from 2021 to 2048, a 9.11% growth rate over the 27-year period. The largest age bracket expected to see growth is those over the age of 65-years.



Graph 3: Waitākere Ranges population projection.

Auckland Region

Population growth for the Auckland Region is expected to be significantly higher than that seen in the Waitākere Ranges area. Projection data indicates a total anticipated population growth of 587,200 people from 2021 to 2048, a 34.28% growth rate over the 27-year period. Whilst not in the immediate local area, this significant population increase is expected to have an impact on the lifesaving service demands seen at Bethells Beach in the coming years.



Graph 4: Auckland region population projection

3.1.2 Risk of Drowning Injury

New Zealand suffers one of the highest drowning rates seen in developed nations. Beach and coastal environments pose one of the greatest risks, with almost one-third (29%) of all preventable drownings from 2016-2020 occurring at the beach. There has been a total of 357 beach and coastal drownings in the past ten years, 38% of these occurring at surf beaches.

The Auckland region has observed slightly lower drowning rates than the national average over the past ten years at 0.59 per 100,000 people, compared to 0.76 per 100,000 people nationally. There have been 93 coastal drownings in the Auckland region in the past ten years. The 2020-21 period had 13 drownings, lifting the rate to 0.77 per 100,000 people for that year.

Surf Beaches Pose the Greatest Risk for Beach and Coastal Fatal Drowning in New Zealand.

Over the last ten years, 38% of beach & coastal fatal drownings occurred at a surf beach.

Figure 7: (Left) Lifeguards recovering a disabled IRB after searching for Sonny Fai well into darkness and under the searchlight of the Rescue Helicopter. (Right) Family members mourn the loss of Zebedee Pua

Bethells Beach, the neighbouring O'Neill Bay, and the nearby Lake Wainamu are the locations of several of the Auckland region's fatal drownings, with 22 recorded fatal drownings since 1980. The danger associated with coastal activities around Bethells beach was highlighted when NRL Warriors player Sonny Fai entered a rip current to assist family members in trouble late afternoon on January 4, 2009, and did not return, presumed drowned. January 2012, a 15-year-old rushed to the aid of a young girl in trouble at O'Neill's Bay, assisting her to safety, but succumbing to the strong currents himself. Zebedee's body was recovered several days later.

March 2, 2019, a 34-year father was caught in a rip current when swimming with his family unable to escape the current, the man drowned. Two rock-fisherman fishing from the rocks between Bethells and O'Neill's Bay have also recently fatally drowned, one in January 2019 and the other in October 2020.

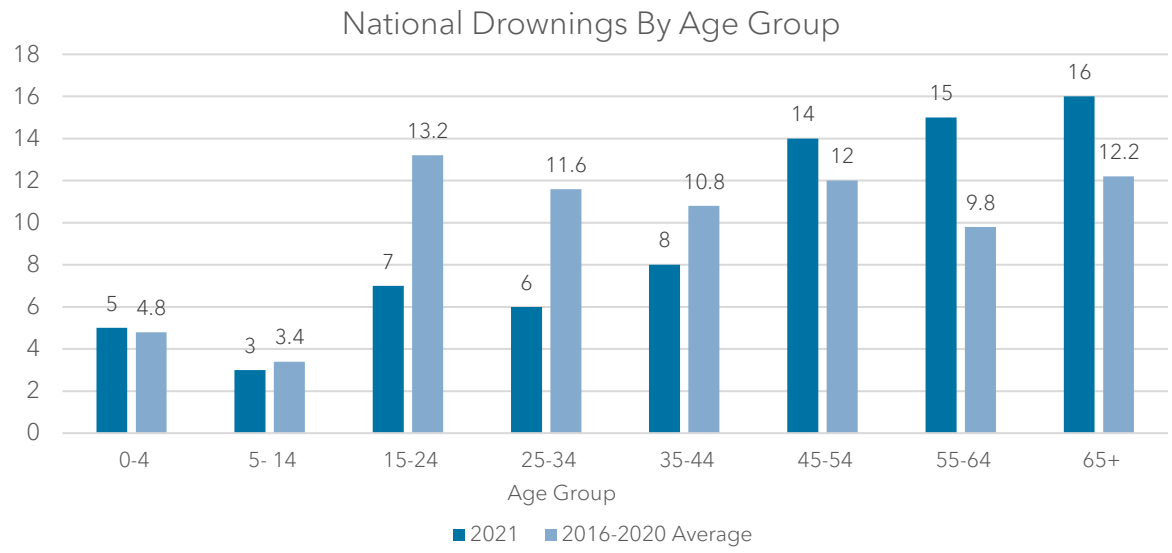
Lifeguards responded to all of the drownings that have occurred in the area, regularly responding initially in a search and rescue capacity, before changing to a search and recovery capacity. Due to the considerably dangerous conditions faced on the Auckland west coast and the high frequency of critical events, BBSLSP lifeguards are among the highest trained and experienced in NZ.

The population demographics that underscore the risks of drowning are complex, with risk impacted by a wide variety of factors including income, ethnicity, education, accessibility, and age. Nevertheless, some of these demographics are significantly higher and provide insight into populations with a potentially increased risk of drowning. SLSNZ's Coastal Drowning Report has found that nationally, adults (16 years and above) visit the coast on average 3.8 times each month. This suggests there are over 12 million individual visitations to the coast with 2.2 million coastal activity participants annually. 49% of these people are swimming and wading when visiting the coast, the most popular activity observed. The report also observes that alarmingly, nearly three in ten New Zealanders cannot swim or float in the ocean for more than a few minutes.

National drowning trends show that:

- males are far more likely to drown than females
- adults are fatally drowning more than children and young adolescents.

When comparing the age of those that are drowning in New Zealand to the population age demographics of the Auckland Region, those aged 45 and above were drowning more than any other age-group in 2021. With this age bracket representing over 37% of the total Auckland regional population in 2021, it reflects a potentially heightened risk of drowning in the area.



Graph 5: National drownings by age group

3.2 Drivers of Club Satisfaction

Sport New Zealand's Voice-of-Participant (VoP) programme is a nationwide sports club member experience survey implemented across the sport and recreation sector to understand the club experience. The study captures, analyses and interprets data via a customer/membership survey. In 2018, 11,512 affiliated Surf Lifesaving New Zealand members were invited to participate in the VoP programme. The full results and analysis of the 2018 Community Sport VoP Programme for SLSNZ are attached to this document as an Appendix 1.

The results of the VoP survey of SLSNZ members showed that nationally, the membership is very positive about the experience at their surf lifesaving club, with SLSNZ scoring significantly higher in four out of five of the key metrics assessed compared to other sporting codes participating in VoP:

- A significantly higher proportion of respondents are more than satisfied with the overall experience (73% cf. average for all sports of 63%).
- A significantly higher proportion are likely to recommend their club to someone interested in participating in surf lifesaving (highlighted by a Net Promoter Score (NPS) of +63 cf. average for all sports of +44).
- A significantly higher proportion are more likely to perceive value for money from their club (when compared with the average for all sports) (87% cf. average for all sports of 73%). That is; the opportunities, services and benefits they receive from their surf lifesaving club make it well worth the money they pay.
- A significantly higher proportion are quite or very likely to rejoin their club next season (87% cf. average for all sports of 81%).

However, when asked where clubs should invest, assuming any investment would require an increase in fees, a third (33%) of respondents would want their club to invest in facilities (e.g., club rooms, changing rooms and toilets). Members are least satisfied with clean and well-maintained facilities.

These metrics highlight the importance of the club facility with regards to developing and maintaining membership, which is supported by clean and well-maintained facilities.

A core driver for BBSLSP satisfaction is the club's ability to meet the needs of the community visit Bethells Beach, in preventing injury and drowning on the coastline. A new facility is expected to provide the BBSLSP more opportunity to expand their club operations, enabling and helping to facilitate membership recruitment and retention, as well as strengthen community relationships and safety.

The BBSLSP expect to extend their operational scope, including patrolling, training and emergency callout capabilities.

3.3 Current BBSLSP Operations & Future Aspirations

This section examines the current training, development, and lifesaving operational aspects of the BBSLSP to understand what is needed from a facility to meet their current operational needs.

3.3.1 Area of Operation

The lifesaving facility is the primary hub for lifesaving operations for the Bethells Beach coastline. The facility does not have a direct line of sight to the ocean and consequently, operations are supported by the use of an observation tower located on the beach. Normal operations consist of seasonal beach patrols with the provision of supervised swimming areas (flagged areas) at the northern end of Bethells Beach. Patrol locations extend to the southern end of the main beach, the inland lakes, south to Anawhata and north to O'Neill Bay. It is difficult to achieve land access to O'Neill Bay and consequently, it is impractical to establish full time monitoring at this location. BBSLSP currently have 162 qualified and active lifeguards that patrol the area. BBSLSP also undertake search and rescue (SAR) operations in response to coastal emergencies in the greater Waitākere region.

The nearest alternative surf lifesaving services to Bethells Beach are located at Piha (7km to the south) or at Muriwai Beach (8km to the north).

With respect to the community education and drowning prevention programmes, the BBSLSP provides both regional and national courses.

3.3.2 Surf Lifesaving Operational Outputs

This section provides an overview of the operational statistics for each patrolling season since the 2011/2012 season.

Please note, that SLSNZ added three statistical categories and removed one to improve data collection quality, which is reflected by a change in the statistical metrics presented. Starting in the 2016/2017 season, the new categories added are:

- Number of people assisted to safety (Assist)

- Number of major first aids
- Number of minor first aids

The 'number of people requiring first aid' was removed from data collection and the definition of 'rescue' changed to reflect the new 'assist' category.

The definitions of the operational data are:

Rescue: Where a person requires immediate help to return to shore (or place of safety) and who without intervention would have suffered distress, injury or drowning. They are unable to remove themselves from the situation by themselves.

Assist: Where a person requires assistance to return to shore but would most likely be able to get themselves out of danger – no immediate threat to life.

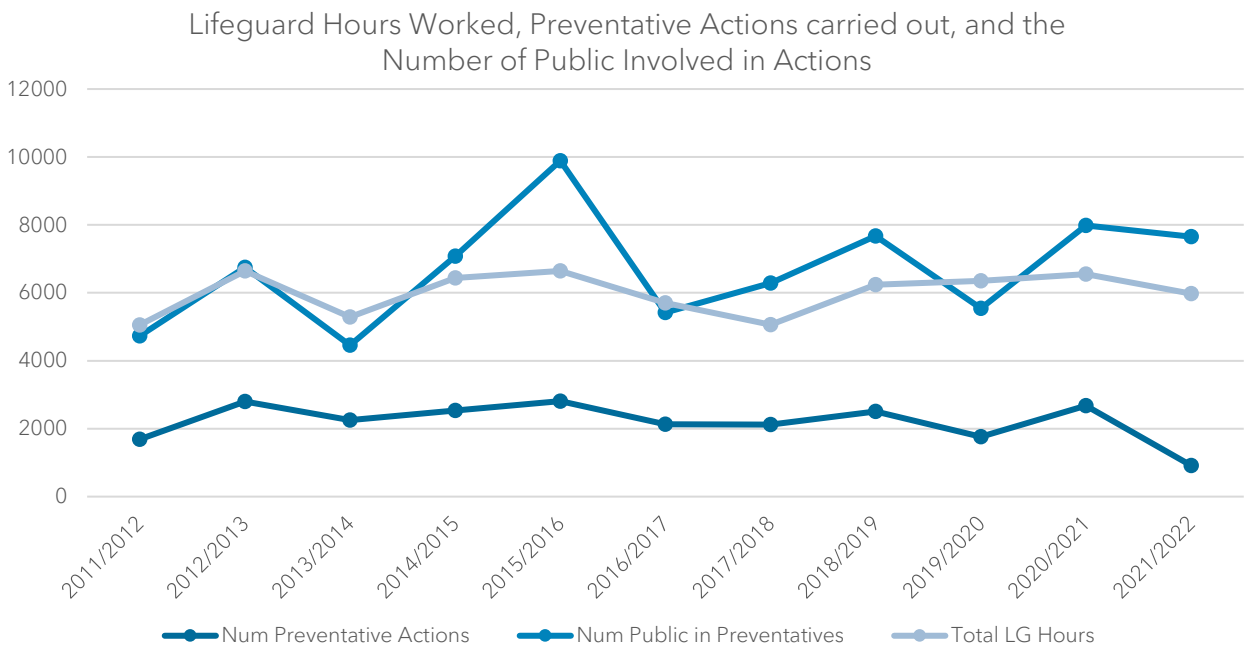
Minor first aid: Any incident where a patient is administered some form of minor medical treatment – minor cut, bluebottle sting, minor strain or sprains.

Major first aid: Any incident where a patient needs a higher level of medical intervention and results in the requirement for further medical treatment or is handed to another agency (ambulance or doctor).

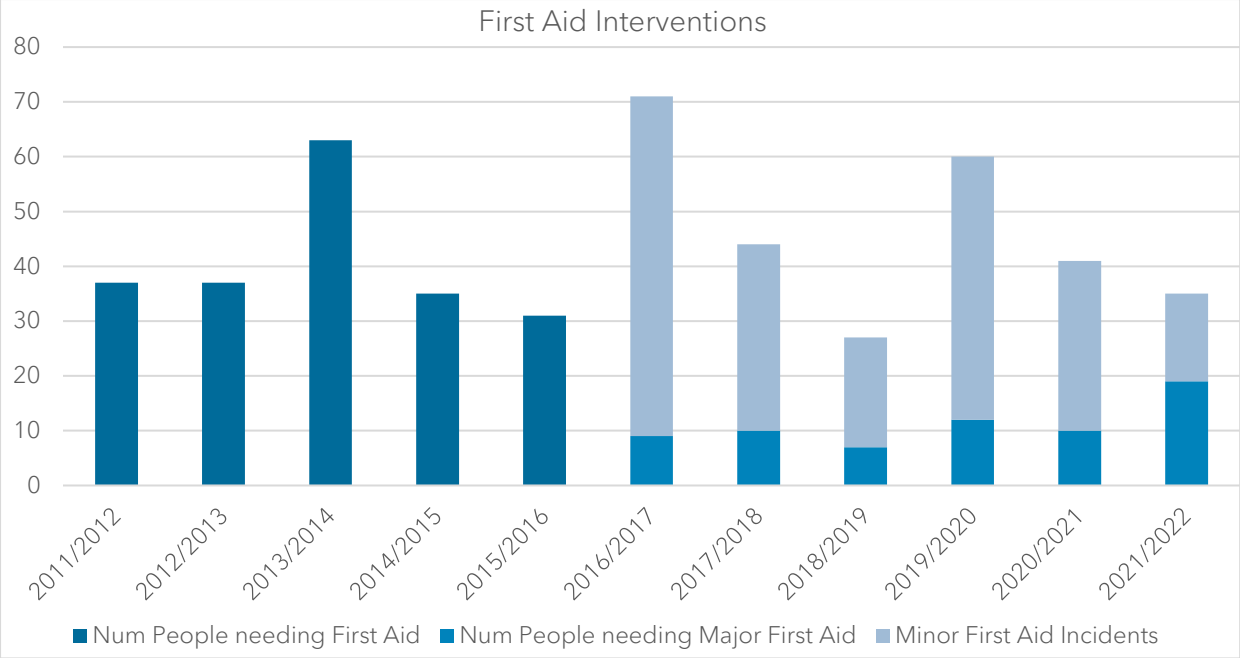
Search: Any organised search for a missing person or group either at sea or on land. This includes body recovery.

Preventative action: Where a surf lifeguard identifies a potentially dangerous situation and takes precautionary action to prevent the situation from developing into or contributing into a real emergency.

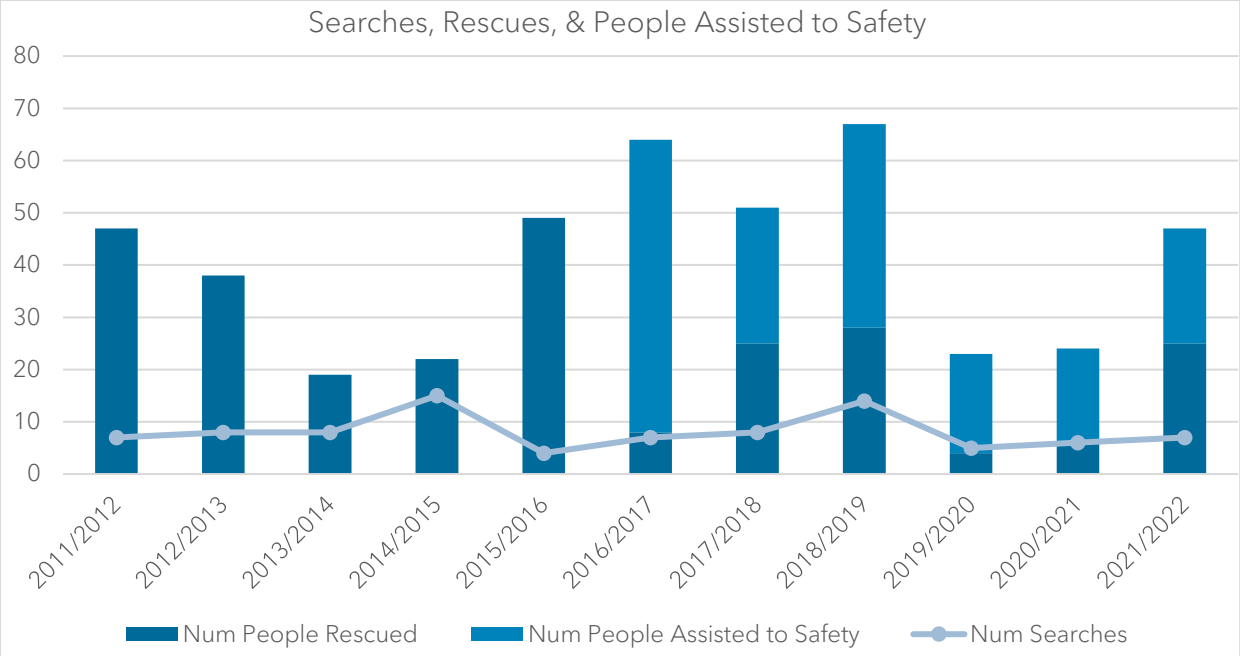
Number of Public in Preventative action: Refers to the number of people involved in the preventative action carried out.



Graph 6: Lifeguard metrics



Graph 7: First aid interventions



Graph 8: Search, rescue and assistance metrics

When considering the operational statistics for any surf lifesaving operation, it is important to take all metrics into consideration. It is noted that the Covid-19 pandemic impacted the operations and beach patronage numbers through 2020 and 2021. BBSLSP still delivered a service to the public, delivering consistent hours of patrol and preventative actions whilst patrolling. A noticeable reduction in the number of assists and rescues is seen across these years, which had climbed above the pre-pandemic levels through the 2021/22 season.

Holistically, this data is representative of a very busy lifeguarded beach, which regularly sees in excess of 2000 preventative actions involving over 5,000 people, and an average of 27 people assisted to safety or rescued from harm each year.

3.3.3 BBSLSP Development and Support Programmes

Patrol and search and rescue operations are commonly recognised as the core outputs of any surf lifesaving club in New Zealand. However, these outputs are the result of extensive development programmes and supporting structures that are embedded within each surf lifesaving club and supported by SLSNZ.

A surf lifesaving facility acts as a hub for all of these functions, with a successful facility capable of accommodating a club's training and development requirements in order to effectively and sustainably deliver operational outputs the protect the community in the water.

The strategic context that supports these programmes and supporting structures is discussed within Section 2.1: Surf Life Saving National Strategic Direction. However, a description of how each of these operations are being delivered by BBSLSP locally is outlined below, including current levels of participation.

3.3.3.1 Junior Surf

Junior surf programmes are the largest source of volunteer lifeguards collectively, with most of the lifeguards on New Zealand's coast coming through a junior surf programme prior to qualifying as a surf lifeguard. Junior surf programmes impart coastal water safety skills and introduce children to competitive surf sports up until the age of 14 years old.

Junior surf programmes are run weekly throughout the summer lifeguarding season. BBSLSP currently have 109 members registered on SLSNZ's database that are engaged in the Junior Surf programme. Facility requirements of Junior surf programmes include training function space for classroom sessions, changing rooms, and storage of equipment such as body boards and paddle boards that are utilised in programme facilitation. The club also own sporting equipment trailers utilised in transporting equipment to alternative training sites and competitions.

BBSLSP are known for providing a quality Junior Surf programme targeted at age groups Under 7's, Under 10's, Under 12's, and Under 14's. The Rookie Lifeguard programme, targeted at 12- and 13-year-olds in upskilling towards the Surf Lifeguard Award, is also coordinated through BBSLSP's Junior Surf Programme.

BBSLSP acknowledge the strong community impact of their Junior Surf programme and its importance in developing young members into Surf Lifeguards. As such, BBSLSP continue to actively recruit to their Junior Surf Programme and invest to ensure a sustainable and appropriately resourced programme.

Figure 8: BBSLSP Junior Surf Programme.

3.3.3.2 Lifesaving Sport

It is widely accepted that lifesaving sport provides a strong recruitment and retention avenue for surf lifesaving clubs, with the additional benefit of providing an avenue for members to remain fit and emersed in the surf environment. This enables the continual growth of skill and experience in and on the ocean environment.

BBSLSP have a strong focus on lifesaving delivery. Nevertheless, the club have several members that regularly compete in SLS sports with members often achieving regional and national event wins and titles. The club are known for being a constant competitor in the Lifesaving Sport Masters category, as well as in the Surf Boat and IRB arenas. These sporting endeavours require specific and specialist equipment, without which members would not be able to train and participate. This requires a spatial allocation for storage within the club facility.

Lifesaving Sport provides members with the opportunity to train, socialise and compete outside of direct lifesaving delivery, and appeals to a large portion of the BBSLSP membership. As such, BBSLSP continue to invest in and support the Lifesaving Sport programmes within the club, ensuring coaching opportunities and equipment is available for their members.

Figure 9: BBPSLS Lifesaving Sport Activities.

3.3.3.3 Lifesaving Training

The BBSLSP are responsible for training new lifeguards and patrol supporters, as well as upskilling and providing opportunities for skill-retention sessions for existing lifesaving members within the club. A training facility is therefore required for classroom training sessions year-round, with a higher frequency of use leading into and during the summer months. Training times are dependent upon the number of candidates at any given time, with these varying slightly each year as a result.

BBSLSP trained and qualified 15 new Surf Lifeguards over the 2021/22 summer season. A total of 551 lifesaving and development awards and qualifications were gained and refreshed over the 2021/22 season. This is a relatively high number of awards on a national scale and reflects a high level of training and commitment of the BBSLSP membership.

Due to the combining factors of the high energy and often very dangerous conditions, and in servicing visitors from the large and diverse population of Auckland, BBSLSP lifeguards are required to train regularly and train to high levels within the SLSNZ development pathway to meet the high demands of the area. The geographical area includes rocky outcrops and headlands, riddled with sea caves and strong currents. As a result, the club utilises advanced equipment such as the RWC, requiring a very high level of training and competency for the operators.

These factors that make Bethells Beach a challenging location to lifeguard, also make for an exceptional training and proving ground. Lifeguards from all over the Northern Region and New Zealand regularly attend Regionally (SLSNR) and Nationally (SLSNZ) facilitated development courses, regularly targeted at Intermediate, Senior, and Advanced Lifeguard levels, RWC courses and examinations, Leadership courses, as well as training Rock Rescue modules and upskilling lifeguards to Rock Rescue training instructors.

Due to the high level of development courses facilitated from the BBSLSP, there is a high need for a sizable multifunctional space that can be utilised for classroom sessions and presentations, as well as practical sessions such as first aid courses. Several of these courses are also facilitated over a number of days, lending to the need for an accommodation wing able to host participants from out of the region.

Figure 10: Surf Lifesaving Training

3.3.3.4 Social Use

A survey commissioned by SLSNZ found socialising to be one of the core reasons for people to join a surf lifesaving club. Surf Clubs will often host social events periodically throughout the year for their members. The larger of the events usually being annual prizegiving's and AGM's.

BBSLSP aspire to have a functional space to host an event that can accommodate their entire membership. The club's membership is currently made up of 200 people and is expected to grow over the next five to ten years.

3.3.4 Club Spatial Aspirations

To meet the communities surf lifesaving requirements, both in the immediate and long term, BBSLSP aim to grow and retain the club's membership base via expansion of their lifesaving training and surf sporting programmes.

To enable increased operational capacity alongside increasing membership numbers, an increase in the amount of operational, training, and club sporting equipment will be required. BBSLSP are a lean surf lifesaving operation and consequently their primary growth ambitions focus on storage space for additional lifesaving equipment.

The following tables identifies the BBSLSP's equipment growth expectations over the next 20 years.

Lifesaving Operational & Training Equipment							
	Now	5 years	Increase over 5yrs	10 years	Increase over 10yrs	20 years	Increase over 20yrs
IRBs	2	2	0%	3	50%	3	50%
Engines	8	8	0%	10	25%	10	25%
IRB Trailers	2	2	0%	3	50%	3	50%
Club 4x4	1	1	0%	2	100%	2	100%
Can-am Side by Side ATV	2	3	50%	3	50%	3	50%
RWC	1	1	0%	2	100%	2	100%
Lifesaving Equipment - Total average growth			7.14%		53.57%		53.57%

Table 2: Operational equipment growth projection

Lifesaving Sport & Junior Surf Competition & Training Equipment							
	Now	5 years	Increase over 5yrs	10 years	Increase over 10yrs	20 years	Increase over 20yrs
Big Racing boards (10'6")	6	8	33%	10	67%	12	100%
Rookie Race Boards (8'10")	5	6	20%	8	60%	10	100%
Big Foamies (8'10")	5	6	20%	8	60%	10	100%
Small Foamies (6'6")	12	16	33%	18	50%	20	67%
Surf Ski's	3	5	67%	7	133%	9	200%
Surf Boat	2	2	0%	3	50%	3	50%
Enclosed IRB Trailer	1	1	0%	1	0%	1	0%
Sport / Junior Equipment - Total average growth			21.67%		52.50%		77.08%

Table 3: Sport equipment growth projection

3.4 Facility Requirements

The SLSNZ Spatial Assessment, Design and Development Guide provides guidance on how much floor area is required for patrol and sports equipment storage, lifeguard operations, amenity and accommodation spaces.

Applying the current and future spatial needs of BBSLSP to the spatial requirements outlined in the Guide, indicates the following total facility floor areas:

Spatial Requirement Summary			
Current	5 years	10 years	20 years
395m^2	464m^2	561m^2	561m^2

Table 4: Spatial requirement summary

We note that these areas are internal floor areas and are refined during the design phase. The full Spatial Requirements summary is included as Appendix 2: Spatial Requirements.

3.5 Building Condition

As outlined in Section 1.2.2 Existing Facilities, Veros undertook a nationwide visual condition assessment of all existing club facilities with the intent to develop a long-term facilities management plan. This assessment found the BBSLS facility to be in a poor condition, with the existing facilities not meeting the immediate needs of the club. This report can be found in Appendix 3: Veros - Site Inspection Summary.

Cyclone Gabrielle caused damage to the club facility. A portion of the facility has been "Yellow Stickered" by Auckland Council, restricting access to parts of the building until remedial work is undertaken.

The section below provides the results of the 2021 assessment.

The building was noted as requiring significant internal and external refurbishment. The assessment further concluded that it was unclear whether the building was capable of being refurbished, or if a rebuild was required, with the building requiring immediate refurbishment within the next three years, if not earlier given the potential hazard posed by its current condition.

Prior to the Veros visual assessment, a building condition assessment was undertaken by Colliers International in November 2020. This was to establish the remaining life of the building, to assess the condition and quality of the buildings elements and to provide commentary of the ability of those elements to be re-used during refurbishment. This report forms Appendix 4: Colliers - Building Condition Report.

The report did not identify visible signs of asbestos, however notes that "given the age and nature of construction, asbestos containing materials are highly likely to exist in concealed locations".

In summary, Colliers found that whilst the building could fulfil its function as a surf lifesaving facility, the building has "effectively exceeded its life expectancy". They also concluded that it is highly likely further asbestos containing materials will be identified when remediating or deconstructing the building and outlined that a comprehensive 'refurbishment and demolition survey' will be required prior to any refurbishment or demolition.

The report findings are as follows;

- Many of the building elements have not reached their life expectancy and whilst the building still fulfils its function (of providing surf lifesaving facilities) it would require significant upgrading and replacement of major elements in order to meet modern acceptable commercial standards
- The practicality of completing this work is unlikely to be economically viable without wholesale redevelopment
- On that basis, it can be considered that the building in its current form has effectively exceeded its life expectancy.

3.5.1 Refurbishment or Rebuild

The current facility is unable to adequately meet the current operational requirements of BBSLS and there is no capacity within the facility for anticipated membership growth. Extension and refurbishment have now been ruled out as a viable option.

Having a fit for purpose facility is critical in providing surf lifesaving services to the public. The remote location of, and large visitor numbers to Te Henga make this need is more evident for BBSLSP.

The site investigations discussed within the next section of this report had identified the current location as being at risk, this assessment has now been tested and proven correct by the Cyclone Gabrielle damage.

Factoring the condition of the current facility and significant work associated with refurbishment, the current operational requirements and future growth aspirations, the most efficient and cost-effective path forward is a rebuild of the BBSLSP facility at an alternative location.

The following alternative site investigations consider wider environmental, planning, geotechnical, and three water implications.

4 Site Investigations

With consideration to the strategic context, case for investment and subsequent facility requirements (Section 2 and 3), the need to investigate alternative facility locations was identified.

This section identifies six potential location options and examines the characteristics of each, informed by desktops site investigations by technical experts. These include:

- preliminary planning
- ecological impact
- three waters
- geotechnical assessments.

Veros has initially focused on locations controlled by BBSLSP and Auckland Council in recognition of the existing building being within Council Reserve.

For completeness, Veros have also investigated the possibility of utilising private land holdings as alternative locations. We note there is programme risk associated with ongoing negotiations with private landowners. The purchase of private land would potentially add significant cost to the project.

4.1 Site Locations – BBSLSP & Auckland Council

The existing site and five new potential site locations within BBSLSP and Auckland Council control were identified in consultation with BBSLSP for further investigation. The six site locations are described as follows:

- Option 1: Existing - the current facility location
- Option 2: Reserve - the southern end of the grassed reserve area
- Option 3: Corner - the corner of Bethells Road and McKay Place, owned by BBSLSP
- Option 4: Carpark – the southern end of existing carpark
- Option 5: Road end – the end of Bethells Road
- Option 6: Dunes – within the dunes closer to the shoreline.

Figure 11: Site Location Options

4.2 Planning and Ecological Assessment

Boffa Miskell carried out a preliminary assessment of statutory planning requirements for each of the six locations identified. Specifically, the assessment provided:

- An outline of the current statutory framework and required approvals
- An outline of key technical reports that may be required in support of the applications for statutory approvals; and
- Key considerations, risks, and opportunities for the consenting phase.

Boffa Miskell highlight that further consideration will need to be given to beach access and wastewater treatment as the project progresses and design details are confirmed.

Boffa Miskell have included a preliminary ecology assessment to compare the relative impact of each location option from an ecological perspective. Key risks and proposed mitigation strategies have been assessed and discussed.

Boffa Miskell's report can be found in Appendix 5: Preliminary Planning and Ecology Assessment.

A summary of the key findings from Boffa Miskell's assessment are provided below.

4.2.1 Auckland Unitary Plan (AUP)

Under the AUP Options 1, 2 & 5-6 reside within the 'Open Space - Conservation Zone'. Key requirements within this zone include limiting activities to those necessary to maintain or enhance the use of the zone and locating new buildings to complement the character and values of the zone. The location of new buildings should minimise the impact on landform, vegetation and vulnerable habitats. The highest activity status for building within this zone is Discretionary.

Option 3 is situated in the Rural and Coastal Settlement Zone. Boffa Miskell notes that it is unclear whether the BBSLSP facility would be considered as "Community Facilities" under the AUP or not. The highest activity status for building within this zone is Discretionary, or Non- Complying if the building is not considered to be a 'Community Facility".

In applying for a resource consent for a non-complying activity, the applicant must establish that the adverse effects of the activity on the environment will be minor or that the activity will not be contrary to the objectives of the relevant plan or proposed plan.

A non-complying activity status is a way for a council to signal those activities will be subject to a greater degree of scrutiny and indicates to the community areas where some activities are unlikely to be appropriate.

4.2.2 Auckland Unitary Plan overlays

Boffa Miskell have identified the overlays that relate to each location option under the AUP. These overlays identify additional planning constraints to consider for each location.

All locations are located within the 'Waitākere Ranges Heritage Area Overlay', the 'Quality Sensitive Aquifier Management Area' and 'Te Kawerau ā Maki Statutory Acknowledgement' Area. There are no known 'Historic Heritage' overlays, "Designations' or Notable trees. Boffa Miskell note that archaeological advice is recommended.

Options 4, 5 & 6 fall within the Significant Ecological Area overlay. This overlay covers the dune ecosystem to the west and follows the Waitākere River northeast and impact should be avoided where possible.

Options 1 and 6 fall within both the 'Outstanding Natural Landscapes' and 'High Natural Character' overlays, providing additional rule for buildings and structures within these areas.

It is noted that all Options may also infringe the earthworks standards, depending on the final footprint size.

The report also speaks to physical hazards such as Flood Plains and Coastal Inundation, however these aspects are covered in more detail under the 'Three Waters and Natural Hazards' section of this report.

4.2.3 Mana Whenua

Te Kawerau ā Maki are noted as being the Iwi with an interest in the area. Appendix 21 of the Auckland Unitary Plan identifies this Statutory Acknowledgement Area as "Taumaihi (part of Te Henga Recreation Reserve)". Consultation and partnership with Te Kawerau ā Maki will be required for any development at all locations.

Mana whenua will have a strong interest in any development within the coastal environment and their support will be critical in advancing the project with the support of the wider community. It is noted that the disturbance of the vegetated dune for both Option 5 and 6, is anticipated to be an area of focus and concern.

4.2.4 Ecology

Boffa Miskell have included a preliminary Ecology Assessment to score the anticipated ecological effects of each Option. The scoring range includes Very High, Moderate, Minor and Low effects. Boffa Miskell note that none of the Options would have a positive score.

Option 1 is assessed to have minor effects, scoring lower due to dune proximity.

Options 2 & 3 are assessed to have low effects based on minimal vegetation disturbance and relative distance from the dune ecosystem.

Options 4 & 5 are assessed to have moderate effects due to the presence of vegetation and Significant Ecological Area overlay. Boffa MIskell note that these areas appear to extend into the intact dune system, and this has contributed to the lower scoring.

Option 6 is assessed as having a high impact and is the least suitable location from an ecological perspective, being within the intact dune system.

4.2.5 Other Considerations

Options 2, 4, 5 & 6 area are within an area that appears to be managed as a local reserve, although Boffa Miskell has been unable to source a Concept Plan nor Reserve Management Plan. It is recommended to discuss with Auckland Council Park staff to understand if provisions under the Reserves Act 1977 will apply to these Options.

Option 5 has been identified as being located primarily within Road Reserve. It is recommended to discuss licence requirements with Auckland Transport should this location be pursued further.

There is a section of undeveloped Road Reserve beside Option 3 that could potentially be used. Auckland Transport licensing requirements would also apply.

Some form of licence or lease will be required for Options 1, 2, 4, 5 & from Auckland Council. Veros notes that Option 1 is currently leased from Auckland Council, expiring in September 2025.

Options 3 & 2 are within the closest proximity to neighbouring properties.

A visual assessment has not been completed however Boffa Miskell note this will be particularly important for options 1, 5 & 6 being within the Outstanding Natural Landscape and/or High Natural Character Overlays. An indicative visual impact comparison has been included in our executive summary table.

4.2.6 Summary

In summary, all six options are likely to require resource consent from Auckland Council as at least a Discretionary Activity.

The following information requirements will need to be met to accompany a Resource Consent Application:

- Visual landscape impacts – for those Options within the 'Outstanding Natural Landscape' and/or 'High Natural Character' overlays
- Ecological impacts - for those Options within the 'Significant Ecological Area' overlay and dune ecosystem
- Alignment with the purpose of the zone
- Natural hazards and flooding
- Effects on neighbouring properties

From an ecological perspective, Option 3 appears to have the least impact and Option 6 appears to have the highest potential impact.

4.3 Three Waters & Natural Hazards

GWE Consulting Engineers carried out preliminary wastewater and stormwater assessments of the six site location options. Specifically, the assessments provided:

- An overview of existing services to the current facility
- Wastewater and Stormwater solutions for each location option
- Natural Hazards assessment, including flood risk, overland flow paths and coastal inundation
- Key considerations, risks, and opportunities for the detailed design phase.

This assessment can be found in Appendix 6: GWE – Wastewater Feasibility Study and Appendix 7: GWE – Stormwater Feasibility Study, with a summary of the key findings from GWE's assessments are as follows.

4.3.1 Wastewater

GWE identified the existing wastewater treatment and disposal system as being currently functional and the most suitable wastewater solution for any new building. The existing system has a PEAK design flow of 6,750 litres per day, has been consented for this volume and Auckland Council is currently processing the renewal of the discharge consent. This wastewater treatment system is considered to be 'best practise' within New Zealand and has an approximate replacement value of $250,000.

GWE identify that with the exception of Options 1 & 6, none of the location options would be suitable for managing wastewater onsite due to the requirement for approximately 800m^2 of dedicated effluent treatment and irrigation. Consequently, GWE recommend that options 2-5 would require the installation of new septic tanks and grease traps adjoining a new facility, prior to pumping waste to the existing treatment and disposal plant. This methodology would save significant cost and could likely be achieved with minor changes to the existing consent.

It is noted that the existing consent is for waste generated by both the public toilets and the surf club assuming 20 lifeguards and 1 function per week catering for 100 people. Proposed surf club occupancy in excess of these maximums may require a new consent and upgrading of the wastewater system.

Given wastewater system is shared by the public toilets, a replacement system should not interrupt their functionality or capacity.

Additional notes for the existing system identify;

- Risk of erosion by the Waitākere River
- Potential requirement to replace irrigation lines
- Potential requirement for inclusion of UV treatment.

GWE have identified flood plains, coastal inundation, and overland flow path (OLFP) constraints that may need further investigation from a wastewater perspective. Of note, groundwater levels and flood zones are more relevant to wastewater systems with below ground systems. This report has not considered groundwater depths.

The report concludes that location Option 3 is the least affected by these constraints and that Option 5 is the most affected.

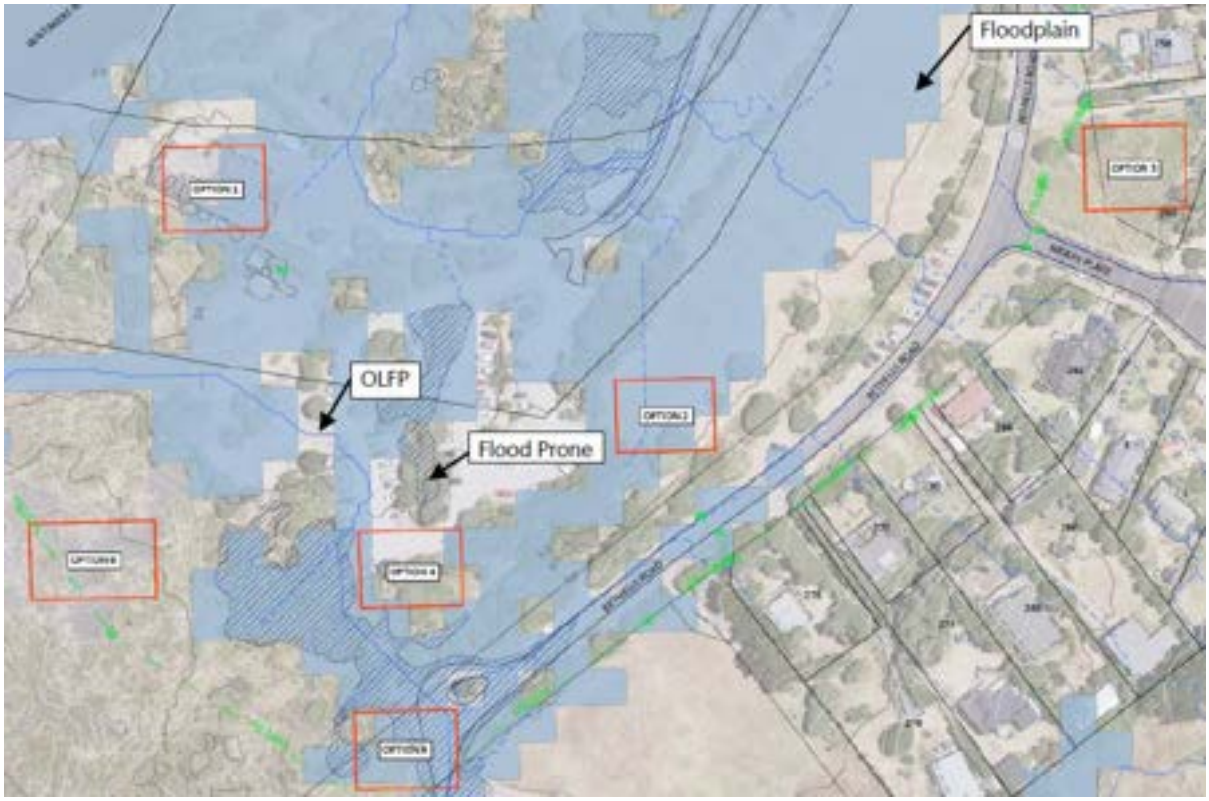


Figure 12: Flood risk areas and OLFP's

4.3.2 Stormwater

The current BBSLSP facility utilises ground soakage for stormwater runoff disposal and is not near the existing public stormwater network. The nearest stormwater line runs along the southern side of Bethells road, then turns to travel northwest though the dune system to its discharge point near the Waitākere River.

The report finds that all options could discharge stormwater to onsite soakage, with options 3, 5 & 6 potentially capable of connecting to the stormwater network. Flow attenuation devices would likely be required for any option that connected to the network. Option 3 would require a flow attenuation device due to the presence of downstream residential sites that are at risk of flooding.

Soakage testing will be required to determine the size of any soakage devices required and be subject to the size of the building proposed.

GWE identify that Option 3 has a maximum impervious area of 35%, or 379.4m^2 based on the 1,084m^2 site area of 260 Bethells Road. Spatial requirements for the current needs of BBSLSP exceed this maximum. The other options within the 'Open Space – Conservation Zone" must not exceed 10% impervious area.

The report finds that Option 6 is the most appropriate location from a stormwater and flood hazard perspective, followed by Option 4. Option 5 is not recommended, and Option 3 has additional resource consent requirements and increased costs in delivering a complying stormwater detention system.

Figure 13: Stormwater network in green

4.3.3 Flooding & Coastal Inundation

With specific regard to flooding and coastal inundation, GWE gathered information from Geomaps and Unitary Plan to assess the risk to each Option.

The assessment found that:

- Option 1 and 2 were partially located within the coastal inundation (1% AEP) overlay with additional considerations required for the building platform and evacuation routes
- Options 3 to 6 were not within the inundation (1% AEP) overlay
- The lower areas of Options 1, 2, 4 and 5 are shown within the 1 in 100-year ARI flood plain. This could be mitigated by raising the finished floor level of the building
- Option 5 is located within a flood prone area.

		OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	OPTION 6
Flood Hazards	OLFP size		Minor			Major	
	Floodplain	Yes	Yes		Yes	Yes	
	Flood Prone Area					Yes	
	Coastal inundation (1% AEP +1m Sea level Rise)	Yes	Yes				
Stormwater Management	Runoff Discharge	Onsite	Onsite	Public/onsite	Onsite	Public/onsite	Public/onsite
	Hydrology Mitigation						
	Flow Attenuation			Required		May be Required	May be Required

Figure 14: Flooding and stormwater summary

4.3.4 Water

Potable water is supplied to the existing facility by way of roof collection to above ground water tanks. Water is distributed to the building via a surface pump system. It is proposed that a new building would maintain this type of system by relocating existing infrastructure and replacing as necessary.

4.4 Geotechnical

GWE carried out a geotechnical desktop feasibility assessment of the six site location options. The key findings of the assessment are summarised below.

- The underlying geology of the area is generally Mitiwai Sands Formation, broadly classified as Holocene windblown deposits.
- All site options appear to have low risk of static settlement, earthquake exposure (relative to New Zealand locations), and coastal erosion.
- There is a possible liquefaction vulnerability within this location, with further hand auger and cone penetrometer testing required to assess location specific risk. Applies to all locations.
- TC2 to TC3 foundations will likely be sufficient, with TC2 considered more likely for Options 2 and 3 and TC3 more likely for other options.
- Due to the near-level nature of the Options, a detailed slope stability assessment is unlikely to be required.
- There is a risk of shallow ground water being encountered.

The full report is held in Appendix 8: GWE – Geotechnical Desktop Feasibility Assessment.

Further geotechnical investigations will be required prior to detailed design commences for the preferred development site.

4.5 Site Locations – Privately Owned

It has been recognised that there may be location opportunities beyond Council owned land to accommodate a replacement facility. Private landowners have been approached to investigate the possibility of locating the replacement club at location not currently owned by Council or BBSLSP.

We note that Bethells Road, approximately 150 metres north of Erangi Road, is subject to flooding and erosion, and is currently compromised after Cyclone Gabrielle. Located approximately 1km from the beach and patrol tower, this is a significant distance to transport persons from the beach and effectively undertake surf lifesaving operations from. Consequently, Veros has limited the search area to locations south of this point.

Two location options have been identified as potentially suitable, with these outlined in further detail below. Initial conversations have been held with the owners.

Figure 15: Erosion to Bethells Rd, north of Erangi Rd

Option A Summary

- The owner is supportive of the surf club and their operations.
- Doesn't believe there is an opportunity to subdivide their land to sell to the club. Leasing may be a "tentative, possible solution".
- Recognises that the location would be appropriate for club use, however is mindful of the potential loss of income.
- Holds a strong view that because the land has historically been provided to the club and subsequently acquired by Council, all Council owned options should be exhausted in the first instance.

Option B Summary

- The owner is supportive of the surf club and their operations but spoke on the condition of anonymity.
- Identified a potential location, however this appears to be significantly constrained and less practical than Option A.

Figure 16: Private location option map

Third Party investigations have not been carried out on these locations. While the land owner of Option A outlined the possibility to discuss this further in the event that no other options were considered viable, this would have to be comprehensively proven and is not guaranteed. We anticipate acquiring this land will take considerable time to resolve and there is no certainty of the outcome nor cost involved.

4.6 Other Considerations

4.6.1 Beach Access

Options	Access Provisions	Distance to patrol tower
1 - Existing	exclusive access via Waitākere River	575m
2 - Reserve	access via carpark	680m
3 - Corner	access by road and via carpark	940m
4 - Carpark	exclusive access potential in front of carpark	575m
5 - Road End	access requires dune excavation	500m
6 - Dunes	access requires dune excavation	400m
A - Private	access by road and via carpark	1075m

Table 5: Beach access summary

In general, access that requires crossing public road is hazardous to patrol members and rescue patients when returning to the facility for treatment. Junior surf programmes are run from both the training rooms of the facility and the beach. Road crossings for these children also present a hazard. As a minimum, pedestrian crossings should be considered at any location requiring road crossings.

Exclusive access is preferrable to maintain an unencumbered pathway from the beach to the facility, to safely undertake normal surf lifesaving operations. Access for rescue equipment via public carparks and/or road can be hindered, particularly during peak visitor periods, due to the unexpected parking habits of the public. Blocked or restricted access to first aid facilities have the potential to yield severe consequences. This risk increases as exclusive use access areas diminish and as the distance between the facility and the beach increase.

4.6.2 Parking

It is anticipated that site location Option 1 would continue to utilise its existing carpark. Option 3 could provide some off-street parking with overflow parking on the roadside.

It is likely that options 2 and 4 will require the use of parking space within the existing public carpark. Options 5 and 6 would also draw upon existing public parking spaces to avoid clearing dune for parking.

Assuming that the existing facility is removed, there is the opportunity to extend the public carkpark into the Option 2 location to replace the public carpark spaces lost to the redevelopment. It is noted that providing additional carparks may exacerbate existing carparking overflow problems, by encouraging more visitors.

4.6.3 Emergency Service Access

Road access to the facility is a key requirement for emergency services. This facilitates the transfer of surf lifesaving or search and rescue patients from the first aid room to the ambulance without unnecessary time delays or additional movements. A location near open ground for helicopter access is also favourable.

4.6.4 Beach Sightlines

An unencumbered view of the beach and surf assists with operations. The current facility location does not have a line of sight to the surf. None of the locations investigated are likely to have a clear sightline due to the depth and height of sand dunes.

4.6.5 Further Assessment

No independent traffic assessment has been undertaken to date. An impact traffic assessment should be undertaken as part of the design refinement and once the location has been agreed upon with Auckland Council and the Waitākere District Board.

4.7 SWOT Analysis

With consideration to the characteristics of each of the locations identified above, we have undertaken a review of the strengths, weaknesses, opportunities, and threats of each of the sites. We have summarised the assessment in the tables below.

Option 1 – Existing	
Strengths	• Minimal existing vegetation relative to other options • Lower consenting risk with existing use • Not within the Significant Ecological Area • Well distanced from residential neighbours
Weaknesses	• Close proximity to the Waitākere River • Unreliable beach access due to flooding and erosion • Building platform compromised by recent erosion (significant weakness) • Within a flood plain and a minor overland flow path • Within coastal inundation area +1m sea level rise.
Opportunities	• Utilises all current wastewater pre-treatment assets
Threats	• Further erosion from the Waitākere River

Table 6: SWOT of Option 1 - Carpark

Option 2 - Reserve	
Strengths	• Likely to have good ground for foundations. • Minimal vegetation removal. • Not within the Significant Ecological Area.
Weaknesses	• Beach access is via the public carpark. • Visually prominent location • Within coastal inundation area +1m sea level rise • Wastewater line required to be extended. • Within a flood plain and a minor overland flow path • Near residential neighbours
Opportunities	• Potential for future building expansion. • Potential to gain access from Bethells Road for emergency services
Threats	• Resistance to this location likely from local community groups

Table 7: SWOT of Option 2 – Reserve

Option 3 - Corner	
Strengths	• Likely to have good ground for foundations • Not within flooding or inundation overlays • Not within the Significant Ecological Area • No overland flow path • Good access for emergency services
Weaknesses	• Building size constraints with respect to stormwater • Beach access is restricted and requires crossing a public road • Provision of a wastewater connection challenging • Greatest distance for existing wastewater system connection, including a road crossing • Most restricted location for future expansion
Opportunities	• Potential for Auckland Transport lease of road to increase useable site area, allowing for single level design.
Threats	• Potential for greater consenting risk as within a residential zone • Building on this site would eliminate the opportunity to divest the section and use proceeds to close potential funding shortfalls

Table 8: SWOT of Option 3 - Corner

Option 4 - Carpark	
Strengths	• Good beach and emergency service access • Avoids overland flow paths and flood pone areas • Good access to existing wastewater infrastructure • Avoids natural character areas • Less visually prominent
Weaknesses	• Within the Significant Ecological Area • Requires vegetation removal • Partially within flood plain
Opportunities	• Provides space for future expansion • Provides a link to activate the reserve area
Threats	• Moderate distance from residential neighbours • Community resistance to construction within planted area

Table 9: SWOT of Option 4 – Carpark

Option 5 – Road End	
Strengths	• Low to moderate risk of liquefaction • Good emergency service access
Weaknesses	• Beach access is via the public carpark or around its perimeter • Within the Significant Ecological Area • Flooding risk • Wastewater line required to be extended • Restricted sightlines of coastline
Opportunities	• Space for lateral expansion, suited to modular design
Threats	

Table 10: SWOT of Option 5 - Road End

Option 6 - Dunes	
Strengths	• Best stormwater solution location • Ability to provide independent access to beach
Weaknesses	• High consenting risk • Restricted emergency service access. • Within the Significant Ecological Area and Natural Character Areas • Significant dune earthworks required • Ongoing maintenance costs associated to management of windblown sand
Opportunities	• Potential to gain sightline to beach if platform significantly raised
Threats	• Least ecologically supported location • Highest consenting risk

Table 11: SWOT of Option 6 - Dunes

4.8 Preferred Location

Following the desktop investigations Veros identified site location Option 4 as the preferred site for further investigation.

Key reasons for this are:

- avoidance of overland flow path and flood prone areas
- ability to effectively manage stormwater and wastewater
- relatively favourable planning provisions
- access provisions to the beach walkway and emergency services
- avoidance of Outstanding Natural Landscape and High Natural Character Overlays.

Veros recommends that BBSLSP continue to work closely with Auckland Council and the Waitākere Local Board to confirm the location option, and subsequently streamline the consenting pathway, and seek a long-term lease. Longer term leases offer property security, and therefore security for investment in the facility in-kind. The maximum lease term available for public reserve land is 33-years and this would be considered long term.

5 Design Response

With consideration to the strategic context, case for investment, and site investigations, an initial concept design has been prepared. This section provides a high-level overview of the design inputs and process, including a high-level building specification.

5.1 Surf Life Saving New Zealand Reference Facility

The SLSNZ Spatial Assessment, Design and Development guide reduces the 'front end' workload of clubs by providing the tools to identify lifesaving facility spatial requirements, then refine a reference concept design to meet club specific needs. This guidance material seeks to ensure that lifesaving facilities are appropriately scoped, 'fit for purpose' and feasible to construct and fund.

The Lifesaving Facility Spatial Requirement Guide outlines a set of standardised spatial requirements for four surf lifesaving facility size categories. The guide assists clubs in the identification of the facilities required to service their communities.

The document has been used to guide the initial concept design by aligning specific BBSLSP spatial requirements with the appropriate reference design.

5.2 BBSLSP Requirements & SLSNZ Reference Facility

Veros has compared the Operational Requirements of BBSLSP, provided in section 3.5 of this report, to the sizes allowed for under each reference concept design. This comparison shows a greater emphasis on Lifesaving Storage and Patrol Accommodation spaces and has a lower weighting on Junior Surf and Lifesaving Sport Storage spaces.

The overall needs of BBSLSP do not align with any single core reference design, however the elemental spatial requirements are able to be compiled using reference designs as a baseline. This ensures that the initial concept design will be functional and efficiently utilise space, reducing the requirement for ongoing design iterations.

The comparison chart shows that the 0-10 Year space requirement for BBSLSP is approximately 495m^2, increasing to approximately 580m^2 over the 10-20 year period. This chart has been included as Appendix 9: BBSLSP Spatial vs Reference Facilities.

This information, along with the Lifesaving Facility Spatial Requirement Guide, has been supplied to the architect to inform the initial concept design.

5.3 Initial Concept Design

By refining the SLSNZ reference facility concept designs to meet the specific needs of BBSLSP for their 0-10 year space requirements, an initial concept design has been developed. Future expansions have been allowed for within structural grid sections to cater for BBSLSP's long term aspirations.

The designs remain conceptual and will require further refinement as part of detailed design.

Full concept design documentation can be found in Appendix 10: DGSE – Initial Concept Design

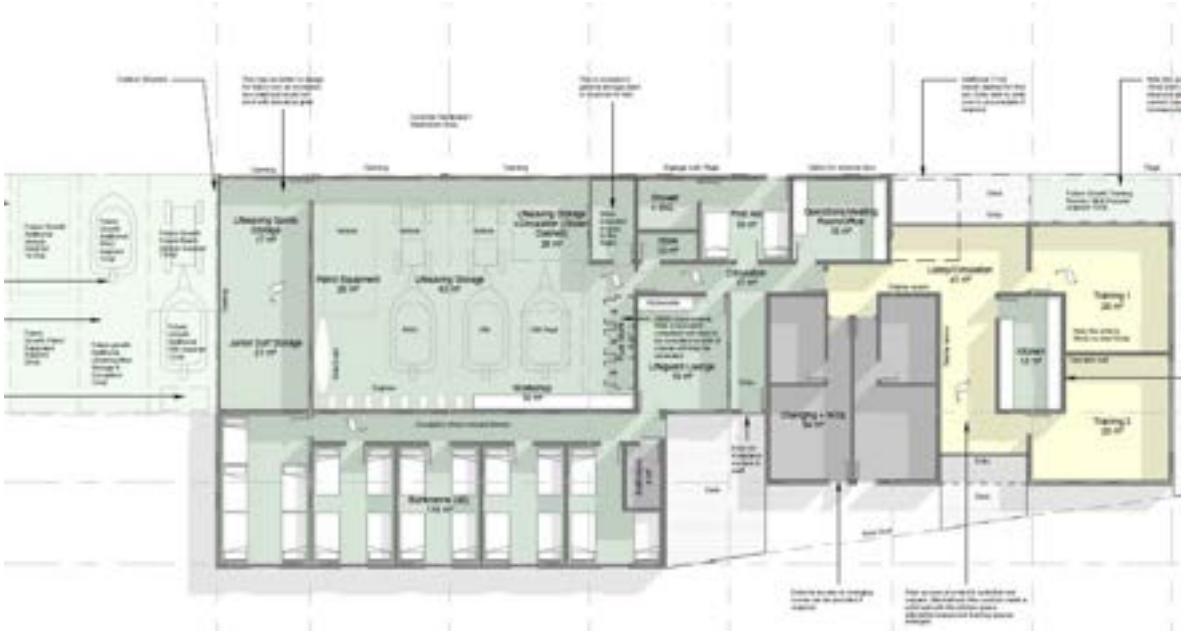


Figure 17: Initial concept design

- Total floor area of 532m², excluding decking
- 63m² in Lifesaving Storage
- 26m² in Patrol Equipment Storage
- 38m² in Junior Surf and Lifesaving Sport Storage
- 19m² First Aid Room with external and internal access
- 15m² Operations Room
- Total changing room space of 54m², split male/female
- Two multi-purpose meeting/training rooms of 26m² each. Capable of opening into a single space
- 120m² of bunk room lodging.

The key principles and requirements driving the design are:

- spaces that are most likely to expand are positioned on the edges of the building
- the core spaces which are unlikely to expand are positioned in the centre of the buildings
- Dual access is provided into the building to allow better circulation from a carpark to the beach or vice versa. It also allows different groups or people to access the building at any one time
- A single level building improves functionality and minimises visual impact and construction costs. A visual impact report has not been undertaken, however this has been considered by DGSE as part of their initial concept design work and it is expected that the retention of vegetation will largely screen the facility from residential areas.

The design areas in green represent exclusive BBSLSP use areas to undertake operations. Yellow design areas are shared spaces to accommodate community use within the facility. These spaces have been separated to minimise disruption to operations from shared use. We note that whilst the spaces in yellow are able to be shared for BBSLSP and community use, they are still considered to be core lifesaving spaces required and prioritised for a stand-alone facility.

There is flexibility in the functionality of the spaces, with an operable wall in the multi-function space providing the ability to split one large open space into two meeting or training spaces.

We note an observation tower has not been included in design due to no sightlines being available.

5.4 Specification

In order to inform the financial analysis of the construction costs, DGSE provided a high-level outline of the building specifications. These are summarised below.

It is noted that the materials below are to be used as a guide with specifications/warranties of each selection to be carefully considered/reviewed with the site location. With respect to the different design options and financial analysis, it assumed the initial concept design would be constructed based on a 'NZS: 3604 timber frame build'. This assumption has been made from Quantity Surveyor advice based on similar coastal projects.

5.4.1 External Materials

These could include but are not limited to:

- Decking: Hardwood decking - Vitex, Garapa etc.
- Cladding: Aluminium, Cedar, Timber, Concrete, Trespa
- Screens/Fins: Aluminium, Cedar, Timber
- Windows: Aluminium

It is noted that carvings or bespoke design patterns could be applied to concrete panels/cladding to reflect cultural or local influences/context/art.

5.4.2 Structure

These could include but are not limited to:

- Floor: Timber/pile foundations, Concrete
- Wall framing: Timber/Steel/Concrete (Precast / In-situ)
- Roofing: Aluminium/Steel

5.4.3 Internal Materials

These could include but are not limited to:

- Flooring finish - Timber, Concrete, Tiles, Carpet
- Walls - Plywood, Gypsum Plasterboard, Concrete, Timber
- Ceilings - Plywood, Timber, Gypsum Plasterboard

6 Financial Analysis

As a significant community project, the decision to proceed with development needs to be supported by sound assumptions around project feasibility, financial risk, operating models, and funding requirements. We have made assumptions on operating structures and identified reasonable financial performance indicators to understand the viability of developing and operating a facility of this nature.

A preliminary financial feasibility analysis has been undertaken for the proposed building, taking into consideration all aspects that would impact the development. This analysis includes:

- An analysis and interrogation of the total project costs of the facility
- An assessment of the expected revenue and ongoing operating costs
- An assessment of funding requirements and potential funders

The preliminary feasibility analysis can be found in Appendix 11: Preliminary Feasibility Analysis, with a summary provided below. The balance of this section outlines the key development cost and revenue assumptions, including an explanation of the feasibility terminology where appropriate.

The initial output of this analysis assessed a total development cost that was potentially prohibitive to progressing with the development in a timely manner. Consequently, we have included analysis for a smaller initial footprint, known as Stage 1A, to provide construction flexibility based on funding outcomes.

Figure 18: Proposed staging of initial concept design.

This is discussed further under section 7: Preferred Development Outcome.

Feasibility Summary	Full Initial Concept	Stage 1a Only
Total Development Costs	$4,614,786	$3,776,953
Total Revenue	$11,200 p.a.	$11,200 p.a.
Operating Costs	$952 p.a.	$952 p.a.
Building Expenses	$61,864 p.a.	$51,803 p.a.
Total Operating Profit/Loss	-$51,616 p.a.	-$41,555 p.a.

Table 12: Financial summary

6.1 Development Costs

6.1.1 Development Cost Assumptions & Terminology

The key development cost assumptions and terminology of the preliminary feasibility analysis are outlined below:

- **Land Value:** We have included land at $0, reflecting the community nature of this project and assuming Auckland Council acceptance of the BBSLSP facility being within reserve land.
- **Due Diligence & Cost to Date:** Upfront costs associated with due diligence, business case and other consultants.
- **Consenting:** Costs associated with progressing initial design concepts and consenting, including any required third-party technical reports.
- **Design/Build Pricing Package:** Developed design and tender package, including architectural fees and other third-party consultants.
- **Earthworks and Services:** All allowances for costs associated with earthworks and services have been included in the Construction costs.
- **Construction:** Construction costs are based on our understanding and estimates from working on similar projects. Note, a similar recent project had construction costs estimated by a Quantity Surveyor (QS). We have made allowances for inflation and location differences in the construction rate adopted for this feasibility assessment. The following items are noted as exclusions:
  - GST
  - Removal of hazardous materials
  - Internal window treatments
  - Fixtures, fittings & equipment (FF&E), with the exception of bunk and first aid beds
  - Specialist fitout including full commercial kitchen and bar facilities.
  - Client supply items

  We have included an allowance for the demolition of the current building based on $150/m^2.
- **Client Contingency:** Additional allowance above construction estimate. Approximately 10%.
- **Escalation:** We have allowed for 10% in cost escalation based on our recommended programme.
- **Construction Design Consultants:** Detailed design (Architect / Engineers – structural, mechanical, electrical, fire, acoustic). Under a design and build contract, this would be captured by the tenderer.
- **Other Consultants to Development:** Other consultants required not covered in the design consultants above (Cultural (Iwi) monitors, Funders QS).
- **Legal and Accounting:** Legal costs associated with project set-up, establishing construction contracts and accounting.
- **Holding Costs:** Rates & Insurance payable throughout development period. We have assumed that Council rates will not be payable on the land and that insurance is currently held on the existing building. It is assumed that this will be transferred at the appropriate time, resulting in no net increase of insurance for the construction of the building.
- **Project Management:** Cost associated with the management from initial investigation through to delivery of the project. Note we have allowed an addition sum to account for travel time for a project manager travelling from Auckland.
- **Council Fees:** Cost of Consents (Building Consent/Potential Consent Variations /Code Compliance Certificate)

- **Development Contributions:** Council charge development contributions (DC) for the development of new properties/buildings. This cost offsets the cost of surrounding infrastructure. Following a review of Auckland Council's Development Contribution Policy 2022, we have assumed that the DCs for the new facility will be completely offset by the remissions received from the current building facility. Further consultation with Council will be required to confirm this.
- **Project Contingency:** An additional project contingency on all costs excluding Construction.

6.1.2 Development Cost Summary

A summary of the development costs associated with the project is provided below.

Development Costs	Full Initial Concept	Stage 1A Only
Land Value	$0	$0
Due Diligence & Cost to Date	$63,000	$63,000
Consenting	$140,000	$140,000
Design / Build Pricing Package	$55,000	$55,000
Earthworks and Services	$0	$0
Construction	$3,126,453	$2,486,206
Client Contingency	$315,000	$250,000
Escalation	$345,000	$275,000
Construction Design Consultants	$179,765	$145,512
Other Consultants to Development	$32,500	$32,500
Legal & Accounting	$22,500	$22,500
Holding Costs	$0	$0
Project Management	$223,568	$195,235
Marketing	$5,000	$5,000
Council Fees	$52,000	$52,000
Development Contributions	$0	$0
Project Contingency (Excl. Construction)	$55,000	$55,000
Total Development Cost	**$4,614,786**	**$3,776,953**

Table 13: Development cost summary

6.1.3 Construction & Development Market Pressures

We note that these development cost estimates are higher than similar lifesaving facilities recently constructed. The drivers for the higher-than-expected costs include:

- Construction item cost increases.
- Inflation pressures.
- Material shortages
- Supply/demand issues.

6.2 Revenue & Operating Costs

Veros have assessed the revenue and costs associated with operating the facility to ensure that these costs are taken into account. These contribute to the need for funding, and whether revenue generating components are viable.

6.2.1 Revenue

The core lifesaving facilities do not generally generate income and are funded through BBSLSP operating costs, with the exception being a small amount of revenue generated through facility hireage from regional lifeguarding training events. Notwithstanding, any other facilities with revenue generating potential should be considered as part of the operating model.

The existing facility is infrequently used for non-core lifesaving use. One off events and community group use typically occurs during the off-season. This use is likely to continue, with demand likely to increase if a new facility is developed. BBSLSP reports an estimated annual hireage revenue of $10,000.

The assumptions adopted in the operational model are outlined below.

6.2.1.1 Function Hire

A new facility is likely to increase demand as a function location for events such as weddings, birthdays, funerals etc. In this instance, functions have been defined as larger formal events, with smaller users being captured as a 'Community Hire'. See Sections 6.2.1.2.

We discussed the capacity of the training/function spaces within the design with DGSE architects as part of the initial concept design for function use. The design response has been to install an operable wall between the two training rooms.

We have assumed that these function activities will be permitted (or consent readily obtained) and compliant with any relevant Council bylaw. This will need to be confirmed with Auckland Council before proceeding. We have applied a non-profit community charge of $750 per day venue hire charge. We anticipate approximately four function hire events per year.

6.2.1.2 Community Hire

The BBSLSP facility has occasionally been used by community-based organisations and clubs as a space to conduct meetings or host groups for recreation, etc. We expect this demand to continue, and potentially grow with the development of a new facility.

A significant portion of Community Hire use is from regional lifeguard training events.

Revenue is based on a reduced daily hireage fee for community-based groups. Community groups are also less likely to be capable of absorbing additional hire fees to reflect the improved nature of a new facility. We've therefore adopted an allowance of $600 per full day, (the existing hire rate). We anticipate approximately 12 community hire events per year.

6.2.1.3 Kitchen

The existing and proposed replacement facilities have kitchen facilities that could be used for catering purposes. We consider that a catering operation from this location would not be viable and consequently, we have assumed that there is no revenue from the kitchen. It will be available in conjunction with other events.

6.2.1.4 Fundraising

Fundraising is expected to be undertaken at various times throughout the year, mostly associated with busy beach days where 'sausage sizzle' type fundraising can be undertaken. Quiz nights and other events can also be considered, providing a community-based event to bring members into the facility. The revenue from this is likely to be minimal, however it all contributes to covering the cost of

the facilities. Where revenue exceeds expectation, it can be used to offset the facility operational costs. We have made a notional allowance for fundraising.

6.2.1.5 Grants

The operational assumptions at this stage of the process are likely to result in a shortfall of revenue to cover operational costs. Often a shortfall of this nature is covered by grants and/or club member's time. Grants could be sourced to cover this operation shortfall. We have however, made no allowance for revenue from grants in our assessment. There are a number of funding organisations who provide grants with a focus on community facilities and ongoing operational costs that can be applied to annually.

6.2.1.6 Revenue Summary

The anticipated revenue for each development option is summarised below.

Revenue / Income	Amount / Annum
Functions	$3,000
Community Hire	$7,200
Kitchen	$0
Fundraising / Donations	$1,000
Grants	$0
Total Revenue	**$11,200**

Table 14: Revenue summary

6.2.2 Operating Costs

The viability of a community facility lies with understanding and mitigating operating costs to reduce revenue generation pressure on the organisation. We have considered typical operating costs for each design option and overview key cost assumptions below.

This assessment is focussed on the ongoing maintenance and operation of the building, including facilitating its use by other users to generate revenue, not costs associated with BBSLSP carrying out lifesaving operations.

6.2.2.1 Operational Costs

The financial analysis is prepared on the basis that these facilities are run and managed by BBSLSP with donated time. We have not considered the wider costs associated with operating BBSLSP as an organisation itself.

6.2.2.2 Staff

The assessment is on the basis that all staff working to operate the facility are volunteers. This is critical to the viability of the facility. If paid staff are required to operate it, revenue will need to increase significantly to offset this cost.

6.2.2.3 Management & Administration

Minor cost allowance provided for accounting and ensuring financial records are maintained.

6.2.2.4 Operating Cost Summary

The operating costs for each development option is summarised below.

Operating Costs	Total / Per Annum
Management & Staff	$0
Sales & Marketing	$560
Management and Administration	$392
Total Operating Costs	**$952**

Table 15: Operating cost summary

6.2.3 Building Operating Expenses

The operating expense budget outlines typical expenses associated with a building of this nature. This includes:

- Rates: This reflects the leasing cost payable to Auckland Council.
- Insurance Premiums
- Water Charges
- Electricity
- Rubbish Collection
- Fire Protection Contract and Charges
- Air Conditioning Service Contract
- General Repairs & Maintenance
- Internet
- Cleaning contracts
- Building wash
- Sanitary Bins for toilets
- Landscaping Maintenance
- Administration
- BWOF & Compliance Charges
- Security
- Pest Control
- Health & Safety Reports
- Long Term Maintenance Fund

6.2.3.1 Long Term Maintenance Fund

Whilst the premises will be new and subject to warranties, it is prudent to establish a long-term maintenance fund at the outset to ensure there is a sinking fund available to deal with potential capital expenditure items in the future without significant fundraising. Accordingly, we have made allowance for long term maintenance to the value of 0.75% of build cost.

6.2.3.2 Building Expenses Summary

The ongoing building expenses for each development option is summarised below.

Building Expenses	Full Initial Concept	Stage 1a Only
Building Expenses		
Land Lease - Assumed	$312	$312
Insurance Premiums	$9,576	$7,380
Water Charges	$0	$0
Electricity	$4,800	$4,800
Rubbish Collection	$1,500	$1,500
Fire Protection Contract and Charges	$2,364	$0
Air - Conditioning Service Contract	$1,444	$1,444
Repairs & Maintenance	$3,500	$3,000
Telco / Internet	$1,440	$1,440
Cleaning contracts	$3,600	$3,600
Building Wash	$3,000	$2,800
Toilets and shared facilities	$1,000	$1,000
Landscaping Maintenance	$1,500	$1,500
Administration	$1,000	$1,000
BWOF & Compliance Charges	$1,000	$1,000
Security Service Charges	$780	$780
Pest Control	$1,000	$1,000
Health & Safety Reports	$600	$600
Long Term Maintenance Fund *0.75%*	$23,448	$18,647
Total Building Expenses	**$61,864**	**$51,803**

Table 16: Building expenses summary

6.2.4 Other Cost Assumptions

6.2.4.1 Debt Funding

There is no allowance for debt funding. It is expected this facility will require full equity funding to be developed.

6.2.4.2 Depreciation

No allowance for depreciation other than a long-term maintenance fund allowance.

6.3 Funding

Research suggests that this project may attract capital investment through a range of options. Funding options may be somewhat limited due to a range of economic stressors, including the ever-reducing class four gaming funding available and increasing inflation. However, there is a strong underlying community objective to this project which meets several objectives of various community funders.

BBSLSP have identified their main funding opportunities and provided indicative funding amounts as follows:

	2022	2023	2024	2025	Total
Club (Savings / Donations)		$150,000 - current			$150,000
Auckland Council (via Surf 10:20)				Est $1,500,000	$1,500,000
West Auckland Licensing Trust			$250,000		$250,000
Foundation North (via Surf 10:20)				$500,000	$500,000
Surf Life Saving NZ – CAPEX	$60,000				$60,000
Donations/Pledges			$100,000		$100,000
Subtotal					$2,560,000
*Additional opportunities for funding balance identified by Veros to meet shortfall					
Grass Roots Trust (via Surf 10:20)					-
Lion Foundation (via Surf 10:20)					-
Trillian Trust (via Surf 10:20)					-
NZCT					-
Surf Life Saving NZ – CAPEX					-
Sale of McKay Place (if required)					-
Subtotal of additional funding required					$2,055,000
Total					**$4,615,000**

Table 17: Funding summary

The $60,000 of SLSNZ funding allocated in 2021 has been granted for the provision of this feasibility report, with all other funding indications yet to be confirmed.

Alongside funding information provided by BBSLSP, Veros have carried out a high-level analysis of the funding opportunities within the Waitākere area, identifying community funders and outlining grant types, application periods, and decision timelines. It is imperative that BBSLSP make contact with all possible funders as soon as possible to develop a relationship and ensure strategic alignment prior to submission of a funding application. Funding applications made to community funders where a relationship already exists between the organisations are regularly more successful comparative to those organisations that do not.

The BBSLSP Funding Options Analysis is attached as Appendix 12 to this report.

7 Preferred Development Outcome

With consideration to the findings of the strategic context, case for investment, site investigations, design response and financial analysis, we recommend the preferred development outcome is the refinement, staged consenting and construction of the initial concept design in site location Option 4 – Carpark.

As outlined in Section 4.8: Preferred Location, site location Option 4 provides the most favourable access points for both beach access for lifesaving operations movements and emergency services, a reduced risk from natural hazards, good access to existing infrastructure and opportunity to mitigate visual impact.

Figure 19: Preferred location - Option 4, site layout

The recommendation to refine the initial concept design and plan to construct Stages 1A & 1B is predominately because of a desire to provide for a facility that can both provide for BBSLSP immediate spatial requirements.

While the financial analysis identified that the total development cost of this option to be more than $4.6m, it provides a design that is scalable and flexible. Critically, this option allows for consent to be obtained for a staged development, enabling BBSLSP to either downsize or increase the size of the building to align to the amount of funding they have been able to secure with the total development cost. This opportunity is reinforced by the total development cost of Stage 1A, being less than $3.8m.

7.1.1 Programme

A high-level development programme has been prepared based on the preferred development outcome. This can be found in Appendix 13: High Level Development Programme.

It is noted that the development programme for the delivery of Stage 1A or Stages 1A & 1B would be similar.

The key features and assumptions of the development programme are summarised below:

Project Period	Start Date	End Date
Preliminary Feasibility Assessment	2022	March 2023
Funding Phase 1	April 2023	April 2023
Location Finalisation / Design Package	April 2023	June 2023
Consenting	July 2023	December 2023
Funding Phase 2	August 2023	January 2024
Procurement and Contractor Engagement	December 2023	January 2024
Detailed Design / Building Consent	February 2024	June 2024
Construction	July 2024	March 2025
Practical Completion	April 2025	April 2025

Table 18: High level programme summary

We note that significant risks to this programme remain. This predominately relates to high levels of funding uncertainty and that further consultation with stakeholder is required to confirm the preferred development location.

In addition to the above, we note that the programme is reliant on the engagement of a suitably qualified professional, with experience in the financial management of all the components of a development to drive the project forward. This will be critical in ensuring that the overall design and development feasibility remains achievable and delivered in a timely manner.

7.1.2 Risk & Impact Analysis

The financial analysis is based on a wide range of development costs and market assumptions. To test option viability, there are a number of additional aspects that need to be considered. The following risks potential impact provide a more complete picture.

Issue/Risk	Comment	Impact
Programme	• The high level programme is heavily reliant on securing sufficient funding within 10 months. • However, this risk is mitigated by the ability to stage the development if insufficient funding is secured. • Design and Consenting Programme is reliant on effective management. • Confirmation of a preferred development location is dependent upon the outcome of Auckland Council and Waitakere Local Board consultation, representing a significant risk to the ability to advance design and consent in a timely manner. • Overall, there are several workstreams that could significantly impact the current programme, collectively representing a high level of risk and impact to the development.	**High**
Cost Escalation	• Construction costs are high level and preliminary in nature, having been assessed as a time of considerable inflation and uncertainty. • Construction contingencies and cost escalation allowance has mitigated this to a degree, but the current market uncertainty and high levels of cost escalation remain a significant risk.	**High**
Funding	• Appetite for funding from various funding avenues is unknown. • This assessment provides a strong case for investment. • The ability to stage the development has mitigated this risk.	**Medium**
Planning	• A pathway to consent is achievable, with the risk of notification minimised. • However, achieving consent in a timely manner is still heavily reliant on Auckland Council buy in and avoiding public notification.	**Medium**
Site Characteristics	• Preferred Site Location Option 4 has favourable site characteristics to support a replacement facility with respect to three Waters and Geotechnical.	**Medium**
Demand / Need	• The findings of this report conclude a strong need for the facility in order for BBSLSP to achieve its drowning prevention operational objectives through search and rescue, patrol, and community education services.	**Low**

8 Governance & Management

The purpose of the surf lifesaving facility is primarily for the operational requirements of BBSLSP, consequently ownership and management of the facility should remain with BBSLSP.

Ongoing maintenance of the facility should be managed through BBSLSP leadership and this can be achieved by establishing a leadership portfolio (such as Facility Director) with the primary purpose of facility operations and maintenance. A schedule of maintenance should be prepared and administered by the portfolio, with expenses approved through the BBSLSP leadership team when appropriate. An additional core function of the portfolio would be to establish a booking system to ensure training/function space allocation of shared spaces is prioritised and booked appropriately, for example, to lifeguard training over community use.

9 Next Steps

Based on the findings of the preliminary feasibility assessment and with consideration to the preferred development outcome, the next steps outline how to advance the project.

9.1 Funding

The most immediate action is to secure funding from the potential funders identified in Section 6.3: Funding. A coordinated and effectively managed funding action plan is needed to maximise success. In the first instance, immediate funding should be sought to advance the project through the Detailed Business Case / Design Package and Consenting phases.

These phases will require approximately $293,700 (plus GST) in funding. This includes:

- Consenting: $140,000
- Design & Building Pricing Package: $55,000
- Project Management (9 months): $72,000
- Contingency (10%): $26,700

The preliminary feasibility assessment is able to be distributed to funding organisations in support of any applications.

Funding, funding will not be achieved from a single source. Primary/cornerstone funding will need to be secured to give the project momentum. Secondary funding can be sourced concurrently but is typically more achievable once sufficient primary funding has been secured.

There is a critical window in which funding needs to be secured to ensure no primary funding commitments lapse as a result of an elongated programme.

9.2 Stakeholder Engagement

Te Henga and BBSLSP have many touchpoints throughout the wider Auckland community, consequently there will be strong interest in development from multiple stakeholders. Gaining support will be crucial to securing a new development facility, as well as in gaining wider community support for the development.

BBSLSP need to immediately engage with community stakeholders to secure approval and a lease for the preferred location for the lifesaving facility development. BBSLSP need to prioritise engagement with:

- Auckland Council
- Waitākere Local Board
- Te Kawerau ā Maki
- Te Henga Community Group

SLSNR are noted as playing a critical role in the facilitation of funding and liaising with Council. SLSNR have had a high level of involvement in other completed surf club rebuilds. Maintaining engagement will identify potential project risks learned from these past projects, assisting to reduce overall project risk.

9.3 Design / Consenting

Once funding is secured, the Detailed Business Case / Design Package and Consenting phases should commence.

The consenting phase involves progressing the initial concept design to a level that could be consented, including any third-party technical reports required to support an application. This phase is typically run concurrently with the Detailed Business Case / Design Package phase, in which the design is advanced sufficiently to be tendered under a design and build contract. This includes any third-party technical reports required. This is typically able to be run concurrently due to resource consent processing timeframes and design content overlap.

It is noted that the Detailed Business Case isn't necessarily required to prepare further substantial reports, rather it is a reference to the importance of constantly assessing the financial feasibility of the project as design and consenting advances. This is critical in ensuring that development costs are managed effectively and minimised.

With multiple stakeholder involvement, there is an elevated risk to program during the design phase from conflicting design direction and outcomes.

We highly recommend that the process is managed by a suitably qualified professional, with experience in the financial management of all the components of a development and not limited to procurement and construction management. This will be critical in ensuring that the overall design and development feasibility remains achievable and delivered in a timely manner.

9.4 Procurement

As a result of the financial constraints and the nature of the funding structures required to finance a development project of this nature, BBSLSP will require project cost certainty. This can only be provided through a fixed price lump sum contract and procurement model, of which there are two applicable approaches:

- "Traditional" (NZS 3910) build only fixed price lump sum contract, or
- "Design & Build (NZS 3915 & NZS 3916) design and build fixed price lump sum contract.

Traditional build only fixed price lump sum model typically entails the client completing all of the design related works before tendering the works. The client assumes the design risk, with the contractor taking the price risk based on the tendered documents.

Typically, the design and build fixed price lump sum approach entails the client completing a portion of the design and subsequently tendering this for a Contractor to complete the balance. Client risk is reduced as the contractor assumes the design risk, however they price in contingency accordingly.

With consideration to the above, a NZS 3915 design and build contract is recommended with consideration to cost certainty and the design and construction risk being held by the Contractor.

Tendering to at least three reputable contractors will ensure competitive tension and allow BBSLSP to secure a fair market rate for the construction of the project.

10 Appendicies

Appendix 1: SLSNZ – 2018 Community Sport Vop Programme

Appendix 2: Spatial Requirements

Appendix 3: Veros Site Inspection Summary

Appendix 4: Colliers – Building Condition Report

Appendix 5: Boffa Miskell – Preliminary Planning and Ecology Assessment

Appendix 6: GWE Wastewater Feasibility Study

Appendix 7: GWE Stormwater Feasibility Study

Appendix 8: GWE Geotechnical Desktop Feasibility Study

Appendix 9: BBSLSP Spatial vs Reference Facilities

Appendix 10: DGSE – Initial Concept Design

Appendix 11: Preliminary Feasibility Analysis

Appendix 12: Funding Options Analysis

Appendix 13: High Level Development Programme

Appendix 14: GNS Science Inundation Report

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Appendix 2: Spatial Requirements

Appendix 3: Veros - Site Inspection Summary

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Appendix 7: GWE – Stormwater Feasibility Study

Appendix 8: GWE – Geotechnical Desktop Feasibility Study

Appendix 9: BBSLSP Spatial vs Reference Facilities

Appendix 10: DGSE – Initial Concept Design

Appendix 11: Preliminary Feasibility Analysis

Appendix 12: Funding Options Analysis

Appendix 13: High Level Development Programme

Appendix 14: GNS Science Inundation Report

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Veros

we make projects real.

Waitakere Ranges
Glenmall Place Footpath Upgrades
Local Board Transport Capital Fund

9th May – Workshop 5xxxx

Think before you print

Purpose of today

- Present the Glenmall Place footpath renewal options and recommendations to the Local Board and obtain agreement on preferred treatment.

Background and progress

- $350,000.00 was resolved and allocated for Glenmall Place Footpath Improvements by the Local Board. Reference - WTK/2023/135.
- Auckland Transport carried out condition assessment of the footpath and paved areas in April 2024.
- Recommendations are made in two categories, essential (must do) improvements and optional (could be delivered based on LB preference) improvements.
- Delivery Timeline depends on the treatment approach (likely between June and October 2024)

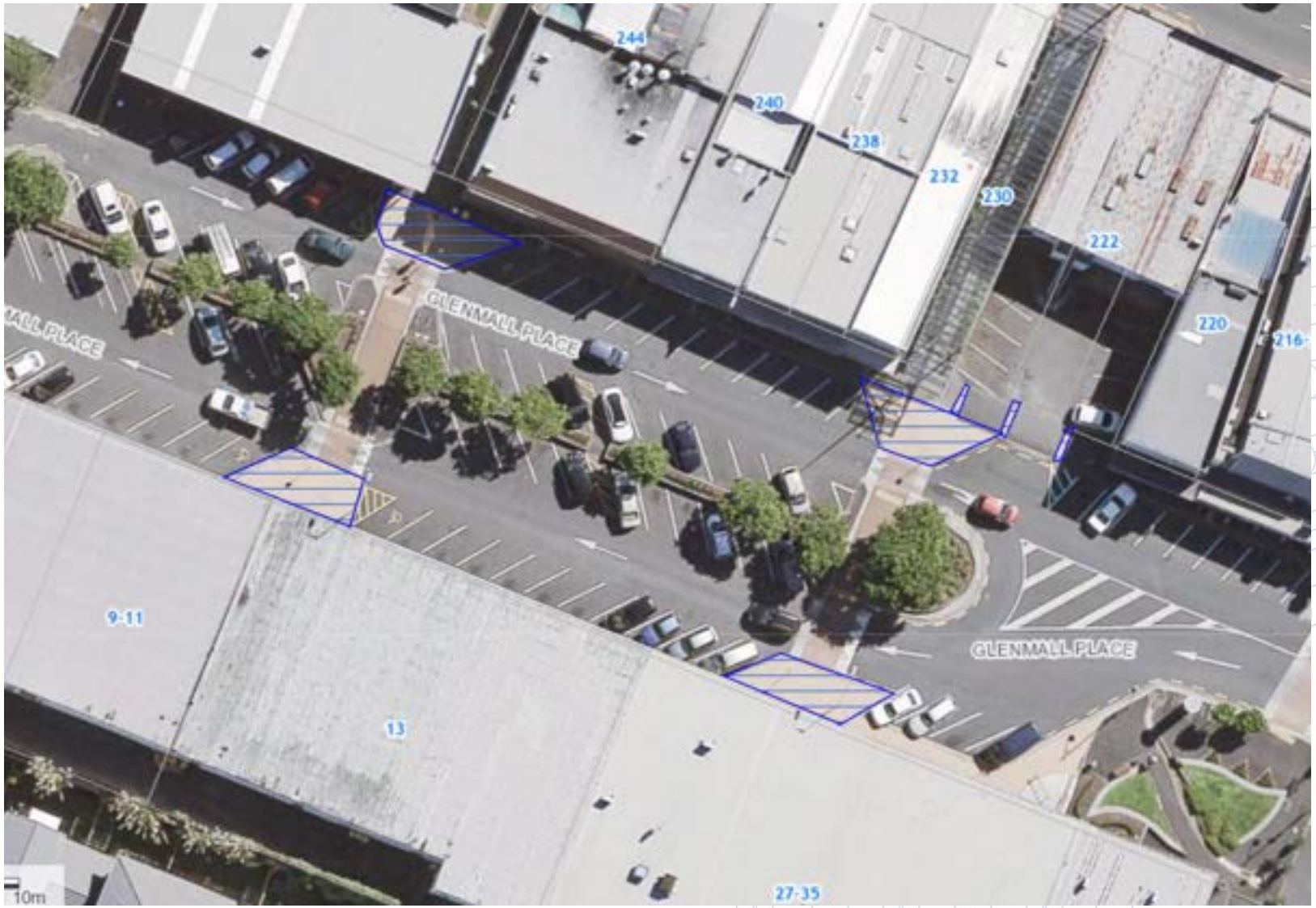
Recommendations

Aerial view of areas of essential improvements

Remove and replace the existing planted island and vehicle crossing & footpath area on Glendale Road, with a concrete crossing, approx. cost $25,000 (hatched purple area).

Existing footpath/vehicle crossing on Glendale road

Replace pavers on both sides of raised crossings with concrete. Approx $30,000 (blue hatching)



Paver areas near the zebra crossing

Replace ashphalt footpath (localized treatment) and pavers with asphalt on the eastern side of Glenmall place.

approx $5,000 (blue & purple hatching)

Existing footpath on the eastern side on Glenmall Place

Improvement options

Option 1 (Localized footpath renewal) – Identify and repair ashphalt footpath as required, approx. $20,000

Footpath areas on the northern and central sections of Glenmall Place

Option 2 – Replace full ashphalt footpath area (between #270 & #214) with ashphalt, approx. $40,000

Option 3 – Replace exiting ashphalt footpath area (between #270 & #214) with concrete, approx. $150,000

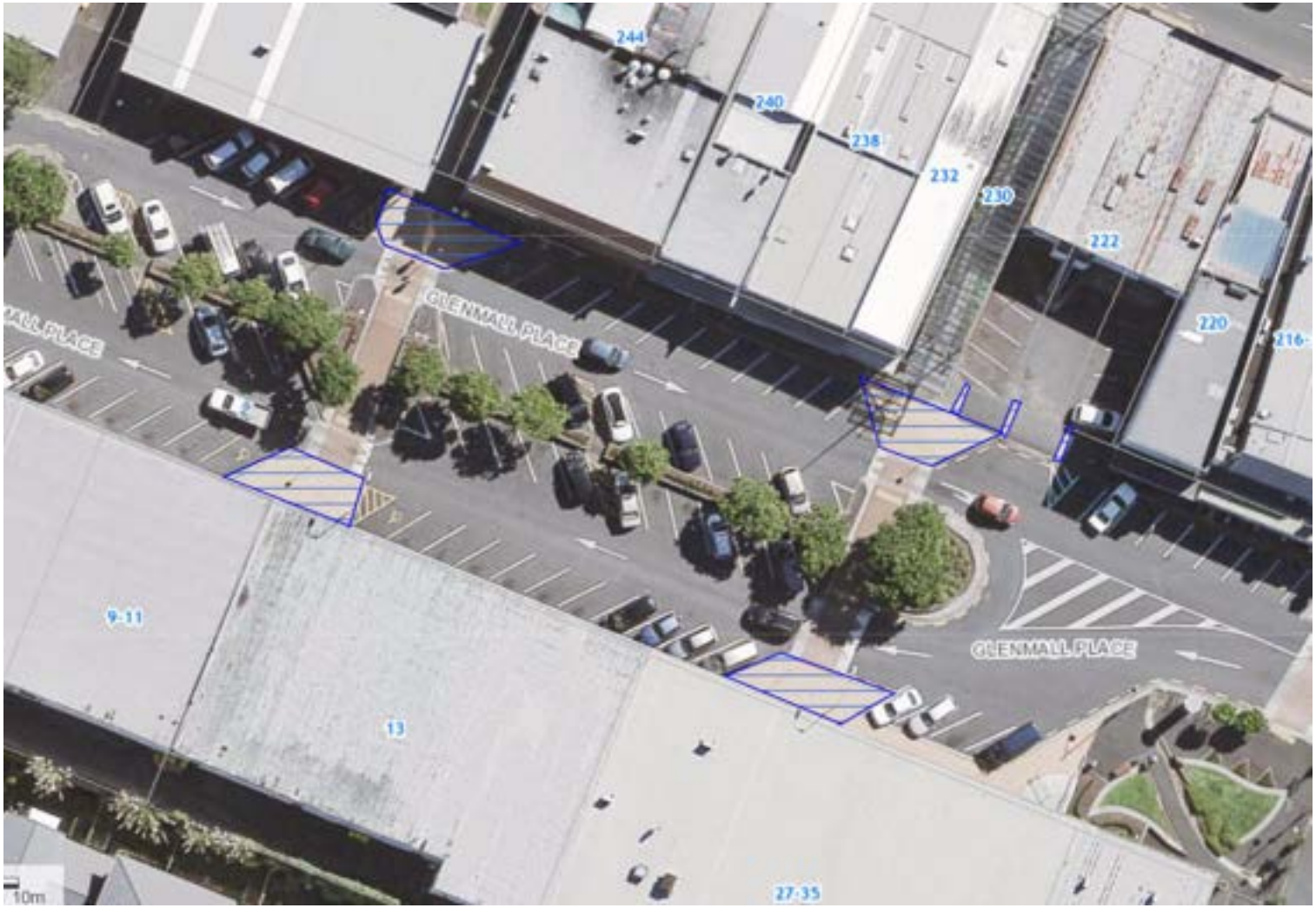
Thank you

GlenMall Place Footpath Renewals

Aerial View of Scope of Essential (must do) Works

Essential (must do) Improvements

Proposed Essential Works on Glendale Road - Renew vehicle Crossing(in Purple), Remove Planted Island and reinstate with Grass berm (in Green)- Approx $25,000.00



Proposed Essential Work on GlenMall Place – Uneven Pavers to be replaced by concrete (in Blue) – Approx $30,000.00

Proposed Essential localized works on GlenMall Place (in Purple) -$5,000.00

Optional Improvements

Images below shows two approaches for Renewals between #254 and #214

Approach 1 – Localized Renewals – Repair footpath where it's in poor condition (in Purple) – Approx $20,000.00 – Deliver by June 2024

Approach 2 – Repair all footpath area between #254 and #214 – Approx. $40,000.00 – Deliver by June 2024

Approach 3 – Design footpath area between #254 and #214 to upgrade to concrete – Approx. $150,000.00 – Deliver by October 2024

Auckland Transport
West Auckland Recovery
Progress Report
Waitakere Ranges Local Board
May 2024

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West Auckland Recovery Works Updates – For Waitakere Ranges Local Board May 2024

73 Bethells Road, Near Steam Hauler Track

Work continues on the under slip ahead of building a 30m long, 2m high stone wall to support the road.

Over 500m3 of material has been removed from the site. Our team are currently working on the base block platform and will be installing the blocks next. We are on track to complete this, weather dependant by mid-May 2024.

Birds eye view of the site

Preparing the site for the block wall to support the road.

160-198 Bethells Road

AT will be working to repair storm related damage at this site. This work includes matting and hydro-seeding.

Caton Road, Waitakere

The second of three stages of piling and anchoring is complete, and the drainage works have begun with the installation of the first manhole for the culvert crossing. Works are due to be completed in mid-May, weather dependant.

We are making good progress despite the challenging weather and have started working on Saturdays to increase weekly productivity.

Caton Road retaining wall April 2024

Anchor being installed on Caton Road March 2024

On advice from Geotechnical Engineer and for everyone's safety, a 3.5 tonne vehicle restriction will apply until the repair works are complete. There are large materials being delivered to site which require a temporary closure, during this time traffic will be stopped by traffic controllers to allow work crews time to safely stop and clear the road of plant and equipment. There is a white board at the entrance on Caton Rd to show when these deliveries are expected.

Access restrictions apply: A vehicle weight limit of 3 Tonnes applies through this site.

Glenesk Road, Piha

Works began on Glenesk Road on 25 March 2024.

Downer on behalf of Auckland Transport (AT) are undertaking slip repair works outside numbers 7 and 19 Glenesk Road. This involves the construction of a retaining wall, repair of the footpath and shoulder. This work is required to stabilise the area and prevent further slips and damage occurring.

Work is progressing well and is on target to be completed on time.

The works are underway Monday to Friday from 7am to 7pm, and we expect the works to take approximately 3 months. The road closure with **resident only** access remains in place. This will enable our team to safely carry out work. Parking restrictions will also be in place, please follow all signage and directions from traffic management team.

Karekare Road

We started works on Karekare Road, between Piha Road, and the bridge at the Regional Park, on 16 October 2023. Works on the sites were completed in February. Please note we have identified other slip sites to complete on Karekare Road, after we have completed works on Lone Kauri Road. We will notify the community before we start these works.

We started works on Lone Kauri Road on Monday 12 February 2024. While works are underway, we will need to close this road. All traffic will need to go via Karekare Road.

Karekare Road RP0.150

Works have been completed on the 2 x slip sites located at this location.

As well has repairs to the slips, surfacing, drainage and a new guardrail were also installed.

Karekare Road RP1.141 (1140m from Piha Road)

Works have now been completed with the sprayed hydroseed now taking and coming through the duramat mesh blending the slip remediation works blending into the surrounding environment.

As well as slip remediation works, drainage and a guardrail were installed.

Karekare Road RP1.260 (1260m from Piha Road)

Works have now been completed on this site. This includes slip remediation works drainage, surfacing and timber balustrade have also been installed.

Following completed of this site Karekare Road was opened to residents.

Karekare Road RP0.582 (582m from Piha Road) (Not completed yet)

Options report has been completed and now design work is underway.

A programme start date is still to be confirmed on this site. Likely to be after all the soil nail sites are completed throughout Karekare Road and Lone Kauri Road.

Karekare Road RP0.980 (980m from Piha Road) (Not completed yet)

This is a new site that has been identified, currently preparing Options report.

Huia Road - Various sites

There are a number of slip sites along Huia Road including:

- 81 Huia Road
- 370 Huia Road
- 634 Huia Road
- 100m past Cornwallis Road
- 100m past Kaitarakihi Road

Designs options have been investigated and presented for the repair of these various sites. The options are currently being considered by the team. Each site will have a separate design for the repair work.

We will update the community before works start on any of these sites.



81 Huia Road slip site

Kay Road, Waitakere

Closed - Residents & Emergency services access only from Waitākere Road end.

Work is underway on the repair design.

While are unable to give a specific timeframe on repair works, we aim to have this work completed in 2024, to restore this connection for the community.

Kellys Road, Oratia

The design for the repair at Kellys Road is currently being reviewed. Works are anticipated to start in May 2024.

Under slip at Kellys Road

Konini Road, Titirangi

We are working on the investigation phase, to confirm what solutions are available to repair the under slip on Konini Road.

After investigation is complete, we will be working on the design of the repair.

Lone Kauri Road, Karekare

We are continuing major slip repair works on two sites on Lone Kauri Road between Piha Road and La Trobe Track. We have completed all of the soil nailing at these sites and are working on completing the work on the road, shotcrete (spray on concrete), drainage and guardrails.

The road will be closed during the day, and open after work hours to residents only. We started works on 8 April 2024 and we expect works to continue until at least late May 2024, weather dependant.

This will be a full road closure during work hours, we will be unable to open this site for school drop off or pick up. The detour route is Karekare Road.

Lone Kauri Road RP0.600 (600m from Piha Road)

Works started onsite in early April with drilling now well underway.

Currently the road is under full road closure but we are in direct contact with the public and opening the road when possible whilst also accommodating the school traffic.

Lone Kauri Road RP2.085 (2085m from Lone Kauri Road)

Design has been completed and reviewed, start date in following completion of the RP0.600 site which is expected to be in May.

RP5.170 Lone Kauri Road (5170m from Piha Road)

Slip remediation works have now been completed with all the soil nails and shotcrete installed. Drainage and pavement works have also been completed with surfacing and guardrail install still to be completed.

The site has also had hydroseeding completed, this has already started to grow through the duramat.

RP2.50 Lone Kauri Road

This is a new site that has been identified, we are currently working through Options Report

Mountain Road

We have been working with the contractor to review the timeline for the works on Mountain Road, as we would like to be able to get this connection open sooner for the community. We have settled on a timeline, that anticipates the completion of these works by **end of December 2024**. This will be achieved by a second work crew being available to work on this location.

There are factors that have to be considered:

- We will only be able to work at two sites at any given time on Mountain Road, due to narrow nature of the road, and the access through the sites.
- In some cases it will be more difficult to work two sites at once for safety reasons, due to the layout of the road.
- The availability of the second works crew is yet to be confirmed, currently estimated to be available in June.
- Each location must have the design approved before works can start, there is still work ongoing for some of the designs.
- Although we have built some contingency into the timeline, weather and other factors can cause some delays.

Soil nails being installed on Mountain Road

Mountain Road – Stoney Creek

The Mountain Road Stoney Creek bridge project was completed in the month of April. Ventia successfully completed the scour repairs with no large issues on a very environmentally complex worksite.

The crew completed all gabions, rock backfill and shotcrete spray and then with the help of our ecologists hired to monitor our work, disestablished the fish passage, and reopened the stream with no issue. The site was completed before the recent heavy rainfall.

Opanuku Road, Henderson Valley

On Opanuku Road there are 10 sites where damage has been caused by 2023 weather events.

- 6 of these will be looked after by the maintenance team as they relate to scoured pavement and drainage
- 2 are over slips that we are currently reviewing the plans for, these are most likely to be tidied up and hydroseed but no major works expected
- 2 are under slips that have been made safe, are being monitored and on the list to be repaired. They are in the 6-12 month bracket from now, as they are lower on the priority list than some of the higher volume collector roads.

As these sites get closer to delivery we will be able to provide an update on the timing of the works.

Otitori Bay Road, Titirangi

30 April 2024

We started works on the second slip at 40 Otitori Bay Road on 11 April 2024. We are building a 20m long retaining wall at this location. The team will be drilling to install the 14m long piles for the retaining wall.

Before works started we had some ecologists on site to install bat monitoring sensors to ensure that the vegetation clearance work did not affect any of the resident bats. NZ Ecology have also been monitoring lizards and birds.

During works a full road closure will be in place 24 hrs a day, seven days a week. Works will take place between 7am and 7pm. We anticipate works will take eight weeks to complete.

Pedestrian access will be available up until 8.40am in the morning and after 3.30pm, to allow school students and other pedestrians through.

Vehicles will not have access through.

Otitori Bay Road site

Paturoa Road, Titirangi

The road is closed around number 15, and work is continuing on the design of the repair for this road. Below is some information about the damage at this site.

13-15 Paturoa Road

- The underslip has occurred below an existing timber pole retaining wall, which appears to still be in place, but is undermined
- An Overland flow path is running through this location which will have to be considered during the design phase along with existing storm water network which needs to be reviewed
- Temporary traffic management/ weight limits are in place until repairs are completed
- An underslip extends from the driveway of 12 Paturoa Road for 23 m to the north-east.

Piha Road

Works on the slip site at 73 Piha Road were completed December 2023.

Retaining wall works

Rayner Road, Piha

47- 49 Rayner Road, Piha

Flexiposts have been installed to keep vehicles away from the slip side of the road. The weight restriction is lifted. Our contractor is continuing to monitor this section of the road.

This site will require extensive monitoring to understand the slip and what steps are required next in terms of a design.

Flexiposts installed on Rayner Road, March 2023

27 Rayner Road

The retaining works to repair the slip damage at the location of 27 Rayner Road is now complete. The road is open.

Scenic Drive, Various sites at a glance

Scenic Drive, North Swanson

Watercare are just finishing off the last of their works, and we anticipate they will complete this in the coming week.

AT is working with our contractor on the final designs for the repair work on this section of the road. Once we are ready to start works, we will notify the community, we anticipate works will start mid-May. There are no plans to fully close the road during these works.

Scenic Drive, between Shaw Road and West Coast Road (Various sites)

25 March 2024

This stretch of Scenic Drive has a number of slip sites, which we are working on, their location is indicated by the distance from Titirangi End of Scenic Drive.

Site 1 - 6.58km from the start of Scenic Drive

An option report - with 3 options for the repair is under review currently, to decide on the repair for this site.

Scenic Drive site 6.58km from start of Scenic Drive

Site 2 - 6.73km from the start of Scenic Drive

Draft design is complete - is progressing through the approval processes. We anticipate this site to start construction in the second quarter of 2024.

Scenic Drive site 6.73km from the start of Scenic Drive

Site 3 - 6.84km from start of Scenic Drive

Repair works were completed in March with the crew putting the finishing touches on the job including the sight rail and resurfacing work.

Scenic Drive 6.84km from start Scenic Drive

Drone photo of the site 3

Scenic Drive, Near Arataki

The excavation of this site took longer than expected, with poor ground conditions. A lot of the material had to be removed from site, as its condition meant we were unable to reuse it.

We have been working on the storm water drainage system to install a system that helps remove the sediment from the water as it travels offsite.

This programme is likely to be delayed past the end of June. We have had some collapse and water egress in a lot of the holes that have been drilled, so have had to back fill a lot of the holes to enable the piles to be sturdy.

Now we are working on drilling and installing the steel piles which will form the retaining wall to support the road.

Works progressing

Initial works on the site on Scenic Drive, just past Arataki

Initial Slip at 412 Scenic Drive

Scenic Drive, Waiatarua (Elevation Site)

12 March 2024

Road repair works have been completed at this site, and the road is open two way. We are pleased to have this important connection open for the community. We will complete a final road reseal when other works in this area are completed.

Scenic Drive, Waiatarua, open in both directions

We have sealed cracks in the surface of the ground outside of the carriage way and works to the storm water drainage.

Since the temporary traffic lights and the 1 lane closure has been removed, some levelling works was completed to remove the severe bump that was in the road as result of the slip. Further work will be required to remediate the final shape of the road. Drainage works have also been completed with uncovering of an existing culvert that was unknown.

Final design plans are progressing for this site, this is a drainage solution. A series of fan drains will be installed to reduce pore pressures from within the slip. Residents that have properties within the slip site have been contacted and we are discussing the fan drain option with them. This final stage of repair works will include work across private properties, so this is an important element of the planning process.

Scenic Drive, Titirangi

We started work **on 27 February 2024.** The work will take place between the roundabout at Titirangi and Woodlands Park Road and it will take 3-4 months to complete (weather dependent). Work will take place during the day, 7am to 7pm.

During the works, this section of the road will be closed 24/7.

Pedestrian and cycle access will be made available beside the work site on Scenic Drive, and also through Kohu Road.

To fix and secure the road we need to build large retaining walls at each of the slip sites. To do this we need to use heavy equipment which will need to sit on the remaining section of the road. This is a major repair, and is required to prevent further slips in this location.

The works will include:

- Clearing the slip material
- Cutting into the existing road to create a working platform for our heavy equipment
- Drilling large holes into the ground in which the steel columns will be placed
- Placing of concrete panels which will retain the road and footpath
- Backfill behind the wall and reinstate the drainage, footpath and road pavement

Within the closure there are three key sites:

1. **Site RP0.75 (750m from Roundabout)** – more than half of the piles have been intalled, and 17 anchors have been installed.

There have been some delays whilst we have waited on vector removing some lights poles, in the meantime other works has been ongoing.

We are working with Watercare to cap the existing redundant line below the slip.

2. **Site RP0.80 (800m from Roundabout)**

This site will join up the two retaining walls at RP0.75 and RP0.90, this is in the detailed design phase and the target is to complete the works in the same timeframe as the two retaining walls.

3. **Site RP0.90 (900m from the Roundabout)**

This site will start in May and will tie into the works completed in the other two sites.

RP0.90 Scenic Drive Titirangi

Scenic Drive (near to the Auckland City Lookout)

We are currently working through the soil nail design, a programme start date has not been confirmed but is looking at mid-late June 2024.

Simpson Road

113 Simpson Road - The repair is in the design phase.

- A road subsidence has occurred and extended approximately 107m in total in length with 77m of significantly affected carriageway – Failing Retaining wall is located along the edge of the road on the downslope side.
- Cracks have been sealed and temporary traffic management in place until repairs are completed.

We will continue to monitor the site until permanent repairs start.

Takahe Road, Titirangi

We anticipate works to repair the slip on Takahe Road will begin in May.

To prepare for the works we have to extend the length of the one lane closure, and the access through this will be by temporary traffic lights. We will be in contact with the community when the start date is finalised.

We expect the works to take about 12 weeks to complete (weather dependant), and one lane will be closed during the works.

Slip on Takahe Road

Te Henga Road

There is a slip on the side of the road. The road is open with one lane, give way rules apply.

The design of this repair needs to take into consideration the proximity of the power lines. We are working with Vector on this, and will update the community when repair work will start.

Slip on Te Henga Road, near number 74

Titirangi Beach Road

Titirangi Beach Road repairs have been completed. Many thanks to the community for your patience through the works.

Repairs with guardrail completed

Timber retaining wall on Titirangi Beach Road

Riprap swale on Titirangi Beach Road

Wairere Road

We have reviewed the geotechnical testing that was completed at this site and are working on a repair that we anticipate will start in May 2024.

Wairere Road slip site

Open – under reduced speed of 30km/h. Buses & heavy vehicles can use but must travel at a slow speed.

No public access to Lake Wainamu, sand dunes, Bethells Beach & Te Henga walkways.

Additional signs and hit sticks that have been installed on Waitākere Road Bridge

Woodlands Park Road, Waima

At the end of 2023 we were completing further geo tech testing in the slips. We are currently in the design phase of the repair for Woodland Park Road.

As this road is currently a part of the detour route for the works on Scenic Drive, the repair work for Woodlands Park Road will be scheduled once Scenic Drive, Titirangi is completed.

Woodlands Park Road slip site

Yelash Road, Massey

Multiple underslips have occurred along Yelash Road near property number 13. The stream and a couple of culverts will need to be worked into the design.

We are working on a design for this road, and we are communicating with the property owner. As this site only affects one resident, who has access to his property, other sites are taking a higher priority.

Slip on Yelash Road

Overslips

During April, the Ventia and Evergreen Landcare continued the over slip Hydro seeding and erosion control matting programme. The team completed 10 over slip sites this month and are planning to finish the over slips program in the next few weeks - weather dependant.