Puketāpapa Local Board Workshop Programme

Date of Workshop: Thursday, 19 September 2024
Time: 1.40pm – 4.40pm
Venue: Puketāpapa Local Board, 560 Mt Albert Road, Three Kings and Online via Microsoft Teams.
Apologies: Mary Hay (Senior Local Board Advisor)

Time	Workshop Item	Overview	Governance role	Presenter/s
	Karakia **Whakataka te hau ki te uru.** *The wind blows from the west.* **Whakataka te hau ki te tonga.** *The wind blows from the south.* **Kia mākinakina ki uta.** *It pierces the land with its wintry nip.* **Kia mātaratara ki tai.** *And slices the sea with its freezing chill.* **Kia hī ake ana te atakura** *When the red dawn breaks* **he tio, he huka, he hauhū.** there is ice, snow and frost. **tihei mauri ora!** indeed, there is life			

Time	Workshop Item	Overview	Governance role	Presenter/s
1.40 – 1.45pm (5 mins)	Item 1 **Declarations of interest**	Purpose: Board only discussion.	What is the local board's governance role with regards to the item being workshopped: • Keeping informed	**Ella Kumar** Chairperson
1.45pm – 2.45pm (60 mins)	Item 2 **Resilience and Infrastructure – Lizard Survey** Information Materials: i) Presentation: Puketāpapa Local Board Lizard Survey Update ii) PDF: Results of lizard monitoring in Manukau Foreshore Reserve Year 2	Purpose: Staff will be in attendance to update the local board on the results of year two of the Manukau Foreshore Herpetofauna Survey and inform about plans for year three of the survey	What is the local board's governance role with regards to the item being workshopped • Setting direction/priorities and budget • Local Board feedback/direction • Keeping informed	**Taylor Farrell** Relationship Advisor, Resilience and Infrastructure **Yue Chin Chew** Conservation Advisor, Environmental Services **Blair Balsom** Consultant
2.45pm – 3.45pm (60 mins)	Item 3 **Watercare Update** Information Materials: i) PDF: Draft Local Board Engagement Plan ii) Presentation Watercare Update	Purpose: As we are just over the middle of the electoral term, Staff from Watercare will be in attendance to touch base with the Local Board to seek general feedback on how they are finding Watercare's engagement with the Board.	What is the local board's governance role with regards to the item being workshopped • Local Board feedback/direction • Keeping informed	**Ben Halliwell** Elected Member Relationship Manager **Elizabeth Stewart** Elected Member Relationship Advisor
3.45pm – 4.15pm (30 mins)	Item 4 **Update on this financial year's communication plan** Information Materials: i) PDF Puketāpapa Comm Plan FY 24-25 ii) PDF Puketāpapa Comms Update	Purpose: Staff will be in attendance to facilitate discussion on this year's financial communication plan.	What is the local board's governance role with regards to the item being workshopped • Setting direction/priorities and budget • Local Board feedback/direction • Keeping informed	**Linh Tra** Specialist Local Comms

Time	Workshop Item	Overview	Governance role	Presenter/s
4.15pm – 4.40pm (25 mins)	Item 5 **Board member only time**	Purpose: Board only discussion.	What is the local board's governance role with regards to the item being workshopped: Keeping informed	**Ella Kumar** Chairperson
	Closing - Karakia **Unuhia, unuhia** *Draw on, draw on* **Unuhia mai te urutapu nui** *Draw on the supreme sacredness* **Kia wātea, kia māmā,** *To clear and to set free* **te ngākau te tinana, te hinengaro** *the heart, the body and the inner essence* **i te ara takatū** *In preparation for our pathways* **Koia rā e Rongo** *Let peace and humility* *be raised above all* **e whakairia ake ki runga** **Kia tina! Haumi e!** *Manifest this! Realise this!* *Bind together! Affirm!* **Hui e! Tāiki e!**			

Next workshop: Thursday, 26 September 2024 at 10.00am. Next business meeting: Thursday, 17 October 2024 at 10am.

Manukau Foreshore Herpetofauna Survey
Updates on Y2 and monitoring plan for Y3

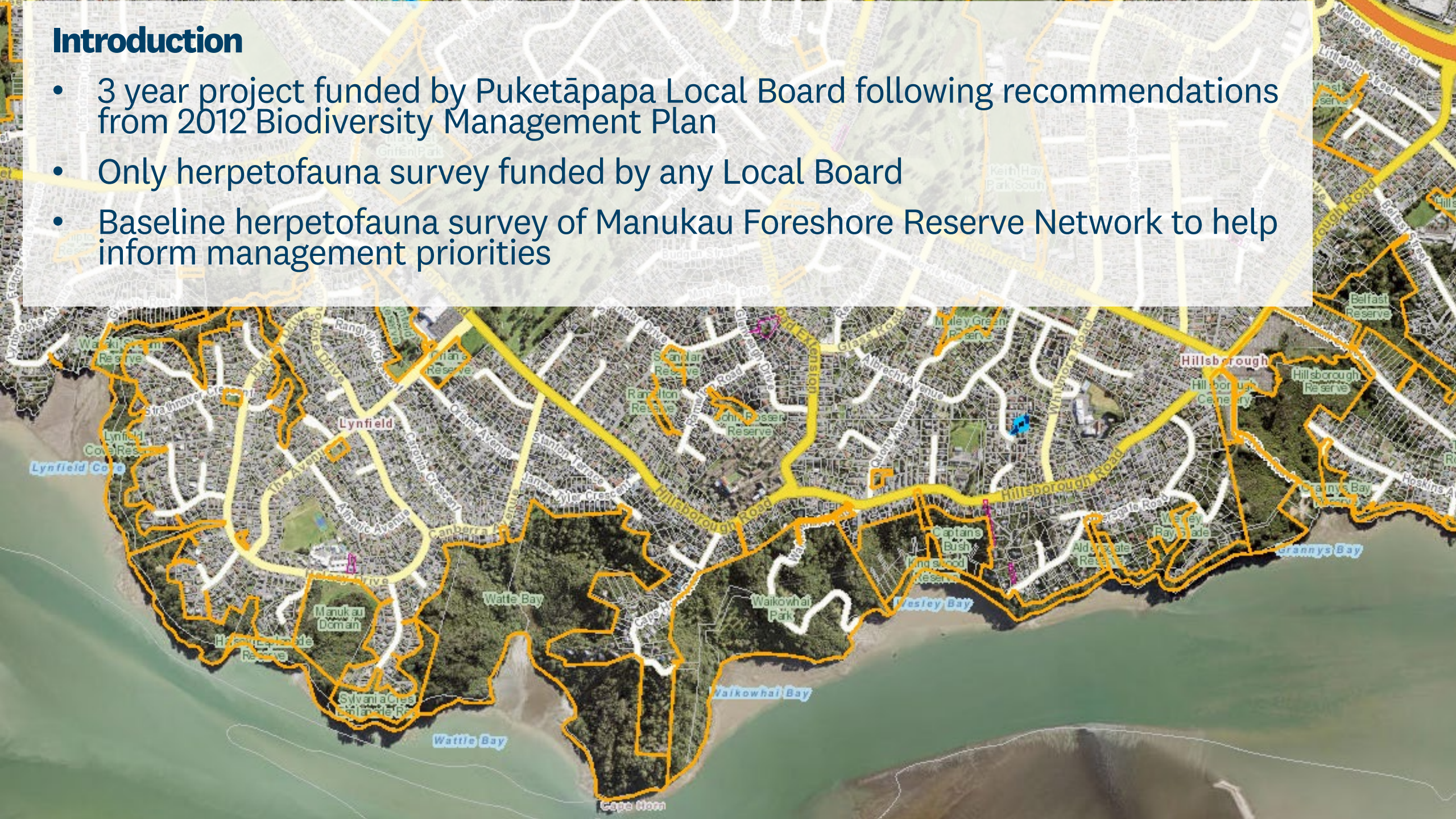
Yue Chin Chew, Conservation Advisor, Auckland Council

Blair Balsom, Senior Ecologist (Herpetologist), Wildlands

September 2024

Introduction

- 3 year project funded by Puketāpapa Local Board following recommendations from 2012 Biodiversity Management Plan
- Only herpetofauna survey funded by any Local Board
- Baseline herpetofauna survey of Manukau Foreshore Reserve Network to help inform management priorities



Methods – gecko survey

- Spotlighting for geckos with local volunteers over 4 nights
- Closed Cell Foam Cover (CCFC) monitoring – 37 devices

Reserve	No. of CCFCs
Waikowhai Park	22
Captain's Bush	14
Kingswood Reserve	1
TOTAL	37

Methods – skink survey

- Artificial Cover Objects (ACOs) left *in situ* between Sep 2023-Apr 2024
- Targeting areas of high-quality lizard habitat and dappled sunlight
- Devices were checked 5 times between March and April 2024

Reserve	No. of ACOs
Waikowhai Park	157
Captain's Bush	107
Kingswood Reserve	29
TOTAL	293

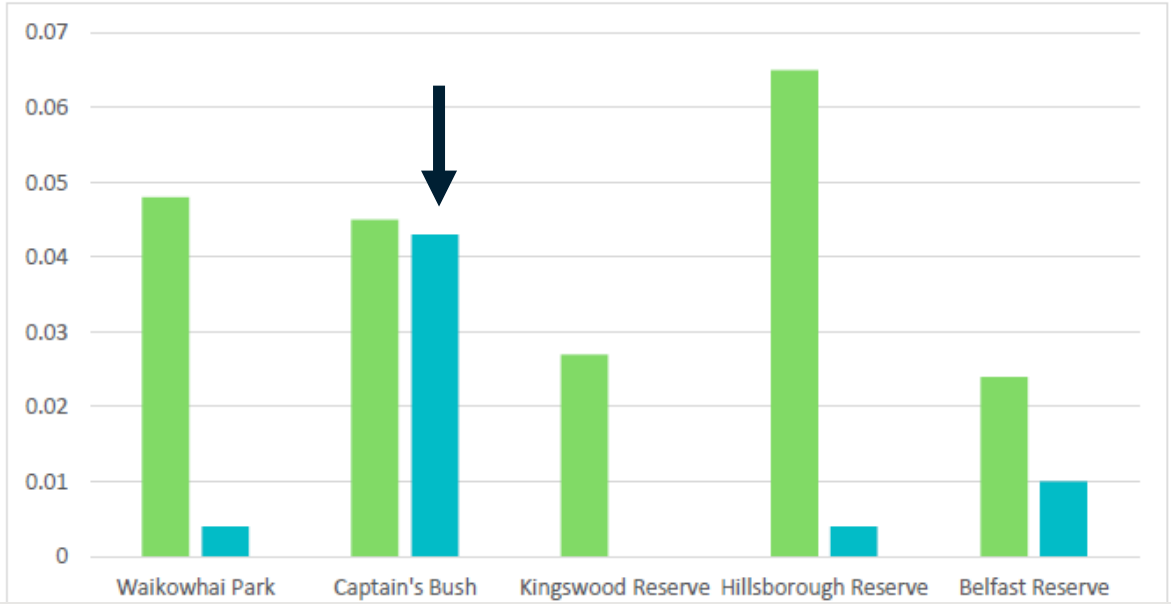
Results – gecko survey

- No geckos found either through spotlighting or CCFCs
- If present, indigenous geckos are at very low densities
- 13 volunteers engaged over 4 spotlighting nights

Results – skink survey

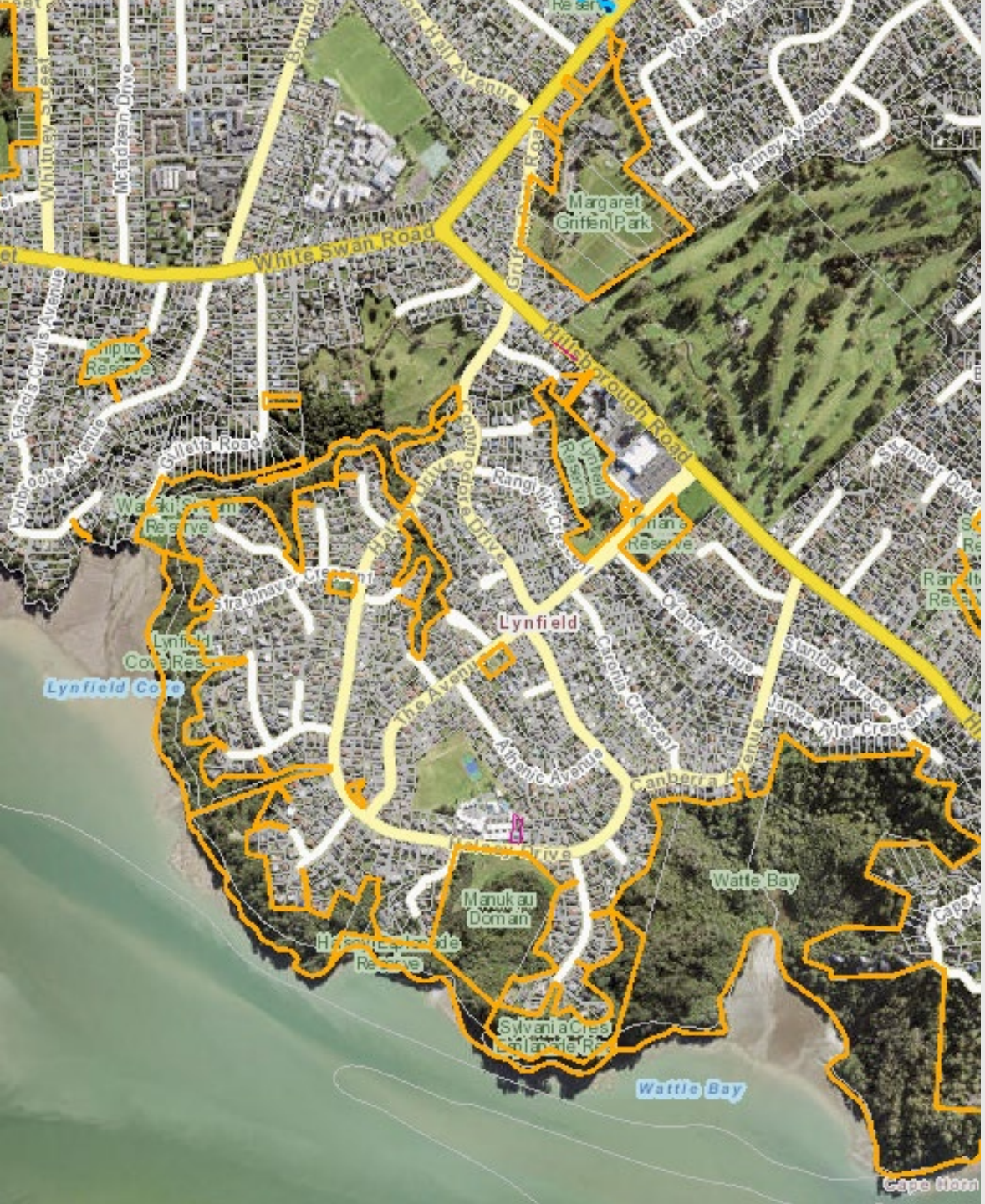
- Belfast Reserve: **low** for copper; **low** for ornate skink
- Hillsborough Reserve: **high** for copper; **low** for ornate skink
- Kingswood Reserve: **low** for copper; **NA** for ornate
- Waikowhai Park: **moderate** for copper; **low** for ornate skink
- Captain's Bush: **moderate-high** for copper; **significant** for ornate skink

Figure D – Average occupancy rates for copper and ornate skink recorded during surveys to date within Manukau Foreshore Reserves.



Copper skink
Oligosoma aeneum

Ornate skink
Oligosoma ornatum



Y3 monitoring plan

- Baseline monitoring in reserves west of Waikowhai Park (Wattle Bay through to to Wairaki Stream Reserve)
  - ACOs laid out for a minimum of 3 months to target skinks
  - Spotlighting for geckos
  - Handsearching at all Manukau Foreshore reserves monitored to date
- Post-monitoring report outlining Y3 results and discussion of all monitoring to date

Conclusions to date

- Surveys will help to inform management decisions on lizard protection and planning outcomes in the regulatory space
- Geckos are either non-existent or present in very low numbers
- Manukau Foreshore reserves host healthy populations of both copper and ornate skinks
- Ornate skink population in Captain's Bush could be regionally significant
- Captain's Bush should be considered a priority site for management

Above: High quality skink habitat in Captain's Bush

Below: Ornate skink © Harrison Sollis


Questions?

Results of Lizard Monitoring in Manukau Foreshore Reserves 2023 – 2024 (Year 2)

Contract Report No. 6992b

Providing outstanding ecological services to sustain and improve our environments

Wildlands

Results of Lizard Monitoring in Manukau Foreshore Reserves 2023 – 2024 (Year 2)

Contract Report No. 6992b

July 2024

Project Team:

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_____
23/07/2024
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Contents

1.0 Introduction

Auckland Council has received further funding from the Puketepapa Local Board to undertake herpetofauna surveys throughout reserves within the Manukau Coastal Reserves Network. Herpetofauna surveys were identified as a priority under the Biodiversity Management Plan (BMP) prepared by Auckland Council (2012).

The Manukau Coastal Reserves Network extends from near State Highway 20 in the east to the edge of Titirangi and the Waitākere Ranges in the west. This includes a number of large and small reserves including Belfast and Hillsborough reserves at the eastern end. Waikowhai Park and Captain's Bush are in the middle and Taunton Terrace and Te Whau Point are in the West. The reserves provide a contiguous forested corridor along the coast extending from the Waitākere Range to State Highway 20 and are likely to form an important forested corridor for mobile fauna species.

The Waitākere Range is a known hotspot for indigenous lizard populations, namely forest gecko (*Mokopirirakau granulatus*), elegant gecko (*Naultinus elegans*), Pacific gecko (*Dactylocnemis pacificus*), copper skink (*Oligosoma aeneum*), ornate skink (*O. ornatum*), striped skink (*O. striatum*), and tatahi skink (*O.* aff. *smithi* "Three Kings, Te Paki, Western Northland"). Pacific gecko is classified as 'Not Threatened', while the remaining species are classified as 'At Risk – Declining' (Hitchmough *et al.*, 2021). A recent technical report on the conservation status of reptiles in Auckland (Melzer *et al.*, 2022) classifies all of the above-mentioned lizard species as 'Regionally Declining'.

In the 2022-2023 season Wildland Consultants Ltd (Wildlands) undertook baseline monitoring within Hillsborough and Belfast Reserves identifying the presence of both copper and ornate skinks (Wildland Consultants, 2023). In addition, Wildlands has found both species at Captain's Bush/Waikowhai Park as part of baseline monitoring for a previous translocation (Wildlands, 2021). The Auckland Council herpetofauna database also lists single copper skink observations at Gitto's Domain and Wattle Bay Reserve. No geckos have been observed within the reserves network at present, although Pacific gecko and forest gecko have been recorded *c.*1.4 kilometres and *c.*2.0 kilometres from Taunton Terrace respectively.

Auckland Council engaged Wildlands to carry out a baseline herpetofauna survey for Waikowhai Park, Captain's Bush Reserve, and Kingswood Reserve to help inform management priorities (including methods and areas for pest animal control) for community groups, Auckland Council's Community Facilities team, and other contractors.

2.0 Survey sites

2.1 Waikowhai Park

Waikowhai Park covers approximately 20 hectares within the suburb of Hillsborough (Figure 1). The vegetation along the northern half of the reserve is categorised as coastal broadleaved forest (WF4), while broadleaved scrub/forest (VS5) and kānuka scrub/forest (VS2) is present through the middle of the site. An area of indigenous and/or amenity plantings (PL.3) is also present within the middle of the reserve, and pōhutukawa (*Metrosideros excelsa*) treeland/flaxland/rockland (CL1) runs along the southern coast of the reserve (Singers *et al.*, 2017).

The canopy vegetation within the reserve primarily consists of pōhutukawa, māhoe (*Melicytus ramiflorus*), karamū (*Coprosma robusta*), pūriri (*Vitex lucens*), kohekohe (*Didymocheton spectabilis*), ponga (*Cyathea dealbata*), kōwhai (*Sophora microphylla*) and māpou (*Myrsine australis*).

Data Acknowledgment

"Contains data sourced from the LINZ Data Service licensed for reuse under CC BY 4.0"

Report: 6992
Ref: 11031
Client: Auckland City Council
Name: 6992_FieldMap.aprx
Path: E:\gis\ManukauForeshore\mxd\

Legend

Lizard survey device	Reserve boundaries
Artificial Cover Objects	Waikowhai Park
Closed Cell Foam Covers	Captains Bush
	Kingswood Reserve

0 100 200 m

Figure 1. Lizard Survey devices at Waikowhai Park, Captains Bush and Kingswood Reserves

Wildlands
www.wildlands.co.nz, 0508 WILDNZ

Scale: 1:4,000
Date: 10/10/2023
Cartographer: BL
Format: A3R

Mature kānuka (*Kunzea robusta*), mānuka (*Leptospermum scoparium*), and tōtara (*Podocarpus totara*) are sparsely distributed through the middle of the reserve but are locally abundant approximately 100 metres southeast of the recreation/playground area (Plate 1). This latter area provides moderate–high quality gecko habitat.

Ground tier vegetation/habitat is mixed throughout the reserve and includes areas of dense leaf-litter, ponga fronds, woody debris, harakeke (*Phormium tenax*), sedges, and grasses (Plate 2). Large areas of *Gahnia lacera* and harakeke occur throughout the reserve, which provide high quality habitat for terrestrial skinks. Ponga are common throughout the reserve, but are locally abundant at the upper eastern track into Captain's Bush, which has led to a dense groundcover of ponga fronds that is considered high quality skink habitat.

2.2 Captain's Bush Reserve

Captain's Bush covers approximately 7 hectares and connects to the eastern end of Waikowhai Park (Figure 1). Similar to Waikowhai Park, this reserve is categorised as coastal broadleaved forest (WF4) along the eastern half, while broadleaved scrub/forest (VS5) covers the western half, and pōhutukawa treeland/flaxland/rockland (CL1) occurs along the southern coast (Singers *et al.* 2017).

The canopy vegetation within the western half of the reserve comprises māhoe, karamū, ponga, māpou, kōwhai, porokaiwhiri (*Hedycarya arborea*), and tūrepo (*Streblus heterophylus*). The eastern half of the site is dominated by mature pūriri, kohekohe, pōhutukawa with sparse rimu (*Dacrydium cupressinum*), and a similar subcanopy to the eastern half. This vegetation is considered low–moderate quality gecko habitat.

Ground tier vegetation/habitat within the western end is dominated by ponga fronds and *Gahnia lacera* with areas of dense leaf litter, which provides high quality skink habitat (Plate 3). Ground tier vegetation is sparse through the middle of the reserve but the eastern end has dense leaf litter under pōhutukawa and clusters of various *Gahnia* species. These habitats are of moderate quality for terrestrial skinks.

2.3 Kingswood Reserve

Kingswood reserve covers approximately three hectares and is located south of Captain's Bush Reserve, running east to Wesley Bay Glade Reserve (Figure 1). The western end of the reserve is categorised as pōhutukawa treeland/flaxland/rockland (CL1) and the eastern half is coastal broadleaved forest (WF4) with a small section of kānuka scrub/forest (VS2) at the entrance from Aldersgate Road (Singers *et al.*, 2017) (Plate 4).

The canopy vegetation within the western half of the reserve comprises mostly pōhutukawa with a subcanopy of māhoe, karamū, ponga, porokaiwhiri, and māpou. This vegetation is considered low–moderate quality gecko habitat. Ground tier vegetation/habitat consists of ponga fronds and *Gahnia lacera* with areas of dense leaf litter. This provides moderate–high quality skink habitat.

Plate 1 – Kānuka scrub providing moderate value gecko habitat. Waikowhai Park. 23 September 2023.

Plate 2 — Dense tradescantia and ponga debris understory providing high quality skink habitat. Waikowhai Park. 23 September 2023.

Plate 3 – Dense ponga debris providing high quality skink habitat at Captain's Bush. 23 September 2023.

Plate 4 — Coastal scrub including pōhutukawa and brush wattle providing low-value gecko habitat at Kingswood Reserve. 23 September 2023.

3.0 Methods

3.1 Artificial Cover Object (ACO) Monitoring

Artificial Cover Objects (ACOs) are made of pieces of corrugated roofing material (Onduline) and are placed on the ground in suitable habitat for ground-dwelling lizard species. Two Onduline sheets are stacked, with the layers separated by sticks. Lizards can inhabit the bottom layer and the gap created between the two layers. Cover objects must be left *in situ* for at least three months to allow lizards to habituate to them. ACOs were placed in or near areas of high-quality lizard habitat.

A total of 293 ACOs were installed across Waikowhai Park, Captain's Bush Reserve, and Kingswood Reserve in September–October 2023 (Table 1, Figure 1). Artificial Cover Objects were placed to target areas of high-quality lizard habitat and areas with dappled sunlight near tracks/accessways for ease of access/checks. Copper and ornate skink are readily found near forest edges as it often provides suitable habitat such as dappled sunlight and dense understorey vegetation. The ACOs were also installed

throughout the reserves to detect lizards over as wide an area as possible to assist with determining the distribution of each species. Devices were left *in situ* for approximately four months to allow lizards to freely enter and exit the devices and begin utilising them for refuge.

No ACOs were placed in the immediate relocation area from a previous lizard salvage (Wildlands 2021). This was to not interfere with post-translocation monitoring at this site and it was already known that both copper and ornate skink were present here in relatively abundant numbers.

Devices were first checked on 12 March 2024 and were checked again on 18 March, 28 March, 4 April, and 29 April for a total of five checks at each reserve. ACOs were checked by first lifting the top layer, then the second layer, and capturing any lizards observed by hand, where possible.

Table 1 – Artificial Cover Objects installed at each of the target reserves.

Reserve	Installation Date	No. of ACOs
Waikowhai Park	27.09.2023 - 04.10.2023	157
Captain's Bush Reserve	27.09.2023 - 04.10.2023	107
Kingswood Reserve	27.09.2023 - 04.10.2023	29
TOTAL		**293**

3.2 Closed Cell Foam Cover (CCFC) Monitoring

Closed cell foam covers (CCFCs) were installed on trees that were identified as having moderate–high quality arboreal lizard habitats. A total of 37 devices were installed at Waikowhai Park, Captain's Bush Reserves and Kingswood Reserve in September–October 2023 (Table 2, Figure 1). CCFCs were left *in situ* for approximately four months to allow arboreal lizards to begin using the covers for refuge. They were placed on lower trunks accessible from the ground in such a way as to allow for small gaps between the CCFC and tree trunk (Bell, 2009). Devices were checked on the same day as ACOs by carefully lifting the CCFCs away from the tree to identify and capture any arboreal lizards behind it.

Table 2 – Closed Cell Foam Covers installed at each of the target reserves.

Reserve	Installation Date	No. of CCFCs
Waikowhai Park	27.09.2023 - 04.10.2023	22
Captain's Bush Reserve	27.09.2023 - 04.10.2023	14
Kingswood Reserve	27.09.2023 - 04.10.2023	1
TOTAL		**37**

3.3 Spotlighting

Spotlighting was undertaken over four nights throughout the reserves (Table 3, Figure 2). Conditions were primarily warm and calm with light wind. Searching involved scanning all ground vegetation, trunk wood, limb wood, and foliage for geckos throughout the reserve. Spotlighting focused on trees and vegetation known to support gecko species such as kānuka, mānuka and tōtara, although all vegetation was searched where possible.

Person search hours were calculated and are presented in Table 3 below. Volunteers were present on all nights. However, their search hours were not included in person search effort calculations due to their limited prior experience.

Table 3 – Search effort and climatic variables during spotlighting at Waikowhai Park, Captain's Bush and Kingswood Reserves.

Reserve	Date	Weather	Start Time	Finish Time	Temp Start (^{0}C)	Person Search Hours
Waikowhai Park	13.02.2024	Clear, cool, light wind	21:00	23:30	15	2.5
Waikowhai Park	15.02.2024	Clear, warm, light wind	21:30	23:45	21	4.5
Waikowhai Park, Captain's Bush, Kingswood Reserve	18.03.2024	Clear, cool, light wind	21:00	23:00	21	4.0
Captain's Bush and Kingswood Reserve	04.04.2024	Clear, warm, calm	20:00	22:00	N/A	4.0

3.4 Morphometric measurements

All lizards captured were handled following best practice protocols. At a minimum, each lizard captured was sexed. Additional morphometric measurements were recorded for some individuals. Not all individuals captured were measured in order to reduce the time taken with each lizard and therefore stress levels. Where lizards were measured, snout-vent length, vent-tail length and tail regeneration were recorded. All lizards captured were released within five minutes of capture.

4.0 Results

4.1 Overview

Sixty-three copper and 26 ornate skinks were observed between Waikowhai Park, Captain's Bush and Kingswood Reserves during surveys undertaken in the 2023 – 2024 season (Figure 3). Comparisons between total capture and breakdown of sex ratios are presented in Figures A – C. Detailed occupany rates are calculated for each reserve and species below (Section 4.2 – 4.4).

One CCFC and 13 ACOs were lost and/or buried during the settling period. Thus, the effective numbers of ACOs and CCFCs were 280 and 36 respectively.

Amphibian and Reptile Distribution Scheme (ARDS) cards have been completed and are included in Appendix 1.

Figure A – Total number of indigenous skinks caught at each reserve monitored to date.

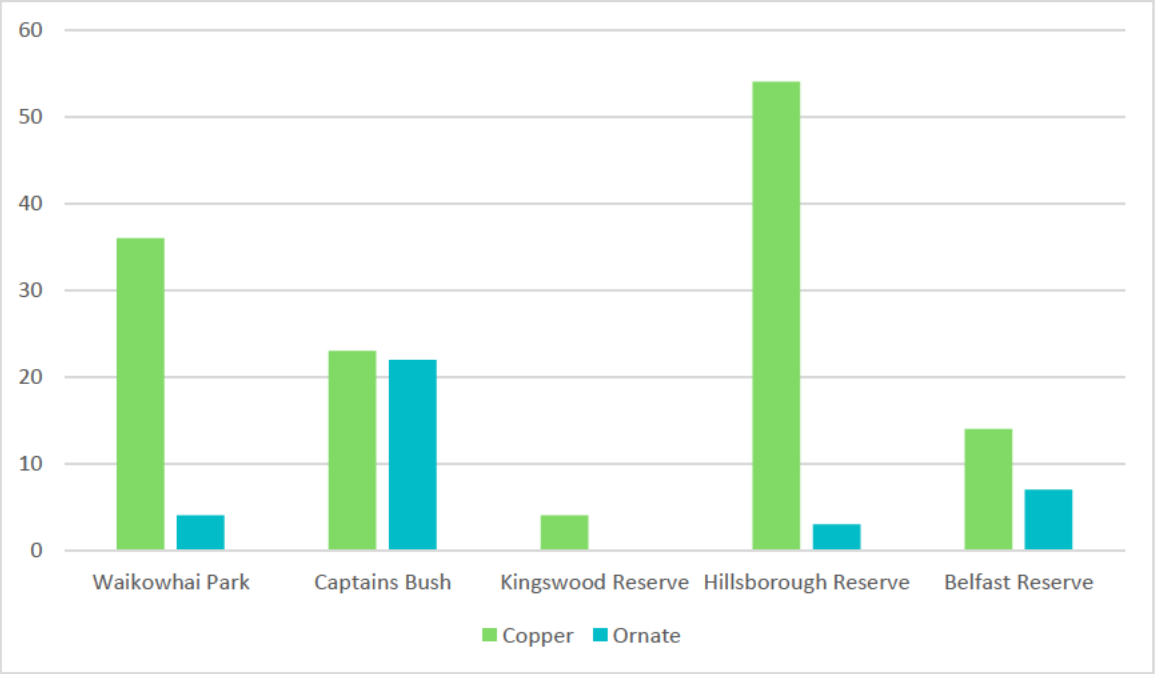


Figure B – Comparison of the number of copper skink caught by sex/age at each reserve monitored to date (Unknown refers to individuals which were not captured).

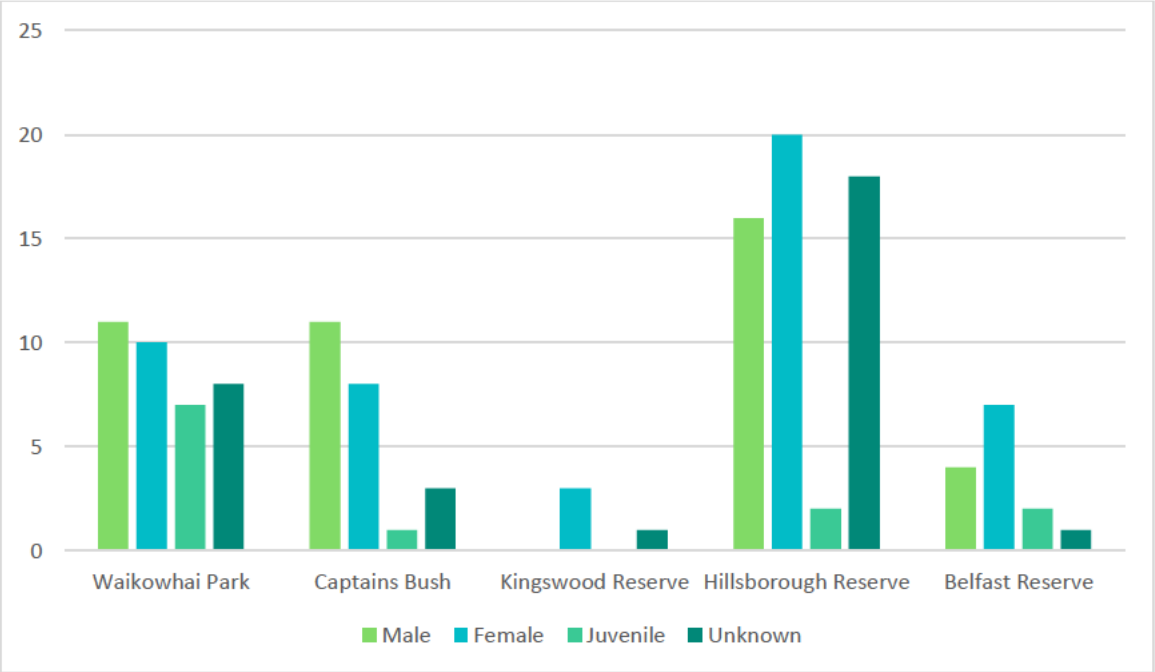
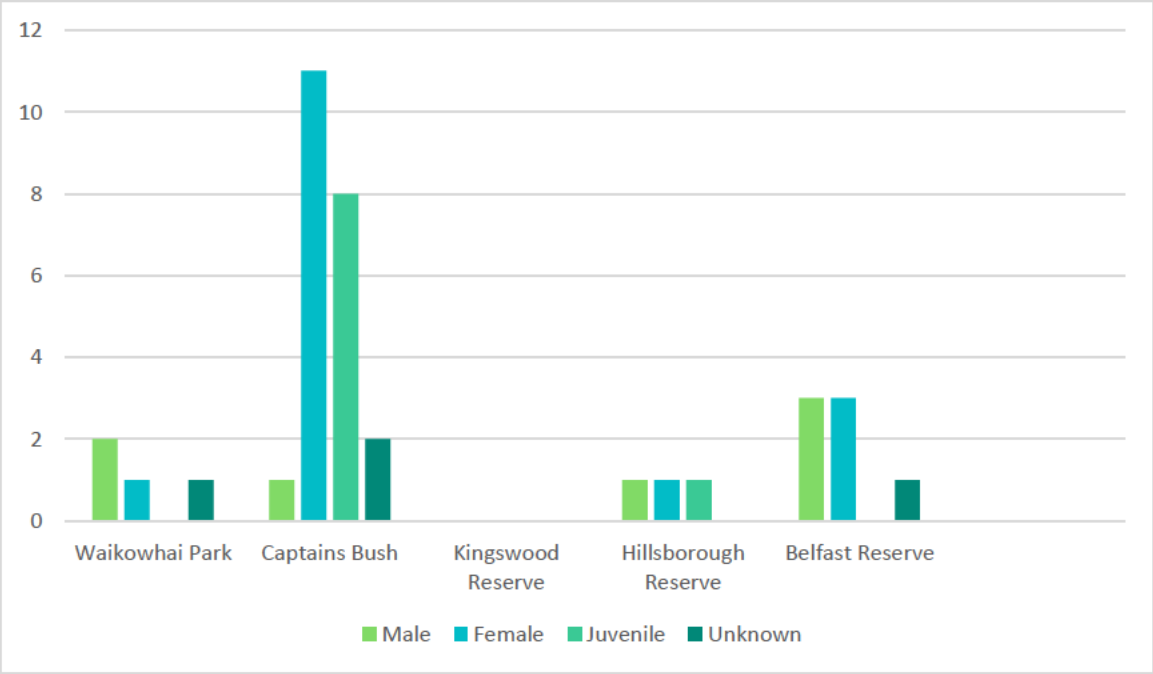


Figure C – Comparison of the number of ornate skinks caught by sex/age at each reserve monitored to date. (Unknown refers to individuals which were not captured).



4.2 Waikowhai Park

Forty indigenous skinks were observed during the ACO monitoring period at Waikowhai Park (Tables 4 and 5). This included 36 copper skinks (Plate 5) and four ornate skinks (Plate 6). Skinks were observed throughout the reserve (Figure 3). Occupancy rates were calculated by dividing the number of lizards found by the total number of ACOs and resulted in an average occupancy rate of 0.048 and 0.004 for copper and ornate skink respectively (Tables 4 and 5).

Eight ACOs were covered in mud, severely damaged, or missing following the settling period. This meant that the number of effective devices was 149. One CCFC went missing in Waikowhai resulting in a total of 22 effective devices.

Detailed lizard capture/observation data is presented in Appendix 2. Morphometric data collected are presented in Appendix 3.

Table 4 – Number of copper skinks caught or observed during ACO monitoring and calculated occupancy rate per check at Waikowhai Park.

Device Check	No. of Effective ACOs	Total Copper Skinks Observed	Occupancy Rate
1	149	2	0.013
2	149	5	0.036
3	149	5	0.036
4	149	15	0.101
5	149	9	0.060
Average:	**149**	**7.2**	**0.048**

Table 5 – Number of ornate skinks caught or observed during ACO monitoring and calculated occupancy rate per check at Waikowhai Park.

Device Check	No. of Effective ACOs	Total Ornate Skinks Observed	Occupancy Rate
1	149	1	0.007
2	149	1	0.007
3	149	1	0.007
4	149	0	0.000
5	149	1	0.007
Average:	**149**	**0.6**	**0.004**

Figure 2. Spotlighting areas at Waikowhai Park, Captains Bush and Kingswood Reserves

4.3 Captain's Bush Reserve

Forty-five indigenous skinks were observed during the ACO monitoring period at Captain's Bush (Figure 3), comprising 23 copper skinks and 22 ornate skinks. Skinks were observed throughout the reserve (Figure 3). Occupancy rates were calculated by dividing the number of lizards found by the total number of ACOs and resulted in an average occupancy rate of 0.045 and 0.043 for copper and ornate skink respectively (Tables 6 and 7).

Five ACOs were covered in mud, severely damaged, or missing following the settling period. This meant that the number of effective devices was 102.

Table 6 – Total copper skinks caught or observed during ACO monitoring and calculated occupancy rate per check at Captain's Bush.

Device Check	No. of Effective ACOs	Total Copper Skinks Observed	Occupancy Rate
1	102	1	0.009
2	102	4	0.039
3	102	5	0.049
4	102	8	0.076
5	102	5	0.049
Average:	**102**	**4.6**	**0.045**

Table 7 – Total ornate skinks caught or observed during ACO monitoring and calculated occupancy rate per check at Captain's Bush.

Device Check	No. of Effective ACOs	Total Ornate Skinks Observed	Occupancy Rate
1	102	6	0.059
2	102	4	0.039
3	102	2	0.019
4	102	4	0.039
5	102	6	0.059
Average:	**102**	**4.4**	**0.043**

4.4 Kingswood Reserve

Four copper skinks were observed during the ACO monitoring period at Kingswood Reserve (Figure 3). No ornate skinks were observed within devices at Kingswood Reserve. Although only four skinks were observed, they were dispersed throughout the reserve (Figure 3). Occupancy rates were calculated by dividing the number of lizards found by the total number of ACOs and resulted in an average occupancy rate of 0.027 for copper skink (Table 8).

Detailed lizard capture/observation data is presented in Appendix 2.

Table 8 – Total copper skinks caught or observed during ACO monitoring and calculated occupancy rate per check at Kingswood Reserve.

Device Check	No. of Effective ACOs	Total Copper Skinks Observed	Occupancy Rate
1	29	0	0.000
2	29	0	0.000
3	29	0	0.000
4	29	3	0.103
5	29	1	0.034
Average:	**29**	**0.8**	**0.027**

Plate 5 – Copper skink found during surveys at Waikowhai Park. December 2021.

Plate 6 – Ornate skink found during preliminary surveys at Captain's Bush. November 2021.

5.0 Discussion

5.1 Overview

5.1.1 Waikowhai Park

Thirty-six copper skink and four ornate skinks were found during the survey period at Waikowhai Park. Capture rates are considered moderate for copper skink and low for ornate skink. However, both species are cryptic and are typically found to have lower detection rates than more conspicuous lizard species (Griffiths *et al.*, 2019; Bell and Herbert, 2018; Wairepo, 2015). Further, these species can occur in very high densities within relatively small areas (Blair Balsom, pers. obs.). As such, high-density targeted surveying based on the areas where skinks were detected would likely result in many more observations. The average occupancy rates for copper and ornate skink were 0.048 and 0.045 respectively.

No indigenous geckos were detected during surveys at Waikowhai Park.

5.1.2 Captain's Bush

Twenty-three copper skinks and 22 ornate skinks were found during the survey period at Captain's Bush. Despite being cryptic species, the detection rate for copper skink is considered moderate – high and there is likely to be a significant population of ornate skink within the reserve. The average occupancy rate for ornate and copper skink was 0.045 and 0.043 respectively.

A high much higher number of ornate skinks was detected within Captain's Bush compared with both Waikowhai Park and Kingswood Reserves. The detection of juveniles suggests ongoing breeding within the reserve so the population is likely to be much higher than these initial survey results indicate (Appendix 2).

No indigenous geckos were detected during surveys at Captain's Bush.

5.1.3 Kingswood Reserve

Four copper skinks were observed during monitoring at Kingswood Reserve. The detection rate for this species is considered low. However, the number of effective devices at Kingswood Reserve relative to area was smaller than at either Waikowhai Park or Captain's Bush therefore providing less chances for interactions between skinks and devices. Interestingly, no ornate skinks were observed within the reserve. The average occupancy rate for copper skink was 0.027.

No indigenous geckos were detected during surveys at Kingswood Reserve.

5.2 Analysis

5.2.1 Indigenous skinks

Little formal monitoring has been carried out within Auckland Reserves to compare occupancy rates for copper and ornate skinks. However, comparisons can be made with monitoring undertaken last season in Hillsborough and Belfast Reserves. Additional surveys are also planned for the rest of the Manukau Foreshore Network which should facilitate on-going comparisons.

Occupancy rates for ornate and copper skink were compared between reserves where surveys have been undertaken to date (Table 9, Figure D). Occupancy rates recorded for copper skink were highest at Hillsborough Reserve (0.065). This occupancy rate is considered high; whilst, Waikowhai Park and

Captain's Bush recorded moderate occupancy rates (0.048 and 0.045 respectively). Occupancy rates at Kingswood and Belfast Reserves are considered low – moderate (0.027 and 0.024 respectively). In addition, preliminary lizard surveys carried out for post-translocation monitoring of lizards moved to the border of Waikowhai and Captain's Bush also resulted in the detection of high number of copper skinks with 23 caught over 400 pitfall trap nights (CPUE 0.0575) (Wildlands, 2021). The relative ease at which copper skinks were detected suggests that large populations are present within these reserves. The detection of many juveniles further suggests that this species has a significant breeding population throughout.

Copper skink can often be found in high densities within high quality habitats when utilising deconstructive search techniques, which are generally not implemented unless carrying out a lizard salvage. Two lizard salvages have been completed by Widllands within the local area in contiguous vegetation to the reserves network (Captain's Retreat and Hillsborough Road). This resulted in the capture and relocation of 169 and 59 copper skink from areas <400m^2 and provides addditional evidence that significant copper skink populations are present within the local area and these reserves.

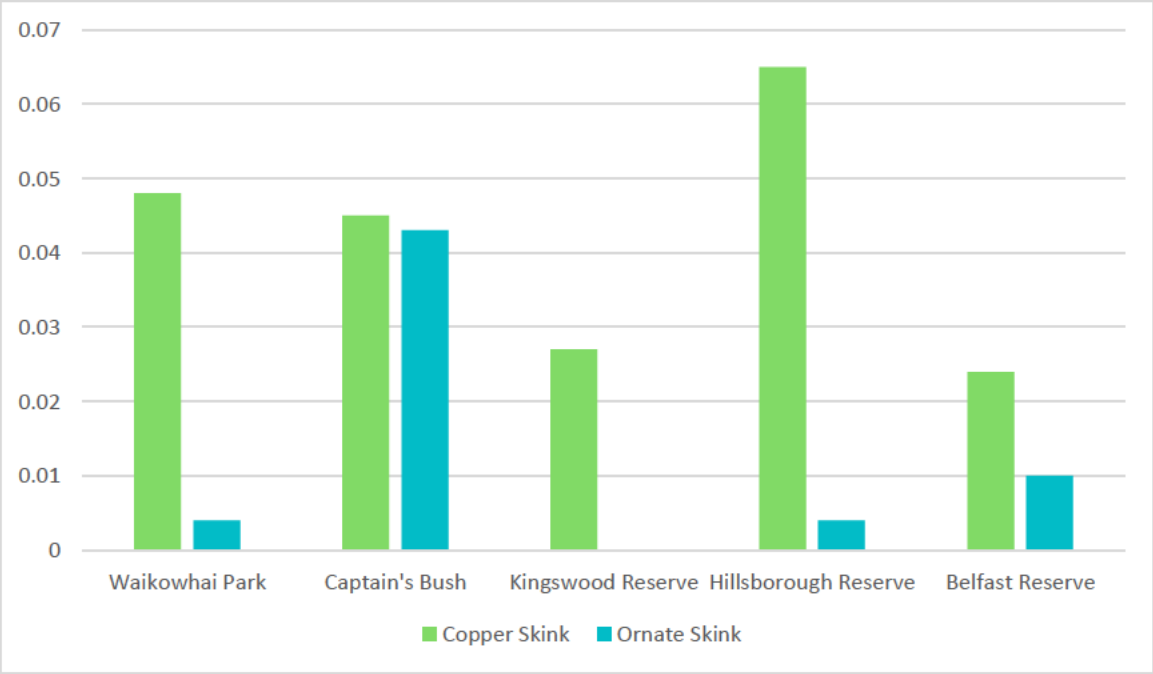
Occupancy rates recorded for ornate skink were highest at Captain's Bush. An occupancy rate of 0.043 is considered moderate – high for this species. Occupancy rates at all other assessed reserves are considered low (0.00 – 0.010). However, as mentioned this is a cryptic species and can be difficult to detect using standard monitoring techniques and equipment. The moderate – high occupancy rate at Captain's Bush suggests that there is a significant population present and that there is potentially a larger population of ornate skink within this reserve compared with other reserves surveyed to date. In addition, preliminary lizard surveys carried out for post-translocation monitoring of lizards moved to the border of Waikowhai and Captain's Bush also resulted in the detection of moderate numbers of ornate skinks with 15 caught over 400 pitfall trap nights (CPUE 0.0375) over a small area (<400m^2) (Wildlands, 2021). It is likely that if this area had been sampled during the present survey, then additional observations would have been made and may have resulted in higher occupancy rates.

No handsearching was carried out due to significant effort put into ACO monitoring so comparisons of Catch Per Unit Effort (CPUE) cannot be compared to other reserves. However, based on the relative ease at which copper and ornate skink were detected and the moderate – high occupancy rate of ornate skinks within Captain's Bush, these reserves are likely to hold significant numbers of each species and perhaps a locally, if not regionally, significant population of ornate skink. Further survey effort and comparisons would be required to confirm how these populations may compare to other reserves throughout Auckland.

Table 9 – Average occupancy rates for copper and ornate skink recorded during surveys to date within Manukau Foreshore Reserves.

Device Check	Avg. Occupancy Rate for Copper Skink	Avg. Occupancy Rate for Ornate Skink
Waikowhai Park	0.048	0.004
Captain's Bush	0.045	0.043
Kingswood Reserve	0.027	0.00
Hillsborough Reserve	0.065	0.004
Belfast Reserve	0.024	0.010

Figure D – Average occupancy rates for copper and ornate skink recorded during surveys to date within Manukau Foreshore Reserves.



5.2.2 Indigenous geckos

Waikowhai Park and Captain's Bush both had an abundance of high-quality gecko habitat (tōtara, kānuka, and mānuka); however, no indigenous gecko species were detected. The failure to detect indigenous gecko species may be a result of difficult to search habitat (i.e. high canopy) as well as the modified and isolated landscape surrounding the reserves (residential development). The surrounding residential areas likely lead to an increase in abundance of mammalian predators, including domestic cats, which have likely led to a decline in gecko species and potential local extirpation.

Similarly, CCFCs failed to detect indigenous gecko species at any of the reserves. This could, however, be a result of the short monitoring period, as it is likely that small, fragmented populations require a longer time period for detection (Joshua Thoreson, pers. obs.). A longer time period between installation of the CCFCs and checks may also increase the chance of detection of arboreal geckos. A settling in period of between five to twelve months has proven highly successful (Bell 2009). Further, a higher number of CCFCs in all areas of the reserve may also result in a better chance of detection. Only one CCFC was installed at Kingswood Reserve, this was due to a lack of high-quality habitat for CCFC monitoring in acccessible areas. As such, Kingswood Reserve was not targetted for CCFC monitoring and the one installed was placed on the boundary between Captain's Bush and Kingswood Resserve.

These results, along with the previous years findings suggest that, if present, indigenous geckos are present at very low densities.

5.2.3 Limitations

Lizard survey methods currently available may have poor detection rates because of typically low population densities, species' cryptic colouration, difficulty in surveying preferred habitats and behaviour/activity patterns. As such, even intensive lizard surveys are unlikely to detect all species present at a location.

Despite a large number of devices being installed, the relative sparseness of the spacing and transect lines may have hindered the ability to accurately reflect the abundance and distributions of the lizard populations. Devices were targeted to high-quality habitat alongside exisiting tracks/walkways and, as such, there are areas that were not surveyed within the interior of the forests. Cyclone Gabrielle also created significant change and disturbance to lizard habitats within the reserves, with some areas inaccessible due to slips, which may have affected the survey results.

Comparisons with other monitoring or lizard management activities is difficult due to the methdology utilised. Lizard salvage implementation can often result in very high detectability when compared to either trapping/ACO use alone due to the deconstructive nature of this work. As such, comparisons are limited to sites where ACOs have been utilised for surveys. In additon, pitfall trapping utilises CPUE for analysis rather than occupany rates like ACOs and cannot be compared directly.

6.0 Summary

Auckland Council engaged Wildland Consultants to carry out comprehensive surveys at Waikowhai Park, Captain's Bush and Kingswood Reserve to determine the abundance of the lizard communities within the Manukau coastal reserves.

Copper skink were significantly more abundant overall than ornate skink and had higher occupancy rates at Waikowhai Park and Captain's Bush when compared with Kingswood Reserve. Occupancy rates were lower when compared to Hillsborough Reserve, whilst Kingswood and Belfast were similar.

Ornate skink were detected at moderate – high densities at Captain's Bush Reserve, which was much higher than all other reserves monitored to date. Individuals have been detected at all reserves excluding Kingswood Reserve; however, it is likely that they are also present Kingswood Reserve given the contiguous nature of the vegetation and significant population at Captain's Bush.

The monitoring at these reserves has concluded there are healthy populations of both copper skink and ornate skink. The population of ornate skink is likely locally and potentially regionally significant, which should be considered in future Biodiversity Management Planning. Captain's Bush should be considerd a priority site for management.

Considering the significant spotlight search effort (16 hours) and number of CFCCs, it is expected that geckos are either non-existent or present in very low numbers within the reserves. It is not recommended that further survey effort is implemented within either reserve at this time. However, further search effort could be implemented to more confidently determine their presence or absence. If requested, this would involve installing a larger number of CCFCs throughout each reserve with a significantly longer settling period (i.e. 12 months).

Future work should focus on the implementation of lizard surveys throughout the Manukau Foreshore network to identify further priority sites for management. In addition, targeted surveying to identify areas with significant populations of ornate skink within Captain's Bush/Waikowhai Park could be useful for future research into the benefits of targeted pest management.

7.0 Wildlife Act Authority

Wildlands is authorised under Wildlife Act Authority 99271-FAU to survey for indigenous lizards within the Auckland Region. The current survey was carried out under this permit.

Acknowledgments

We would like to thank Yue Chin Chew, Mary Stewart and Ross Cowie from Auckland Council for client liaison, volunteer and health and safety organisation for prior to and during the surveys. We would also like to thank all of the volunteers who helped out during the surveys. We also acknowledge the Puketāpapa Local Board for providing funding to carry out these surveys.

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Appendix 1

Amphibian and Reptile Distribution Scheme (ARDs) Cards

ARDS card	**1. NEW ZEALAND AMPHIBIAN/REPTILE DISTRIBUTION SCHEME** Herpetofauna Administrator, RD&I, Department of Conservation, P.O. Box 10420, Wellington.	2. Card No:

Observer: HS (Initials) SOLLIS (Surname) | Date: 12-03-24 = 29-04-24 | Alt (m): | Locality Name: Captain's Bush, Waikowhai Park and Kingswood Reserves

Address: 12 Nixon Street, Grey Lynn

GPS Easting: 1 7 5 4 7 4 6 Northing: 5 9 1 1 2 0 9 Help

Series | Map No. | Easting | Northing

Affiliation: Wildland Consultants Ltd. | Area Office: | Conservancy: | Ecol. District:

3. Species name	No.	Time	4. Habitat	5. Weather
e.g. *Woodworthia maculatus*	6	18:00	16, D, E	6,2,1
Oligosoma aeneum	63	09:00-16:00	ACO	3,2,1
Oligosoma ornatum	26			

Voucher specimen(s) No Specify:
Photograph(s) No
Extra notes on reverse side No

Notes: Population monitoring for Auckland Council utilising ACO. ACOs were left *in situ* for four *c.* four months.

Identified by: Blair Balsom
Authority used: 99271-FAU

Weather

6. Light
1 Fine/Sunny
2 Part Cloudy
3 Overcast
4 Showers
5 Rain
6 Night
7 0-½ Moonlit
8 ½-1 Moonlit

7. Temperature
1 Hot
2 Warm
3 Moderate
4 Cool
5 Cold

8. Wind
1 Calm
2 Light breeze
3 Mod breeze
4 Gusty
5 Strong winds

9. Major Habitat Types

1 Beech Forest
2 Podocarp forest
3 Broadleaf forest
4 Exotic forest
5 Scrub
6 Sub-alpine
7 Alpine
8 Undeveloped tussock land
9 Developed farmland
10 River terrace
11 Fresh water
12 Wet land
13 Coastal
14 Scree
15 Bare rocks
16 Beach
17 Urban
18
19
20

10. Micro habitats

A Foliage
B Trunk
C Branches
D Under stones
E Under wood
F Open ground
G Crevices
H

Appendix 2

Lizard Capture Data

ID	Check	Species	ACO ID	Reserve	Sex
CP1	1	Copper	17W	Waikowhai Park	Male
CP2	1	Copper	68A	Waikowhai Park	Female
CP3	1	Copper	8C	Captain's Bush	Male
CP4	2	Copper	4D	Waikowhai Park	Juvenile
CP5	2	Copper	19D	Waikowhai Park	Female
CP6	2	Copper	29D	Waikowhai Park	Male
CP7	2	Copper	53C	Captain's Bush	Female
CP8	2	Copper	8B	Captain's Bush	Female
CP9	2	Copper	13B	Captain's Bush	Male
CP10	2	Copper	15B	Captain's Bush	Female
CP13	2	Copper	5E	Waikowhai Park	N/A
CP14	2	Copper	6E	Waikowhai Park	Male
CP15	3	Copper	10A	Captain's Bush	male
CP16	3	Copper	5B	Captain's Bush	Male
CP17	3	Copper	8B	Captain's Bush	Female
CP18	3	Copper	15B	Captain's Bush	Male
CP19	3	Copper	52C	Captain's Bush	Male
CP20	3	Copper	21D	Waikowhai Park	Female
CP21	3	Copper	9D	Waikowhai Park	Female
CP22	3	Copper	21W	Waikowhai Park	Male
CP23	3	Copper	24W	Waikowhai Park	N/A
CP24	3	Copper	63A	Waikowhai Park	Juvenile

ID	Check	Species	ACO ID	Reserve	Sex
CP25	4	Copper	1K	Kingswood Reserve	Female
CP26	4	Copper	29A	Waikowhai Park	Male
CP27	4	Copper	53C	Captain's Bush	Female
CP28	4	Copper	52C	Captain's Bush	N/A
CP29	4	Copper	1B	Captain's Bush	Female
CP30	4	Copper	8B	Captain's Bush	Juvenile
CP31	4	Copper	13B	Captain's Bush	Male
CP32	4	Copper	16B	Captain's Bush	Male
CP33	4	Copper	18B	Captain's Bush	Female
CP34	4	Copper	20B	Captain's Bush	N/A
CP35	4	Copper	2C	Waikowhai Park	Juvenile
CP36	4	Copper	16C	Kingswood Reserve	Female
CP37	4	Copper	19C	Kingswood Reserve	N/A
CP38	4	Copper	9D	Waikowhai Park	Male
CP39	4	Copper	3D	Waikowhai Park	Male
CP40	4	Copper	8W	Waikowhai Park	Female
CP41	4	Copper	12W	Waikowhai Park	Male
CP42	4	Copper	12W	Waikowhai Park	N/A
CP43	4	Copper	17W	Waikowhai Park	Female
CP44	4	Copper	2W	Waikowhai Park	N/A
CP45	4	Copper	36W	Waikowhai Park	Female
CP46	4	Copper	76A	Waikowhai Park	Female
CP47	4	Copper	3E	Waikowhai Park	Male
CP48	4	Copper	63A	Waikowhai Park	Juvenile
CP49	4	Copper	62A	Waikowhai Park	Juvenile
CP50	4	Copper	5W	Waikowhai Park	Juvenile

ID	Check	Species	ACO ID	Reserve	Sex
CP51	5	Copper	27W	Waikowhai Park	Female
CP52	5	Copper	24W	Waikowhai Park	Female
CP53	5	Copper	6W	Waikowhai Park	Male
CP54	5	Copper	4W	Waikowhai Park	Male
CP12	5	Copper	48A	Captain's Bush	N/A
CP55b	5	Copper	16B	Captain's Bush	Male
CP55	5	Copper	18A	Captain's Bush	Male
CP56	5	Copper	13B	Captain's Bush	Male
CP57	5	Copper	8B	Captain's Bush	Female
CP58	5	Copper	9K	Kingswood Reserve	Female
CP59	5	Copper	74A	Waikowhai Park	Juvenile
CP60	5	Copper	60A	Waikowhai Park	N/A
CP61	5	Copper	26D	Waikowhai Park	N/A
CP62	5	Copper	19D	Waikowhai Park	N/A
CP63	5	Copper	2D	Waikowhai Park	N/A
CP58	5	Copper	9K	Kingswood Reserve	Female
CP59	5	Copper	74A	Waikowhai Park	Juvenile
CP60	5	Copper	60A	Waikowhai Park	N/A
CP61	5	Copper	26D	Waikowhai Park	N/A
CP62	5	Copper	19D	Waikowhai Park	N/A
OR1	1	Ornate	25W	Waikowhai Park	Male
OR2	1	Ornate	40A	Captain’s Bush	Male
OR3	1	Ornate	43A	Captain’s Bush	Female
OR4	1	Ornate	36C	Captain’s Bush	Female
OR5	1	Ornate	34C	Captain’s Bush	Juvenile
OR6	1	Ornate	46A	Captain’s Bush	N/A

ID	Check	Species	ACO ID	Reserve	Sex
OR7	1	Ornate	50A	Captain's Bush	Juvenile
OR8	2	Ornate	46A	Captain's Bush	Female
OR9	2	Ornate	48A	Captain's Bush	Juvenile
OR10	2	Ornate	26A	Captain's Bush	Female
OR11	2	Ornate	8A	Captain's Bush	Female
OR12	2	Ornate	4L	Waikowhai Park	Male
OR13	3	Ornate	46A	Captain's Bush	Female
OR14	3	Ornate	43A	Captain's Bush	Juvenile
OR15	3	Ornate	33D	Waikowhai Park	N/A
OR16	4	Ornate	40A	Captain's Bush	Female
OR17	4	Ornate	43A	Captain's Bush	Juvenile
OR18	4	Ornate	9B	Captain's Bush	Female
OR19	4	Ornate	29C	Captain's Bush	Female
OR20	5	Ornate	40A	Captain's Bush	N/A
OR21	5	Ornate	42A	Captain's Bush	Juvenile
OR22	5	Ornate	41A	Captain's Bush	Juvenile
OR23	5	Ornate	35C	Captain's Bush	N/A
OR24	5	Ornate	48A	Captain's Bush	Juvenile
OR25	5	Ornate	6E	Waikowhai Park	Female
OR26	5	Ornate	2B	Captain's Bush	Female

Appendix 3

Lizard Morphometric Data

ID	Species	Sex	SVL	VTL	Tail Regeneration
CP1	Copper Skink	M	52	60	2
OR1	Ornate Skink	M	59	61	0
CP2	Copper Skink	F	60	45	25
CP3	Copper Skink	M	53	57	5
OR2	Ornate Skink	M	61	63	8
OR3	Ornate Skink	F	63	65	5
OR4	Ornate Skink	F	53	34	24
OR5	Ornate Skink	Juvenile	31	30	0
OR7	Ornate Skink	Juvenile	40	41	0

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Watercare Local Board Engagement Plan 2024-2025

This engagement plan provides an overarching framework for Watercare and local board engagement. It records the commitment to work together to ensure the best outcomes for Auckland and the communities of Auckland.

About Watercare

Watercare ensures Auckland's residents have access to safe drinking water and reliable wastewater services. We manage an extensive network of treatment plants, reservoirs, pumps, and pipes to deliver this vital service. In addition, we collect and treat wastewater to prevent environmental pollution and safeguard public health.

Watercare is a council-controlled organisation (CCO) with a single shareholder, Auckland Council. Watercare is required to implement the objectives set by the council, as its shareholder, through its statement of intent. The council's role is to establish the strategic direction, plans, and expectations for CCOs, and to hold them accountable on behalf of Aucklanders

Watercare is required to prepare a local board engagement plan as outlined in the Governance Manual for Substantive CCOs. The purpose of the plan is to provide an overarching framework to help guide engagement between Watercare and local boards.

Principles for working together

The existing and successful partnership between the local boards and Watercare is built on:

- a mutual respect for the roles, responsibilities and decision-making authority of local boards, the Governing Body and Watercare
- transparent and timely communication to ensure no surprises
- a commitment to early inclusion in the planning process where issues have specific relevance to a local board
- a commitment to flexibility in terms of engagement, recognizing differing levels of interest and local relevance.

Watercare’s commitments

Watercare is committed to the free flow of information with the local boards, consistent with a no-surprises approach. Watercare will:

- provide proactive communication to the local board on major issues, projects and activities within the local board’s area
- respond to enquiries from local board members promptly and in plain language
- communicate in the format preferred by the local board, whether by phone, email, or face-to-face meetings
- be open about any issues that arise or are identified and work together in good faith to find solutions that enable Watercare to fulfill its responsibilities effectively
- engage with the local board during project development to ensure community needs are defined, potential disruptions are identified for mitigation, and stakeholders are recognised
- consider the priorities in the local board plan or any other official feedback when creating servicing strategies or planning documents
- clearly indicate when information is confidential and explain the reasons for its confidentiality.

Local board commitments

The local board should:

- respect the governance structure of Watercare, including the role of the Governing Body and the Watercare Board
- assist in communicating key information provided by Watercare about projects or issues to their communities
- recognise that infrastructure provision take place in a dynamic environment where new needs and priorities can arise, necessitating changes and rescheduling of programs and projects
- support Watercare by providing advice on the community's preferences and needs
- ensure adequate workshop time or other resources are available for engagement
- direct any questions or discussions related to Watercare through the agreed channels
- involve Watercare as appropriate in developing the local board plan or any other relevant planning
- respect confidential information
- inform Watercare if planning to speak to the media on a Watercare-related matter.

Watercare key point of contact

Watercare has a team responsible for local board engagement, who are responsible for ensuring the local board is proactively informed about Watercare's activities. Watercare shall have a specific team member available to act as the first point of contact in addressing local board members' enquiries, requests for information, complaints and requests for service.

General enquiries can be directed to: electedmember@water.co.nz

Engagement approach

Watercare will maintain constructive engagement with each local board on major issues, projects and activities within its area, particularly where they may affect members of the public and local constituents.

It is acknowledged that local board members have significant workloads and receive large volumes of information. Therefore, Watercare recognises that it is important to send only the most relevant information and seek feedback on the most pertinent topics. To this end, Watercare's elected member engagement team will use the process outlined in Appendix A to ensure engagement level increases in alignment with the level of interest from the local board.

The team are keen to deliver the best outcome, so are happy to take feedback on and adjust as appropriate their engagement approach to best suit the local board.

Reporting

In addition, Watercare will commit to providing each local board with a quarterly report. This update will include a summary of updates given to the local board and a list of all projects in its area. This list will include the project name, description, stage, engagement approach and the latest update to the local board. There will also be a summary looking forward at expected engagement in the upcoming quarter. At its discretion of the local board, they may request that this is put forward as an agenda item at a business meeting.

Incident communications

From time-to-time Watercare may be required to declare an official incident in response to an emergency event that involves a coordinated and dedicated response. Such an event may include significant weather such as a drought or flooding, a major operational fault resulting in property damage, flooding, contamination or public health risks. Watercare staff undertake frequent training on CIMS (coordinated incident management system) and work closely with the Auckland Councils Civil Defence and communications teams.

Local boards have an important role to play in their communities during a major incident. Watercare will ensure the local board is briefed and provided with clear, frequent and timely information in a form that is easy to share. The local board will also have a direct point of contact with Watercare to give feedback or seek answers to questions from the community.

The local board will support Watercare by:

- communicating key messages to the community through their channels such as social media, public forums and the media
- conveying key information and insights from the community back to Watercare
- assisting in providing advice on messaging and supporting material
- supporting community meetings and information sessions.

Appendix A

To determine the appropriate level of engagement with the Local Board on a project, the Watercare elected member team uses the below matrix. This ensures that the engagement level increases in alignment with the level of interest from the Rodney Local Board. Additionally, opportunities for input are aligned with key decision-making points in the Watercare project development process. This ensures that local board insights are incorporated effectively.

	Engagement Level		
	Minor	**Moderate**	**Significant**
Number of people impacted	Local - confined to a single street, suburb or subdivision.	Sub-regional – impacts across multiple suburbs or local board areas but within one sub-regional area of Auckland (i.e. North)	Regional – impacts across several sub-regional areas (i.e. North & Central).
Level of disruption	Minimal or no disruption: • Traffic management on cul-de-sac or very minor road – no road closures or impact on traffic • Construction methodology does not involve large numbers of heavy vehicle movements, noise, night work.	Moderate disruption: • Traffic management on local road, no lane closures, easy alternative route • Minor parking impact • Small number of businesses impacted • Construction methodology involves large vehicle movements, noise (but within limits) and occasional weekend or night work • Construction methodology is Horizontal Direction Drill or similar low impact methodology.	Significant disruption: • Traffic management involves lane closures and/or arterial road and/or no easy alternative route • Significant impact to parking • Significant business area impacted (large number or retail) • Very large amounts of vehicle movements, noisy works (like Pile driving) and weekend or night work • Construction methodology involves a high impact methodology like trenching.
Land use	All existing Watercare land.	• Modifying an existing asset on private land. • Lease of council land less than six months.	• New asset on private property. • Lease of council land for over six months.
Current or expected Community Interest	Project is of minimal to no interest.	Local interest: • Enquiries from local board members • Identified in local board plan • Subject of local board advocacy to Watercare.	Regional interest: • Identified in Governing Body plans or reporting • Subject of local board advocacy to Watercare.
Project Complexity	Known solutions to routine problems.	Known solutions to irregular problems.	Unknown solutions to irregular problems.

Based on the scoring within the matrix the Watercare elected member team will then implement the following engagement approach with the Local Board.

	Engagement Plan		
Project Stage	**Minor**	**Moderate**	**Major**
Feasibility (high level planning for a project)	Possibly no action at this point depending on timeline for delivery. • If there is a landowner approval required or existing interest from the community, then a **notification email** explaining why the project is needed and timeline.	• A **notification email** to introduce the project, explaining why the project is needed and scope of the project. Clarifying if a workshop is required • If **workshop** is required, this will be scheduled once options are developed but before final decision is made. Focus is on the context, expected community impacts and possible mitigations, and stakeholder identification • If landowner approval is being sought this will be highlighted and discussed • Discuss if a **site visit** would be beneficial.	• A **notification email** to introduce the project, explaining why the project is needed and scope of the project. The email will include a **memorandum** • **Workshop** will be organised early in feasibility to focus on the context and to inform the options development • If landowner approval is being sought this will be collaboratively discussed. • Possible second **workshop** to discuss any options developed and focused on expected community impacts and possible mitigation, stakeholder identification and advice of engagement • Organise a **site visit**.
Design (detailed planning for a project)	• Possibly no action at this point • If there is a Landowner approval or community interest, then an **update email** explaining any changes to project timeline or scope • Depending on extent of landowner approval it might require no surprises **memo** or a **workshop.**	• Update **emails,** as required, to keep the Local Board informed of any significant changes because of design • When construction methodology is complete offer a **memo** or **workshop** focusing on community disruptions • If landowner approval is being sought, then this process will need to be complete before execution.	• Update **emails** as required to keep the local board informed of any significant changes as a result or design • If significant changes are proposed following design work, then a **workshop** should be organised as necessary • When construction methodology is complete offer a **memo** or **workshop** focusing on community disruptions • If landowner approval is being sought, then this process will need to be complete before execution.

Construction	• Notification **email** at least five days prior to start to ensure no surprises. Highlight any community impacts, mitigations, and communications • If landowner approval has been required or there is wider community interest, then continue **update emails** explaining any changes to project timeline or scope • Notification **email** when project is complete.	• Notification **email** at least five days prior to start to ensure no surprises. Highlight any community impacts, mitigations, and communications • Update **emails** as required to keep the Local Board informed prior to any disruption and/or key milestones • Consider if there is any benefit from a **site visit** during construction • Notification **email** when project is complete • Consider if there is any benefit from an **event** upon completion and the role of the Local Board in that event.	• Notification **email** at least five days prior to start to ensure no surprises. Highlight any community impacts, mitigations, and communications • Update **emails** as required to keep the local board informed prior to any disruption and/or key milestones • Consider if there is any benefit from a **site visit** during construction • Notification **email** when project is complete • Consider if there is any benefit from an **event** upon completion and the role of the local board in that event.

The Watercare elected member team are keen to deliver the best outcome for the Local Board so are happy to take feedback on and adjust as appropriate any of the above including:

- The criteria used to determine the level of engagement
- The assessment outcome for any specific project
- The engagement plan methodology and the specific actions taken in each project stage.

Appendix B - A schedule of Watercare projects. The below is not a complete list of Watercare projects but a summary of those projects in the Local Board area that are in development or delivery within this electoral term. Please note this is subject to a degree of flexibility as projects are developed and priorities evolve over time:

Project Name	Description	Project Stage	Local Board
Pukekohe Water Treatment Plant Rehabilitation	The Auckland Anniversary flood event caused localised flooding at the Pukekohe Water Treatment Plant located at 4 Paerata Road, Pukekohe, putting the plant out of service. This project not only aims to return the plant to service with increased flood resilience.	Planning	Franklin
Hobbs Bay Pump Station	Creating a new wastewater pump station in Stanmore Bay.	Planning	Hibiscus and Bays
Lake Northcote Pump Station Renewal	Upgrade of the Lake Road wastewater pump station.	Planning	Kaipātiki
North Harbour 2 and Konini Pumpstation	Project to install a new pipeline from Auckland's western water sources in the Waitakere Ranges to West Auckland, the North Shore and Rodney.	Planning	Waitakere Ranges
Warkworth - growth servicing	Upgrading the wastewater infrastructure in the Warkworth area to reduce overflows and accommodate planned growth.	Planning	Rodney
Wellsford Water Treatment Plant	Constructing a new water treatment plant in Wellsford to create a secure and modern water supply for the town.	Planning	Rodney
Devonport Watermain	Project to replace the watermain to Devonport with a new high capacity watermain.	Feasibility	Devonport-Takapuna
Hingaia Watermain	New watermain to service the Southern Growth Area encompassing Hingaia, Drury, Auranga, Opaheke and Paerata.	Feasibility	Papakura
Hunua Watermain (Ti Rakau Drive Pipe Bridge)	Replacement of a pipe bridge that carries the Hunua Watermain over the Pakuranga Creek (adjacent to the Ti Rakau Drive bridge).	Feasibility	Howick
Jadewynn Slip Catchment Options	Replacing an existing wastewater pipe bridge with a new bridge.	Feasibility	Henderson-Massey
Mairangi Bay gravity wastewater sewer upgrade	Upgrade to the existing wastewater network in the Mairangi Bay catchment to provide more capacity and reduce overflows.	Feasibility	Hibiscus and Bays
Newmarket Gully	Creation of a conveyance and storage tunnel connecting into the Hobson wastewater tunnel to reduce wet weather overflows into Hobson Bay.	Feasibility	Ōrākei/Waitematā
Paerata wastewater servicing strategy	Project investigating options to improve wastewater provision to Paerata.	Feasibility	Franklin

Pohutukawa Siphon replacement 1	Project investigating options to mitigate odour and other air pressure challenges arising from the syphon during rain fall events.	Feasibility	Hibiscus and Bays
Snells Algies Sea water ingress	Project to remove sea water intrusion from the Snells Algies wastewater network by rehabilitating the foreshore sewer line.	Feasibility	Rodney
Quarry Road Bulk Supply Point	In response to significant growth across Drury South, Wesley and Paerata, a new Bulk Supply Point (BSP) is proposed at Quarry Road. This will provide for resilience and effective pressure management, and ultimately ensure existing and future levels of service are maintained.	Feasibility	Franklin
Stanmore Bay Pump Station and Rising Main	More information to be added when the draft is finalised…	Feasibility	Hibiscus and Bays
Takanini Cross Connection- Porchester / Great South Road		Feasibility	Papakura
Unsworth Height Diversion		Feasibility	Upper Harbour
Waikumete Pump Station and Sunnyvale Pumpstation		Feasibility	Henderson-Massey
Warkworth Northern Reservoir , boost Pump Station and Trunk Mains		Feasibility	Rodney
Warkworth Water Treatment Plant to Hudson Road Watermain missing link		Feasibility	Rodney
Wesley Paerata Water Servicing		Feasibility	Franklin
CC2 Motions Catchment		Feasibility	Albert-Eden, Waitemata
Westmere wastewater separation and upgrades		Feasibility	Waitemata
Waiuku Reservoir Expansion		Design	Franklin
Waiuku Water Servicing and Water Treatment Plant Upgrade		Design	Franklin
Browns Bay Pumpstation Renewal		Design	Hibiscus and Bays
Hingaia Pump Station upgrade and Rising Main to Manurewa		Design	Manurewa, Papakura
Herne Bay Branch 5		Design	Waitemata
Huia Water Treatment Plant replacement		Design	All, Waitākere
Mangere Tanker Filling Station		Design	Māngere-Ōtāhuhu

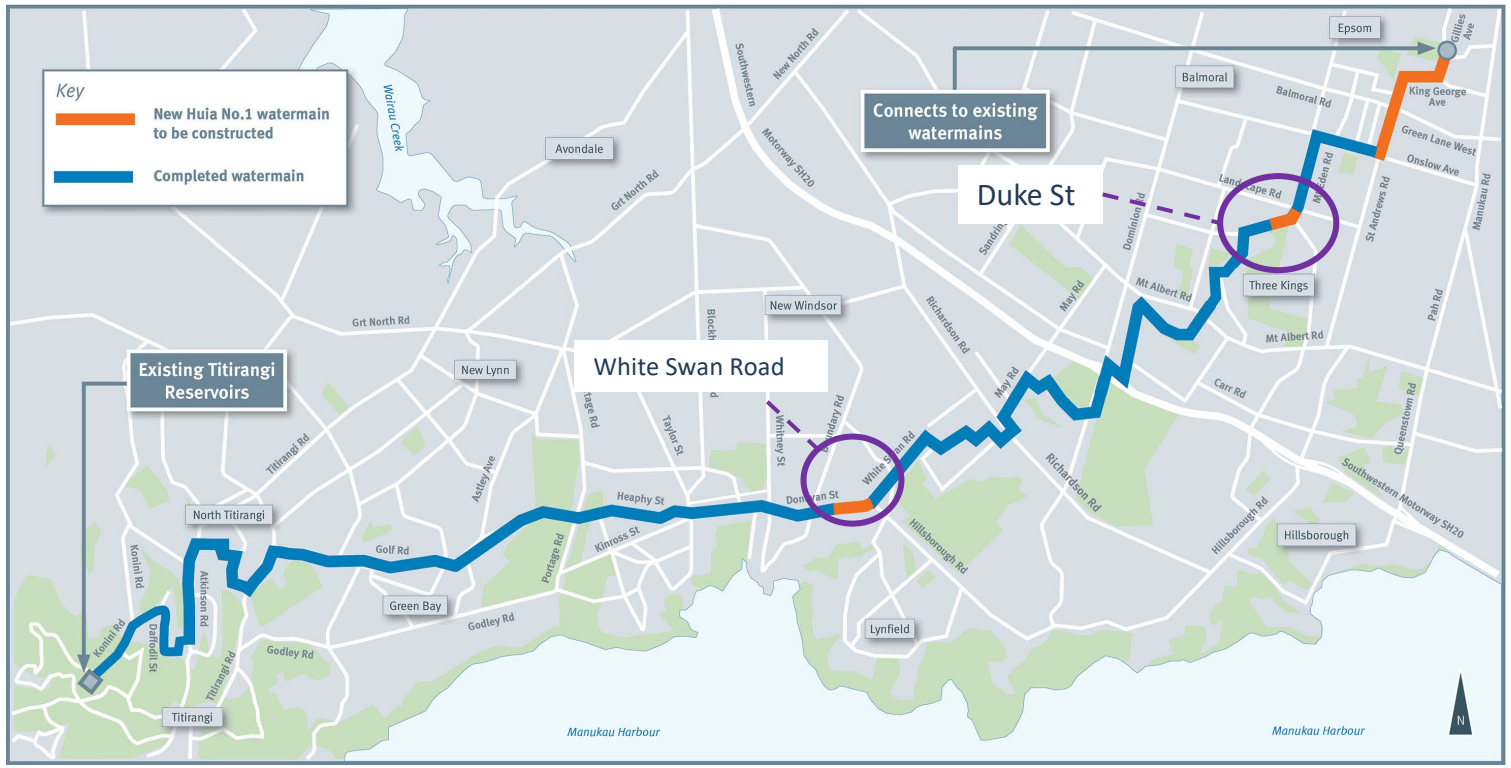
Northcote-Chatswood Wastewater Upgrade		Design	Kaipātiki
Northern Interceptor - stage 2 integration		Design	Upper Harbour
Ōtara Catchment Wastewater Capacity Upgrades		Design	Ōtara-Papatoetoe
Panmure Wastewater Pump Station Upgrade and Rising Mani Replacement		Design	Maungakiekie-Tāmaki
Pukekohe East Bulk Supply Point		Design	Franklin
Redhills Northern Watermain Connection		Design	Henderson-Massey
Rehua Place, Aorere Park		Design	Māngere-Ōtāhuhu, Ōtara-Papatoetoe
St Johns Pump Station		Design	Orakei
Takapu Street Upgrade		Design	Henderson-Massey
Waiwera		Design	Hibiscus and Bays
Wesley Stage 2 - Mt Albert Reservoir		Design	Albert-Eden, Whau
Wesley Stage 2 - Watermain upgrade		Design	Albert-Eden, Whau, Puketāpapa
Whenuapai and Redhills - package 1		Design	Upper Harbour
Whenuapai and Redhills - package 2		Design	Upper Harbour
Whenuapai and Redhills - package 3		Design	Upper Harbour
Pohutukawa Avenue Pipe Replacement		Construction	Hibiscus and Bays
Judges Bay Branch 3b wastewater replacement		Construction	Waitemata
Alma Road Pump Station		Construction	Devonport-Takapuna
Dunkirk Wastewater Pumpstation stage 1		Construction	Maungakiekie-Tāmaki
Glen Innes wastewater upgrade		Construction	Maungakiekie-Tāmaki
Glenbrook Watermain Replacement		Construction	Franklin
Huia 1 - Donovan St		Construction	Whau

Huia 1 - May Road PS		Construction	Puketāpapa
Huia 1 - Mt Roskill / 3Kings		Construction	Puketāpapa
Huia 1 - Epsom		Construction	Albert-Eden
Kahika Rising Main		Construction	Kaipātiki
Midtown - Queen Street Diversion		Construction	Waitemata
Orakei Main Sewer Relining		Construction	Waitemata, Simpson
Southwest outfall at Clarks Beach + MABR plant		Construction	Franklin
Waikowhai Pump Station		Construction	Puketāpapa
Warkworth - Snells Beach WWTP		Construction	Rodney
Warkworth - Snells Transfer Pipeline		Construction	Rodney
Wellsford WWTP upgrade		Construction	Rodney

Projects in Puketāpapa Local Board

Watercare

Huia 1 Watermain Upgrade



Renewing the very large Huia No.1 watermain, which has reached the end of its useful life.

The crews are currently completing the final stages of the project.

White Swan Road

Laying the watermain up to approximately 173 White Swan Road. This section of work will take approximately six weeks to complete and is expected to be complete in October 2024.

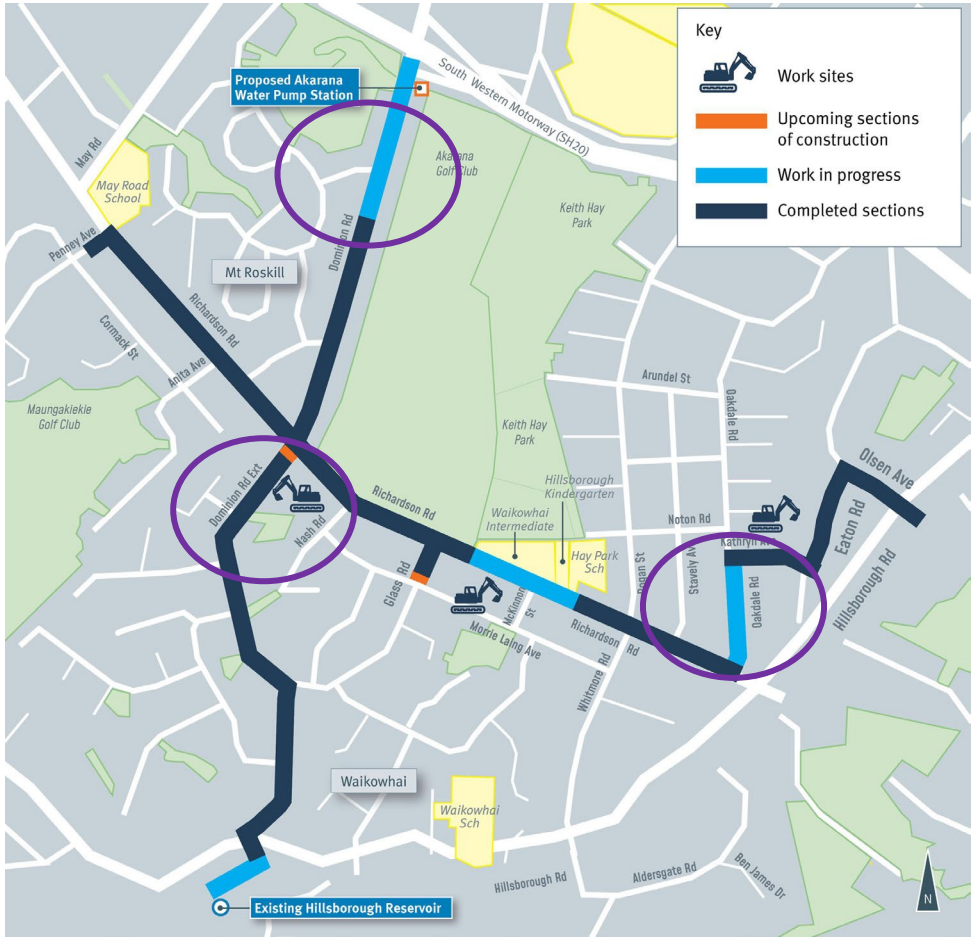
Two lanes of traffic are open until 9am and after 5pm. Between 9am and 5pm stop/go and/or traffic lights.

Duke St

The work here involves the finishing of a chamber located at 113 Duke Street. These works are expected to be complete in late September 2024.

Watercare

Waikōwhai pump station and watermains



Upgrades to the water network to cater for current and future development along with population growth.

Akarana booster pump station is complete, and the project is now building the associated watermains.

Watercare

Dominion Road Extension

From September 2024, this work covers multiple activities such as chamber construction and pipe installation.

This section of work is estimated to take approximately six weeks to complete (weather dependent).

Dominion Road, Mt Roskill

This important section of work is to lay the new watermain on Dominion Road to connect into the new Akarana pumpstation.

This is estimated to be complete in late October 2024 to complete (weather permitting).

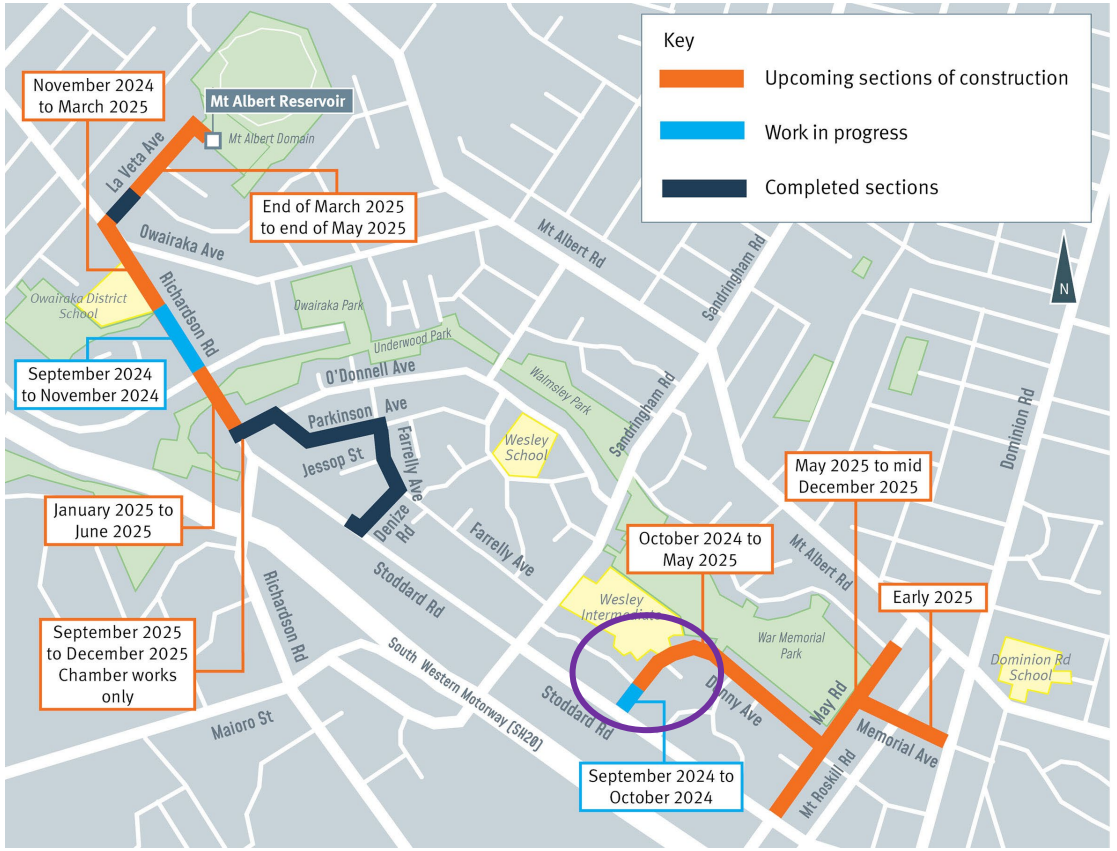
Oakdale Road

This section of the works involves the construction of a new watermain.

This is estimated to be complete in late September 2024.

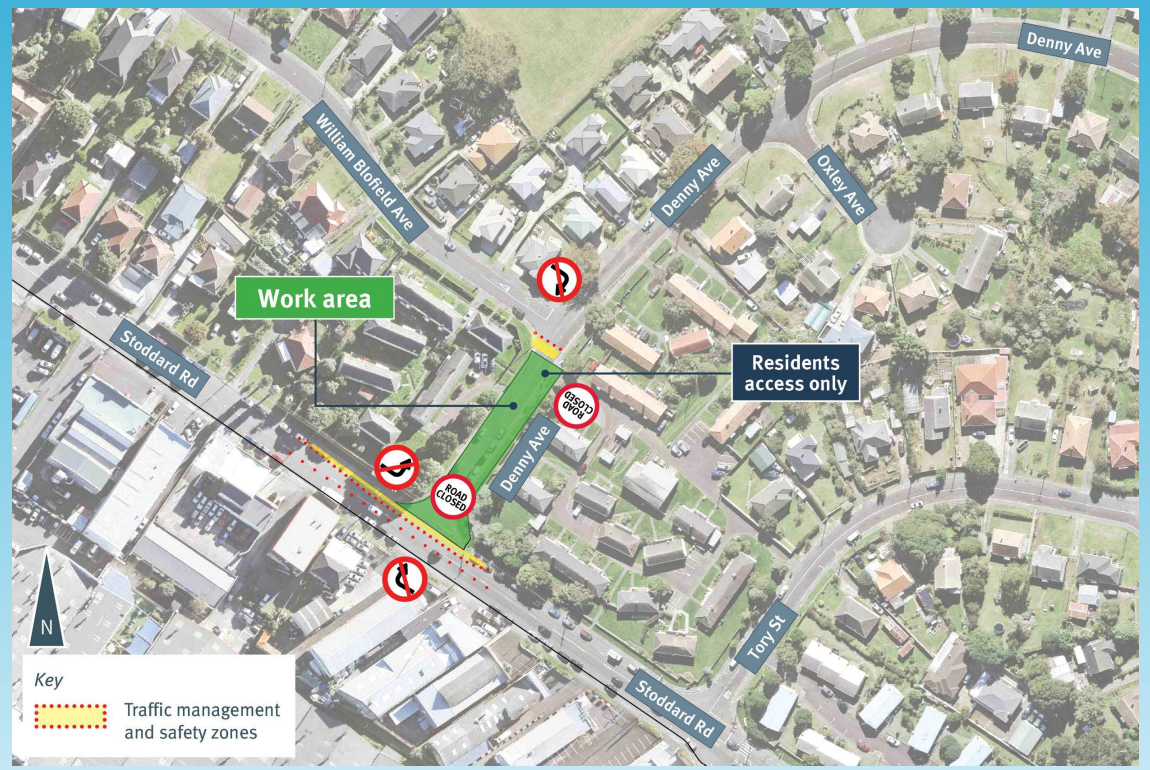
Watercare

Ōwairaka and Wesley watermains project



We are undertaking upgrades to the water network to cater for current and future development and population growth in the area. Our team have undertaking service investigations to locate existing services and take ground samples in the roadway. These investigations are progressing well and are estimated to will be completed by late September 2024.

Watercare



Denny Avenue

The crew is needing laying a watermain pipe up to the Denny Avenue/May Road intersection. Our crew is onsite on Denny Avenue. We estimate this section of works will be completed by mid-October. The estimated finish date for all works on Denny Avenue is early May 2025.

Watercare

Local Communications highlights

Puketāpapa – August 2024

Update on Puketāpapa comms

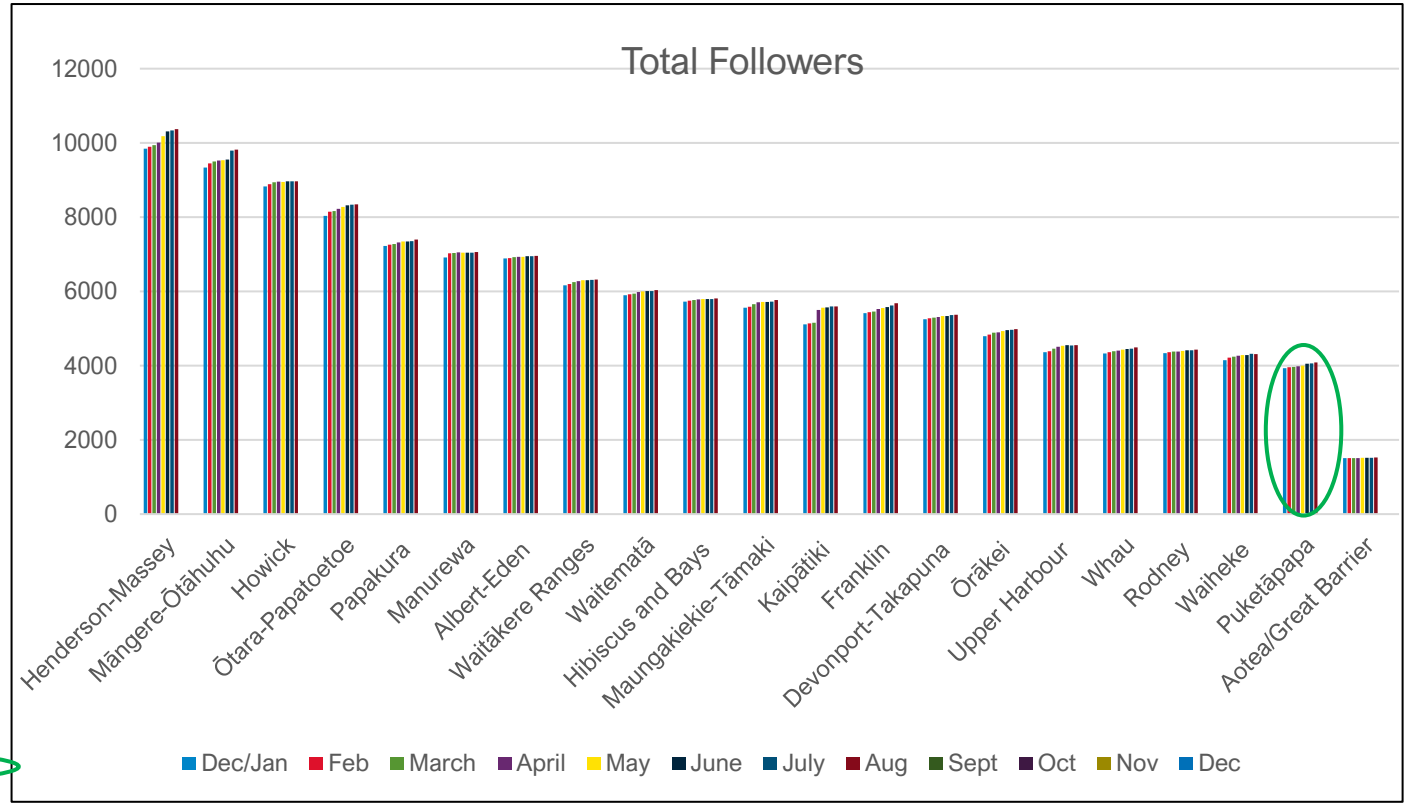
- Our communications objectives
- A snapshot of each communications channel
- How we’re performing against other board areas
- How Local Communications fits into Auckland Council communications.

Local Communications objectives

- Make the connection between what Auckland Council does and how it benefits local communities – grow recognition for the good things we do
- Increase trust and confidence among Aucklanders by demonstrating strong and visible leadership
- Build awareness of our services and how council delivers value for money
- Encourage people in the Puketāpapa area to help shape our future plans and to engage with council events and activities
- Grow understanding of how community groups and local organisations in Puketāpapa are creating positive change with our funding and support
- Get people to know us – and our work!

Facebook

		1% Target	20-25 Target	5% Target
Local Board	**FB Followers**	**Growth Rate**	**No of Posts**	**Engagement**
Henderson-Massey	10372	0.4	31	4.2
Māngere-Ōtāhuhu	9815	0.2	28	3.1
Howick	8971	0.0	30	5
Ōtara-Papatoetoe	8350	0.1	30	6.2
Papakura	7402	0.7	17	5.1
Manurewa	7061	0.3	18	3.7
Albert-Eden	6956	0.1	24	2.7
Waitākere Ranges	6321	0.1	24	4.5
Waitematā	6032	0.3	21	5.3
Hibiscus and Bays	5808	0.3	19	5.8
Maungakiekie-Tāmaki	5766	0.7	20	14.5
Devonport-Takapuna	5373	0.2	23	5.2
Franklin	5678	1.0	23	3.8
Kaipātiki	5592	-0.1	23	2.5
Ōrākei	4980	0.3	18	3.6
Rodney	4432	0.3	21	5.8
Upper Harbour	4553	0.2	19	5.8
Whau	4492	0.7	23	5.1
Waiheke	4311	-0.2	17	3.7
Puketāpapa	4089	0.6	25	2.3
Aotea/Great Barrier	1526	0.3	20	10.8



Recent posts

Title	Date published	Reach	Reactions/Likes, comments...	Impressions	Comments	Shares	Likes and reactions	Distribution	Link clicks	Minutes viewed
THIS Saturday, 21 ... Puketāpapa Local Board Boost unavailable	Wed Sep 18, 7:55am	85 Reach	8 Reactions/Likes, comm...	85 Impressions	1 Comments	0 Shares	6 Reactions	-- Distribution	--	--
 Come and see us in actio... Puketāpapa Local Board Boost unavailable	Tue Sep 17, 11:51am	37 Reach	1 Reactions/Likes, comm...	37 Impressions	0 Comments	0 Shares	1 Reactions	-0.3x Distribution	1 Link clicks	3 Minutes viewed
Who wants to be part ... Puketāpapa Local Board Boost unavailable	Mon Sep 16, 8:20am	132 Reach	2 Reactions/Likes, comm...	132 Impressions	0 Comments	0 Shares	2 Reactions	-- Distribution	--	--
... Puketāpapa Local Board Boost unavailable	Fri Sep 13, 10:14am	183 Reach	7 Reactions/Likes, comm...	186 Impressions	0 Comments	0 Shares	5 Reactions	-- Distribution	--	--
Time is running out! Yo... Puketāpapa Local Board Boost unavailable	Thu Sep 12, 1:28pm	127 Reach	2 Reactions/Likes, comm...	130 Impressions	0 Comments	0 Shares	2 Reactions	-- Distribution	--	--
 Is your feline friend ro... Puketāpapa Local Board Boost unavailable	Wed Sep 11, 8:00pm	1.1K Reach	7 Reactions/Likes, comm...	1.1K Impressions	0 Comments	2 Shares	1 Reactions	-- Distribution	2 Link clicks	--
Got sustainable ... Puketāpapa Local Board Boost unavailable	Tue Sep 10, 10:01am	113 Reach	4 Reactions/Likes, comm...	118 Impressions	0 Comments	0 Shares	2 Reactions	-- Distribution	--	--
Ever dreamed about t... Puketāpapa Local Board Boost unavailable	Tue Sep 10, 8:32am	163 Reach	1 Reactions/Likes, comm...	167 Impressions	0 Comments	0 Shares	1 Reactions	-- Distribution	--	--
Have you got what it t... Puketāpapa Local Board Boost unavailable	Fri Sep 6, 1:46pm	228 Reach	4 Reactions/Likes, comm...	235 Impressions	0 Comments	0 Shares	4 Reactions	-- Distribution	2 Link clicks	--
... Puketāpapa Local Board Boost unavailable	Thu Sep 5, 10:32am	189 Reach	18 Reactions/Likes, comm...	199 Impressions	1 Comments	0 Shares	5 Reactions	-- Distribution	--	--
 Have you checked o... Boost unavailable	Wed Sep 4, 8:00pm	855 Reach	23 Reactions/Likes, comm...	964 Impressions	0 Comments	8 Shares	10 Reactions	--	11 Link clicks	--

OurAuckland stories

TŌ TĀTOU TĀMAKI MAKAURAU
OUR Auckland

Te Kaunihera o Tāmaki Makaurau
Auckland Council

HOME | NEWS | LOCAL | EVENTS | RECOVERY | MAYOR

Albert-Eden-Puketāpapa Ward News

ARTS | 19 SEP 2024

Ōwairaka knocked down but gets up again

Standing more central and visibly at Alice Wylie Reserve is a new sculpture, replicating the original Ōwairaka.

COMMUNITY | 10 SEP 2024

Community on the beat

From mums to business owners – community patrols consist of committed local residents from all different walks of life.

WASTE | 20 AUG 2024

Zero-waste Waiōrea turns one

Since opening in August 2023, the centre has diverted more than 110 tonnes of materials from landfill, hosted nearly 50 events with more than 1000 visitors.

CLEANING UP OUR ENVIRONMENT | 16 AUG 2024

Wairaki Stream sheds 50 tonnes

Lynfield Beach Cove Reserve is now open to the public - one month sooner than anticipated.

CLIMATE ACTION | 15 AUG 2024

Mt Roskill Library switches to solar

Local library and adjoining Fickling

COMMUNITY | 15 AUG 2024

Puketāpapa shines a light on local volunteers

A total of 26 volunteers were recently

AKL PATHS | 8 AUG 2024

Part of Puketāpapa tracks a step closer to reopening

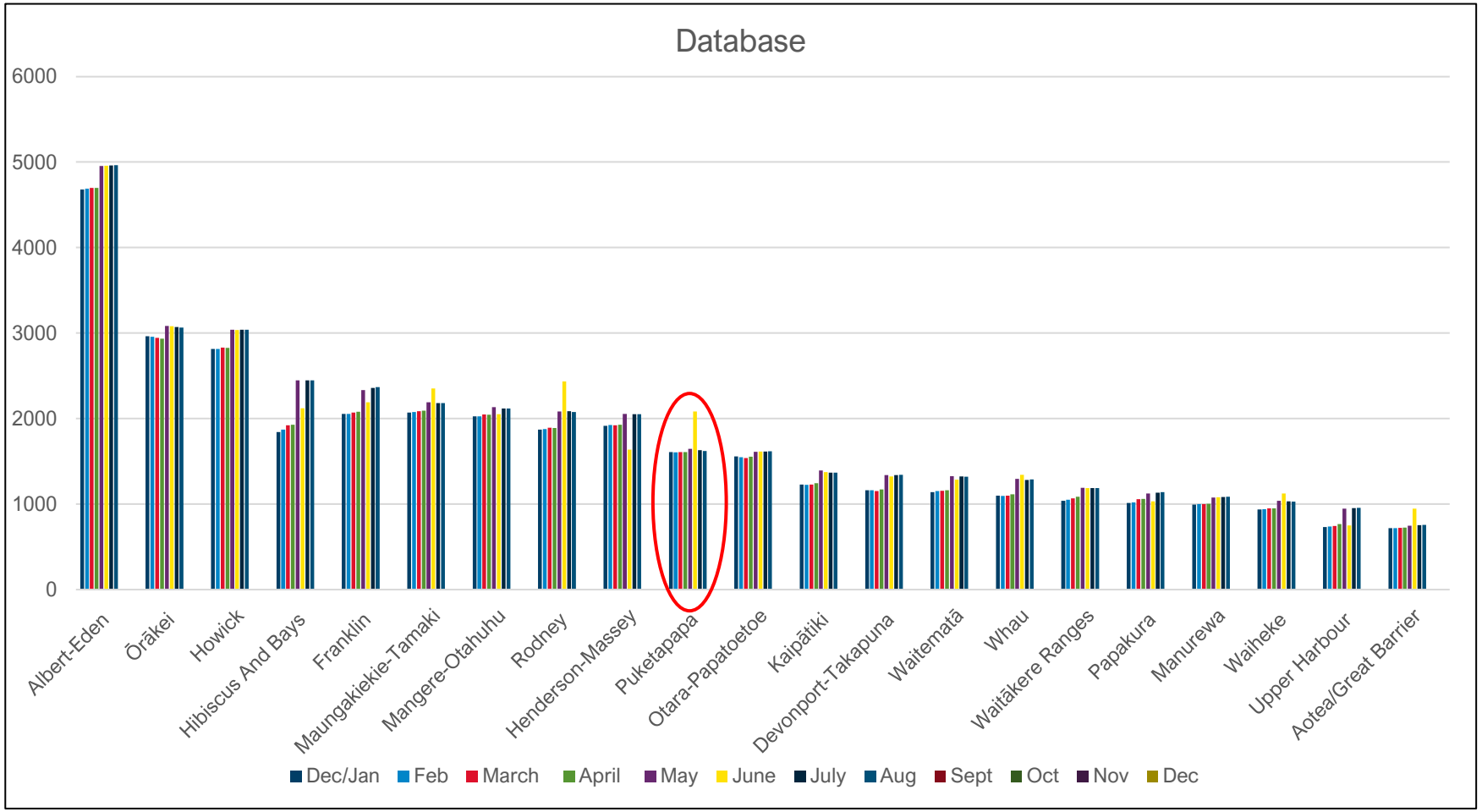
The 10-kilometre coastal track that

FESTIVAL | 15 JUL 2024

Festival now a few more moons

E news

Local Board	Database	% increase
Albert-Eden	4965	0.0%
Ōrākei	3063	-0.3%
Howick	3037	-0.1%
Hibiscus And Bays	2447	-0.2%
Franklin	2368	0.3%
Maungakiekie-Tamaki	2181	-0.3%
Mangere-Otahuhu	2118	-0.1%
Rodney	2076	-0.4%
Henderson-Massey	2052	-0.1%
Puketapapa	1621	-0.5%
Otara-Papatoetoe	1616	-0.1%
Kaipātiki	1366	-0.2%
Devonport-Takapuna	1340	-0.2%
Waitematā	1319	-0.3%
Whau	1288	0.2%
Waitākere Ranges	1186	-0.1%
Papakura	1138	0.4%
Manurewa	1086	0.3%
Waiheke	1029	-0.3%
Upper Harbour	956	-0.1%
Aotea/Great Barrier	755	0.4%



Stuff partnership – Central Leader

neighbourly.co.nz AUGUST 22, 2024, CENTRAL LEADER 11

OUR Auckland

TŌ TĀTOU TĀMAKI MAKAURAU

Chopper action makes space for water

LIVE LOCAL, LOVE LOCAL
WITH AUCKLAND COUNCIL

Helicopter back-up has been called in to help clear Lynfield's Wairaki Stream from debris and blockages.

More than 50 tonnes of fallen trees and timber, which has been blocking up the stream were removed in 85 lifts via helicopter.

Puketāpapa Local Board chair, Ella Kumar welcomes the urgent stream maintenance work and hopes it will reduce future impacts on the environment and local community.

"We're grateful to see some action take place to give our environment some love but also as a preventative measure, since significant flooding was experienced in this area during 2023's Anniversary weekend. Some of our community is still reeling from this event," she says.

Clearing Wairaki Stream will reduce flooding, alleviate pressure during heavy rain events and prevent landslips in the stream.

With 18 crew members and just over three days of preparation prior to the helicopter's arrival, work was completed relatively quickly. Despite warning residents of helicopter movements and achinery noises operating up to a week.

Lynfield Cove Beach was closed for only one day."These adverse weather events have taught us that we need to be better prepared to increase our resilience for future events," says chair Kumar.

"Where possible we'd encourage everyone to play their part by learning more about flood preparation and perhaps volunteering with our community groups to participate in projects, such as stream restoration work – as every bit counts to protect ourselves and our neighbours."

"Community stream planting is a popular activity led by groups like EcoMatters, Friends of Wairaki Stream and Friends of Oakley Creek, to strengthen our local streams and reduce the risk of future flooding," she adds.

"We're looking forward to the next community stream planting event and hope you can join us."

The Wairaki Stream clean-up is part of an initiative focusing on flood-prone areas across the region, funded by Auckland Council.

• These articles were commissioned in response to a commercial partnership. We have produced them independently, to the same standards applied to the rest of our journalism.

Scan the QR code and sign up for the latest news and events from your area direct to your inbox

For one day only - Lynfield Cove Beach was transformed into a helicopter pad.

Preventing pollution in Penrose

Earlier this year, 100 Penrose businesses were visited by pollution prevention experts to assess and educate them of ways to prevent potential sources of pollution entering the harbour via stormwater drains.

The visits were part of the industrial pollution prevention programme, funded by Maungakiekie-Tāmaki Local Board, to help local businesses reduce impacts on the environment.

Following the visits, a total of 36 issues were identified and reported back to businesses with advice on how to resolve them. Concerns included:

- no spill plan
- poor storage
- washing cars and equipment with wash water draining into stormwater network
- sandblasting dust contaminating stormwater drain
- grease trap overflow.

Since receiving this information, businesses have made efforts to implement more environmentally friendly approaches with 64% of problems resolved, and ongoing follow-up assessments.

Maungakiekie-Tāmaki Local Board chair Maria Meredith is pleased the programme is achieving results.

"The industrial pollution prevention programme is delivering significant results which will make an improvement to our beaches, biodiversity and the Manukau Harbour," she says.

In the 2023/2024 financial year, the board invested $25,000 in the Industrial Pollution Prevention Programme and has recently committed another $30,000 for this financial year's programme.

"Education on how the stormwater network operates, preventing contaminants entering the network and having a plan in the event of a chemical spill are key to making changes in our community – as everyone has a role to play," says chair Meredith.

"A huge priority our community and the board has identified in the local board plan is to protect our environment. This means ensuring our waterways and land are healthy and thriving, and that we are resilient to impacts of climate change.

"With the Penrose industrial area being one of Auckland's oldest and largest industrial areas, every effort to keep contaminants out of stormwater drains will make a difference," she says.

To date, more than 4300 Auckland businesses have participated in pollution prevention programmes.

Pollution prevention team inspect stormwater drain for potential contaminants

62,000 readers – weekly

The Central Leader covers Central Auckland – focusing on the community within the suburbs of Onehunga, Royal Oak, One Tree Hill, Three Kings, Epsom, Mt. Eden, Mt. Roskill and Hillsborough.

The circulation area includes Balmoral, Epsom, Greenlane, Hillsborough, Lynfield, Mt Albert, Mt Eden, Mt Roskill, Morningside, New Windsor, One Tree Hill, Onehunga, Oranga, Owairaka, Penrose (not Te Papapa), Royal Oak, Sandringham, Three Kings, Waikowhai, Wesley.