BLUEPRINT ECOLOGY

Memo

To:	Dan Smyth; Classic Developments Limited	Project:	2535
From:	Tony Payne; Blueprint Ecology Limited	Date:	5 May 2026
Subject:	Mt Welcome, Pukerua Bay: Lizard survey results		

Dear Dan,

This memorandum details the results of a lizard survey undertaken by Blueprint Ecology Ltd at Mt Welcome, Pukerua Bay, Porirua (hereafter "the site", **Figure 1**).

We understand that Pukerua Property Group Limited Partnership is proposing to develop a staged residential subdivision at 422 State Highway 59, Pukerua Bay, Porirua. As part of the lizard management obligations described in the Lizard Management Plan (Blueprint Ecology, November 2025)1, Blueprint Ecology Limited was engaged to undertake a pre-clearance lizard salvage survey across potential lizard habitat within the proposed development footprint to determine the presence and relative abundance of native lizards.

All native lizards are absolutely protected under the Wildlife Act 1953 and consequently a Wildlife Act Authority from the Department of Conservation is required to undertake activities within habitat that may support native lizards and where activities may result in a significant impact on a species or habitat. There is often a requirement to relocate lizards to alternative, protected habitat if avoidance of effects is not practicably feasible.

We understand that the project team for this development intends to use this memorandum for internal project planning purposes to direct a lizard salvage and relocation programme prior to vegetation clearance and earthworks.

[1] Blueprint Ecology Limited. 18 November 2025. Lizard Management Plan: Mt Welcome, Pukerua Bay. Report prepared for Pukerua Property Group Limited Partnership. 26 pages

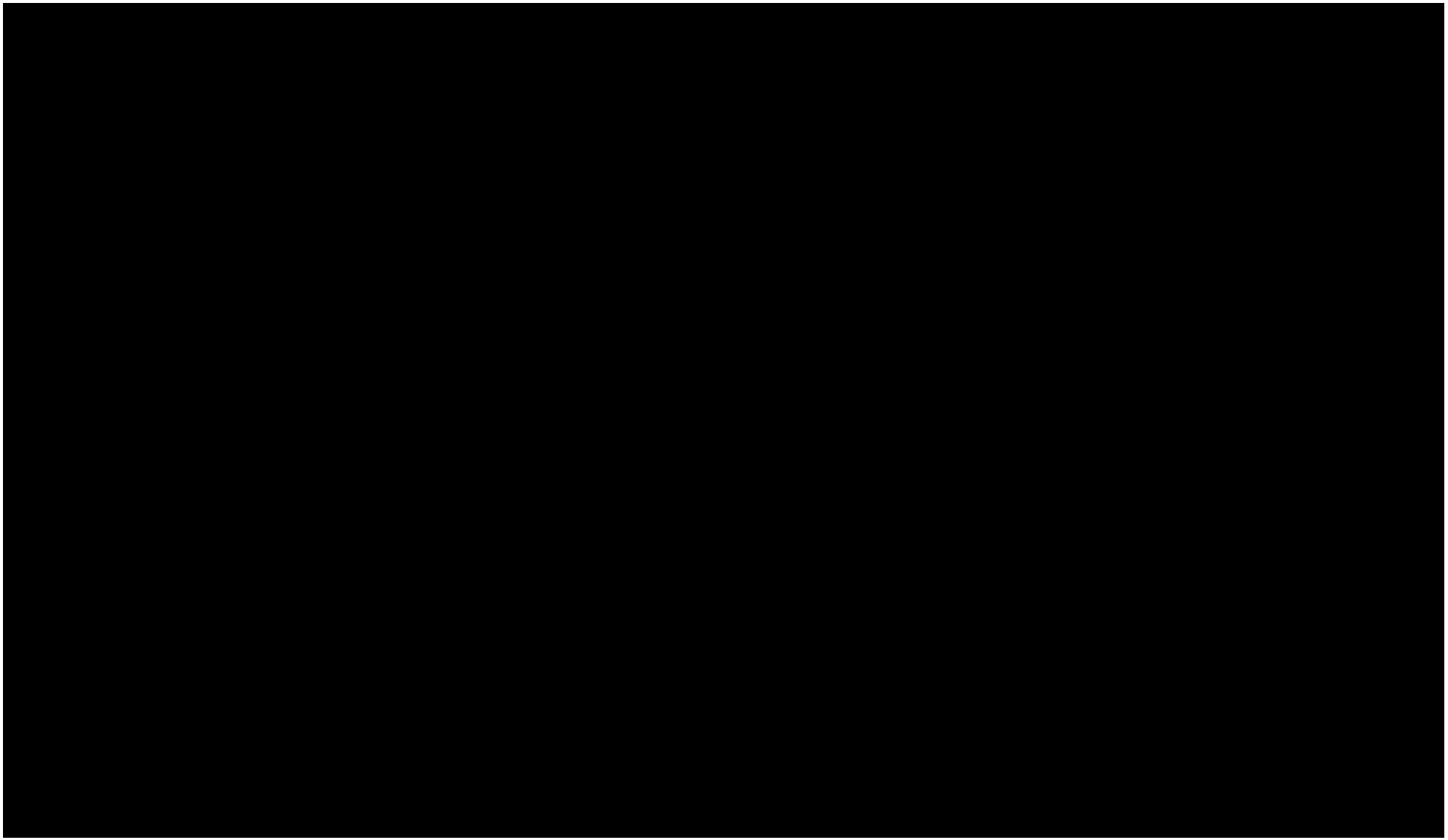

Figure 1. Project footprint (white), potential lizard habitat (red) "the site".

1. Potential Habitats

The site comprises 20 areas of potential lizard habitat totalling 0.83 ha (8,332 m2), including rank grassland, weedland, scrub margins, ornamental gardens, woody debris, and a 0.19 ha (1,858 m2) area of seral broadleaved forest adjacent to State Highway 59. All grassland and scrub margin habitats are of low quality and are small, fragmented and exotic-dominant.

A search of the Department of Conservation's (DoC) Bioweb Herpetofauna database revealed no herpetofauna records within the development footprint.

Terrestrial lizard species often occur on bush margins and also use complex ground cover vegetation such as scrambling weedland and leaf litter within forest and scrub communities. In the Wellington region, these areas can provide potential habitat for northern grass skink (*Oligosoma polychroma*), raukawa gecko (*Woodworthia maculata*), copper skink (*Oligosoma aeneum*) and glossy brown skink (*Oligosoma zelandicum*). Raukawa gecko, copper skink, as well as the more regionally rare 'At Risk' ornate skink (*Oligosoma ornatum*) also occur in forest habitats including seral broadleaved forest. Trees in the seral broadleaved forest provide habitat for barking gecko (*Naultinus punctatus*), ngahere gecko (*Mokopirirakau* "southern North Island") and raukawa gecko.

Lizards that occur within the Wellington Ecological District and which are listed in the DOC bioweb database are provided in **Table 2** below. Applicable habitat has been sourced from van Winkel *et al*., 2018.

Table 1. Lizard species of the Wellington region and applicable habitat on site.

Scientific name	Common name	Threat Status (Hitchmough et al., 2025)	Regional Threat Status (Crisp et al., 2023)[2]	Applicable habitat (van Winkel et al., 2018)
Naultinus punctatus	Barking gecko	At Risk- Declining	Threatened – Regionally Vulnerable	Seral broadleaved forest
Mokopirirakau "southern North Island"	Ngahere gecko	At Risk- Declining	At Risk - Declining	Seral broadleaved forest
Oligosoma ornatum	Ornate skink	At Risk- Declining	Threatened – Regionally Vulnerable	Seral broadleaved forest. Edges of scrub and rank grassland/ weedland.
Oligosoma zelandicum	Glossy brown skink	At Risk- Declining	At Risk - Declining	Edges of scrub and rank grassland/ weedland.
Oligosoma aeneum	Copper skink	At Risk- Declining	Threatened – Regionally Vulnerable	Seral broadleaved forest. Edges of scrub and rank grassland/ weedland.
Oligosoma polychroma	Northern grass skink	Not threatened	Not threatened	Edges of scrub and rank grassland/ weedland.
Woodworthia maculata	Raukawa gecko	Not threatened	Not threatened	Seral broadleaved forest. Edges of scrub and rank grassland/ weedland.

[2]Conservation Status Wellington Mainland

Plate 1. Rough pasture margin that provides habitat for northern grass skink (Area 4).

Plate 2. Rough pasture and regenerating forest that provides habitat for copper skink.

Plate 3. Seral broadleaved forest that provides potential habitat for arboreal lizards (Area 20).

2. Methodology

Nineteen (19) of the 20 potential lizard habitat types were assessed within the site via a comprehensive lizard survey by Mr Tony Payne. Potential habitats on the margin of the seral broadleaved forest (Area 20) were not surveyed due to safety considerations. Spotlighting of the forest interior is intended prior to any future disturbance, in accordance with the Lizard Management Plan.

Mr Payne is recognised by the Department of Conservation as a qualified herpetologist through his work across New Zealand. For the Wellington Ecological District, he holds the relevant regional survey permit issued by the Department under the Wildlife Act, which authorises him to survey native lizards (including capturing and handling lizards). All searches and handling of native lizards at this site were undertaken in accordance with Wildlife Act Authority 107412-FAU.

Good practice lizard surveying was undertaken following DOC's herpetofauna protocols. For skinks, the most common method for open habitats (e.g., grassland, scrub margins) is using an artificial cover object (ACO). ACOs comprise 475 mm x 500 mm sheets of corrugated Onduline™ (a bitumen saturated material) laid in double or triple stacks with a 5 – 10 mm gap between the sheets and between the sheet and the ground. In order to assess the presence/absence and relative abundance of lizard populations across all habitat types on site, a lizard survey was undertaken using 110 ACOs (**Figure 2**). ACOs were installed in areas of potential habitat where lizard encounters were considered most likely, including where vegetation is dense and supports good ground cover for skinks and vegetation margins.

During each check of devices lizard sign (e.g., scat or slough) and lizard presence/ absence was recorded. If recorded, any lizard sign was removed from the device in order to distinguish any new, fresh sign from any subsequent checks and any lizards that were captured were marked with a unique number on the ventral surface using a non-toxic (Xylene-free) pen.

The lizard survey was undertaken between 1 April and 3 April 2026, starting each morning during days with no rain, calm to moderate wind, and daytime temperatures ranging from 12°C to 17°C (**Table 2**). The variation of cooler mornings, and warm afternoons experienced throughout the survey provided ideal conditions for lizard activity and the chances of detecting lizards in an ACO.

Table 2. Daily weather conditions and catch per unit effort.

Date	Time	Temperature (°C)	Weather	Wind
1 Apr 26	8:10 am to 1:21pm	12 to 16	Fine	Calm
2 Apr 26	9:20 am to 1:03 pm	14 to 17	Fine	Calm
3 Apr 26	8:30 am to 12:40 pm	12 to 15	Overcast	Moderate breeze

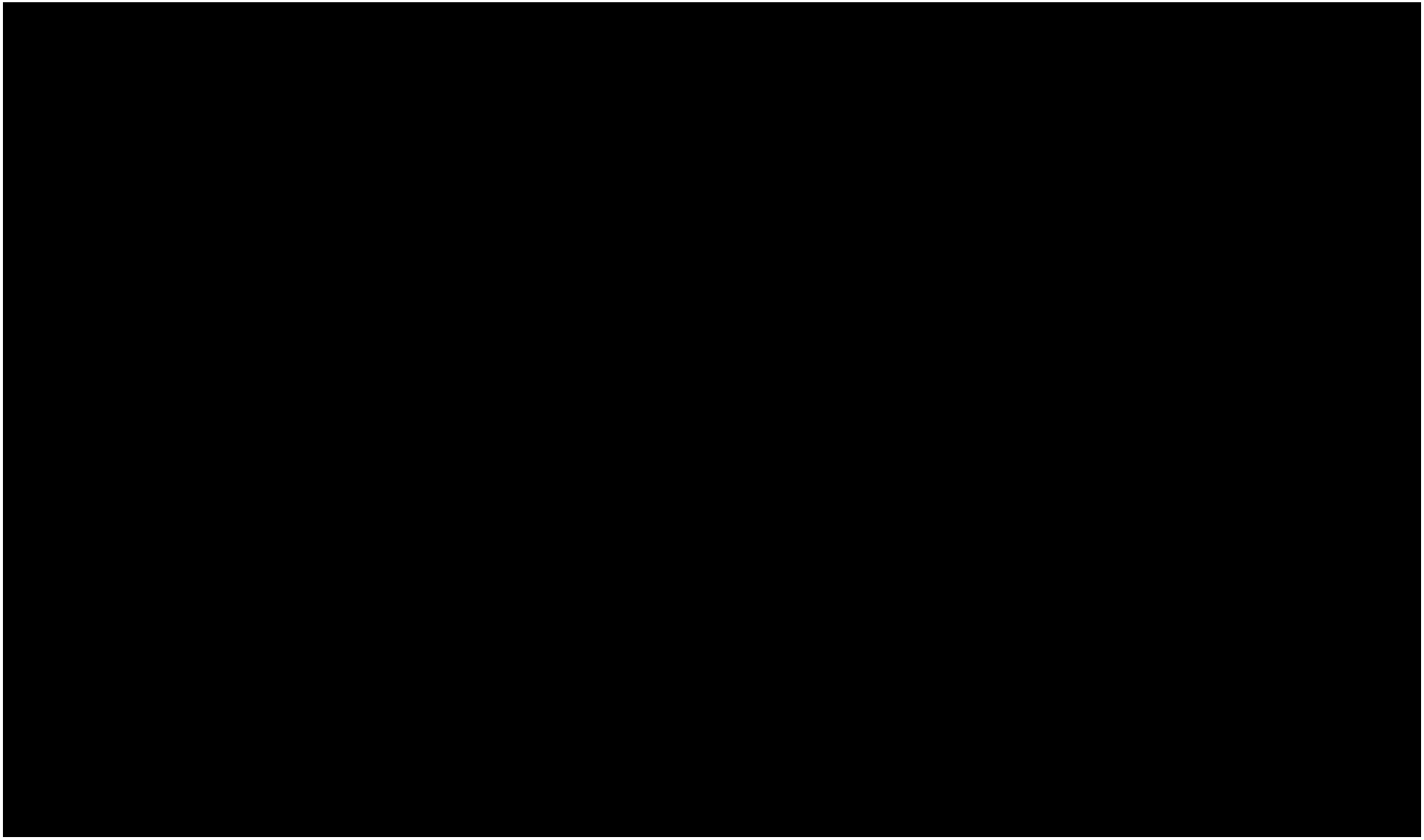

Figure 2. ACO location (yellow square), potential habitat (red), project footprint (white).

3. Results

During the survey a total of 14 northern grass skinks and four copper skinks were recorded utilising ACOs. No lizard sign was recorded without a corresponding lizard capture (**Figure 3**). One copper skink was recaptured on a subsequent day.

The results indicate that lizards are present in the following areas:

- [redacted];
- [redacted]
- [redacted]

The total area of potential lizard habitat within the site is 479 ha and 9.6 ha in dairy farm.

[redacted]

Plate 4. A northern grass skink recorded on site.

Plate 5. A copper skink recorded on site.

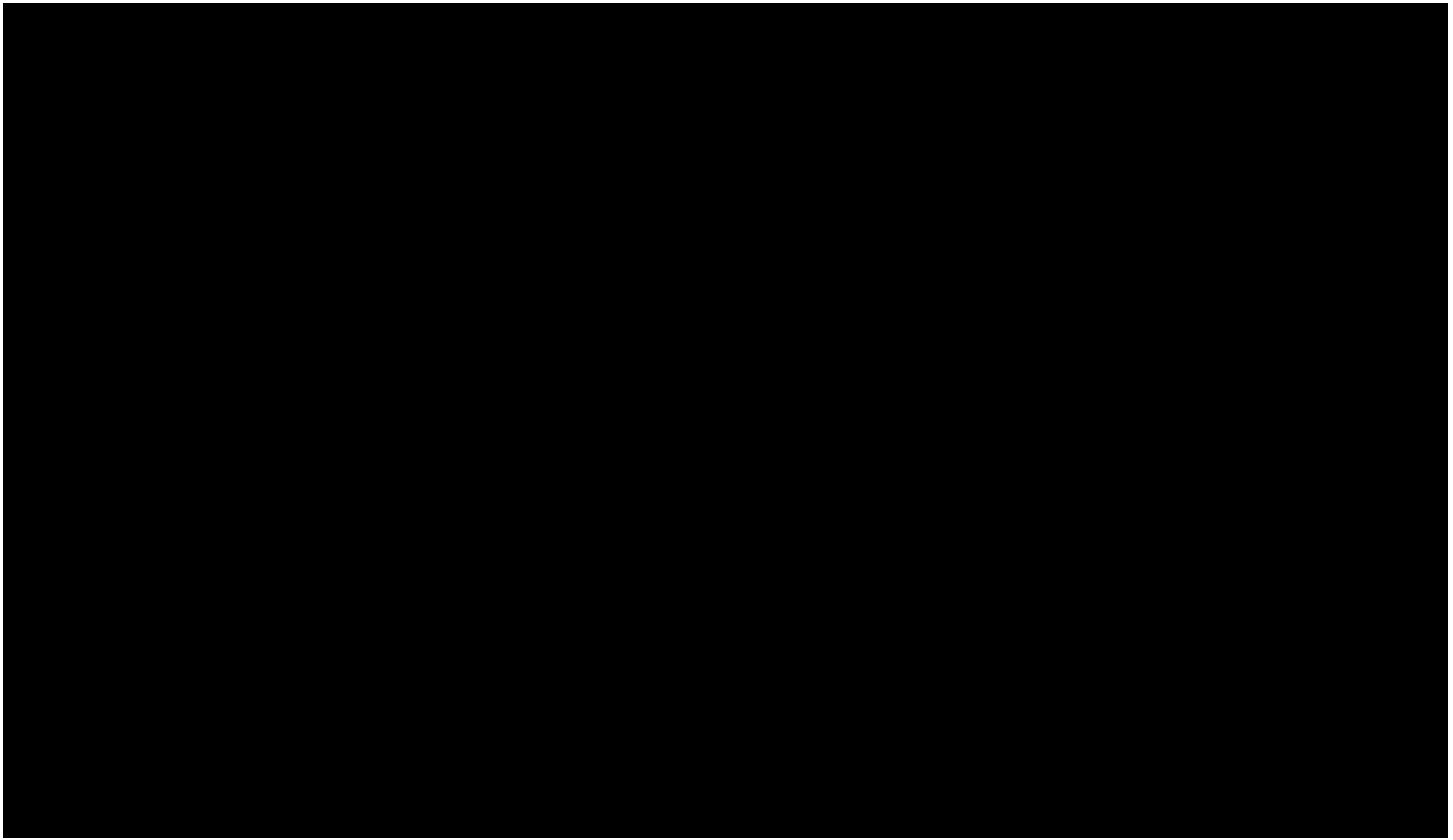

Figure 3. Lizard habitat (green), project footprint (white).

Table 3. Lizard morphometric data.

Date/ time	Species	Gender	Age class	Weight	SVL	Original tail	Regen tail	X	Y
01/04/2026 09:30	Northern grass skink	Male	Adult	4.0	52	61		174.8810	-41.0466
01/04/2026 10:36	Copper skink	Female	Sub-adult	2.8	48	42		174.8881	-41.0483
01/04/2026 10:51	Northern grass skink	Female	Adult	5.2	64	24	14	174.8865	-41.0486
01/04/2026 11:15	Northern grass skink	Male	Adult	3.8	50	66	3	174.8857	-41.0484
01/04/2026 11:23	Northern grass skink	Male	Adult	5.0	54	5	48	174.8856	-41.0484
01/04/2026 12:39	Northern grass skink	Female	Adult	5.2	58	10	40	174.8803	-41.0490
01/04/2026 12:48	Northern grass skink	Male	Adult	7.0	60	38	40	174.8803	-41.0491
01/04/2026 13:00	Northern grass skink	Male	Adult	6.9	59	30	41	174.8825	-41.0493
01/04/2026 13:11	Northern grass skink	Female	Adult	4.5	58	74		174.8825	-41.0497
01/04/2026 13:16	Northern grass skink	Male	Adult	4.6	56	73		174.8825	-41.0497
01/04/2026 13:21	Northern grass skink	Female	Adult	4.8	54	25	44	174.8824	-41.0497
02/04/2026 12:19	Copper skink	Male	Adult	3.1	50	12	30	174.8885	-41.0484
02/04/2026 12:23	Copper skink	Female	Adult	4.3	55	63		174.8884	-41.0485
02/04/2026 12:28	Northern grass skink	Female	Adult	3.3	52	21		174.8883	-41.0484
02/04/2026 12:52	Northern grass skink	Male	Adult	4.9	56	70	5	174.8825	-41.0493
02/04/2026 13:02	Northern grass skink		Juvenile	1.2	36	40		174.8803	-41.0490
02/04/2026 13:03	Northern grass skink	Female	Adult	4.1	56	30	4	174.8802	-41.0491
03/04/2026 10:40	Copper skink		Adult	3.0	50	55		174.8884	-41.0484

4. Conclusion

Our conclusion is that northern grass skink and copper skink are present within the habitats within the proposed development footprint shown in **Figure 3,** and potentially Area 20. The populations recorded are in small, discrete areas in relatively low abundance and are not regionally or locally significant. However, the number of lizards and lizard sign recorded to date indicates that there are permanent and self-sustaining populations at the site.

There is a very low likelihood that other lizard species may also be present on site.

We trust that this information provides the initial basis for further strategic planning to ensure the proposed development appropriately avoids or minimises any significant effects to lizards and their habitats.

An ARDS Card with capture details has been submitted to DOC in accordance with the permit (**Appendix A**).

If you have any further questions, please contact Tony Payne at tony@blueprintecology.co.nz.

Yours sincerely,

Tony Payne

Principal Ecologist[3]

Blueprint Ecology Limited

5-May-26
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[3] This report has been prepared for the benefit of our Client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by Blueprint Ecology Limited for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.

Appendix A: ARDs Card

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

Observer: T M (Initials) Payne (Surname) | Date: 5 May 2026 | Alt (m): | Locality Name: Mt Welcome, Pukerua Bay

Address: 422 State Highway 59, Pukerua Bay, Porirua

GPS — Easting: 1 7 5 8 5 1 5 | Northing: 5 4 5 4 1 4 0

Series | Map No. | Easting | Northing

Affiliation: Blueprint Ecology Ltd | Area Office: | Conservancy: | Ecol. District:

5 Species name	No.	Time	Habitat	Weather
e.g. *Hoplodactylus maculatus*	6	18:00	16, D, E	6,2,1
Oligosoma polychroma	14		18, H	1,2,1
Oligosoma aeneum	4		18, H	1,2,1

Voucher specimen(s) Yes/No Specify:

Photograph(s) **8** Y Yes/No **9**

Extra notes on reverse side **10** Y Yes/No **11**

Notes: Northern grass skink and copper skink recorded as part of a survey using 110 ACOs on 1 to 3 April 2026.

Identified by: T M Payne
Authority used: 107412-FAU

6 Weather

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

Temperature
1 Hot
2 Warm
3 Moderate
4 Cool
5 Cold

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

7 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 Grassland
19
20

Micro habitats

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