



142 Konini Road

Lizard Survey Report

Prepared for Johnstone Construction Limited
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Document Sign Off

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1. INTRODUCTION

This report¹, prepared by Ecology New Zealand Limited (ENZL) for Johnstone Construction Limited (the client), presents a Lizard Survey Report (LSR) associated with the retrospective activities conducted as part of residential upgrades at 142 Konini Road, Titirangi (the site; Figure 1). An Ecological Impact Assessment (EclA)² has been prepared to identify and guide the management of the localised effects on the site's lizard values. In response, Auckland Council has requested for a lizard survey to further inform the impacts of the retrospective works, on lizards. An LSP has been prepared to detail the methodologies guiding the lizard survey within remaining lizard habitat on-site, in accordance with Schedule 3 Special Conditions of Wildlife Act Authority 114859-FAU. This LSR presents the findings of the lizard survey and proposed recommendations.



Figure 1: Site location and lizard survey area.

2. LIZARD SURVEY METHODS

The Project Herpetologist that oversaw the implementation of the lizard survey was Blair Outhwaite, Senior Ecologist. He has obtained ENZL's internal competencies required to undertake these works and has undertaken numerous projects of this nature across Auckland. All lizard survey works were authorised under Department of Conservation (DOC) authorisation 114859-FAU³ to implement lizard survey and salvage operations across the Auckland Region. All lizard survey activities shall be undertaken between 1st of October to the 30th of April in order to avoid the colder months of the year as per the DOC permit.

¹ This report is subject to the Report Limitations provided in Appendix A.

² Ecology New Zealand Limited 2025. Ecological Impact Assessment – 142 Konini Road. Report no. 24140-2.001.Rev0

³ DOC permit documentation available upon request

2.1. Manual Searches

Manual searches were carried out opportunistically in conjunction with ACO/trapping checks undertaken from the 6th to 8th of October 2025. This involved searching through potential microhabitats⁴, such as within clumping vegetation, weedy groundcover, rock crevices, and under rotting logs or inorganic debris to capture native lizards. A total of four person hours of manual searching was conducted.

2.2. Pitfall Traps

A total of 34 pitfall traps were installed in suitable locations within the lizard survey area at an average of 5m spacings on a grid (Appendix B). Pitfall traps were installed using 2L plastic buckets with small base holes to allow water to escape. Traps were recessed into the ground with the top lip of the bucket flush to ground level/just below. They were left in a 'closed' state for 19 days to ensure an appropriate weathering in period is achieved to overcome the disturbance created by their installation⁵. During this closed state, a lid was installed on the bucket to ensure lizards do not enter. An onduline sheet was placed above the plastic bucket to provide shade and cover.

All pitfall traps were opened and baited with canned pear and checked daily from the 6th to 8th of October 2025, with the exception of three pitfall traps (2, 3, and 17) which were filled with water due to rainfall events. The three traps that were unopened were utilised as onduline sheet Artificial Cover Objects instead. The bottoms of the pitfall traps were lined with some vegetation/organic debris to provide shelter for trapped lizards. A piece of polystyrene (or similar) was placed within the trap as a floating 'island' should unforeseen, excessive weather events cause the trap to flood. Bait in the opened pitfall traps was replaced during the checks where required.

2.3. Artificial Cover Objects

Three pitfall traps which were flooded by rainfall events were not set nor opened and were utilised as Artificial Cover Objects (ACOs). The onduline sheet ACO was left on-site for 19 days to ensure an appropriate weathering in period. The ACOs were checked daily from the 6th to 8th of October 2025. ACO checks involved slowly approaching the ACO looking for any basking lizards and then quickly lifting the ACOs and capturing any lizards that may be underneath.

2.4. Nocturnal Spotlight Searches

A minimum of four-person hours of spotlighting was carried out within the survey area on the 9th and 16th of October 2025 when weather conditions for favourable for gecko activity (warm temperatures, no rain or strong winds). ENZL ecologists systematically scanned potential arboreal habitat for lizards using high powered head torches and binoculars.

⁴ M Lettink & JM Monks 2016. Survey and monitoring methods for New Zealand lizards, *Journal of the Royal Society of New Zealand*, 46:1, 16-28, DOI: 10.1080/03036758.2015.1108343

⁵ Towns, D.R. 1991. Response of lizard assemblages in the Mercury Islands, New Zealand, to removal of an introduced rodent: the kiore (*Rattus exulans*). *Journal of the Royal Society of New Zealand* 21: 119–136

2.5. Lizard Capture and Release

Where possible, lizards were captured by hand to obtain key data on individuals. Data that were documented for each captured lizard shall include:

- SVL length measurement; and
- Photography for individual identification (e.g. Dorsal and head patterning of geckos and speckling/marks on the head and ventral neck/body of skinks).

All lizards captured will be released back where they were found immediately after data has been collected.

3. RESULTS AND DISCUSSION

Two species of native lizards, copper skinks (*Oligosoma aeneum*; Figure 2) and c. forest geckos (*Mokopirirakau granulatus*) were detected during the lizard survey. Two copper skinks were caught in pitfall traps while another two were observed during manual searches. In addition, two geckos were detected high in the canopy and were visually identified through binoculars to likely be forest geckos, but a definitive identification was not possible due to the distance. A summary of the lizard survey results is provided in Table 1. Amphibian and Reptile Distribution Scheme (ARDS) cards with details of all captured lizards are included Appendix B and submitted separately to the Department of Conservation.



Figure 2: Copper skink captured from a pitfall trap at 142 Konini Road.

Table 1: Lizard survey results from 142 Konini Road.

Scientific Name	Common Name	Number of Lizards Caught				
		Pitfall Trapping	ACOs	Spotlight Searches	Manual Searches	Total Number
<i>Oligosoma aeneum</i>	Copper skink	2	0	0	2	4
c. <i>Mokopirirakau granulatus</i>	c. Forest gecko	0	0	2	0	2

Statistical assessments are not within the scope of this survey report given the limited time scale and methodologies, but the results of the survey indicate the presence of ground-dwelling and arboreal lizard populations on-site. The catch per unit effort (CPUE) for the various survey methods at 142 Konini Road were 0.0215 for pitfall trapping, 0 for ACOs, 0.5 for manual searches, and 0.25 for spotlight searches. It is important to note that CPUEs are generally considered an index affected by many variables and are not appropriate to be directly compared to other studies/sites⁶.

4. RECOMMENDATIONS

Given the findings of the lizard survey indicating the presence of ground-dwelling and arboreal lizard populations on-site, there was a risk of injury or death to native lizards during the removal of vegetation without ecology supervision. Based on the survey findings, previous experience and expertise, ENZL would not expect any more than three geckos and/or 15 native skinks to have been utilising the area of lizard habitat at the time that it was cleared.

As there are no options available to avoid, mitigate or remedy the above adverse effects on native lizards, it is recommended that compensation is implemented to manage the residual effects on native lizards. Restoration of retained lizard habitat on site, including planting and pest animal control, has already been recommended as part of effects management for vegetation loss, therefore on-site compensation options are limited and monetary compensation is recommended. It is recommended that a contribution be made to the environmental organisation Ark in the Park⁷, or another suitable non-profit organisation, to be agreed upon with Auckland Council, whose work will benefit native lizards locally. The cost of compensation will be based on 1.5 times the estimated cost of two full days of lizard salvage together with any associated costs. This amount shall be calculated by the average quoted cost from a minimum of two ecological providers. ENZL's quoted cost multiplied by 1.5 times and inclusive of GST are \$9,320.00.

5. CONCLUSION

This lizard survey report details the results of the lizard survey conducted within the remaining SEA habitat at 142 Konini Road, Titirangi, Auckland. The lizard survey has been conducted in accordance with the provisions of DOC Wildlife Act Authority 114859-FAU and further guided by key principles for lizard surveys in New Zealand. The survey found that ground-dwelling and arboreal native lizards are present on-site. Subsequently, appropriate effects management measures have been recommended, comprising compensatory monetary contribution to a suitable non-profit organisation.

⁶ SRARNZ 2012. NZ Lizards Conservation Toolkit 2012. Section Two: Surveying and monitoring.

⁷ Ark in the Park. arkinthePark.org.nz

APPENDIX A

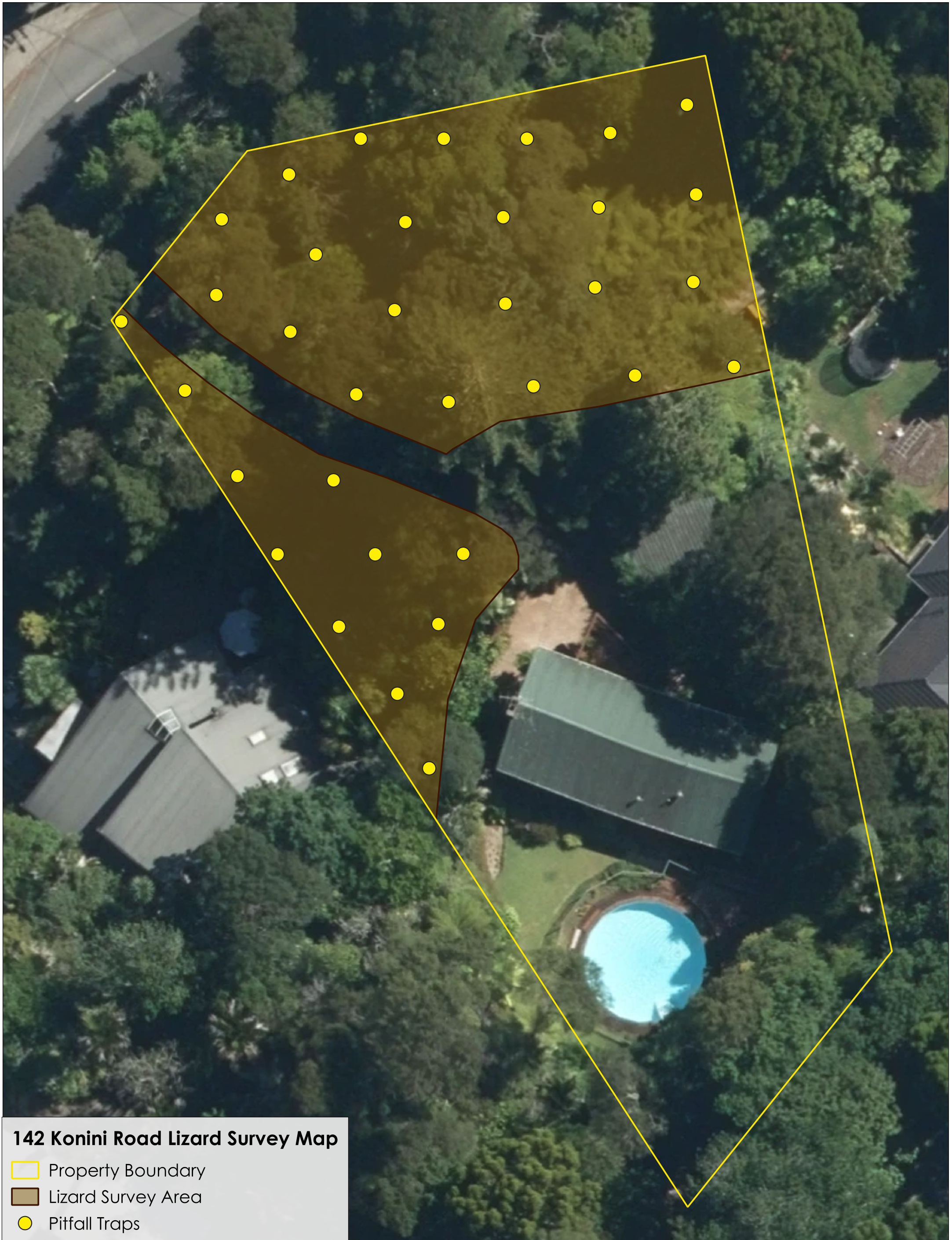
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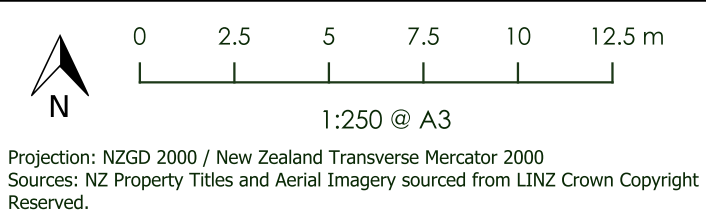
APPENDIX B

Lizard Survey Map



142 Konini Road Lizard Survey Map

- Property Boundary
- Lizard Survey Area
- Pitfall Traps



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142 Konini Road, Titirangi
Lizard Survey Plan Map
Date: 19 August 2025 | Rev: 0
Drawing No.: 24140-2 500

Plan prepared for Johnstone Construction Limited
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