



54 Roma Road

Lizard Management Plan

Prepared for Watercare Services Limited
17 December 2024

Report Number 24221-1.001Rev0

Document Sign Off

Author(s): Blair Outhwaite
Ecologist
Ecology New Zealand Limited



Review & Sign-off: Simon Chapman
Principal Ecologist
Ecology New Zealand Limited



Revision	Revision Date	Title	Status	Author/Editor	Authorised by
0	06/12/2024	54 Roma Road – Lizard Management Plan	Final	BO	SC

1. INTRODUCTION

This report¹, prepared by Ecology New Zealand Limited (ENZL) for Watercare Services Limited (the client), presents a Lizard Management Plan (LMP) for the proposed works at 54 Roma Road, Mount Roskill (the site; Figure 1). The LMP has been prepared in accordance with Schedule 3 Special Conditions of Wildlife Act Authority 91806-FAU. An Ecological Impact Assessment² has been prepared to identify and guide the management of the localised effects on the site's lizard values. As such, this LMP will not provide further assessments of impacts. The intent of the LMP is to guide the implementation of lizard salvage-relocation methodologies as specified by the project's consent requirements. The intent of the LMP is to guide the implementation of lizard salvage methodologies in accordance with the projects consent requirements.



Figure 1: Site location and impact areas.

1.1. Wildlife Act Authority 91806-FAU Special Condition 18

Any salvage operation for wildlife must be accompanied by a Lizard Management Plan that outlines, as a minimum, capture and handling techniques to be applied, the proposed relocation release site, management of the release site including provision for protection of relocated wildlife, provision of post-release monitoring, actions that will be followed in the event that Threatened lizard species are found within the development footprint and contingencies should establishment of salvaged wildlife fails.

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

² Tonkin & Taylor Limited 2024. May Road Stream Enhancement Project – Ecological Impact Assessment. Prepared for Watercare Services Limited.

2. PROJECT HERPETOLOGIST

The Project herpetologist that will oversee the implementation of this LMP is Simon Chapman, Principal Ecologist. He has successfully undertaken hundreds of lizard survey and salvage projects across New Zealand, many of which have included targeted efforts for Auckland herpetofauna species. Ecology New Zealand Limited currently holds a Wildlife Act Authority granted by DOC (91806-FAU) to implement lizard salvage operations across the Auckland Region.

The implementation of this LMP, will be undertaken by a suitably qualified and experienced ENZL ecologist who has demonstrated sufficient competency to undertake the required tasks through remote supervision alone. ENZL's implementing herpetologists' competencies are measured against internal company standards to ensure individuals are sufficiently trained by experienced staff.

If ENZL are unable to oversee and implement this LMP, then any changes to it and/or implementation of the LMP must be carried out by a suitably qualified and experienced herpetologist who holds the appropriate DOC Wildlife Act Authorisation to carry out the works.

3. LIZARD SPECIES POTENTIALLY WITHIN WORKS FOOTPRINT

The possibility for species presence has been determined through desktop review of the subject site, habitat assessments on-site, review of local and national herpetofauna databases, and extensive lizard management undertaken within other areas of the site. ENZL carried out a site visit on the 26th of November 2024 to assess the habitat and identify potential lizard species present. Based on Auckland Council (2023) and Department of Conservation (DOC) herpetofauna (2023) databases and ENZL's experience, only copper skinks (*Oligosoma aeneum*) are expected to occur on-site. Due to the size of the impact area and the habitat occurring on-site, ENZL does not foresee >20 lizards being salvaged and relocated from the impact area therefore a project-specific Wildlife Act Authority is not required.

4. LIZARD HABITAT

Lizard habitats were assessed during the consenting stage of this project, subsequently triggering the recommendation for lizard management. The impact areas largely contain exotic grass and pasture weeds. Ground-dwelling lizard habitat was present in the form of ground cover vegetation. The impact areas include ground-level habitats that are potentially suitable for copper skinks.



Figure 2: Example of potential copper skink habitat present on-site.

5. LIZARD SALVAGE

Lizard management for this site will be focussed on ground-dwelling species. All lizard salvage activities shall be undertaken at a suitable time of year when lizards are active as defined in the DOC permit. These activities must be undertaken between 1st of September³ to the 30th of April in order to avoid the colder months of the year.

5.1. Works methodology

5.1.1. Destructive Manual Searches

Destructive manual searches will be undertaken by the implementing herpetologist across ground habitats immediately prior to vegetation clearance. This will involve the searching through, and pulling apart, of potential microhabitats, such as clumping vegetation, weedy groundcover, and under organic and inorganic debris. Raking may be required across areas of thick leaf litter and matted weed areas (e.g., densely matted areas of *Tradescantia*) and hand saws may be employed to cut clumping vegetation to access thick bases.

5.1.2. Supervised Vegetation Clearance

The implementing herpetologist will work alongside the vegetation clearance contractors to search for and salvage lizards during tree felling and the clearance of ground habitat. All arboreal tree and shrub habitat will be immediately hand searched by the implementing herpetologist post felling. Searches through arboreal habitat will be methodical and include searching the trunks, branches, and through foliage. A torch or borescope may be used to search in cracks and crevices. Where cracks and crevices cannot be effectively searched, these will be carefully sectioned and recycled into retained vegetation to allow potentially present lizards to self-relocate.

³ Note the ENZL expects that from 2025, DOC may adjust the start of the lizard season to commence 1st October.

Where thick ground cover (e.g., rank grassland or thick divaricating vegetation) is present on-site, the implementing ecologist will work alongside contractors undertaking initial ground scraping of the area with an excavator. This initial scrape will aim to scrape only the top layer of vegetation whereby the herpetologist will supervise for fleeing lizards that will become exposed by this habitat disturbance.

5.2. Lizard Capture and Holding

Lizards will be captured by hand and, where necessary, temporarily held in either catch bags (≤ 2 hours) and/or storage containers (≤ 4 hours) with appropriate ventilation. Temporarily holding lizards will allow the implementing herpetologist to avoid unnecessary delays during lizard salvage efforts and to record required lizard data prior to release. Lizard containers used are a minimum of 23cm by 15cm and no more than 5 lizards should be held within the storage containers at one time. Once vegetation clearance is complete, lizards will be relocated to suitable relocation areas as described in Section 6.

Prior to release, key data will be documented for each captured lizard. At a minimum, this shall include:

- SVL, VTL, and tail regeneration length measurements; and
- Photography for individual identification (e.g. Speckling/marks on the left and right side of the head and ventral neck/body of skinks).

6. LIZARD RELOCATION SITE

The project footprint includes the removal of the remaining lizard habitat on-site. Pukewīwī / Puketāpapa / Mount Roskill has been selected as the release area for any salvaged copper skinks, which has been approved by the Tūpuna Maunga Authority⁴. Copper skink habitat at the proposed release site includes rank grass and native restoration plantings.

During clearance works, the implementing herpetologist will work alongside clearance contractors to recycle woody debris into the release site to enhance existing lizard habitat. This will involve creating eco stacks, log piles and sectioning discs of larger trees. This recycled debris will aim to create micro-habitat areas for ground dwelling lizards that will provide supplementary refugia and will in time provide areas where invertebrates can colonise and provide food source areas. The number of eco-stacks will be selected at the implementing Project Herpetologist's discretion and guided by the results of the salvage. A minimum of eco-stack size will cover an area of L 0.5m x W 0.3m x H 0.3m for every five native skinks salvaged. Where any native geckos are relocated on-site, a bamboo hide will be installed for each gecko on the tree they are released onto to provide immediate and ongoing shelter.

If any native lizards are salvaged during the implementation of lizard management and no pest animal management is currently being undertaken at the time of release, ENZL will install a self-resetting Goodnature A24 trap to target rodents within the designated release site. The installation of this trap provides certainty that a level of pest suppression is undertaken during the settling in phase of relocated animals. As per product specifications for this trap, it will automatically kill 24 pests across up to a 6-month period. The trap will be left on-site for on-

⁴ Pers. comms. J. Gollin 2024.

going maintenance to be voluntarily undertaken by the client. On-going maintenance includes replacement of the gas canister and bait.

7. INCIDENTAL DISCOVERY

As specified in Schedule 3 Condition 22 of ENZL's Wildlife Act authority, DOC's Auckland District Office Operations Manager will be contacted for further advice if wildlife species classified as Threatened are located within the footprint of the proposed development or within the proposed release site.

If more than 20 individuals of any species are detected during the salvage operation, the implementing herpetologist will determine if further enhancement of the release site is required, an additional or alternate release site will be more appropriate for lizards to be released. As detailed in special condition 17, any alternate or additional release site will be:

- Similar or better habitat than the source location, and capable of supporting that lizard species;
- Into release sites that are within five hundred (500) metres of the development footprint (or with consultation and agreement with the Grantor's Auckland District Office Operations Manager);
- Into release sites where habitat for that species of wildlife has been enhanced and approved prior to relocation, using accepted techniques such as provision of extra refuges suitable for the species providing protection from predators (e.g., complex rock stack);
- Into release sites where the site has long-term security from development or modification (e.g., Council or DOC- managed Reserves, covenants, or District Plan provisions); and
- Subject to pest control if and where appropriate at the Project Herpetologist's discretion.

8. MONITORING

If more than 20 skinks and/or 20 geckos are salvaged during the implementation of this LMP, monitoring will be undertaken at the release site. It is expected that relocating individual animals would require a level of effort not commensurate to the monitoring requirements. Monitoring will instead focus on ensuring an ongoing population is present post-vegetation clearance and provide a better understanding of local lizard communities. The monitoring methodology will be determined by the implementing ecologist based on the species to be monitored and the habitat at the release site. Lizard monitoring will be undertaken following best practices and include a single round of monitoring:

- four funnel or pitfall trap checks over a week, or
- three artificial cover object checks over two weeks, or
- three nights of spotlighting within a season.

The lizard monitoring will include:

- Standard assessment methods will be employed that use a mixture of pitfall and / or funnel traps, with trap type and locations to be selected at the herpetologist's discretion and/or spotlight searches.

- Lizard Presence/absence across the site will be used as an indicator for persistence of lizards.
- The documentation of juveniles will be used as an indicator for population recruitment.
- Monitoring will be undertaken in late/early summer with the aim to determine population persistence at this site.
- Post- release monitoring will be carried out within 12-14 months of the salvage to evaluate the initial establishment, or as directed by the Wildlife Act authority conditions.
- Captured skinks will be measured and any additional unique identifying features will be documented (scarring, toe loss, tail loss, gravidity etc.).

Lizard trapping in modified environments is notoriously unreliable and it is expected that the results of the lizard monitoring will not accurately reflect the success of the salvage or reflect the density of lizard populations within the release area. Results of post-relocation monitoring will be provided in the form of a letter or memorandum to Auckland Council within one month following the completion of surveys. The results of the monitoring will be reported to the Department of Conservation.

9. REPORTING

The results of the native lizard salvage-relocation operation will be reported to Auckland Council in a completion/compliance report in the form of a letter or memorandum, submitted within 10 working days following the completion of vegetation clearance. Amphibian and Reptile Distribution Scheme (ARDS) cards with details of all relocated lizards will be included in the completion/compliance report and submitted separately to the Department of Conservation.

10. CONCLUSION

This LMP aims to ensure the actual and potential adverse effects from the proposed development on native lizard species are managed appropriately. The Plan has been prepared in accordance with the provisions of DOC Wildlife Act Authority 91806-FAU, and further guided by key principles for lizard salvage and transfer in New Zealand. The methodologies, scale and intensity of mitigation efforts, timeframes, and adaptive management proposed in this LMP are considered appropriate for managing the predicted ecological impacts.

APPENDIX A

Report Limitations

This Report/Document has been provided by Ecology New Zealand Limited (ENZL) subject to the following limitations:

- i) This Report/Document has been prepared for the particular purpose outlined in ENZL's proposal and no responsibility is accepted for the use of this Report/Document, in whole or in part, in other contexts or for any other purpose.
- ii) The scope and the period of ENZL's services are as described in ENZL's proposal and are subject to restrictions and limitations. ENZL did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Report/Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by ENZL in regards to it.
- iii) Conditions may exist which were undetectable given the limited nature of the enquiry ENZL was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Report/Document. Accordingly, if information in addition to that contained in this report is sought, additional studies and actions may be required.
- iv) The passage of time affects the information and assessment provided in this Report/Document. ENZL's opinions are based upon information that existed at the time of the production of the Report/Document. The Services provided allowed ENZL to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.
- v) Any assessments, designs and advice made in this Report/Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Report/Document.
- vi) Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by ENZL for incomplete or inaccurate data supplied by others.
- vii) The Client acknowledges that ENZL may have retained sub-consultants affiliated with ENZL to provide Services for the benefit of ENZL. ENZL will be fully responsible to the Client for the Services and work done by all of its sub-consultants and subcontractors. The Client agrees that it will only assert claims against and seek to recover losses, damages or other liabilities from ENZL and not ENZL's affiliated companies. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any legal recourse, and waives any expense, loss, claim, demand, or cause of action, against ENZL's affiliated companies, and their employees, officers and directors.
- viii) This Report/Document is provided for sole use by the Client and is confidential to it. No responsibility whatsoever for the contents of this Report/Document will be accepted to any person other than the Client. Any use which a third party makes of this Report/Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. ENZL accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Report/Document.
- ix) Where lengths or other measurements have not been provided by a surveyor, ENZL has used basic GIS mapping and measurement systems to estimate these numbers. These should not be taken as surveyor-level accuracy for the purposes of decision making.