

LIZARD MANAGEMENT PLAN FOR PINE REMOVAL AT WESTERN SPRINGS PARK



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Woody debris in the understorey of the Western Springs pine block.

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1. INTRODUCTION

Auckland Council engaged Wildland Consultants Ltd to provide an ecological management plan for the removal of mature pine (*Pinus radiata*) forest in Western Springs Park, Western Springs. During a site visit by Wildlands in 2016, an opportunistic search of woody debris confirmed the presence of indigenous copper skink (*Oligosoma aeneum*). The presence of copper skink triggers the requirement for a Lizard Management Plan (LMP) to be prepared and implemented subject to the approval of the Auckland Council.

To this end, Auckland Council has commissioned Wildland Consultants to provide a Lizard Management Plan (LMP) prior to the planned removal of the pines in February 2019. This LMP includes the following:

- Detailed methodology for the capture and relocation of indigenous skinks.
- Map showing targeted lizard salvage area and proposed relocation sites.
- Timeframes for field work to be carried out.

Consultation with the Zoo was undertaken in February/March 2021 with regards to the methodology outlined the LMP, and certain suggestions on trapping techniques and the transfer of lizard refugia to the relocation site have been incorporated into this version.

2. LIZARD SEARCH AND RESCUE METHODOLOGY

Lizard search and rescue will be carried out the week prior to the commencement of pine removal works, in appropriate weather conditions.

Survey techniques include:

- Installation and servicing of funnel traps throughout the lizard salvage area.
- Installation and servicing of pitfall traps throughout the lizard salvage area.
- Hand-searching of lizard habitat within the lizard salvage area.

2.1 Funnel traps

A maximum of 30 funnel traps will be installed throughout the lizard salvage area. Traps will be installed and filled with soft vegetation and leaf litter to reduce risk of desiccation to trapped animals prior to being activated with a fish-based cat food as bait. Following activation traps will be inspected daily for four consecutive days before being removed from the site. To optimise capture opportunities and ensure good coverage of the site, traps may be relocated within the salvage area after two to three days of servicing. Pieces of rubber garden hose (c.5-10 centimetres long) will be fitted into the entrances of each funnel trap in order to prevent mice entering the traps. Traps will be inspected daily for four consecutive days before being removed from the site.

2.2 Pitfall traps

In addition to the funnel traps, up to 50 pitfall traps will be installed on 1 March 2021, approximately five weeks prior to tree felling is programmed to commence. They will be completely filled with soft vegetation and sticks and left in an inactive state for lizards to freely enter and exit, and habituate to the novel items. Pitfall traps will be covered with a square of Onduline to protect lizards from sun and rain. Upon activation, traps will be baited with pear and banana, and inspected daily for four consecutive days before being removed from the site.

2.3 Active hand-searching for skinks

Searching for skinks will involve the removal of as many refugia as possible from the footprint of the access track and processing areas. Destructive hand-searching will involve the use of low-impact hand tools to dismantle specific understorey vegetation (i.e. *Gahnia* species, and pampas/*Cortaderia selloana*, if present) as these are known to provide habitat for skinks at ground level.

2.4 Spotlighting for geckos

As a precaution, spotlighting for indigenous geckos will take place on two occasions during the search and rescue week, during appropriate weather conditions (calm, >10°, little or no rain). Anecdotal observations of indigenous forest gecko (*Mokopirirakau granulatus*) and elegant gecko (*Naultinus elegans elegans*) have been observed within habitat which is contiguous with the clearance area in recent years (Richard Gibson, Auckland Zoo, pers. comms. 2018).

3. LIZARD RELOCATION METHODOLOGY

3.1 Wildlife Act Authority Permit

All indigenous skinks are protected under the Wildlife Act (1953) and a permit under the Wildlife Act must be obtained from the Department of Conservation before any indigenous lizards can be handled. Lizard search and relocation work will be undertaken by an Auckland Council-approved herpetologist who holds a current Department of Conservation Wildlife authorisation permit. Wildland Consultants are authorised under permit 50091-FAU to carry out capture, survey and salvage indigenous lizards within the Auckland region.

3.2 Capture and transport of lizards

All captured lizards caught will be handled according to best practice techniques. Lizards captured during search efforts will have morphometric data taken before being temporarily placed in individual lizard cloth bags, and stored in ventilated, hard-sided containers (to prevent accidental crushing) beneath adequate shade. A small amount of damp leaf litter from the capture site will be placed inside the cloth bags with the lizard to prevent dehydration. Any lizards captured will be handled and held

following best practice and released as soon as practicable to the pre-selected on-site lizard refuge area.

If detected at the property, the invasive Australian plague skink (*Lampropholis delicata*) will not be captured or relocated. This species is listed as an ‘Unwanted Organism’ under the Biosecurity Act (1993).

3.3 Lizard recipient site selection and habitat enhancement

Any indigenous lizards captured during vegetation clearance will be released into similar habitat within the grounds of Auckland Zoo (confirmed by Siân Buley, Pest Management Coordinator, Auckland Zoo). The relocation site is within a Significant Ecological Area (SEA_T_6245) overlay (Figure 1), which contains good quality lizard habitat. This habitat will fulfil the following specific requirements:

- Long-term security to ensure habitat and population longevity.
- Sufficient size and habitat complexity.
- Proximity to original population.

The recipient site is characterised by indigenous-dominated forest scrub composed of pōhutukawa (*Metrosideros excelsa*), kānuka (*Kunzea robusta*), karo (*Pittosporum crassifolium*), ponga (*Cyathea dealbata*), and occasional māpou (*Myrsine australis*). The aspect, landform and understorey vegetation are similar to that of the pine removal area. Whilst refugia within the proposed release area is plentiful, habitats will be enhanced with ‘pine discs’ and woody debris. Pine discs will be cut up within the pine forest and located within the lizard relocation area to suit numbers of lizards captured. Rather than using individual discs for each lizard, three to four discs will be loosely stacked together on top of foliage and leaf litter to build suitable ‘islands’ of refugia, to ensure they have immediate access to refuge which is free from competition. Woody debris (small branches and twigs, leaf litter) will be placed around each pine disc to improve cover and habitat complexity. Between 4-6 lizards will be released into each ‘island’.

Auckland Zoo has been undertaking pest mammal control in the lizard relocation site since mid-January 2021 (S. Buley, pers. comms.). This includes the use of DOC200 and DOC150 kill traps as well as bait stations, acknowledging that the current regime of trapping and baiting throughout the Zoo will also benefit any relocated lizards.

3.4 Post-release monitoring

Post-release monitoring of the translocated lizards is beyond the scope of works which Wildland Consultants Ltd has been engaged to undertake. However, should twenty or more indigenous lizards of a ‘Not Threatened’ status, or ten lizards of an ‘At Risk’ species be captured and relocated, a post-release monitoring plan should be developed. Additionally, should thresholds for a translocation trigger (see 3.5.2) be met, this would also trigger the requirement of post-release monitoring. This may broadly involve annual population monitoring of all or some of the species transferred to the relocation site for a minimum of three years, and will be developed in conjunction with the Department of Conservation’s National Lizard TAG.

3.5 Contingency actions

3.5.1 Trapping timeframe

If lizards are still being caught on day four (the last day of trapping), this will serve as a trigger to continue trapping daily until 48 hours have passed with no further captures. Note that the last schedule day of trapping is a Friday, so if required, traps will be deactivated over the weekend then set again the following Monday.

3.5.2 Translocation triggers

The Department of Conservation has provided Wildland Consultants with written permission to salvage and relocate copper skinks in excess of the maximum number of 20 individuals in the event more than 20 copper skinks are captured. The letter from the Department of Conservation (dated 31 January 2019) is attached to this LMP.

3.6 Reporting

A report in the form of a letter will be prepared for the Council's Team Leader (Central) as per consent condition 27. The report will include details of the capture location, species and number of individuals captured and transferred to the release site. Grid references for capture and release locations will also be provided in the report. Lizard species and location details will also be provided to the Department of Conservation as part of the Wildlife Authorisation permit (National Authority 50091-FAU) issued to Wildland Consultants Ltd (see Section 3.1). ARDS cards will be completed and submitted to both Auckland Council and the Department of Conservation.

3.7 Residual effects on lizard values

The removal of mature pines at the site has the potential to result in the injury, death and/or displacement of lizards. These adverse effects are to be mitigated by the appropriate implementation of the LMP. Captured lizards will be handled according to best practice techniques and, following relocation to the nominated recipient site within Auckland Zoo, they will be placed into habitat that has been comprehensively controlled for predators. Provided these actions are undertaken in accordance with the methods outlined in this document, it is expected that lizard values at the site and within the wider area will not be negatively impacted.



4. TIMELINE

Lizard search and rescue work will be undertaken in the week commencing 22 March 2021 (in warm, fine weather conditions with little to no wind and rain). This is when indigenous lizards have higher activity levels associated with warmer months and are thus easier to find. Lizards also have a better chance of surviving the relocation process during warmer conditions. Lizard works will be carried out over a five-day period approximately one week prior to the felling of pines.

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