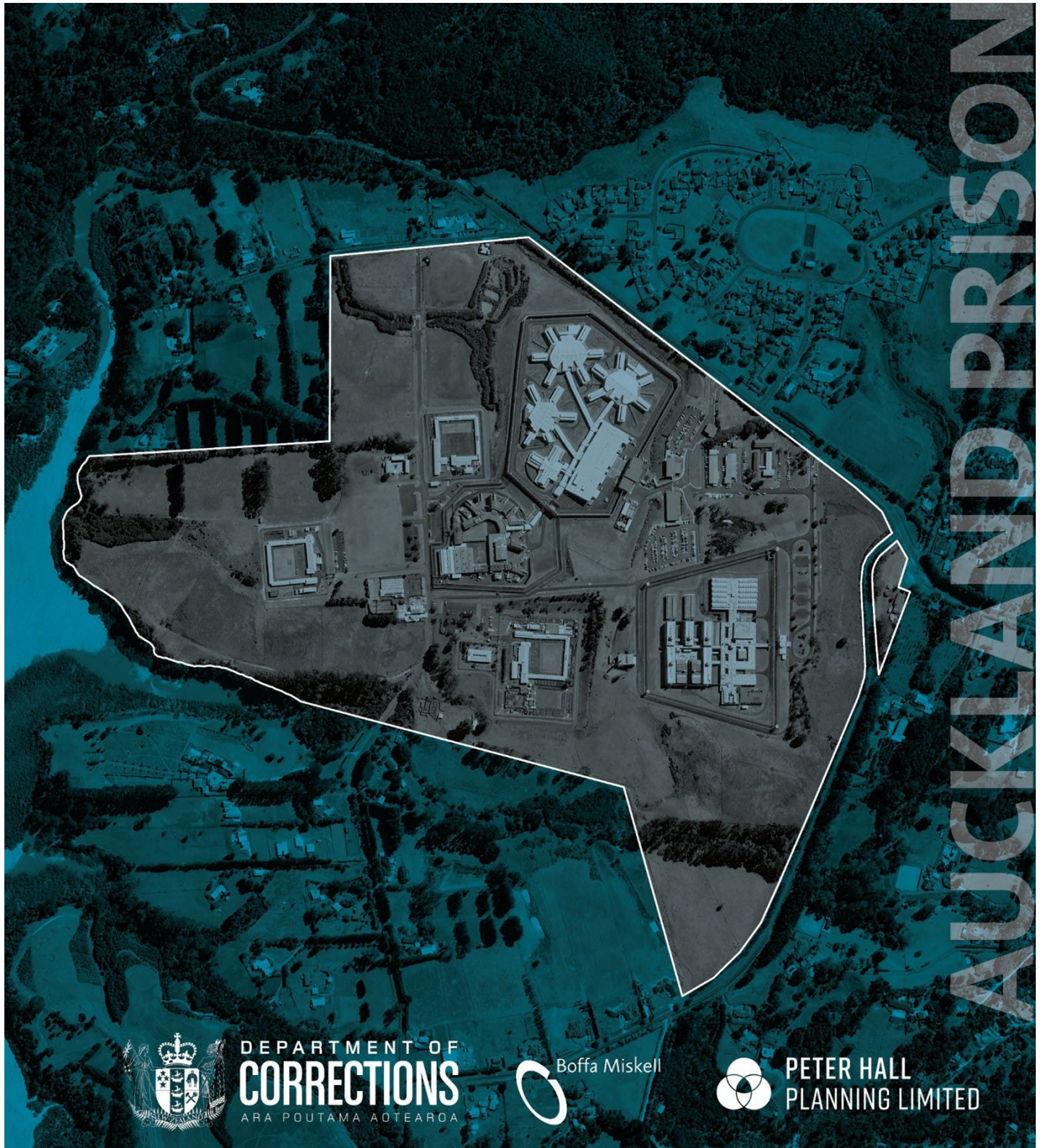


Auckland Prison Capacity Increase

Volume 4 – Appendix 4B
Lizard Management Plan



DEPARTMENT OF
CORRECTIONS
ARA POUTAMA AOTEAROA



Boffa Miskell



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Lizard Management Plan

Auckland Prison Capacity Increase

Prepared for Department of Corrections - Ara Poutama Aotearoa

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Release and Reliance This plan has been prepared by Boffa Miskell Limited on the instructions of our Client, in accordance with the agreed scope of work. If it is intended to support an application under the Fast-track Approvals Act 2024, it may be relied upon by the Expert Panel and relevant administering agencies for the purposes of assessing the application. While Boffa Miskell Limited has exercised due care in preparing this plan, it does not accept liability for any use of the plan beyond its intended purpose. Where information has been supplied by the Client or obtained from external sources, it has been assumed to be accurate unless otherwise stated.				

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1.0 Introduction

1.1 Background

The Department of Corrections – Ara Poutama Aotearoa (Corrections) are seeking to alter the existing designation and obtain other approvals to enable increased capacity at Auckland Prison under the Fast-track Approvals Act 2024 (FTAA).

Proposed development will include earthworks associated with the removal of vegetation (e.g., exotic grassland, indigenous revegetation, and exotic shrubs/trees), existing farm industry buildings, prison facilities and associated hardstanding gravel roads and yards.

1.2 Purpose and Scope

This Lizard Management Plan (**LMP**) has been prepared, on behalf of Corrections, as part of their suite of approvals under the Fast Track Approvals Act 2024 (**FTAA**) for the proposed Auckland Prison Capacity Increase.

This LMP has been prepared to address the potential effects on lizards within the Site that may be impacted by the construction of the prison redevelopment, and to support the Wildlife Approval Application (WAA) (Volume 4) to survey, catch and liberate ('salvage') lizards at the Auckland Prison Site (in accordance with proposed conditions WAA01 of the Wildlife Approval). It also supports the Substantive Application for the Auckland Prison Capacity Increase being applied for under the FTAA. This LMP is required as part of the Ecological Management approach (in accordance with proposed designation condition DES43B and resource consent condition LUC13).

This LMP applies to activities that occur within the Auckland Prison Site outlined in red in Figure 1. This management plan includes the following:

- Context (Section 2.0)
- Works outside areas of lizard habitat (Section 3.0)
- Site Values and Significance for Lizards (Section 4.0)
- Effects on lizards (Section 5.0)
- Management for a protective benefit (Section 6.0)
- Lizard survey, salvage transfer and release, and Lizard Release Site assessment and enhancement (Sections 7.0 and 8.0)
- Contingency actions and incidental discovery protocol (Section 9.0)
- Post release monitoring and reporting (Section 10.0)
- Adaptive management (Section 11.0)

This LMP may be updated over time to respond to potential changes in circumstances or updated protocols. Any updates (beyond minor amendments) will need to be recertified by the Department of Conservation (DOC) in accordance with the relevant WAA conditions.

1.3 Statement of Qualifications and Relevant Experience

This plan has been developed by Adam Willetts (Ecologist/Biosecurity Consultant, Boffa Miskell) in conjunction with Dr Ian Boothroyd (Partner: Ecologist, Boffa Miskell) who conducted all ecological habitat assessments (desktop and site walkover) for the proposed capacity increase project. The lizard salvage will be implemented by or under the supervision of Matt Turner (Herpetologist, Boffa Miskell) or Katherine Muchna (Senior Herpetologist, Boffa Miskell) with support from Boffa Miskell staff.

Their qualifications and experience are outlined in Appendix 1: Expert Summary Statement along with confirmation that this report has been prepared in accordance with the Environment Court's Code of Conduct for Expert Witnesses.

1.4 Summary of Lizard Management Approach

The lizard management approach for this project will involve utilising appropriate effects management methods and activities for the protective benefit of any native lizards and associated habitat. The effects management will be effective throughout the entire management process, with activities scheduled prior to, during and post construction.

We have deemed it necessary to conduct the lizard survey (and subsequent salvage) immediately prior to construction, rather than at an earlier date, because the exact date for construction commencement is not yet known. Construction timing is subject to future central government funding decisions. Therefore, lizard presence and/or abundance may change over that period of time, with the potential for lizards to move into existing or newly formed habitat/cover within the redevelopment areas where there were previously none surveyed earlier. It is therefore most effective for the lizard survey to occur immediately prior to construction to ensure the results of the survey are more representative and accurate of the situation at that point in time. **Figure 4 within this report provides a summary of the proposed lizard management staged process.**

Minimisation and remediation of effects on lizards will be applied to the re-development areas (Areas A and B), as well as the proposed enhancement area (Area C).

Lizard Release Site (LRS):

- Enhancement planting within the LRS and buffer areas will be carried out to provide further habitat for lizards released into the LRS. Enhancement planting is intended to occur within the first two planting seasons following confirmation of the designation alteration (i.e. planting seasons of 2028 and 2029).
- At least six months prior to construction in Areas A and B, involving possible disturbance to lizard habitat areas, an on-site LRS and buffer area will be prepared for potential lizard release via a baseline lizard survey and implementation of protective activities including device installation.
- Lizards released into the LRS will be protected via appropriate pest animal management within the Site and surrounding buffer area.
- Enhancements for protective benefit within the LRS will include the installation of wood debris piles, de-stocking the paddocks adjacent to the LRS and buffer, maintenance of the property boundary stock exclusion fencing and site disturbance minimisation.

Development areas (Areas A & B):

- Within the re-development areas the activities to minimise harm/disturbance to lizards will include utilisation of higher activity periods for lizard survey and salvage (timing), continuation of intensive land use practices, lizard fencing and cover object removal as needed.
- A lizard survey and salvage within identified habitat of the redevelopment areas will be implemented immediately prior to construction activities that may disturb lizard habitat. Any salvaged native lizards will be transferred and released into the on-site LRS.
- It is envisaged only one lizard survey and salvage shall be required to be undertaken immediately prior to construction. This is on the provision that existing intensive land use practices are continued as per section 6.2.3, and lizard fencing is installed and maintained where required as per section 6.2.4.
- Once re-development construction begins there are further preventative measures planned to protect native lizards that may try to migrate into the construction areas.

Further enhancement package

- Corrections propose a further ecological enhancement package for areas surrounding the LRS and buffer, including de-stocking all the other grazed farmland in Area C, enhancement/infill/screen planting, freshwater habitat protection and pest browse animal management (possums, rabbits and hares). This is to protect the enhancement plantings, to improve/increase the ecological habitats (terrestrial and freshwater) and develop greater habitat connectivity within and surrounding the Prison Site.

2.0 Context

2.1 Statutory Framework

All native lizard species are 'absolutely protected' under the Wildlife Act (1953, s63 (1) (c)), and lizard habitats are also protected by the Resource Management Act (1991) and administered by DOC and local authorities (Auckland Council). This LMP has been prepared to support an application to increase prisoner capacity at Auckland Prison under the FTAA.

Native lizards often occupy habitats of otherwise low ecological value that are not otherwise protected (i.e., weedy vegetation, vegetation margins), and guidelines have been developed to identify and address lizard habitat loss through land development (Anderson et al. 2012).

These guidelines identify the procedures involved to meet the legislative requirements for lizard fauna in an Assessment of Environmental Effects (AEE). These matters are also addressed throughout this LMP and include:

- Obtaining a WAA to survey, capture and transfer lizards (for this project being sought under the Fast Track Approvals Act). Iwi consultation also forms part of permit approval.
- Undertaking lizard and/or habitat surveys.
- Development of a LMP.

- Description of impact management measures to manage adverse effects on lizards.

2.2 Project Footprint

The Auckland Prison is situated within the Tamaki Ecological District, which the (DOC describes as being original forest characteristic of the northern North Island lowlands with abundant taraire and puriri. Some kauri remnants (with hard beech) occur on the North Shore. Mangroves line parts of Waitemata Harbour and Tamaki River. The district includes major wetland habitats of the Tamaki Estuary and Waitemata Harbour and with large areas of tidal flats.

The proposed areas where most development activity will occur within the Auckland Prison Site are identified as Areas A and B, which are 44.93 ha and 3.3 ha in size respectively. All land within the Auckland Prison Site is managed by Corrections. The site has been used as a prison since 1968 with the current site consisting of prison facilities, maintained gardens and lawns as well as leased farmland (Section 3.2.2). Table 1 below provides a summary of the activities that may occur in the different areas of the Site and the likely lizard habitat for each area. Figure 1 below details the proposed designation areas, significant ecological areas and existing ecological features within the project footprint.



Table 1: Activities associated with proposed capacity increase at Auckland Prison.

Area	Types of activities	Likelihood of lizard habitat
Area A	Secure facilities and non-secure facilities	Parts of Area A are already highly modified and set back from the coast with a low risk of presence of lizards. Area A is the location of all existing prison facilities.
Area B	Non-secure facilities including carparking, a visitor centre and prison control point.	Parts of Area B are already highly modified and set back from the coast and SEAs and with a low risk of presence of lizards.
Area C	"Balance land activities" including: • Landscape revegetation and tree planting; • Surveillance equipment and lighting; • Vehicle accessways; • Infrastructure and services (including water, wastewater and stormwater facilities); • Cultural buildings; • Offender employment activity; and • Energy generation and storage facilities.	Parts of Area C including those along the Pāremoremo Creek are largely unmodified. Will be revegetated with exotic and native vegetation over time so lizard habitat values will increase over time.
Area D	Staff training facilities, community facilities, infrastructure/services, parking and lighting.	Largely modified due to use as community facility, carpark and wastewater disposal tanks and areas. Low risk of presence of lizards.

No terrestrial Significant Ecological Areas (SEAs) are present within the proposed redevelopment areas (Areas A and B) but SEAs¹ occur in close proximity (Table 1), with SEA-T-8330 being located on the southern boundary of the Prison Site. The factors attributable to the SEAs in the vicinity of Auckland Prison, Pāremoremo are summarised in Table 2.

None of the SEAs listed meet all five factors, but all meet at least two, and all three SEAs in the vicinity meet the criterion for threat status and rarity (i.e., indigenous vegetation, habitat for at risk species or is locally rare, land environment < 20% remains and vegetation or habitat that occurs within an indigenous wetland or dune ecosystem).

¹ Significant Ecological Areas – Terrestrial are identified areas of significant indigenous vegetation or significant habitats of indigenous fauna located either on land or in freshwater environments (UNITARY PLAN D.9 Significant Ecological Areas Overlay).

Table 2: List of SEAs (and their attributes) in the vicinity of Auckland Prison, Pāremoremo.

	Factors for assessing ecological value (Schedule 3 (AUP))				
SEA	Representativeness	Threat status and rarity	Diversity	Stepping stones, migration pathways and buffers	Uniqueness or distinctiveness
SEA-T-8330		√			
SEA-T-6745		√		√	
SEA-T-8135	√	√	√		

2.3 Authority and Best Practice

Any lizard management shall be carried out in accordance with an applicable Wildlife Authority Application (WAA) and any relevant conditions therein. Lizard management described within this plan follows best practise standards provided in Department of Conservation guidance documents. These include methods to survey and capture lizards (DOC 2012) and follow the 'Principles for Lizard Salvage Translocations' and 'Guidance for lizard habitat clearance' (DOC 2019, 2020a and 2020b).

3.0 Pre-Lizard Salvage Works Outside Areas of Lizard Habitat

If earthworks associated with the proposed capacity increase development are undertaken **prior to lizard salvage** in areas **outside of identified lizard habitat** (see Figure 2 and Section 4.3) but near to these identified areas, a lizard-proof fence (design details in Section 6.2.4) shall be installed between the earthwork areas and lizard habitat prior to any works commencing. This is to clearly demarcate lizard habitat and prevent any lizards migrating out of the habitat areas into the earthworks area where they could be harmed. All fences shall be installed at a 5 m setback from any lizard habitat and be approved by the project herpetologist prior to earthworks commencing.

If any lizards are detected during these earthworks, the Incidental Discovery Protocol shall be followed (see Section 9.0).

4.0 Site Values and Significance for Lizards

4.1 Desktop Assessment

A review of indigenous herpetofauna records from the Department of Conservation's Bioweb database² and the Auckland Council herpetofauna database³ within 20 km of the Site has been undertaken. A list of potential herpetofauna species recorded within 20 years and in a 20 km range of the proposed build boundary, and their threat classification is provided below in Table 3.

A desktop review was also undertaken to identify any areas of vegetation that may be suitable for herpetofauna inhabitation. Where sites are highly maintained and disturbed through activities such as mowed and cared-for lawns and grassed areas, driveways, roadside swales and gardens, or are actively grazed by stock, the likelihood of indigenous lizards being present is very low. Even though there have been skinks and geckos identified nearby, the Auckland Prison Site (used as an operational prison and grazing farmland) does not provide suitable habitat for skinks or geckos (Section 3.2.2).

Table 3: Herpetofauna recorded within 20 km of the Auckland Prison Site.

Common Name	Scientific Name	Threat Class (Hitchmough et al., 2021)	Regional threat class (Melzer et al. 2022)	Nearest Record within 20 km	Preferred habitats
Forest gecko	<i>Mokopirirakau granulatus</i>	At Risk - Declining	Regionally Declining	Greenhithe, 3.3 km.	Seral scrubland and forest
Elegant gecko	<i>Naultinus elegans</i>	At Risk - Declining	Regionally Declining	Greenhithe, 4.7 km.	Seral scrubland and forest
Pacific gecko	<i>Dactylocnemis pacificus</i>	Not Threatened	Regionally Declining	Pāremoremo Scenic Reserve, 0.8 km.	Seral scrubland and forest
Moko skink	<i>Oligosoma moco</i>	At Risk – Relict	Regionally Relict	Wainoni, 6.7 km	Leaf litter, grasslands and forest.
Ornate skink	<i>Oligosoma ornatum</i>	At Risk - Declining	Regionally Declining	Greenhithe, 4.1 km.	Forest, scrub and complex grassland.

² Department of Conservation Bioweb database accessed 2022

³ Auckland Council herpetofauna database accessed 2022

Common Name	Scientific Name	Threat Class (Hitchmough et al., 2021)	Regional threat class (Melzer at al. 2022)	Nearest Record within 20 km	Preferred habitats
Copper skink	<i>Oligosoma aeneum</i>	At Risk - Declining	Regionally Declining	Pāremoremo Scenic Reserve, 1.5 km.	Leaf litter, grasslands and forest.

4.2 Lizard Habitat Survey

4.2.1 Habitat Survey Methodology

An initial desktop assessment of habitat within the proposed redevelopment Site was carried out using available satellite and aerial imagery to identify potential lizard habitats within the proposed capacity increase project area. Locations exhibiting suitable lizard habitat features such as long grass, vegetation or surface cover objects were identified as potential lizard habitats.

To validate the desktop mapping, a walkover assessment of the Site was carried out on 12th August 2025 by Boffa Miskell Partner and ecologist Dr Ian Boothroyd. The purpose of this field survey was to note potential lizard habitats, as part of an overall ecological habitat assessment.

4.2.2 Habitat Survey Results

The walk over site assessment confirmed that potential lizard habitat is present within the Auckland Prison Site, in particular pockets of vegetation within Areas A and B across a limited number and size of isolated natural and manmade features.

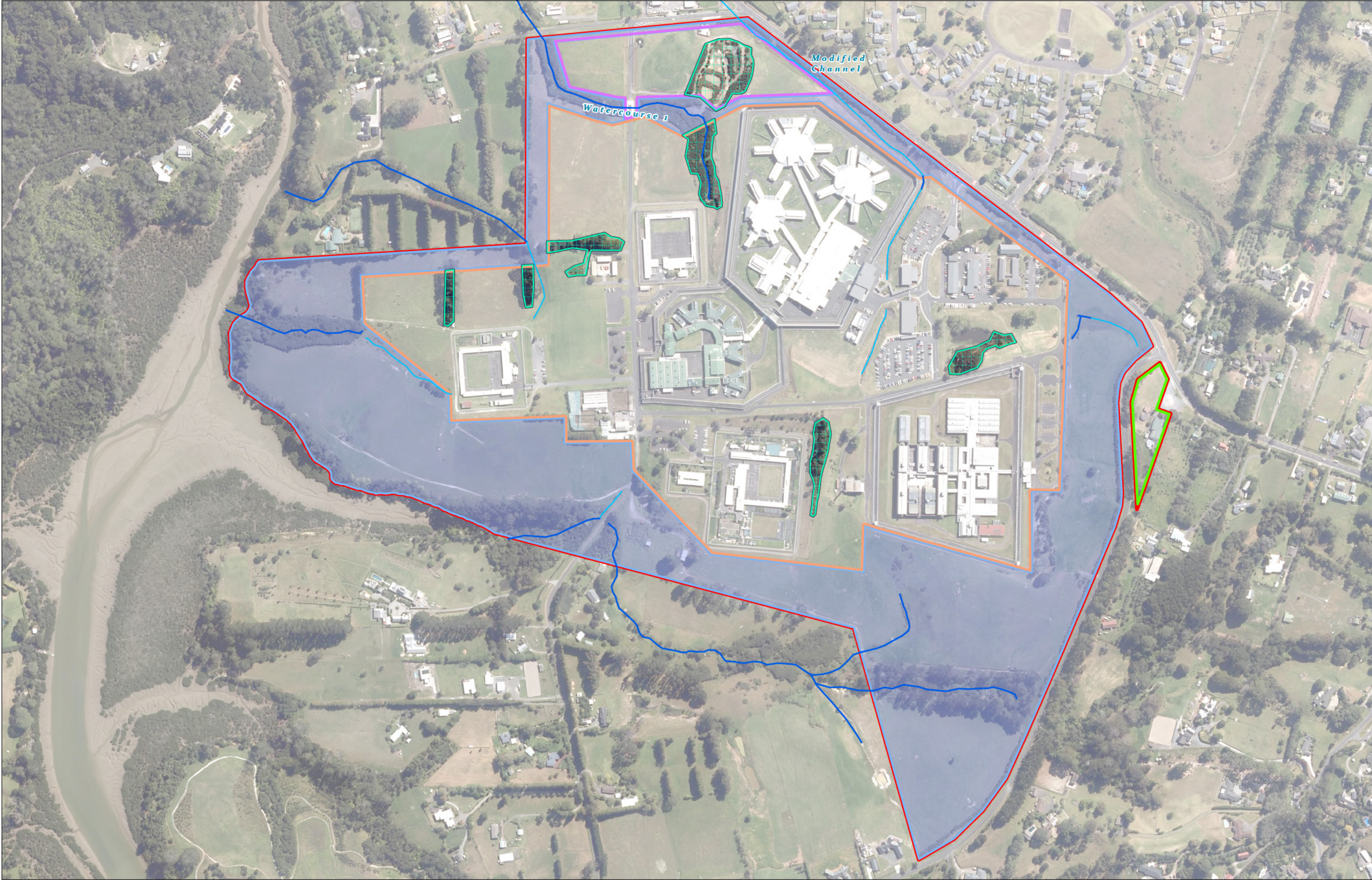
Much of the redevelopment site is dominated by maintained exotic grassland (lawn), which is frequently disturbed (maintained of debris and weeds/rank grass). The grass is short with minimal ground cover. Around the lawn and building, vegetation is made up of a mix of mature and semi-mature exotic and evergreen trees. The majority of these trees do not provide suitable lizard habitat.

Paddocks used for grazing stock (cattle and sheep) are present within the Auckland Prison Site but primarily outside of Areas A and Area B and which where the majority of land disturbance will occur. These areas also are considered to not provide any habitat for indigenous lizards and little to no connectivity to the surrounding SEA.

The most significant vegetation within Area A which provides habitat suitable for native lizards is along watercourse 1 (planted native riparian margin). The vegetation is comprised of regenerating native flax, shrubs and tree species with early-stage leaf litter ground cover providing some limited potential habitat for lizards. This area is isolated and disconnected from the coastal margin areas, separated by mown grass areas, manicured gardens and a road. The most significant vegetation outside of Areas A and B is also located along stream corridors (planted riparian margins), and at the wider property boundaries within Area C (Figure 2).

The walk over of the Site also identified a number of suitable man-made lizard refuges including woodsheds, wood piles, concrete blocks, steel pipes and other metal objects.

Given the potential lizard habitat present within the Site and the desktop assessment, we consider that it is unlikely that any native species other than copper skink (*Oligosoma aeneum*) and ornate skink (*Oligosoma ornatum*) may be present. The pre-construction lizard survey, to be undertaken in the lizard survey season (October to mid-April), prior to construction will aim to confirm this (see Section 9.1 around actions if a species other than copper and/or ornate skinks are detected during surveys).



4.3 Extent of Lizard Habitat within the Proposed Redevelopment Area

The Auckland Prison Site is approximately 80 hectares in area and the proposed redevelopment areas (Areas A and B) comprises approximately 48.23 ha of land. Using the desktop and site walkover habitat assessment (Sections 4.1 and 4.2), potential lizard habitat areas likely to be disturbed or removed as part of the redevelopment of the Site were mapped (Figure 2) and the main likely lizard habitat extent was calculated to be approximately 1.86 ha.

This Lizard Management Plan applies site-wide (as per Figure 2 above) and there may be lizard habitat areas outside of Areas shown in Figure 2 where disturbance to potential lizard habitat may occur. Areas identified as suitable lizard habitat must be treated accordingly and included in the salvage process.

4.4 Ecological Significance

The Auckland Prison Site is highly modified with buildings, roads, highly managed gardens and vegetation, and extensive stormwater infrastructure. Ecological features across the Site are limited, and all features are of low ecological value. The habitat available for indigenous fauna is also limited and the presence of threatened indigenous fauna is highly unlikely. The Site sits proximal to the CMA, and the SEA-M2-57b Pāremoremo Creek.

5.0 Effects on Lizards

5.1 Scale of Assessment

Effects on lizards have been assessed at a **local population scale⁴ (Project Site and connecting habitats)**. We note that where species have small population sizes or limited distributions, loss of individuals will have national population scale effects. Actual and potential effects on lizards resulting from the proposed development are detailed below.

Without surveys, we are unable to confirm if lizards are present or predict potential lizard densities within areas of lizard habitat within the Auckland Prison. Without management, it is likely that lizards (if present) within the Project Site would be killed or injured.

⁴ Local scale is defined as an area of contiguous potential habitat for lizards within and surrounding the Site, in which meta-populations of lizards can occupy.

5.2 Actual and Potential Effects on Lizards (without management)

5.2.1 Overview

The detailed prison development site layout and facility designs are not currently available. Therefore, except for the area of riparian vegetation habitat along watercourse 1, vegetation surrounding the stormwater pond in Area B, and shelter belt alongside watercourse 2, it is unknown at this stage which other areas of potential lizard habitat/refuge may be removed as part of the staged development construction programme. Although the final habitat area to be removed is not yet known, and the presence of native lizard populations is expected to be low, there is still actual and potential effects on any resident native lizards within the development areas. The following sections outline the actual and potential effects and the scale of those effects:

5.2.2 Injury and Death During Site Preparation

Lizards are mobile over short distances but may not be able to escape during site preparation and construction, particularly if carried out during colder months when lizards are less active. Activities that may result in injury or death to lizards include vegetation clearance and earthworks. Without appropriate management, lizards can be particularly susceptible to injury and mortality during vegetation clearance because they are visually and behaviourally cryptic (hiding under cover when disturbed), have low mobility and are inactive for parts of the year.

Some areas of lizard habitat within the Site will be removed during vegetation clearance and earthworks, without appropriate management this could result in the injury and death of any individuals that do not disperse or are not removed from these sites. This potential adverse effect is significant without management.

5.2.3 Disturbance

Disturbance and sub-lethal stress from noise, dust and vibrations during construction may impact individual lizards in and adjacent to the proposed redevelopment Site. These may impact typical behaviours of lizards such as foraging or basking. The effects on the population are a less than minor adverse effect without management.

5.2.4 Habitat Loss and Displacement

In total, the proposed Auckland Prison Site contains approximately 1.86 ha of suitable lizard habitat and man-made cover objects. There is potential (at a low level) that native lizards are present in some, if not all of these features that may be removed as part of the development.

Construction within areas containing suitable lizard habitat/refugia will permanently remove that lizard habitat/refugia. Any lizards not killed during vegetation clearance or earthworks may cause displacement of these lizards to less suitable habitat, or increased stress to lizards from the loss of refugia and increased exposure to predators. The effects management measures/activities (particularly lizard salvage into a protected LRS with buffer area) outlined within this LMP are designed to minimise and remedy this potential adverse habitat loss effect,

with a less than minor overall effect on any lizards at a population level with appropriate management measures in place.

5.2.5 Habitat Fragmentation

Habitat fragmentation disproportionately affects animals with low dispersal ability (i.e., inability to fly or safely cross areas without cover), as isolated habitat patches effectively constrain the extent of available habitat by creating a physical barrier to dispersal. This may result in breeding suppression due to limited habitat and reduced mate choice. The loss of vegetation within the proposed redevelopment sites is considered to cause minor additional fragmentation to an already fragmented population. Habitat fragmentation is assessed as a minor adverse effect without management.

5.2.6 Increased Predation

Lizards within the development site are under some level of predation pressure because of the lack of existing predator control. Removal of vegetation and natural features are likely to decrease the food source available to lizard predators, making those areas less attractive for those predators to visit and reside in. Increased predation due to the redevelopment is assessed as a less than minor adverse effect without management.

5.2.7 Salvage

Inability to salvage all lizards within the Site:

We acknowledge that the methods of survey and capture of lizards are imperfect, and as a result, it may not be possible to salvage every lizard within the Site. It is likely that some lizards may not be detected during salvage and could be incidentally and accidentally injured or killed as a result.

5.3 Summary of Effects

A summary of effects and management methods is provided in Table 4. Overall, with the effects management methods in place the effects on lizards are anticipated to be less than minor and in the long term with the proposed pest management would provide a net benefit for native lizards.

Table 4: Summary of effects and their proposed management resulting from the works associated with the proposed Auckland Prison redevelopment.

Potential Effect (without management)	Management method
Habitat loss and fragmentation	The effects of habitat loss on lizards are managed by the utilisation and enhancement of lizard habitat at the LRS (expanding the total area of available habitat). The LRS will provide habitat equal to/improved in quality over that removed. Given the fragmentation of lizard habitat on the development site, we consider that LRS's continuous habitat area, with established vegetation, ground leaf litter/humus as well as proposed woody debris refugia, enhancement planting and pest animal management would provide a net benefit for lizards in the long term.
Injury, death and disturbance during construction	Lizard surveys and salvage will be undertaken in all potential habitats within the redevelopment areas prior to habitat clearance. Where lizards are detected, they will be captured and relocated to a prepared release site using accepted salvage and relocation methods by experienced ecologists as outlined in Section 7.0. To reduce the likelihood of lizards from adjacent habitats moving into habitats inside the earthworks area during and following the salvage, any areas of lizard habitat that are connected to areas outside the redevelopment areas are to be temporarily fenced off with a lizard proof fence until the habitat within the redevelopment site is removed (after the lizard survey and salvage). See section 6.2.4.
Stress and disease transmission	Lizards will be placed in individual containers and kept in a cool place until released. Handling will be minimised to ensure they do not become stressed. Lizard handling will follow best practice and hygiene protocols to minimise the risk of disease transmission. Details on storing and handling procedures are provided in Section and 8.2.6 of this plan.
Pest animal management	Pest animal management to protect lizards is proposed within the LRS adjacent buffer area and is summarised in Section 7.2.5 of this plan. Further operational detail is provided in a separate Pest Animal Management Plan (Boffa Miskell 2025). This is anticipated to have a beneficial effect on the local population.

6.0 Management for a Protective Benefit: Effects Management Hierarchy

6.1 Avoid

There is no opportunity to avoid vegetation clearance or disturbance to lizard habitat, within Areas A and B because of the constraints surrounding the extent of the proposed redevelopment requiring the complete removal of certain habitats within Areas A and B to construct the new prison facilities.

6.2 Minimise

6.2.1 Overview

As much as practicable the loss of potential lizard habitat and risk of injury to, or mortality of, lizards will be minimised within vegetation / habitat clearance sites prior to and during construction within the development area. The following actions shall be carried out to minimise the potential harm to any residual lizard populations:

6.2.2 Timing

Any lizard salvage and vegetation clearance of lizard habitat will be undertaken only during periods when lizards are more active. **This should be on warm days between 10°C and 25°C between October and mid-April.**

6.2.3 Intensive Land Use Practices

Prior to pre-construction lizard survey/salvage: All lizard habitats identified in this LMP (within Areas A and B) shall continue to be maintained (to the existing condition and extent) until the pre-construction lizard survey and salvage has been completed. Current intensive land use practices (e.g. grazing and ongoing maintenance) within Areas A and B (where the majority of construction activities will occur) is recommended to continue to prevent expansion of suitable lizard habitat and associated survey/salvage area within the Auckland Prison Site. Continued maintenance will also help reduce potential lizard predator invasion/occupation within and surrounding Areas A and B.

After completion of the pre-construction lizard survey/salvage: Corrections shall continue the maintenance of intensive land use practices throughout the construction development areas (Areas A and B), including any remaining lizard habitat (once lizards have been salvaged from these areas). This shall be maintained until construction is completed. Corrections shall provide evidence of this continued land use maintenance to the project herpetologist.

Responsibility to implement: Corrections

6.2.4 Lizard Fencing

Lizard proof fences shall be installed in the following situations:

- **Prior to lizard survey/salvage:** for any earthworks in the development areas outside but near to areas of lizard habitat (as per section 4.3). Lizard proof fencing shall be erected between the earth works areas and lizard habitat prior to works commencing. This is to clearly demarcate lizard habitat and prevent any lizards migrating out of the habitat areas into the earth works area where they could be harmed.
- **After completion of lizard survey/salvage,** where connected lizard habitat exists directly adjacent to the earth works footprint. Lizard proof fencing shall be erected between the earthworks areas and lizard habitat prior to works commencing. This is to prevent lizards entering the works area from any directly adjacent and connected lizard habitat.

Lizard proof fences will be constructed with a sheer polythene fencing material (similar to a silt fence) around all mapped lizard habitat. The fence must be at least 50 cm tall and installed so that the bottom is underground approximately 20 cm. The fence must also face outwards towards the lizard habitat so that no posts are exposed and can be used by lizards to climb out. All fences must have a setback of 5 m from any lizard habitat.

The fence will be assessed by the project herpetologist prior to earthworks commencing.

Responsibility to implement: Corrections contractor, project herpetologist

6.2.5 Cover Object Removal

Any cover objects present within the redevelopment sites (e.g. construction materials, woody debris, rocks, roofing material and other human-made debris) shall be placed in a way to discourage any lizards from outside of the Site or missed during the salvage taking cover (or deconstructed and/or removed from the Site if necessary). This should be done immediately following the completion of the pre-construction lizard survey and salvage. Material should be disposed of in a place where it cannot be recolonised by lizards. During construction all development materials/machinery that provide potential cover for lizards shall be sited at least 20m away from lizard habitat within the redevelopment sites, or boundary areas adjacent to the redevelopment sites.

Responsibility to implement: Corrections contractor, project herpetologist

6.3 Remedy

6.3.1 Overview

Given the strict building and landscaping requirements associated with the construction of the Auckland Prison redevelopment, it is not feasible to remedy any areas within the redevelopment area (within areas A and B). There are, however, feasible opportunities and actions to remedy some of the effects of development in areas within the wider Auckland Prison Site outside of the proposed development (within Area C). The following sections outline the actions to remedy adverse effects on lizards:

6.3.2 Pre-construction Lizard Survey and Salvage as a Management Action

We consider lizard salvage and release a viable option for the areas of lizard habitat within the project Site given the ability to effectively salvage from the habitat present. A detailed pre-construction survey and salvage methodology is described in Section 7.0.

The proposed salvage management action also includes the enhancement and use of a suitable LRS for salvaged lizards in an existing vegetated/enhancement planting area within the southern boundary of the wider Auckland Prison Site, but outside the proposed redevelopment footprint (Areas A & B). Enhancement and management of the LRS and its surrounding farmland includes enhancement planting prior to salvage, fencing to exclude stock (along the southern boundary), installations of woody debris piles and localised intensive pest control. Details are provided in Section 8.0.

The proposed LRS is shown in Figure 3 along with the LRS buffer area and surrounding enhancement planting areas. Survey and salvage of any lizards to the LRS will be conducted just prior to the commencement of the redevelopment construction operation (including where the construction phase involves removal of identified lizard habitat).

The proposed LRS and buffer area will receive intensive pest animal management six months prior to and during salvage and release and will be maintained ongoing for three years after the final lizard transfer to provide protection of any released lizards (if any lizards are salvaged). As outlined in the Auckland Prison Pest Animal Management Plan (PAMP) (Boffa Miskell 2025), and summarised in section 8.2.6 of this plan, pest animal monitoring and control in the LRS will include:

- The establishment and enhancement of an initial 1ha LRS and 2.5ha buffer area, which are to be intensively managed for animal pests, particularly predators of lizards.
- Management of pests in the LRS and buffer area is to begin at least six months prior to the release of any lizards captured during the pre-construction lizard survey.
- If lizards are salvaged during the pre-construction survey, pest animal management in the LRS and buffer area will continue ongoing for three years after the final lizard transfer to protect any lizards released into the LRS.
- If no lizards are captured and released into the LRS during the pre-construction lizard survey, then the pest animal management to protect lizards will cease in the LRS and buffer area, as detailed within the PAMP.

Maps 2 and 3 in the PAMP detail the approximate pest animal monitoring and control device layout targeting the predators of lizards within the LRS and adjacent buffer area. The PAMP provides all technical detail in relation to pest animal management including target species information, maps of management sites and device layouts, pest animal targets and thresholds, methodologies, protocols/guidelines, scheduling and reporting requirements.

Responsibility to implement: Project herpetologist, Corrections

6.4 Beneficial Activities – Enhancement Package

In addition to the implementation of the above management actions, Corrections are proposing an extensive project enhancement package which includes large areas of landscape and ecological enhancement. Effectively, this package will cover the area outside Areas A and B out to the boundary of Auckland Prison Site (identified as Area C). The enhancement will include de-stocking the grazed farmland areas, enhancement/infill/screen planting over an area of 28 hectares, freshwater habitat protection and pest animal management. This elective enhancement package and its components will provide a substantially expanded ecological habitat area with connectivity to existing coastal margin habitats surrounding the Prison Site.

Importantly, in respect to any lizards released into the proposed LRS, this connected ecological enhancement area will provide further protection and extensive habitat opportunity for lizard protection, survival and recruitment. While the planting enhancement is not designed directly as lizard habitat, it would likely provide net benefit for lizards over time.

6.5 Summary Management Package

Management for protective benefit is to minimise potential harm to lizards and provide remedial enhancement for the proposed removal of lizard habitat within the redevelopment areas. The total amount of lizard habitat loss over the development construction programme is not yet known (estimated maximum of 1.86 ha). The details of the total extent of habitat loss will depend on the design of the proposed new prison facilities which is not yet known.

The main proposed management activity to reduce impacts on lizards within the Auckland Prison redevelopment is to salvage lizards to a nearby on-site release site with suitable existing (and proposed) habitat, stock exclusion fencing (along the southern boundary) and an intensive pest animal management programme (Table 5). As part of a broader ecological enhancement package, infill/screening/revegetation planting areas will connect to the LRS, receive pest animal management (pest suppression) and provide further habitat and refugia for lizards over time. A breakdown of the area of effects management package is shown in Table 5 below.

Table 5: Summary of lizard habitat area to be removed and to be remedied/enhanced.

	Potential lizard habitat to be removed (ha)	Potential lizard habitat to be utilised/enhanced (ha)
Remedy - lizard salvage, Lizard Release Site enhancements (pest animal management, wood debris piles, minimal site disturbance, stock fencing).	1.86	1 (LRS) 2.5 (LRS buffer)
Enhancement - enhancement planting, stock exclusion, freshwater habitat protection & pest animal management (browsing pest animals).	0	28
Totals	1.86	28

6.6 Summary of Tasks and Responsibilities

A summary of the tasks and the relevant parties' responsibilities are provided in Table 6.

Table 6: Summary of tasks and responsibilities.

Task description	Responsible Party	Timing
Installation of a lizard fence around lizard habitats.	Corrections	Any time prior to approval of the WAA if outside areas of identified lizard habitat or following lizard salvage.
Inspection of lizard proof fences	Project herpetologist	Following the installation of any fences.
Implementation of the pre-construction lizard survey/salvage	Project herpetologist	6-months after the LRS implementation & following approval of the WAA.
Installation and implementation of pest management within the Lizard Release Site.	Corrections, pest contractor, project herpetologist.	Minimum of 6 months prior to the lizard salvage. Further details are provided in Section 8.2.6.
Continuation of intensive land use practices in areas which have undergone maintenance previously (e.g. Areas A and B).	Corrections	Ongoing for all areas until construction is completed, except for lizard habitats in redevelopment areas prior to pre-construction lizard survey/salvage.
Removal of cover objects following the salvage	Corrections	Following lizard salvage.

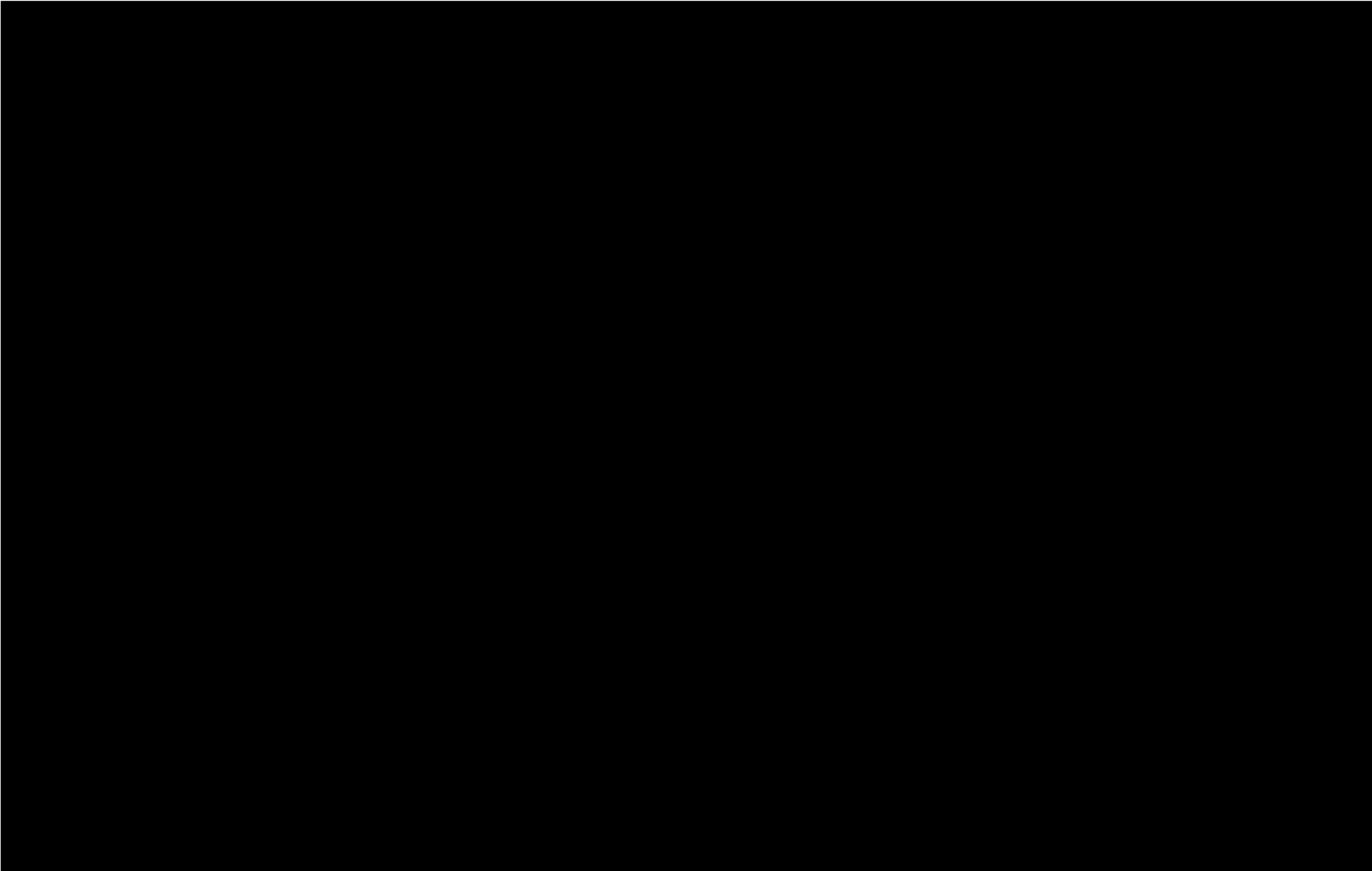


Figure 3

7.0 Lizard Survey, Salvage, Transfer and Release

7.1 Pre-Construction Lizard Survey

A thorough pre-construction lizard survey of suitable habitat within the prison redevelopment areas (Areas A and B) and the proposed LRS is required to ascertain the presence of, and salvage, any native lizard species. The project herpetologist shall ascertain whether a pre-construction survey is required to be completed prior to the commencement of any redevelopment construction subject to the likely proximity of earthworks and disturbance of any identified lizard habitat. The lizard survey will be undertaken by the project herpetologist in the identified lizard habitats.

The survey shall comprise of visual and manual searching all potential lizard habitat, as well as ground ACO and/or pitfall trapping in native revegetation sites. The survey will also utilise spotlighting to search for geckos in appropriate habitats. The following sections detail the methods for pre-construction lizard survey and salvage.

The survey will be undertaken under an existing WAA held by Katherine Muchna (117179-FAU). The survey will utilise tools and methods described in DOCs herpetofauna inventory and monitoring toolbox (DOC 2012). If the pre-construction survey findings generate any changes to management approaches/outputs, this LMP can be updated (if required).

As mentioned in the introduction of this plan, there will only be need for a single pre-construction lizard survey and salvage (but not limited to), so long as intensive land use practices are continued and maintained, no new lizard habitat forms and evidence of this maintenance can be provided to the project herpetologist by the Department of Corrections (e.g., photographic evidence). If lizard habitat forms or reforms within the redevelopment areas over time, then a further pre-construction lizard survey of those areas and salvage may be required prior to construction activities disturbing any new lizard habitat areas.

We have deemed it necessary to conduct the lizard survey (and subsequent salvage) immediately prior to construction, rather than at an earlier date, because the exact date for construction commencement is not yet known. Construction timeframes are subject to future central government funding decisions. Therefore, lizard presence and /or abundance may change over that period of time, with the potential for lizards to move into existing or newly formed habitat/cover within the redevelopment areas where there were previously none surveyed earlier. It is therefore most effective for the lizard survey to occur immediately prior to construction to ensure the results of the survey are more representative and accurate of the situation at that point in time.

Any lizard survey will occur in suitable weather conditions from October to April and will be undertaken in fine weather conditions of 12 to 25 degrees.

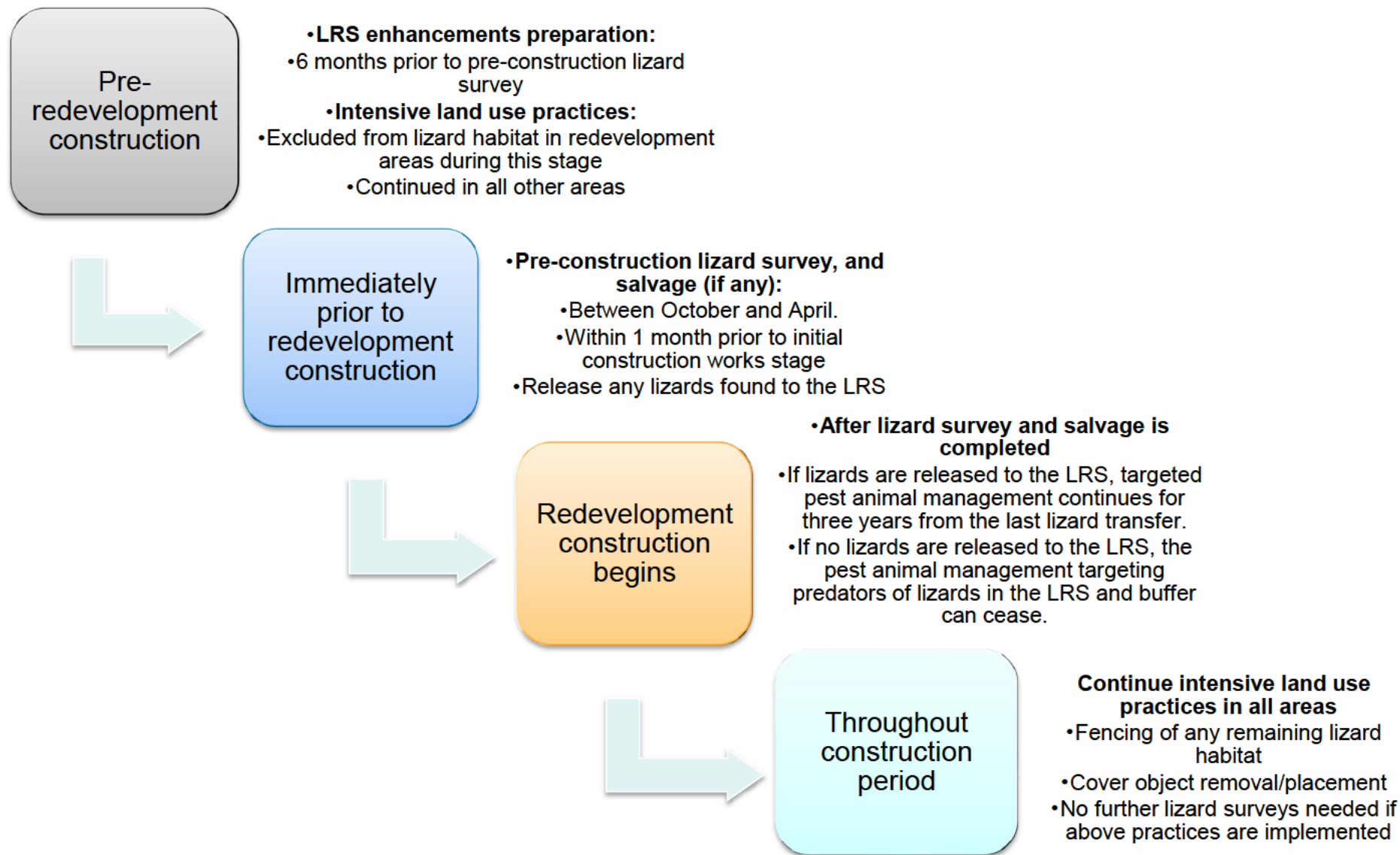


Figure 4: Summary of lizard management staged process

7.2 Lizard salvage

7.2.1 Lizard Salvage Approach

A range of tools/methods will be used and deployed prior to construction and earthworks to maximise the number of lizards salvaged from the affected area. Methods include capture of lizards during manual and visual searches (in all habitats), and lizard trapping (in native revegetation sites). Any technique used to capture lizards will follow best practice methods outlined in DOC's herpetofauna inventory and monitoring toolbox (DOC 2012).

Given the low number of skinks/geckos predicted within the project Site and the relatively small area of habitat to be removed, a minimum salvage period of five days is proposed.

If the daily lizard capture rate has not decreased by the end of any salvage period, manual searching and trapping will be extended an additional three days (see Section 9.1).

Lizards are unlikely to be present in the mown grass and highly managed gardens and salvage in these areas is not considered to be feasible as there is either no habitat or very poor habitat present.

Lizard salvage will be undertaken in fine weather conditions 12 to 25 degrees from October to mid-April.

7.2.2 Lizard Salvage Methods

Manual hand searching – all lizard habitat

Manual hand searching shall be undertaken daily in all areas of identified lizard habitat and opportunistically while moving throughout the Site. This involves lifting and inspecting beneath lizard refugia (e.g. human-made objects, woody debris, rocks, etc). At least two observers will be required each survey day: one person should carefully lift refugia items while the other(s) stand by ready to hand-catch any lizard(s) present.

Where detected, any native lizards shall be carefully hand-captured by suitably trained/experienced ecologists; and placed individually in breathable cloth bags within a hard container. Lizards shall be stored in a cool place until they are taken to the LRS for biometric data collection (Section 6.2.3), and then released within 2 hours of capture.

Live lizard trapping and/or ACOs – native revegetation habitat

At this stage, two areas of vegetation identified as lizard habitat are proposed to be removed within the main redevelopment area (Area A) during construction (associated with the proposed watercourse works). Therefore, in addition to manual searching, live trapping will be conducted and checked daily in these native revegetation areas to increase lizard capture potential. Live trapping will include the use of ground ACOs and/or pitfall traps with one of each device placed at suitable locations spaced on a 5 m grid (due to small, fragmented habitat area size), or in narrow habitats a single transect with devices spaced 5m apart along the transect line. Lizard trapping throughout the habitat sites will follow the best practice DOC protocols for use of these trap types. A summary of DOC's full details of technique and best practice for lizard trapping are provided below.

- **Ground based artificial lizard retreat (ACO) methods/requirements:**
 - Identify suitable lizard habitat for placement '(micro-sitting)'. Avoid boggy areas or areas susceptible to flooding,
 - ACOs shall be habituated in the planned survey habitat sites 6 weeks prior to survey/salvage,
 - Before installation, holes shall be drilled in corners of the ACOs to accommodate metal pegs (if using pegs),
 - Clear any grass and/or debris from the ground to ensure ACO sheets situate in a stable manner, and for ease of checking,
 - Place the ACOs at the required spacing intervals (5m grid spacing or 5m along transect line(s))
 - Wooden dowel or sticks ~10mm (diameter) x 10-12mm (length) to be placed in each corner, between the top and bottom sheet.
 - At least two metal pegs (one peg in each opposite corner) shall be pushed through the pre-drilled holes to secure the ACOs from weather or disturbance
 - Using rocks or sticks to secure the ACOs down shall only be used where the ground is too hard to push the pegs in and disturbance to the ACOs is low,
 - ACOs shall be checked once per day, either early morning or later evening checks (when lizards are slower moving and easier/safer to catch). Time of day chosen shall be kept consistent over the survey/salvage period.
 - ACOs should be approached quietly, looking for lizards that may be basking on top of the ACO prior to lifting,
 - At least two qualified/experienced ecologists shall check each ACO together. The ecologists should ideally crouch or sit beside each side of the ACO with one carefully disassembling the sheets and the other at standby ready to catch any lizard(s).
 - Any captured lizards shall be handled as per as per the "Handling Lizards" sub-Section below.
- **Pitfall lizard trap methods/requirements:**
 - Identify suitable lizard habitat for placement. Avoid boggy areas or areas susceptible to flooding,
 - Clean 4L plastic buckets shall be used,
 - Small holes shall be drilled in the base of buckets to allow water to drain out and avoid water accumulation in the bucket,
 - The buckets shall be dug into the ground at the required spacing (5m grid or 5m along transect line(s)),
 - Ensure bucket lip is flush with ground level. Pack natural substrate around the rim of the container to aid lizard entry,
 - Buckets need to be deep enough so that the largest individuals of the target species cannot climb out,
 - 'Bed-in' pitfall buckets for 2-3 weeks prior to survey/salvage,

- During this period ensure plastic lids of bucket are fastened to the bucket (to prevent lizards entering the trap over this period),
- Place a wooden or onduline cover on top of the plastic lid and pin the cover down with long metal pins (2 minimum). If the ground is too hard for pins, rocks or sticks can be placed on the covers to hold them down. Covers must be wider than the bucket rim,
- After the trap has been 'bedded in', the plastic lid shall be removed and the wooden or onduline cover placed back over the top of the bucket and re-pinned/weighted down.
 - If a rock/heavy stick is used to hold down the covers, be careful that this will not fall into the trap and crush lizard(s),
 - Ensure a small gap of approximately 1cm is created between bucket lip and cover (use small sticks or other items to create the gap) so the gap is big enough for lizards to pass through, but small enough to reduce the likelihood of predator incursion (mice, etc).
- Place a layer of damp leaf litter/debris over the base of each bucket for trapped lizard shelter/cover.
- Ensure leaf litter/debris do not create a 'ladder' for trapped lizards to climb back out.
- Place a moistened sponge in pitfall bucket base to reduce risk of desiccation. Re-moisten the sponge each day of survey/salvage.
- Place a small bait (tinned pear and fish-based cat food) on top of the leaf litter.
 - Place the bait on a small flat rock or waxy leaf to aid with quick bait replacement and reduce the potential for rotting fruit and meat contaminating the trap.
 - The bait shall be replaced with a fresh bait every day of the survey/salvage.
- If predation of lizards within buckets is observed during the survey/salvage, then the project herpetologist shall decide whether or not to continue using pitfalls for the survey/salvage in that area of habitat.
- A qualified/experienced ecologist shall check the pitfall traps, carefully removing the cover object, proceeding to carefully handle and remove any captured lizards into an individual breathable, dark cloth bag per lizard and securely tying the top of the bag. Any captured lizards shall be handled as per the "Handling Lizards" sub-Section below

Handling lizards

- Lizards shall only be handled by suitably trained/experienced ecologists and under an approved wildlife permit,
- Handlers must wash hands and/or use sanitizer prior to and after each individual lizard handle,
- Ideally handle lizards in a cool, shaded location free from excessive noise, in a seated position/or at a table to reduce likelihood of standing on any lizard escapees,

- If possible, handle over a large, deep rectangular plastic container so if accidentally dropped the lizard can be easily re-captured,
- Hold lizards firmly but don't be rough,
- Do not handle/hold lizards for long periods, or leave them in the sun/hot places,
- Remove aggressive species and larger specimens first,
- Do not place smaller lizards in bags/containers with larger lizard species,
- Hold lizards carefully by the body, not by the tail.

Biometric data collection

Captured lizards will be moved in their cloth bags to the on-site LRS and have biometric data collected next to the woody debris pile where lizards will be released. Biometric data collection on captured lizards shall be carried out by a suitably qualified and experienced ecologist. Handling lizards during the data collection process shall follow the lizard handling methods above, and the following data collection requirements.

Biometric lizard data will be collected from each of the lizards captured and shall include species, sex, reproductive condition, morphometrics (snout-vent length (SVL), vent-tail length (VTL) and tail regeneration), photos, GPS records, description of habitat where captured, date and time. Weather conditions will be recorded at the beginning of each day of the salvage.

Information collected will be collated in a report to be prepared for DOC following the completion of the salvage. ARDS (Amphibian and Reptile Distribution Scheme) cards will be completed and submitted to DOC.

Lizard release methods

Once salvaged lizards have had biometric data collected, each lizard shall be carefully released within 2 hours of salvage into the pre-constructed woody debris piles within the LRS. Each lizard shall be carefully released individually once biometrics have been completed by an approved ecologist into the chosen woody debris pile. Different release points around the woody debris pile(s) shall be used for each individual salvaged lizard release. Each individual lizard released shall have the GPS location of release recorded alongside its details in the biometrics data sheet.

7.3 Risk associated with proposed management

Potential risks associated with the proposed management plan:

- **Overheating:** Lizards will be placed in cloth bags individually within a hard container and stored in a cool place until they are released.
- **Overcrowding / competition:** it is not likely that overcrowding, or competition will be a risk as current populations of lizards at the release site are likely under predation pressure and below carrying capacity.
- **Displacement:** The release site is approximately 220m to the nearest lizard habitat on site and separated by highly grazed farmland and the manicured lawns and gardens within the prison fenced areas. As such lizards are unlikely to successfully home back to the salvage locations, although it is noted they may attempt to do so.

- *Injury/death*: Lizards will be captured by suitably trained, qualified and permitted herpetologists and/or ecologists. This will follow best practice and hygiene protocols to minimise the risk of injury, mortality or disease transmission.

8.0 Lizard Release Site Assessment and Enhancements

8.1 Release location and rationale

To accommodate any lizards that are captured during the lizard salvages, Corrections plan to move lizards to an approximately 1 ha prepared LRS [REDACTED]

[REDACTED] This Site offers high value, contiguous habitat for lizards with connectivity to large areas of coastal margin and suitable neighbouring habitats (Figures 1 and 2).

The proposed LRS covers a gentle to moderate sloping site with approximately half of the Site in grazed grassland and the other half existing vegetation. [REDACTED]

Enhancement planting is planned for the grassland sections of the LRS and buffer areas and will be implemented in advance to the pre-construction lizard survey/salvage. This planting enhancement will establish further suitable lizard habitat in the LRS and buffer area prior to any lizard release. The existing contiguous vegetation cover comprises a mixture of native and exotic shrubs and semi mature trees with moderate density leaf litter.

Conditions WAA05 and WAA06 of the Wildlife Approval require that a design plan for the LRS is submitted for certification to the Department of Conservation, and that the certified LRS is implemented prior to the salvage and release of lizards commencing.

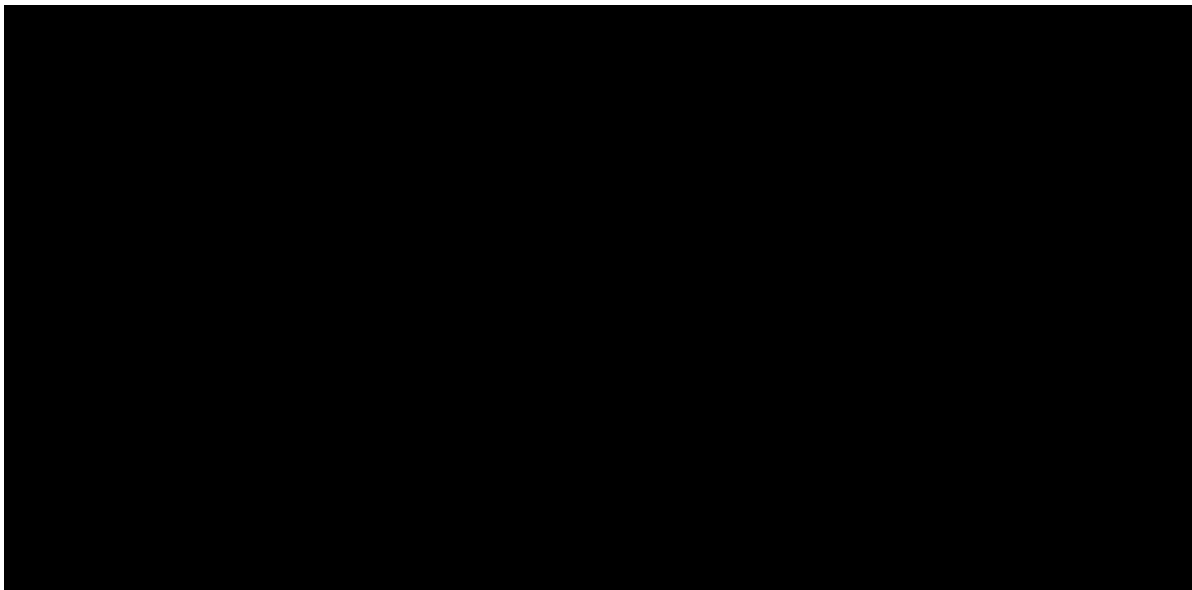


Figure 5: Photos of proposed LRS from walk over site assessment. Images show vegetation type, ground cover and existing stock fencing

To provide suitable habitat for relocated skinks, habitat enhancements will be implemented to provide appropriate refugia and resources, as detailed in Section 8.2. The enhancements will include the creation of lizard friendly wood piles, disturbance minimisation, ensuring stock are excluded (if stock is present on the farmland) and the implementation of intensive pest animal management.

Immediately prior to lizard salvage, the project herpetologist must conduct a site walkover of the LRS to assess the outcome of the required habitat enhancements and the overall suitability for lizard release. If the project herpetologist assesses the site as being suitable to release lizards, and the initial knockdown of pests has proven successful in meeting the pest animal target thresholds, the pre-construction lizard survey/salvage can take place after. If the site is deemed unsuitable, the salvage operation must be postponed until the herpetologist confirms that conditions are appropriate. Therefore, the combined attributes of the proposed LRS, surrounding lizard habitat enhancements and pest animal management programme will provide a greater net benefit to any lizards salvaged from habitats within the development areas. We have assessed the Site against Principle 6 of DOCs Lizard Salvage Guidelines (DOC 2019), in Table 7.

Table 7: Assessment of LRS based on Principle 6 of the Lizard Salvage Guidelines (DOC 2019).

Principle relating to salvage and release	Description	Detail/Activity
1. The site must be ecologically appropriate and have long-term security	Resident lizard communities must be understood	Due to the connectivity of the proposed release site to the surrounding coastal margin habitat it is considered likely that if present, lizard compositions are likely to be similar to those of the coastal margin. However, due to the lack of pest control in the release site area native lizard abundance is expected to be very low. The Site is likely to house exotic plague skinks.

		A survey of the release site will be undertaken at the same time as the pre-construction lizard survey in the redevelopment areas.
	The release site must be an appropriate distance from the impact site to prevent lizard homing, but close enough that it provides similar habitat	The release area is separated from the salvage site by intensely modified and maintained lawns and gardens, as well as many hard surfaces and buildings. We consider the likelihood of native lizards rehoming to the salvage area to be very low.
	The location must be within the species natural geographic range.	The release site is within the known natural range of ornate and copper skinks. Populations are known from within 1 km of the Site.
2. The habitat at the site must be suitable for the salvaged species	Vegetation composition and size:	The proposed release site is a mix of native and exotic shrubs and mature trees with a moderate hummus density. The LRS will also consist of new enhancement planting interspersed with rank grass creating some edge habitat and offering basking opportunities. We consider the release area (1 ha) to be sufficiently sized for the expected number of released lizards.
	Must contain sufficient resources for potential population. e.g., food, cover, retreats. What enhancements are proposed for expanded population?	The planned addition of wood piles within the Site will provide suitable refugia and protective cover as well as invertebrate food source locations for skinks. We would expect that a moderate abundance of invertebrates already exists and would provide food for lizards. The enhancement wood piles will create further suitable habitat for invertebrates to colonise.
3. The site must provide protection from predators	Habitat must protect from full suite of predators, or effective pest control must be in place. Must include mice control	Six months prior to the lizard salvage, intensive pest animal control focusing on rodents, mustelids hedgehogs and feral cats will be initiated within the release site and buffer area (see Section 8.2.6)
4. The site must be protected from future human disturbance	Land tenure must ensure long term protection from disturbance	The Site is owned and operated by Corrections. Given that this land is part of wider Prison Site that is proposed for redevelopment, and within the proposed enhancement planting area, it will ensure long term protection from disturbance.

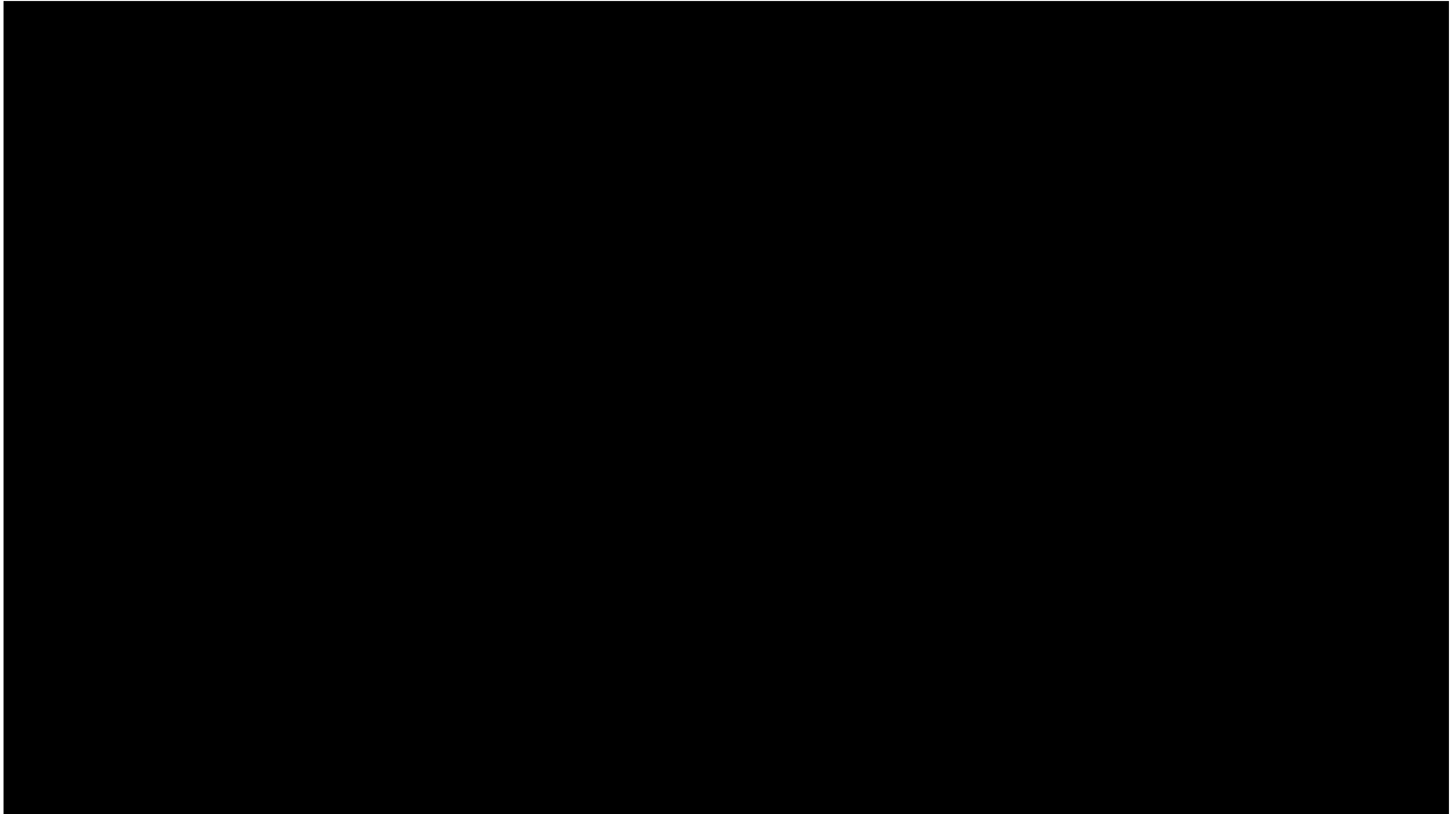


Figure 6: Aerial image of proposed LRS (purple outline) and buffer area (green dashed outline) within the Auckland Prison site.

8.2 Release Site Enhancements/Maintenance

8.2.1 Overview

The proposed LRS is considered to provide suitable natural shelter, food and protection for any salvaged lizards. To improve the success of lizard survival and recruitment within the proposed LRS, habitat enhancement/maintenance activities shall be implemented and maintained.

Overall, the existing vegetation habitat within the LRS will be left to continue to regenerate naturally, without active maintenance (except for the boundary stock fence), allowing complex ground cover to develop over time. The grazed farmland section of the LRS will have suitable enhancement planting installed well ahead of the pre-construction lizard survey/salvage, establishing further suitable lizard habitat.

Following the enhancement planting and the lizard relocation programme, and outside of any required maintenance and pest animal management, the release area should be left *in situ* to prevent disturbing any relocated lizards.

The proposed LRS enhancements include the following activities:

8.2.2 Enhancement Planting

The grassed area of the proposed LRS has planned enhancement planting of fauna species suitable for lizard habitat and will be planted during the next available season following the designation alteration being confirmed (likely to be planting season of 2027). This will allow sufficient time for habitat to establish ahead of the pre-construction lizard survey and salvage. The enhancements plants shall be planted hard up to the existing vegetation of the LRS, so that a contiguous habitat is formed. Full details of the enhancement planting for this part of the LRS is outlined in the Landscape Ecology Implementation Management Plan (LEIMP: Boffa Miskell 2026). The planned enhancement planting for the grassed area of the proposed LRS will fall within the landscape framework/integration planting category of the LEIMP.

8.2.3 Wood Piles

To provide extra refugia and protection for any salvaged and released lizards, woodpiles will be installed throughout the LRS. At least six months prior to the initial salvage operation five wood piles must be constructed within the LRS to cater for any lizards captured during the pre-construction lizard survey and for dispersal of lizards within the LRS over time. The project herpetologist will make the decision if further wood piles are needed beyond the original five piles, how many piles are required and their placement.

Section 6 of the Department of Conservation guidance document; Reducing the Impacts of Development on New Zealand Lizards (2023) provides guidance on the wood pile habitat creation methodology, in particular the copper skink habitat information and images A-D in Box 6. This guidance document must be followed for the wood pile creation within the LRS. Locally sourced (untreated) logs from mature trees shall be sliced into discs and scattered throughout the LRS, with layers of leaf litter to fill any cracks. Further layers of felled vegetation are to be built up on top of the discs and leaf litter. The piles shall be located within the release site in areas that are not on the pest management control or monitoring lines, to reduce disturbance from pest contractors/surveyors moving through the Site.

8.2.4 Release Site Fencing/Stock Exclusion

Livestock, if present on the farmland surrounding the LRS, must be excluded from the LRS and the LRS buffer areas. Corrections propose to de-stock paddocks in and surrounding the LRS prior to the enhancement planting installations. It will however still be a requirement to inspect and repair/upgrade (if necessary) the fence along the southern boundary of the Prison Site where stock could enter from neighbouring properties. This fenceline will be inspected at least 6 months prior to the pre-construction lizard survey/salvage and any necessary repairs/upgrades made at that time. The vegetated section of the proposed LRS must also be searched at this time, and any rouge stock found removed from these areas.

If lizards are released into the LRS the boundary fenceline must be inspected regularly (at least every 6 months) following the initial investigation and must be maintained to exclude stock. Investigations and repair inspections of the fence must be carried out by an appropriate independent contractor and will be audited by the project herpetologist. Fence inspections and maintenance to protect any lizards within the LRS can cease after three years from the final lizard release.

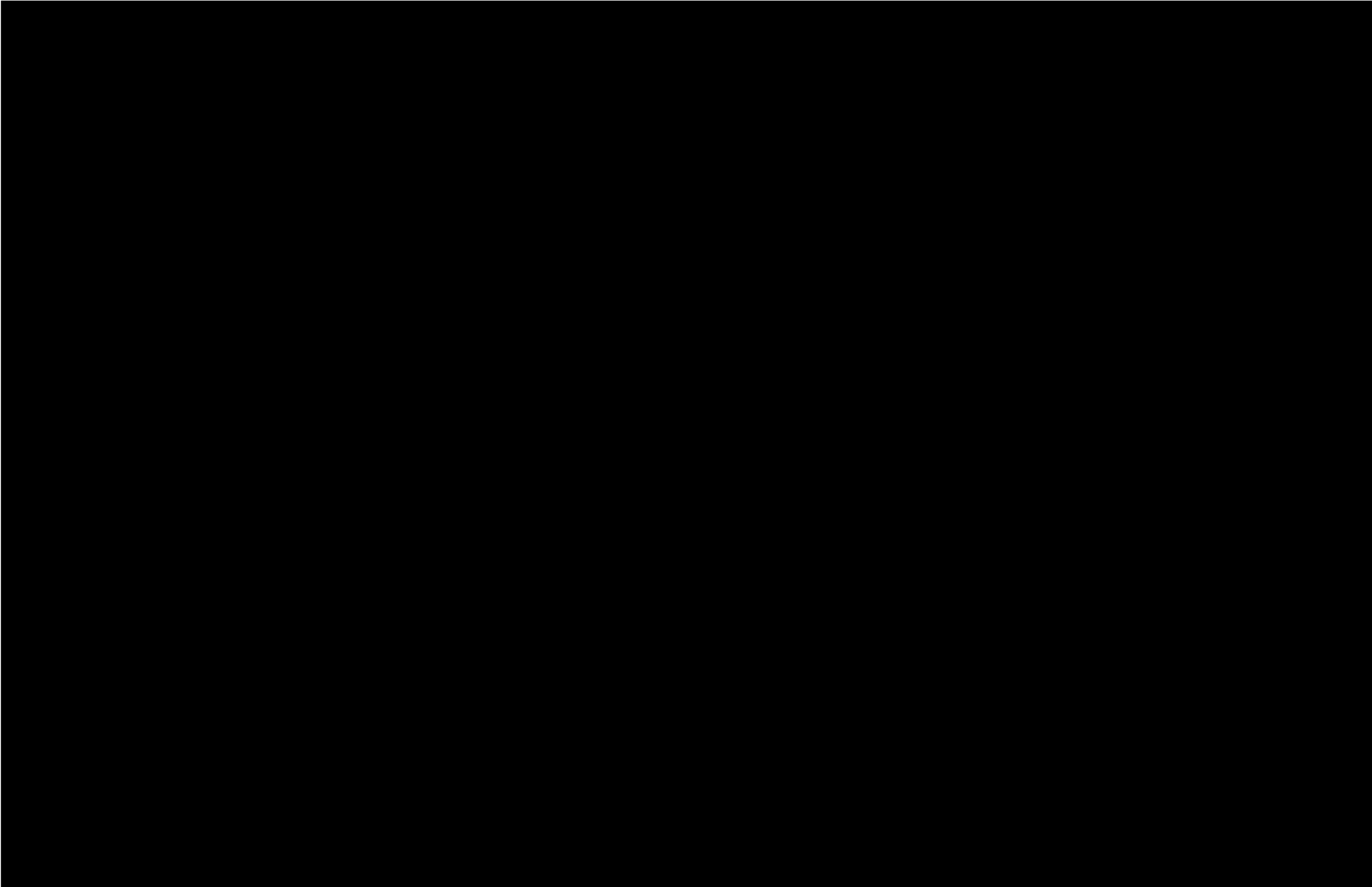
8.2.5 Site Disturbance

Movement and disturbance within the LRS must be kept to a minimum and excessive maintenance should be avoided. Persons entering the LRS shall be restricted to those contractors required to search for rouge stock, install the wood piles and then implement the ongoing, scheduled pest animal management programme. Contractors must use the same pathways through the Site to avoid injuring lizards when undertaking pest management, guided by well-marked lines.

If and when lizards are salvaged and released into the LRS, no vehicles (including farm machinery) will be allowed to enter or access through the LRS. If required, at other times, prior to lizard salvage and release, vehicles and farm machinery can access and move through the LRS, including using existing access tracks. Vehicles can move through the LRS buffer area at any time but shall avoid areas where pest animal management devices are located.

8.2.6 Pest Animal Management

A separate detailed Pest Animal Management Plan (Boffa Miskell 2025) has been prepared for the Auckland Prison capacity increase project. The PAMP provides operational detail for an effective lizard predator and browsing pest animal suppression programme, with clear monitoring and control methodologies, best practice guidelines and scheduling (Figure 7). The LRS and buffer area will be subject to predator control and monitoring measures for at least six months prior to the pre-construction lizard survey. The initial stage of pest animal management in both areas will include an intensive 28-day pest animal knockdown, with pre and post knockdown monitoring. Pest animal targets and thresholds have been set and exceedance of the threshold for any pest species will require further control and monitoring until pest animal abundancies fall below the required threshold. If lizards are salvaged and released into the LRS, then lizard predator management within those areas shall be required to continue for a further three years after the final lizard transfer. If no lizards are salvaged during the pre-construction lizard survey, the pest animal management activities to protect lizards within the LRS and buffer area will cease at that point in time, as detailed within the Pest Animal Management Plan (PAMP).



8.3 Lizard Release Site Timings and Responsibilities

A summary of the timings and the responsibilities in relation to the LRS is provided in Table 8.

Table 8: Summary of timings and responsibilities related to the creation and maintenance of the Lizard Release Site.

Task description	Responsible Party	Timing
Installation of woody cover piles	Corrections contractor	At least six months prior to the pre-construction lizard salvage
Investigation and repair (if any) of boundary livestock fence	Corrections contractor	At least six months prior to the pre-construction lizard salvage
Implement pest animal management plan activities for the LRS and buffer area	Corrections contractor/ certified predator control contractor	At least six months prior to the pre-construction lizard salvage, as per the Pest Animal Management Plan.
Release site walkover by project herpetologist to determine if the release site is ready to release lizards.	Project herpetologist	One month prior to the pre-construction lizard survey/salvage.
Pre-construction Lizard Survey/Salvage	Project herpetologist	Within one month prior to construction and once the release site has been determined to be suitable to release lizards into.

9.0 Contingency Actions and Incidental Discovery Protocol

9.1 Contingency Actions

It is well understood that lizards can inhabit unlikely locations and sometimes be found in surprising abundance. Therefore, potential issues that could arise and contingency actions to address them are set out in Table 9.

Table 9: Proposed contingency actions.

Issue	Description	Contingency Action(s)
Unexpected species detected on-site during lizard survey.	If any native lizard species other than copper or ornate skinks are detected.	The LMP should immediately be updated and submitted to DOC. If the permit has already been approved, and specific additional management is required, DOC should be advised and advice and a variation to the WAA and LMP will be undertaken to account for this species.
Higher number of lizards captured than expected	It is expected is that the number of ornate and copper skinks to be low given limited area and quality of lizard habitat within the Site.	If the number of skinks captured is >20, or by the fifth day of salvage the daily capture frequency isn't declining, salvage will be undertaken for an additional three days. This will be determined by the project herpetologist. The release site should also be assessed to see whether it is suitable to support an increased number of lizards.
Only a small number of lizards found during salvages/surveys	Fewer lizards of the same species found in the redevelopment site and/or the LRS than required for a viable breeding population in the proposed LRS.	Corrections could consider in the short term to allow other lizards of the same species from other local/regional projects to release lizards into the LRS.
Threatened or unexpected lizard species encountered	While considered very unlikely, in the case that a species with a threat status of "Threatened" or an unexpected species is encountered during the salvage.	If encountered, all works must cease immediately from when the discovery has been made. The project herpetologist will contact DOC to discuss on how to proceed. Any works can only commence until approval has been granted by DOC or an appropriate plan to manage the threatened species has been developed.

Any major changes to the lizard management or any changes to the Project Footprint will require consultation with DOC and any other relevant authorities or stakeholders. The LMP should be updated to reflect these changes.

9.2 Incidental Discovery Protocol

The following incidental discovery protocol (IDP) has been described for the scenario in which a lizard is discovered during construction, including:

- Prior to WAA approval in areas outside lizard habitat.
- During construction of the redevelopment following implementation of the pre-construction lizard survey/salvage.

If a lizard is discovered:

- All activities in a 10 m radius must cease immediately around where the lizard was observed.
- The project herpetologist must be notified within 12 hours of the sighting.
- If the lizard is sighted, provide details such as:
 - Colouration and patterning,
 - Shape and size (e.g. robust or slender, approximate length)
 - Location it was found in.
- Where possible, the lizard should be captured and placed into a breathable container with some vegetation inside to provide cover. The container must be placed out of the sun. The following should also be recorded:
 - Date and time,
 - Location,
 - Weather,
 - Species (if known)
 - Photographs of the animal and capture location.
- If the lizard is healthy, it should be released into the created LRS within the Project Footprint, or at another suitable location at the discretion of the project herpetologist and DOC.
- If a deceased lizard is found, it should be photographed, and the project herpetologist must be contacted. The project herpetologist will then consult with DOC on how to proceed.
- If an injured lizard is found, the project herpetologist must be contacted immediately for advice on how to proceed. A veterinarian may need to be contact for advice. DOC will also be notified around the finding.

10.0 Post Release Monitoring and Reporting

10.1 Reporting

Lizard salvage outcomes will be reported by the project herpetologist (per requirements of the WAA (specifically Condition WAA11)) to the Department of Conservation (administering agency of the Wildlife Approval) by 30 June each year following a lizard salvage and release activity in order to determine how the Lizard Management Plan was implemented including any difficulties encountered with capture and handling, and what contingency actions were required. This report will also include:

- Species and number of animals released;
- Detailed maps of the capture and release locations' and
- The results of any post release monitoring undertaken (if required).

ARDS cards will be submitted to DOC within 1 month following the end of the salvage by the project herpetologist.

If no lizard salvage and release activity is undertaken in the preceding year, then no reporting is required.

10.2 Post-release monitoring

It is widely acknowledged that some lizard management and salvage related activities are not well reported or very successful. Therefore, monitoring is required to evaluate the success of the salvage operation. Post-release monitoring will only be triggered if enough lizards are captured that make monitoring feasible. The following capture thresholds are recommended:

- < 20 individuals of a 'Not Threatened' or 'At Risk' species = no monitoring.
- 20 + lizards salvaged or any number of any 'Threatened' species = three-year minimum monitoring programme.

If > 20 lizards are released, a monitoring plan will be prepared following the salvage in conjunction with the Department of Conservation. All relevant and appropriate data will be collected at the time of salvage to facilitate successful monitoring outcomes. The plan shall be designed to ensure that resources are used in a meaningful way that will directly address knowledge gaps in lizard monitoring and lizard conservation efforts that are relevant to the local species.

The outcomes of the lizard monitoring will be reported annually for the duration of the post release monitoring (the three-year period). The report should also report on the condition of the lizard enhancements installed at the release site and for the on-site habitat enhancements.

11.0 Adaptive Management

Minor flexibility or adaptations to the current methods proposed in this LMP may be made at the discretion of the project herpetologist. This will enable the appropriate management of lizard populations that are encountered during the lizard salvage within the Site, habitat quality and type of species encountered.

12.0 Conclusion

Corrections propose to redevelop the Auckland Prison Site to increase prisoner capacity in a staged process that is expected to occur over approximately 10 years. To mitigate the effects of redevelopment on any native lizards within the proposed construction area, Corrections will be required to undertake a pre-construction survey/salvage of lizard habitats prior to construction commencing. Any salvaged lizards will need to be moved under permit to the proposed LRS, located on the southern boundary of the wider Prison Site outside of the development envelope. Intensive land use practices along with lizard proof fencing of remaining habitat within the redevelopment areas will be continued, to avoid expansion of the lizard salvage area, and reduce the likelihood of lizard and pest animal re-occupation.

The proposed LRS is of suitable size, location and vegetation/refugia type for a lizard release. However, to improve the habitat and protection of any salvaged lizards, the LRS will require some enhancements. Six months prior to the pre-construction lizard survey/salvage the LRS and buffer area will undergo implementation of intensive pest management, enhancement planting in the grass paddock sections, construction of natural wood debris piles and an investigation of boundary stock fencelines (including any fence repairs/upgrades if required). If lizards are salvaged and released into the LRS then the pest animal management activities shall be maintained ongoing for a further three years after the final lizard release, as well as stock fence inspections and any repairs.

Given the small total area and low quality of lizard habitat within the highly modified, manicured and maintained Prison Site, we consider the proposed salvage and enhancements within and surrounding the LRS would provide a positive net benefit for any salvaged lizards over the long term.

13.0 References

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- Hitchmough, R.A.; Barr, B.; Knox, C.; Lettink, M.; Monks, J.M.; Patterson, G.B.; Reardon, J.T.; van Winkel, D.; Rolfe, J.; Michel, P. (2021): Conservation status of New Zealand reptiles, 2021. *New Zealand Threat Classification Series 35*. Department of Conservation, Wellington. 15 p.

Appendix 1: Expert Statements

Dr Ian Boothroyd: Statement of Qualifications & Experience

I am a Partner: Ecologist at Boffa Miskell Limited. Boffa Miskell is a multi-disciplinary environmental consultancy specialising in planning, urban design, landscape design, ecology, biosecurity and engagement. I have been employed at Boffa Miskell since June 2014.

I hold the qualifications of BSc (Hons) Manchester University 1977), MSc Applied Hydrobiology (University of Wales, 1980) and DPhil (Waikato University, 1988). I am an appointed Fellow of both the Royal Society of Biology (FRSB) and the Environment Institute of Australia and New Zealand (FEIANZ), a life member of the New Zealand Freshwater Sciences Society, and a member of the Resource Management Law Association. I am a Certified Environmental Practitioner (CEnvP, Ecology).

I have 40 years of professional experience in the field of resource management, including roles as Manager Environmental Monitoring and Compliance (Hawke's Bay Regional Council), Research Director (NIWA), Senior Lecturer (University of Auckland, and as a consultant environmental practitioner for 25 years. I am also an experienced independent environmental commissioner and appointed as a Freshwater Commissioner by the New Zealand government. My experience includes environmental assessment and management and decision-making in the New Zealand environment, and I am familiar with environmental protocols, criteria and performance standards. I have led multidisciplinary teams for large and often complex projects.

My experience extends to large land management and subdivision projects, designations, renewable energy, roading, mining, quarrying, water treatment, biodiversity management and offsets, multi-criteria assessments through to investigations and assessments, consent conditions, fast track applications and presentation of expert evidence at hearings, Environment Court and Boards of Inquiry.

I confirm that, in my capacity as reviewer of this report, I have read and abide by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses Practice Note 2023.

Ian Boothroyd, January 2026

Adam Willetts: Statement of Qualifications and Experience

I am a Senior Professional Biosecurity Consultant at Boffa Miskell Limited. Boffa Miskell is a multi-disciplinary environmental consultancy specialising in planning, urban design, landscape design, ecology and biosecurity and engagement.

I have 24+ years' experience in the private sector, local government and central government with roles in biodiversity management, ecological restoration and project management throughout New Zealand. Recent experience includes design and project management of multiple Predator Free New Zealand 2050 eradication plans/projects, biosecurity and ecology plan development for RMA and Fast Track Approval applications as well as research and development of new tools and technology for biosecurity and ecological restoration. I hold the qualifications of a Bachelor of Parks, Recreation and Tourism Management, with a postgraduate in commerce.

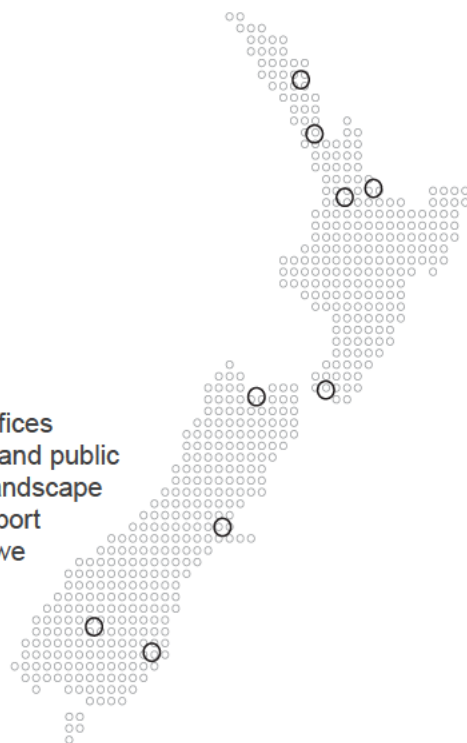
I am a Certified Environmental Practitioner (General) as well as a full member of the New Zealand Biosecurity Institute (NZBI) and the Environmental Institute of Australia and New Zealand (EIANZ).

I can confirm that I have read and abide by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses Practice Note 2023.

Adam Willetts, March 2026

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Boffa Miskell is a leading New Zealand environmental consultancy with nine offices throughout Aotearoa. We work with a wide range of local, international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, Te Hihiri (cultural advisory), engagement, transport advisory, climate change, graphics, and mapping. Over the past five decades we have built a reputation for creativity, professionalism, innovation, and excellence by understanding each project's interconnections with the wider environmental, social, cultural, and economic context.



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