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Environmental Consultants



March 2026

Barrytown South Mineral Sand Project Lizard Management Plan

Submitted to:
Tāiko Critical Minerals Limited



water



fauna



flora



land

Quality Assurance

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1.0 Introduction

1.1 Background

Tāiko Critical Minerals Limited (TCM) holds resource consents from the Grey District and West Coast Regional Councils for mineral sand mining near Barrytown, approximately 34km north of Greymouth. Tāiko is proposing to develop the ‘Southern Block’ (SB), located between Canoe Creek and Fagan Creek, approximately 408ha in extent and referred to here as ‘the Site’. Activity would involve mining within the ‘mining disturbance area’ as well as earthworks outside this area but within the consented area shown in Figure 1.

This Lizard Management Plan (LMP) for the the Site outlines for how effects on lizards will be mitigated via search and salvage prior to and during works including responsibilities, relocation sites and monitoring and reporting.

1.2 Lizard fauna and lizard habitat at the Site

Desktop assessment and site surveys conducted as part of an Ecological Impact Assessment (EclA) by Ecological Solutions Limited concluded that habitat for lizards on site was scarce and low quality, though higher value habitat was present adjacent to, but outside, the mining disturbance area in rank pasture, rock piles, cobble and fragments of shrubland. No survey for lizards using passive or active capture devices was undertaken and no lizards were seen.

Lizard species present near the Site are shown in Despite the highly modified and disrupted nature of the pasture habitat which comprises the majority of the Site, the lack of regular grazing of parts of the Site, particularly south of Cargill Road and within some riparian areas, means that native skink species may be occupying that habitat, which would be mined. Habitat for lizards is of slightly better quality outside the mining disturbance area and includes rank pasture, woody debris and cobblestone habitat which may provide refuge for Newman’s speckled skink and Canterbury grass skink.

and include two species of native gecko (forest gecko - *Mokopirirakau granulatus* and West Coast green gecko - *Naultinus tuberculatus*) and one skink (Newman’s speckled skink – *Oligosoma* aff. *newmani* “Westland”). The site is also within the known distribution of Canterbury grass skink (*Oligosoma* aff. *polychroma* Clade 4).

The gecko species are both primarily arboreal and so are unlikely to be using habitat within the mining area due to the lack of mature vegetation, the small, isolated and highly fragmented nature of the immature indigenous vegetation, the prevalence of highly modified pastoral habitat and the lack of pest control. Newman’s speckled skink and Canterbury grass skink are unlikely to occur in the poor-quality habitats within the mining area, but their presence cannot be ruled out. Potential habitat for lizards is mapped in Figure 2, with examples shown in Figure 3. These habitat types include:

- rough exotic pasture (particularly south of Cargill Road);
- patches of indigenous coastal shrubland; and
- patches of flaxland.

Table 1: Lizard species within 10km of the Site

Common Name	Scientific Name	Conservation Status Hitchmough et al (2026)
West Coast green gecko	<i>Naultinus tuberculatus</i>	Threatened – Nationally Vulnerable

Forest gecko	<i>Mokopirirakau granulatus</i>	At Risk – Declining
Newman's speckled skink	<i>Oligosoma</i> aff. <i>newmani</i> "Westland"	Threatened – Nationally Vulnerable
Canterbury grass skink	<i>Oligosoma</i> aff. <i>polychroma</i> Clade 4	At Risk - Declining

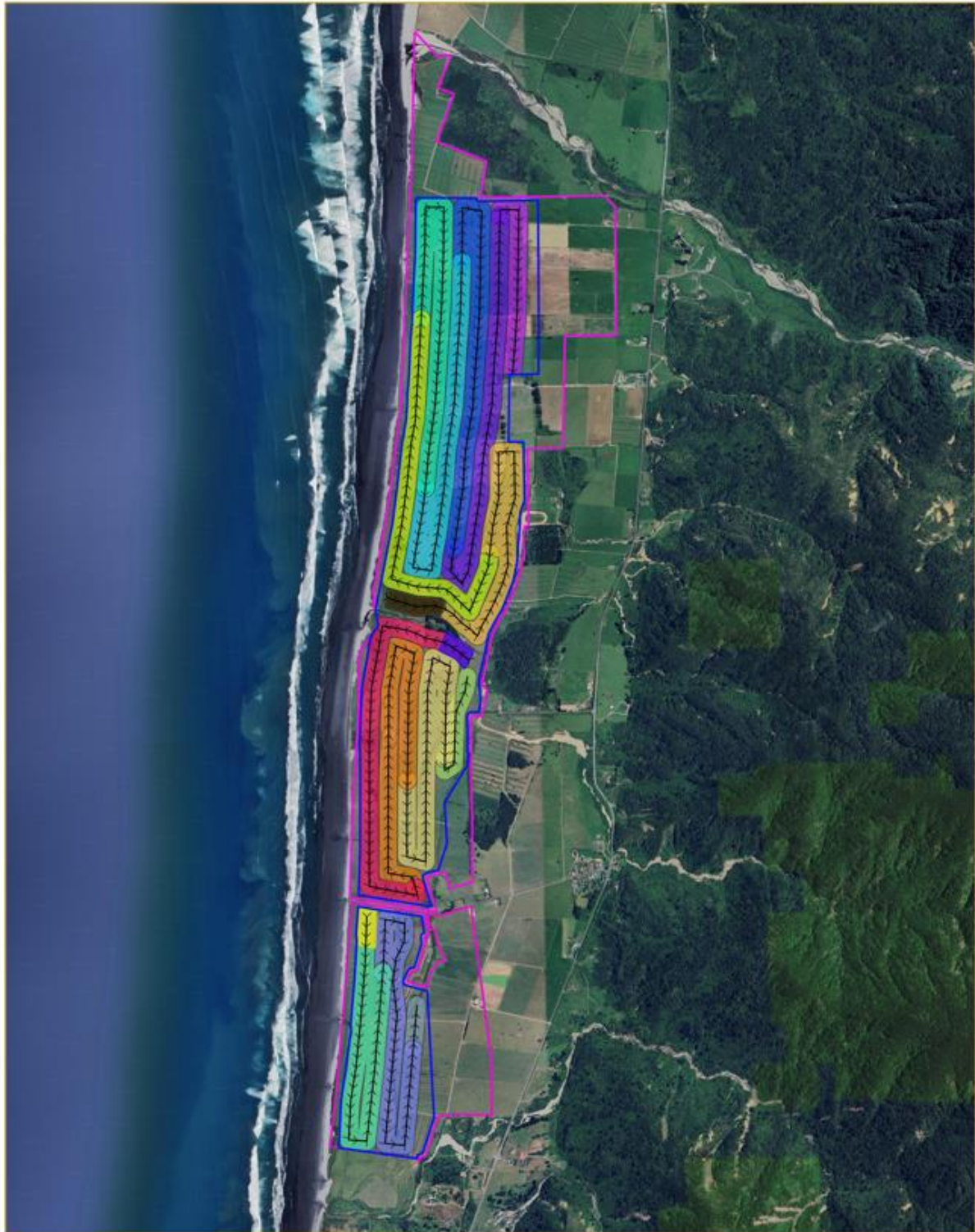


Figure 1: Staging Plan for Barrytown Southern Block.



Figure 2: Vegetation types present within Southern Block, Barrytown.



Figure 3: Potential lizard habitat present within SB mining area, including rough exotic pasture (top), indigenous coastal shrubland (centre) and flaxland (bottom).

Despite the highly modified and disrupted nature of the pasture habitat which comprises the majority of the Site, the lack of regular grazing of parts of the Site, particularly south of Cargill Road and within some riparian areas, means that native skink species may be occupying that habitat, which would be mined. Habitat for lizards is of slightly better quality outside the mining disturbance area and includes rank pasture, woody debris and cobblestone habitat which may provide refuge for Newman’s speckled skink and Canterbury grass skink.

1.3 Purpose and Objectives of Management

The purpose of lizard management is to minimise adverse effects on indigenous lizards during construction and operation.

This will be achieved via:

- Capture and relocation of indigenous lizards from identified lizard habitat to be cleared.
- Construction of artificial refuges (e.g., eco-stack/ piles of logs/branches/stones) in advance of lizard salvage at the lizard release site and then release any captured lizards there.

1.4 Responsibilities

This LMP has been prepared by Ecological Solutions Ltd.

The Consent Holder responsible for submitting this LMP to the West Coast Regional Council for certification and has overall accountability for the implementation of and compliance with this plan and any associated Wildlife Act Authority (WAA) conditions.

The lizard management plan will be implemented by a suitably qualified herpetologist and hold the required permit and valid Wildlife Act Authorisation (Dr Graham Ussher, RMA Ecology).

1.5 Relevant Consent Conditions

TCM has been granted resource consents (**NUMBER**) under the Fast-track Approvals Act 2024 to construct and operate the mine subject to conditions. The relevant conditions are detailed below.

14.0 Lizard Management		Section in this Plan
14.1	The Consent Holder must conduct activities on site in general accordance with a Lizard Management Plan (LMP) prepared by a suitably qualified ecologist. The objective of the LMP is to minimise adverse effects on indigenous lizards present within the project area during construction and operation.	This Plan
14.2	The LMP must include (but is not limited to): <ol style="list-style-type: none"> Survey of lizard species and habitats within the site; Methods for lizard capture, salvage, and relocation; Methods for construction of artificial refuges in advance of lizard salvage at the lizard release site; Identification of release sites and habitat enhancement measures; Timing of works to minimise impacts on lizards; Monitoring and reporting requirements; 	<p>2.2</p> <p>2.3, 2.4, 2.6-2.9</p> <p>2.10</p> <p>2.10, 2.11</p> <p>2.9</p> <p>4.0</p>

	g. Contingency procedures if lizards are discovered during works.	2.2
14.3	Site works must not commence until the Consent Authority has certified the LMP in accordance with Condition 6.0.	

1.6 Permits

The capture and relocation of native lizards will be carried out in accordance with a current Wildlife Act Authorisation to be issued by the Department of Conservation attached as Appendix A (To come as part of this Fast Track Application). Any special conditions set out in the authorisation, as well as the relevant resource consent conditions, must be complied with at all times.

2.0 Approach

2.1 Introduction

The approach to lizard management will follow the principles set out by the Department of Conservation for lizard salvage and transfer in New Zealand (Department of Conservation 2019). The nine principles are as follows:

1. Lizard species' values and site significance must be assessed at both the impact (development) and receiving sites.
2. Actual and potential development-related effects and their significance must be assessed.
3. Alternatives to moving lizards must be considered.
4. Threatened lizard species require more careful consideration than less-threatened species.
5. Lizard salvage, transfer and release must use the best available methodology.
6. Receiving sites and their carrying capacities must be suitable in the long term.
7. Monitoring is required to evaluate the salvage operation.
8. Reporting is required to communicate outcomes of salvage operations and facilitate process improvements.
9. Contingency actions are required when lizard salvage and transfer activities fail.

Due to the extent and nature of the Project activity, and the practical difficulty of searching for and capturing lizards at low densities, complete avoidance of actual or potential adverse effects on indigenous lizards and their habitats cannot be achieved. Mitigation and management of potential adverse effects will involve the implementation of a lizard salvage and relocation campaign in accordance with a Wildlife Act Authorisation, combined with release site habitat enhancement and augmentation as a means of providing additional resources for resident indigenous lizards.

2.2 Pre-mining lizard survey

Prior to any vegetation clearance a lizard survey of potential lizard habitats (including the proposed relocation sites) will be undertaken by a suitably qualified and experienced herpetologist, to allow an assessment of the appropriate approach to lizard mitigation for the

site (e.g., extent of provision of habitat at relocation sites). The survey will involve targeted manual searches combined with artificial retreats (ACOs) to ascertain which species are present within the site, their extent and likely densities. During this survey, the location and extent of lizard habitat will be updated to ensure the information informing lizard management is current and identifies all areas for search and salvage. This information will be used to guide the Annual Work Plan and the level of search and salvage actions required.

The data gathered from the pre-mining survey will be used to prescribe the appropriate search and salvage protocol required for each mining section. Three salvage protocols will be operationalised depending on the species and densities found during this survey as follows:

- **Zero Detection Protocol** – if no lizards are found during the pre-mining lizard survey, no search and salvage plans are required. Results of the survey will be provided to the Department of Conservation to be assessed for their validity. In the unlikely event that any injured or incidentally killed lizards are recovered during mining operations, the Department of Conservation will be informed and operations will move to either the 'Not Threatened Species Protocol' (for 'Not Threatened' and 'At Risk' species) or the 'Threatened Species Protocol' (for 'Threatened' species) set out below depending on the species recorded.
- **Protocol for 'Not Threatened' species** – if lizard species with a 'Not Threatened' conservation status (including 'At Risk' species) are detected during the pre-mining lizard survey, or incidentally discovered as mining proceeds, then the Not Threatened Species Protocol set out below will be followed. In the unlikely event that any injured or incidentally killed lizards which are regarded as 'Threatened' are recovered during mining operations, the Department of Conservation will be informed and operations will move to the 'Threatened Species Protocol' set out below.
- **Protocol for 'Threatened' species** – if lizard species with a 'Threatened' conservation status are detected during the pre-mining lizard survey, or incidentally discovered as mining proceeds, then the Threatened Protocol set out below will be followed.

2.3 Protocol for 'Not Threatened' Species

A Department of Conservation authorised herpetologist and suitably qualified assistant ecologist(s) will undertake targeted search and salvage campaigns prior to and during vegetation clearance. Vegetation clearance within lizard habitat areas (identified as rough exotic pasture, remnant indigenous coastal shrubland, and flaxland) and therefore lizard search and salvage campaigns, will be undertaken between October and April inclusive. The search and salvage campaigns will be undertaken in two phases.

- *Phase 1:* Pre-vegetation clearance systematic manual habitat searches, use of artificial retreats and a live capture and relocation programme.
- *Phase 2:* Within areas where native lizards are detected, machine assisted destructive search (vegetation clearance supervision by the Project herpetologist at focused areas).

Any lizards found during these phases will be handled and subsequently released following methods set out in Sections 2.6 – 2.10 inclusive at the locations set out in Section 2.11. The specific salvage methods for each of the phases are detailed below.

Phase 1: Pre-vegetation clearance systematic searches and live trapping programme

Systematic Searches

Diurnal (day) searches will be undertaken.

- Day time systematic manual habitat searches will be undertaken within lizard habitat areas to be cleared on days when temperatures are expected to be between 12–20°C and there is either no rain or only light rain. Manual searches will include lifting debris (e.g., logs, rocks, and organic and inorganic material), searching through vegetation foliage, scrub/rank grass and rock piles by hand or with the assistance of rakes.
- All native lizards will be released at the designated release site immediately upon capture and in all cases within no more than two hours.

Live Trapping

The following trap types will be used prior to vegetation removal:

- At least 135 triple-stacked Artificial Retreats (Lettink 2012) will be installed in clusters of 3 – 5 devices across lizard habitat areas to be cleared at least six weeks prior to a minimum 4-day trapping period before vegetation clearance commences for 'Not Threatened' and 'At Risk' species.
- At least 60 funnel traps will be installed across lizard habitat areas three days prior to vegetation clearance and checked daily (Hare, 2012).

All native lizards will be released at the designated release site immediately upon capture and in all cases within no more than two hours of first discovery.

Phase 2. Vegetation clearance supervision and machine-assisted searches

Vegetation clearance supervision and machine assisted searching is a contingency measure, recognising that not every lizard may be captured during Phase 1.

- Destructive searches will involve searching through potential habitat during vegetation removal, and with the assistance of an excavator fitted with a toothed bucket or rake.
- Searches will cover all habitat where native lizards have been detected from the Phase 1 works, within the vegetation clearance area and continue until the supervising ecologist is satisfied that the potential habitats are sufficiently removed or degraded that lizards are unlikely to be present.
- Any lizards captured will be handled in accordance with the protocols set out in Sections 2.6 – 2.10 below and released at one of the designated release sites shown in Section 2.11 within no more than two hours.

Coordination and communication between the supervising ecologist and vegetation clearance contractors will be important to ensure injury to lizards, and the supervising ecologist, is avoided.

2.4 Protocol for 'Threatened' Species

A Department of Conservation authorised herpetologist and suitably qualified assistant ecologist(s) will undertake targeted search and salvage campaigns prior to and during vegetation clearance. Vegetation clearance within lizard habitat areas (identified as rough exotic pasture, remnant indigenous coastal shrubland, and flaxland) and therefore lizard search and salvage campaigns, will be undertaken between October and April inclusive. The search and salvage campaigns will be undertaken in three phases.

- *Phase 1: Pre-clearance surveys.* Both passive (ACOs, piles of wood, tracking tunnels and/or other species appropriate methods) and active (nocturnal spotlight searches, funnel traps, manual searches, machine assisted searches and/or other species appropriate methods) will be deployed for at least four weeks before habitat clearance is scheduled to begin. A minimum of 135 triple stacked ACOs in clusters of 3 – 5 devices and at least 60 funnel traps will be used.

- *Phase 2:* Pre-vegetation clearance systematic manual habitat searches, use of artificial retreats and a live capture and relocation programme.
- *Phase 3:* Within areas where ‘Threatened’ native lizards are detected, either hand deconstruction of habitats such as rock piles, log piles and vegetation or machine assisted destructive searches (vegetation clearance supervised by the Project herpetologist at focused areas) will be used during vegetation clearance.

Any lizards found during these phases will be handled and subsequently released following methods set out in Sections 2.6 – 2.10 inclusive at the locations set out in Section 2.11. The specific salvage methods for each of the phases are detailed below.

Phase 1: Pre-clearance surveys.

Pre-clearance surveys will make use of both passive and active surveys using methods appropriate to the species of lizard present.

- Passive surveys include use of Artificial Cover Objects (ACOs) put in place at least six weeks to bed in before revisiting to record and capture any lizards present. Passive surveys could also include use of technologies such as automated wildlife cameras and/or tracking tunnels combined with DNA sampling (eDNA) to confirm species presence before more intensive searching.
- Active surveys include use of funnel traps, intensive, manual searches focused on finding cryptic lizards and/or destructive searching (when high risk habitats are removed, ecologists, or specialized machinery under their supervision, tear apart the vegetation and salvage any lizards), nocturnal spotlighting and/or machine-assisted surveys (where habitat cannot be manually searched, an excavator with a toothed bucket may be used to lift vegetation and debris while the herpetologist checks for lizards beneath where it is safe to do so).

Phase 2: Pre-vegetation clearance systematic searches and live trapping programme

Systematic Searches

Diurnal (day) searches will be undertaken.

- Day time systematic manual habitat searches will be undertaken within lizard habitat areas to be cleared on days when temperatures are expected to be between 12–20°C and there is either no rain or only light rain. Manual searches will include lifting debris (e.g., logs, rocks, and organic and inorganic material), searching through vegetation foliage, scrub/rank grass and rock piles by hand or with the assistance of rakes.
- All native lizards will be released at the designated release site immediately upon capture and in all cases within no more than two hours.

Live Trapping

The following trap types will be used prior to vegetation removal:

- Artificial Retreats (Lettink 2012) will be installed across lizard habitat areas to be cleared at least six weeks prior to a minimum six-day trapping period. Native lizards retrieved from ACO’s will be released at the designated release site immediately upon capture
- Funnel Traps will be installed across lizard habitat areas three days prior to vegetation clearance (checked daily) (Hare, 2012). Traps will be checked twelve hourly.
- All native lizards will be released at the designated release site immediately upon capture and in all cases within no more than two hours of discovery.

Phase 3. Vegetation clearance supervision and machine-assisted searches

Vegetation clearance supervision and machine assisted searching is a contingency measure, recognising that not every lizard may be captured during Phase 1.

- Destructive searches will involve searching through potential habitat during vegetation removal, and with the assistance of an excavator fitted with a toothed bucket or rake.
- Searches will cover all habitat where native lizards have been detected from the Phase 1 works, within the vegetation clearance area and continue until the supervising ecologist is satisfied that the potential habitats are sufficiently removed or degraded that lizards are unlikely to be present.
- Any lizards captured will be released at one of the designated release sites shown in Section 2.10 within no more than two hours.

Coordination and communication between the supervising ecologist and vegetation clearance contractors will be important to ensure injury to lizards, and the supervising ecologist, is avoided.

2.5 Site Demarcation

Prior to undertaking any lizard salvage activities, the extent of the vegetation clearance and earthworks will be clearly marked (e.g., flagging tape, tree dazzle or pegs) to ensure that the project herpetologist and the machine operators clearly understand the full extent of the area of impact. Lizard salvage will be required where vegetation clearance is to be undertaken within identified lizard habitat and/or where non-threatened lizards have been identified during surveys. Examples of these habitat types are shown in Figure 3.

2.6 Lizard handling and temporary containment

All lizards will be placed in a temporary containment box, which will be filled with local vegetation matter and leaf litter and misted with water. Lizards will only be held temporarily for the period of the active searches or retreat inspections, or in all cases within less than two hours, by which time the lizards must be transported to and released at the approved relocation site set out in Section 2.11 below.

2.7 Morphometrics

When a native lizard has been captured, the following morphometric and geospatial information will be recorded:

- Species of native lizard;
- Gender;
- Time and date of capture;
- Age class (adult, sub-adult, juvenile);
- Net weight (minus holding container);
- Length – snout-vent, regenerating tail and original tail;
- Reproductive status;
- Photograph taken of animal (dorsal and ventral view to record colour and scale patterns) and habitat; and
- GPS coordinates of capture site and physical mark on high-definition aerial map of location.

In addition, the total time spent searching and number of personnel involved will be recorded to obtain an estimate of captures per unit search effort across days, habitats, and species.

2.8 Unintentional lizard injury or death

Injured lizards will be kept in an appropriate portable enclosure (i.e., a clean, well-ventilated plastic container) under the direction of the Project herpetologist to ensure the animal is handled appropriately until the lizard(s) can be assessed and treated.

The following steps will be implemented if any injured or dead lizards are found during the salvage campaign:

- The Project herpetologist will notify DOC (0800 DOC HOT (0800 362 468)) at the earliest opportunity within 24 hours after any injured or dead lizard is found;
- Injured lizards found during salvage will be either euthanised promptly and humanely or sent to West Coast Vets - Greymouth Clinic (35 Herbert Street, Greymouth 7805. 03 768 0370) as soon as possible for assessment and treatment at the discretion of the Project herpetologist.
- Any dead 'Threatened', 'At Risk' lizard species will be sent to Wildbase Hospital at Massey University (Manawatu Campus, Turitea 4410 wildbase@massey.ac.nz +64 6 350 5329) for necropsy.
- Appropriate measures will be undertaken to minimise any further lizard deaths.

2.9 Lizard salvage timeframe

The pre-clearance manual habitat searches and live trapping will be undertaken within the lizard season (October-April inclusive), over a period of four days of suitable weather (i.e., temperatures between 12–20°C either rain-free or with only light rain). However, the following contingency plan is proposed to ensure that all reasonable effort is made to salvage every lizard. Given their conservation status, more effort is proposed to salvage 'Threatened' lizards in the event that any are present. If:

- No lizards have been caught over the 4-day (for Not Threatened or At Risk species) or 6-day (for Threatened species) search/ trapping period or the herpetologist has determined that the habitat is no longer suitable to support lizards, the salvage operation will cease, OR
- Lizards are still being caught on day four (for Not Threatened or At Risk species) or day six (for Threatened species), searching and trapping will continue until no lizards are captured within a 24-hour period employing the same search effort.

2.10 Lizard habitat enhancement/augmentation

In addition to the mitigation planting provided around wetland and riparian areas, lizard refugia will be constructed ahead of salvage to provide immediate availability for salvaged and released lizards. Refugia habitat will be constructed within the release area using rock/coarse wood debris/log piles to create 'eco-stacks' that will be 1m x 1m in size. At least five eco-stacks will be created prior to vegetation clearance so as to ensure immediate refuge options for released lizards. The actual number of eco-stacks will be informed by the pre-mining lizard survey. If required, in addition to these, eco-stacks will be provided at a ratio of 1:10 (i.e. one eco-stack for every ten lizards salvaged). Eco-stacks are designed to provide adequate refuge habitat and thermal protection for released lizards. Eco-stacks will be created under the supervision of a suitably qualified herpetologist.

2.11 Lizard release

Release site

The successful transfer, re-establishment, and sustainability of relocated lizards is dependent on the quality and suitability of the relocation site. A relocation site should offer equal or greater opportunity (i.e., shelter, food resources, access to mates) for survival and long-term health of lizards compared to the habitat of origin. The approach is to release into sites improved by revegetation planting at locations where habitat was previously unsuitable, but is expected to be suitable as a result of the planting and provision of eco-stacks. This is considered appropriate due to the lack of suitable similar habitat nearby and the relatively extensive improved habitat which will be available on site. These habitats will become available as rehabilitation is completed and improve over time.

Since potential lizard habitat is primarily located in areas scheduled to be mined in the later stages of mining, revegetated areas that were planted during the first mining stages will be available. Habitat augmentation via 'eco-stack's will also take place prior to mining of lizard habitat. The post mining revegetation is shown in Figure 4. Within these areas, the following criteria, adapted from Department of Conservation for lizard salvage and transfer in New Zealand (Department of Conservation 2019) have been used in determining a suitable relocation site.

- Habitat quality – ensure the relocation habitat is similar (equal or greater quality), than the original capture site(s).
- Proximity to original population – limit the distance that lizards are relocated from their original capture site(s) to <500 m as much as is practicable.

The designated release sites include suitable habitat within the proposed restoration areas and in planted or retained riparian margins. These areas are inside the SB boundaries, so are in close proximity to salvage areas, and will have been rehabilitated and planted c. 8 – 10 years prior so are expected to provide higher quality habitat than currently exists within the site. Appropriate habitat includes the following habitat types at the locations shown in Figure 4.

- 'Existing planting to be retained';
- 'Riparian planting'; and
- Existing planting to be retained';
- 'Flaxland and dry edge vegetation' surrounding the constructed wetland.

Lizards will be released into sections of the appropriate available habitat depending on the densities and locations from which they are salvaged and at a scale matching the habitat lost.

Releases will focus on contiguous 'riparian planting' along Granite Creek in the first instance, followed by 'existing planting to be retained' and 'flaxland and dry edge vegetation' areas surrounding and extending from Granite Creek if required (i.e., if the number of lizards salvaged warrants it). These areas provide habitat at a scale consistent with the estimated habitat to be lost, but allow for extended releases within connected habitat.

Prior to commencement of lizard capture and relocation, the Project herpetologist will conduct a suitability assessment of the proposed release site(s) to determine if the habitats are of similar or better quality to the original capture habitat. If rehabilitated sites are not available, or not suitable when required, another more suitable site within the consented area will be selected at the discretion of the Project herpetologist. This could include within the Mean High Water Springs setback area along the western coastal boundary.

Release strategy

All lizards will be hard released (i.e., no staging pens) into appropriately enhanced habitat within the approved relocation site. It is expected that habitat enhancement will assist in

achieving high survival and sustainability of relocated lizards at the release site.

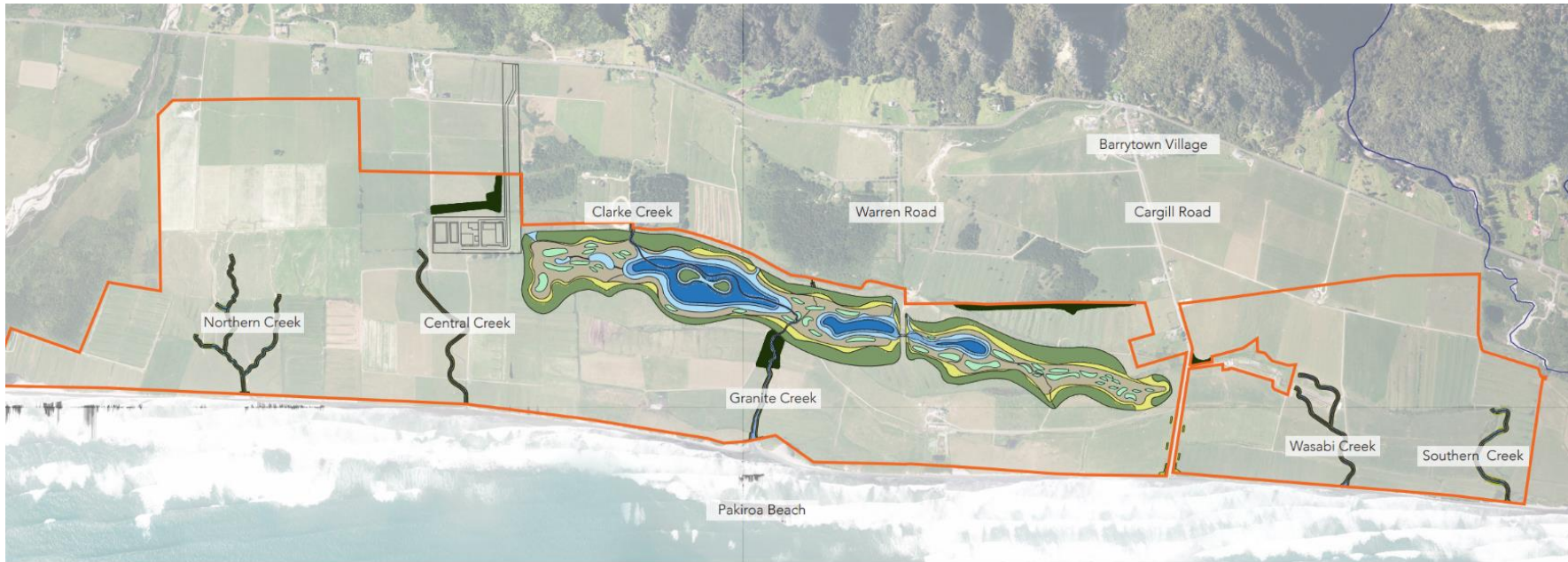
All relocated lizard species will be recorded and measured with basic morphometric features photographed where possible and included in reporting as outlined in Section 4.0.

2.12 Post-release Monitoring

In the event that more than 50 lizards are salvaged and relocated, this LMP will be updated to set out methods for monitoring lizards to confirm their survival and persistence. Monitoring will not involve marking or otherwise identifying individual lizards.

Lizard monitoring will be conducted annually for the life of the mining operation and for one year following mine closure.

Monitoring methods will include the use of both passive devices and active search methods ACO's, funnel traps and manual habitat searches and other methods as appropriate to the species collected and relocated. The timing, duration and other details of the survey will be designed by the Project herpetologist once the first lizard salvage and relocation is completed and be informed by the capture data to hand



KEY	
	Shallow Marsh - Average Depth 0.4m Total Area: 5.3ha
	Mid-depth Water - Average Depth 1m Total Area: 2.8ha
	Deep Open Water - Average Depth 2m Total Area: 4.8ha
	Flaxland and Dry Edge Vegetation Total Area: 16.8ha
	Carex Rushlands Total Area: 5.9ha
	Rauupo Wetland Total Area: 14.3ha
	Raised Islands Total Area: 3.2ha
	Riparian Planting 3-5m in width either side of channel
	Existing Planting to be Retained
	Application Area

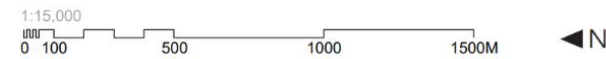
TOTAL WETLAND AREA: 53.1ha Approximately

Note:

At the completion of mining activity the application area will have:

- The existing planting areas that were retained
- Clusters of new planting along Cargill Road
- New riparian planting along creeks (five primary ones which have been realigned, plus Granite Creek)
- An extensive well functioning connected new wetland of approximately 53.1 hectares.

Refer to the **Rehabilitation Management Plan** for further details.



16.0

Landscape Mitigation

During Mining Final Outcome:
Sections 1, 2 & 3 Combined

Project Number:
2410

Revision:
H

Scale:
1:15,000@ A3

Design: GHILA
Drawn: EM Approved: NC

Date:
19/5/2026

Figure 4. Landscape Mitigation Plan - Post Mining

3.0 Annual Work Plan

To ensure that lizard mitigation actions are coordinated appropriately with mining activity, the Annual Work Plan includes a section for upcoming lizard management as per the approach outlined above. The annual work plan will identify planned clearance areas, appropriate salvage protocols (based on lizard survey results) and potential release areas for the upcoming year so as to ensure the project herpetologist is available to oversee search and salvage operations and that appropriate pre-clearance habitat augmentation has occurred within the release site in advance of it being required.

Search and salvage methods are focussed on the low-quality habitats identified in the EclA (Ecological Solutions Limited 2026) including rough exotic pasture and fragments of indigenous coastal shrubland and flaxland habitats, as well as any areas where lizards have been identified during pre-mining detailed lizard surveys.

The relevant phases for work planning should include:

Action	Timeframe
WAA	Obtained as part of the Site authorisations (i.e., prior to vegetation clearance occurring).
Pre-mining lizard survey	No more than six months prior to commencement of mining prior to Annual Work Plan finalisation
Establishment of ACO's	At least six weeks prior to vegetation clearance
Confirmation of specific release location	Prior to vegetation clearance
Habitat enhancement (creation of refugia/eco-stacks)	At least six weeks prior to vegetation clearance
Phase 1: manual searches and live trapping	Four days prior to vegetation clearance
Phase 2: clearance supervision and machine salvage	During vegetation clearance
Release of salvaged lizards	As salvaged, during vegetation clearance
Monitoring (if >50 lizards relocated)	Annually for the life of the mine and for one year following mine closure

4.0 Reporting and Closure

The project herpetologist will report the results of the lizard relocation work to TCM, the local Department of Conservation office and West Coast Regional Council within 20-days of completion. Results of lizard salvage including the methods applied, number of lizards salvaged and where they were released and will be reported to the Department of Conservation by way of an Amphibian and Reptile Distribution Scheme (ARDS) card and in accordance with any specific Wildlife Act Authorisation conditions by 1 October each year for the life of this Approval (covering the proceeding 1 July – 30 June period).

Results will include the following information:

- Date and time of capture.
- Capture method(s).
- Lizard species caught.
- Number caught (including any accidentally killed).
- Length range.

- Health/condition (i.e., visible disease or injury).
- Location of release.

The Project herpetologist will notify DOC at the earliest opportunity within 24 hours after any injured or dead lizard is found. All lizard capture data will be uploaded to the DOC Herpetofauna Database.

If more than 50 lizards are salvaged and relocated, this LMP will be updated to provide for annual monitoring of relocated lizards. The data collected will be summarised and any trends identified by the Project herpetologist and an annual lizard monitoring report will be provided to West Coast Regional Council and the Buller/Kawatiri office of the Department of Conservation as part of the annual reporting by 30 June each year.

5.0 References

- Department of Conservation. 2019. Key principles for lizard salvage and transfer in New Zealand. Department of Conservation Lizard Technical Advisory Group, Wellington.
- Ecological Solutions Limited. 2026. Ecological Impact Assessment. Unpublished report prepared for Tāiko Critical Minerals by Ecological Solutions Limited, Kāeo. March 2026.
- Hare, K. 2012. Herpetofauna: funnel trapping. DOC Science Internal Series DOCDM-783609. Department of Conservation, Wellington.
- Hitchmough R., Barr B., Knox C., Lettink M., Monks J.M., Patterson G.B., Reardon J.T., van Winkel D., Mekan T., Michel P. 2026. Conservation status of reptiles in Aotearoa New Zealand, 2025. Wellington: Department of Conservation. New Zealand Threat Classification Series 50.
- Lettink, M., 2012: Herpetofauna: artificial retreats. DOC Science Internal Series DOCDM-797638. Department of Conservation, Wellington.