



In reply please quote:	FTAA-2603-1181
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1. Comments on a Substantive Application under section 53 of the Fast-track Approvals Act 2024: Terrestrial Ecology

Fast-track project name	Mt Welcome, Pukerua Bay, Porirua
Fast-track application no.	FTAA-2603-1181
PCC reference	RCO26120

Technical area	Terrestrial Ecology
Date	31-07-2026
Author	Nyree Fea
Statement of expertise	My full name is Iona Nyree Fea. I am a Senior Ecologist with Wildland Consultants Ltd (Wildlands), based in the Wellington office. I have been employed as a consultant ecologist with Wildlands since 2021. I have a doctorate (PhD) in ecology from Victoria University of Wellington and have over 25 years' experience working in New Zealand as an ecologist. In my role as a Senior Ecologist for Wildlands, I undertake field assessments, provide technical advice and services, and manage projects for a range of clients. I have undertaken numerous terrestrial assessments in the Wellington, Wairarapa and Manawatu regions. I have experience assessing the effects of vegetation removal and ecological restoration, for various types of projects including subdivisions, wind farms, quarrying activities and roading projects, all involving the assessment of environmental effects under the Resource Management Act 1991 (RMA). I have assisted clients with projects that include baseline biodiversity surveys, consent reviews, preparation of Ecological Management Plans, and field surveys of vegetation and habitats, threatened plants, as well as indigenous fauna including bats, birds, lizards, reptiles and invertebrates. I have experience assessing and delineating Significant Natural Areas (SNAs) across the Greater Wellington region, most recently providing technical advice for Wellington City Council (WCC) in relation to the delineation of urban SNAs disputed by landowners. In 2025 I undertook a project on behalf of WCC to summarise the state of indigenous biodiversity in the Wellington Region. During these projects, I have gained an in-depth understanding of the key vegetation and ecosystem types present in the region and their relative importance.
Code of conduct	I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. This technical memorandum has been prepared in accordance with that Code. Unless I state otherwise, the opinions I express are within my area of expertise, and I have not omitted to consider material facts that might alter or detract from the opinions that I express. My employer, Wildlands, and Porirua City Council have



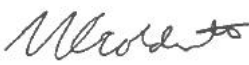
	agreed to me preparing this report in accordance with the Code of Conduct.
Documents considered	The key documents I have used, or referred to, when preparing this report are: • Appendix 15 – Mt Welcome Station Ecology: Ecological values, effects and effects management. Report prepared by BlueGreen Ecology Ltd for Pukerua Property Group Limited Partnership (dated 20 November 2025, revision 9). • Appendix 16 – Lizard Management Plan, Mt Welcome, Pukerua Bay. Report prepared by Blueprint Ecology for Pukerua Property Group Limited Partnership (dated 18 November 2025). • Appendix 23 – Landscape and Ecology Plans Parts A & B. Drawings prepared by Blac Projects for Pukerua Property Group Limited Partnership (dated 13 March 2026). • Appendix 30-40 – 1753-02-SK9200-R1-Ecological Remediation. Drawing prepared by Envelope Engineering for Pukerua Property Group Limited Partnership (dated 17 November 2025). Updated application documents: • Appendix J: Response to Wildlands' ecological review. Report prepared by BlueGreen Ecology Ltd for Pukerua Property Group Limited Partnership (dated 23 June 2026). • Mt Welcome Lizard Survey Report (redacted). Report prepared by Blueprint Ecology for Pukerua Property Group Limited Partnership (dated 5 May 2026).

2. Technical Review Comments

See attached document *Ecological Review for a Proposed Residential Subdivision at Mt Welcome Station, Pukerua Bay* prepared by Nyree Fea dated July 2026.



Ecological Review for a Proposed Residential Subdivision at Mt Welcome Station, Pukerua Bay

Prepared for:	Porirua City Council	Reviewed and approved for release by:  Nick Goldwater Senior Principal Ecologist
Author:	Nyree Fea	
Report No:	7831c	
Date:	July 2026	

1.0 Introduction

An application for resource consent is being sought by the Pukerua Property Group Partnership for a staged 950-lot residential subdivision at 422 State Highway 59 (SH59), Pukerua Bay. The proposed construction plan includes earthworks, vegetation clearance, and drainage alteration to establish the subdivision which includes roading, a new intersection with State Highway 59, building platforms, parks, and shared pathways. BlueGreen Ecology Ltd has prepared a report on the potential ecological effects of the project. This report was supplied as Appendix 15 of the applicant's second Fast-Track submission.

Porirua City Council commissioned Wildland Consultants Ltd (Wildlands) to provide a technical review of the terrestrial ecology aspects of the ecological impact assessment. This review is to ensure that the ecological assessment underpinning the consent application is both accurate and complete. This report is an updated version of an earlier memo, and is a response to Appendix J of the updated application documents (noting that Appendix J has the earlier version of this memo attached).

2.0 Scope of the Technical Review

The key documents were all reviewed to assess the following:

- Appropriateness of the methods used in obtaining terrestrial ecological data and descriptions.
- Quality of the description of terrestrial ecological features and values within the site.
- Quality of the interpretation of ecological information and assessment of value.
- That the ecological impacts of development have been correctly identified and assessed.
- Appropriateness and effectiveness of the measures proposed to mitigate potential ecological effects.

This review is focused on the terrestrial ecological effects as outlined in the ecological assessment report, the Lizard Management Plan, the Lizard Survey Report, the Landscape and Ecology plans and drawings, and Appendix J of the application.

Resource consent will also be required from Greater Wellington Regional Council to cover additional considerations of the National Policy Statement for Freshwater Management (NPS-FM 2020). This review therefore does not consider potential effects on streams and wetland habitats.

3.0 Site Visit

I undertook a site visit with the applicant and a Porirua City Council representative on 5 November 2025 to gain experience of the site and to assess the various terrestrial habitats and ecological features for possible use by indigenous fauna. The site inspection was restricted to the western half of the



property; I did not have the opportunity to visit the eastern half. The Significant Natural Area (SNA) 027 habitat on the western side of SH59 was also not inspected.

4.0 Technical Review of the Ecological Assessment

4.1 Vegetation assessment

4.1.1 Vegetation mapping of entire site

Mapping of all habitat types at the site has not been undertaken. The author should provide a figure within the report that correctly maps the vegetation and habitat types across the entire development site.

The author states in Appendix J that mapping of habitats is not necessary as there is “no indigenous vegetation remaining on the farmed land other than the 0.5 hectares of planted indigenous shrubland above the main drive buffered by pine” and that of all “the pastoral areas are/were being utilised for livestock, none were ‘rank’”.

- Their estimate of 0.5 hectares of planted indigenous ‘shrubland’ (which we describe as scrub) differs to the estimate of 0.3 hectares first mentioned in Appendix 15 (p. 7).
- Furthermore, they state there are no areas of rank pasture, which conflicts with a statement in the Lizard Survey Report (p. 3), that this habitat type was present and assessed for lizards.
- The author of Appendix J states that the “indigenous scrub [below SNA029] is a product of the road side edge pine canopy and not a valid indigenous scrub or shrubland and should not be considered as a habitat loss of value and so requiring offset”.

All areas of indigenous vegetation should be considered regardless of whether they are located within road reserve or next to pines. Although the loss of indigenous vegetation does not necessarily need to be considered when removal occurs as a consequence of the felling of plantation forestry, the loss should be considered when it is scheduled for construction of a new subdivision.

Small areas of indigenous scrub have ecological value, and this is especially the case in land environments where indigenous vegetation is Acutely Threatened (i.e. < 10% remain). The area of indigenous scrub (approximately 2,380 m²) just below and east of SNA029, and north of the access track, is also a valid habitat type. This habitat type was overlooked in the vegetation assessment, and therefore its value has not been appropriately considered.

The author states that the estimates of vegetation clearance that were prepared by the Envelope development engineers are accurate and to be relied upon. However, the accuracy of these estimates relies on a complete assessment of all vegetation types and habitats, which has yet to be provided.

Provision of estimates for the extents of the different habitat types that are present, in a figure and/or tabular form, would allow for a more accurate review of the ecological effects associated with this project.

4.1.2 Delineating areas to be cleared

Following the preparation of the map requested in Section 4.1.1 above, the author should clarify the extent of each vegetation type that will be lost because of the proposed subdivision, including the future loss of vegetation for the development of the lots and the construction of the roundabout. This is to ensure loss of ecological value associated with each vegetation type is correctly managed using the effects management hierarchy.



Although mapping of vegetation types was not supplied by the author in Appendix 15, estimates of vegetation clearance have been prepared by Porirua City Council¹. These estimates show that construction of the SH59 roundabout will require clearance of 1,338 m² of indigenous forest west of SH59 (within SNA027), and 687 m² of indigenous forest east of SH59 (within SNA029).

The 1,338 m² estimate closely corresponds to the 1,400 m² estimate provided by the author, and therefore this estimate of indigenous forest loss is accepted as accurate. However, the ecological effects of removing 687 m² of indigenous forest within SNA029 has not been accurately assessed. The author states that this habitat should not have been designated SNA as “this vegetation is less than 30 years old as it is barely evident in the 1995 aerial”. However, Figure 19 in Appendix 15 clearly shows that the vegetation at the northern tip of SNA029 was present in 1995. It appears the author has not accurately assessed the value of this vegetation and the potential ecological effects of its loss.

Without such information having been provided, it is not possible to accurately assess the likely ecological impact of vegetation removal and to review the appropriate management of that clearance.

4.1.3 Loss of indigenous vegetation

Assessment of effects for indigenous scrub

According to the ecological assessment, and from observations during my site visit, there is indigenous scrub south-east (and outside) of SNA029 (i.e. just north of the main access track). Given that this area of indigenous scrub appears to be relatively young (less than 40 years old according to Retrolens imagery), I agree that it is unlikely to meet any of the criteria to qualify as a Significant Natural Area (SNA) in the National Policy Statement on Indigenous Biodiversity (NPS-IB, 2023) or Policy 23 (1) and (2) of the proposed Greater Wellington Regional Policy Statement. Although this area of indigenous scrub may not qualify as SNA, clearance of indigenous scrub in Acutely Threatened land environments should not be assessed as a negligible effect, as less than 10% of indigenous cover remains in these environments. Fragments of indigenous scrub provide important refuges and corridors for indigenous species; for example, I observed various species of indigenous birds in the indigenous scrub habitat (see Section 4.2.3 below). Based on the EIANZ guidelines, this indigenous scrub fragment is likely to have Low ecological value; however, the magnitude of effect should be assessed as Moderate because the loss of indigenous cover is in an environment where indigenous cover is Acutely Threatened. Therefore, the overall level of effect would be Low.

The NPS-IB states that “Maintaining indigenous biodiversity requires...the maintenance and...no overall reduction of...connectivity between, and buffering around, ecosystems used or occupied by indigenous biodiversity” (Section 1.7 (1-a-v)). Policy 8 of the NPS-IB also explicitly recognises biodiversity outside SNAs, and Section 3.16 addresses effects on indigenous biodiversity outside SNAs. Clause 2 is particularly relevant given that effects that individually rate as Low under EIANZ methodology can still contribute to cumulative loss at a landscape scale. So, based on the policies and objectives of the NPS-IB, there is justification for Low level effects to be addressed, and management for the loss of indigenous scrub on the property should follow the effects management hierarchy.

Indigenous vegetation offsets for loss of indigenous forest

The author should state how the loss of 687m² of indigenous forest (i.e. over 30 years old), within a Significant Natural Area (SNA029), will be managed, as, in my view, this habitat type was incorrectly characterised in their assessment. Regarding the loss of indigenous forest in SNA027, the author has recommended a replacement ratio of 3:1 (i.e. 4,200 m² of revegetation planting for the loss of 1,400 m²). In my experience, this is a very low replacement ratio for mature indigenous-dominant forest with

¹ FTAA-2603-1181 Planning Report on behalf of Porirua City Council, prepared by Rory Smeaton (dated 31 July 2026).



significant ecological values. Rather than relying on the Ecological Compensation Ratio used in the Transmission Gully project for indigenous forest, the author should provide empirical data that supports the use of this estimate for the specific habitat types in this project. In Appendix J, they provide examples where the 3:1 ratio has been applied; however, these older projects are unlikely to have the same habitat type and the author should provide results from a Biodiversity Offsets Accounting Model (BOAM) that is specific to this project to ensure an appropriate offset ratio is calculated. If the author is not able to undertake a BOAM, I recommend a higher (more cautious) ratio be applied for offsetting the loss of indigenous forest. As stated in Appendix 15, the forest is over 60 years old, therefore it would take over two generations for new plantings to effectively replace this lost forest. I recommend a more conservative ratio of 7:1 be applied in the absence of empirical data from a BOAM.

There is very little information provided regarding the relative extent of habitat loss and habitat gain that will occur at the site for key fauna groups (e.g. bats, birds, ground-dwelling lizards, and arboreal lizards). Further clarity is required to determine if the proposed actions will adequately address these residual effects. Indigenous bats, birds, and lizards use both indigenous and exotic vegetation. Arboreal geckos are known from the area and are listed as being possibly present in SNA027 and SNA029. Clearance of indigenous forest within SNA027 will further fragment this already fragmented forest patch and thereby fails to comply with Section 3.10 (2) (c–e) of the NPS-IB, noting that avoidance of these effects is required unless one of the clauses under Section 3.11 applies. The author states that the proportional loss is small (i.e. proportional loss of 0.7% from SNA027 from 14 hectares to 13.9 hectares), and that this therefore means the loss is ‘very minor’.

Cumulative habitat loss is an important contributing factor to the decline of indigenous bats, birds, lizards, and invertebrates in New Zealand. The SNAs also provide important buffering of the Taupo Stream. Therefore, the magnitude of effect is not ‘negligible’, and should instead be considered as either low or moderate.

The ecological impact assessment states that indigenous forest loss, within SNA027, will be offset or remedied through planting the small gap between SNA029 and SNA225. Without further information clearly showing the different habitat types where clearance and offsetting will occur, it is difficult to verify the extent of vegetation loss and to determine if the proposed offset is appropriate.

4.2 Terrestrial fauna values

4.2.1 Overview

The author states that there are virtually no indigenous terrestrial fauna values at the site (Appendix 15, p. 33). In this statement, the author overlooks the potential for bat roosting habitat in the large pines and macrocarpa trees, ground-dwelling lizards in rank grassland habitat, and arboreal lizards that could be present in the small area of SNA029 that is scheduled for clearance.

Indigenous birds are also present in the indigenous scrub and forest that are within the construction footprint. Regarding this latter group, the author has provided assurances in Appendix J that “no translocations [of active nests] are to occur as the protocol which ensures that vegetation clearance is either not at nesting time or not undertaken where survey shows native species nesting are present”. With nest checks to occur in indigenous scrub/forest habitats, as well as rank grassland habitat, I am therefore satisfied that indigenous birds will not be harmed during construction.

4.2.2 Indigenous bats

Regarding bats, the author states in Appendix J (p. 3) that “The Mt Welcome farm site does not have any SNA or other native and riverine feeding areas and roost areas other than perhaps older macrocarpa and pine”. Older macrocarpa and pine trees can provide suitable roost sites for bats. Given



that mature macrocarpa and pine habitat are both scheduled for removal, the author should report on results from a search of the Department of Conservation bat database. There appear to have been two recent (within the last 10 years) reports of bats within 25 kilometres of the site (a long-tailed bat/*Chalinobus tuberculatus*) on Kapiti Island in 2017, plus an unidentified bat species was detected near Porirua in 2020. As such, the possibility that they use the site cannot be ruled out. The author mentions that they have relied upon “The Structure Plan Ecology Assessment: Northern Growth Area Plan Variation (Boffa Miskell 2022)”, and “that bat studies were not necessary given the long absence in presence of bats in the area in the records” (p. 3). This is not sufficient evidence as reports in the Department of Conservation bat database also show that survey effort across the region is patchy and incomplete.

As such, an acoustic bat survey following Department of Conservation protocols for minimising the risk of felling occupied bat roosts should be required at this site immediately before construction commences. Given the need for an acoustic bat survey, this information may be requested as a condition of consent.

If long-tailed bats are recorded during the survey, a Bat Management Plan (BMP) should be prepared and implemented as a condition of consent. At minimum, the BMP would need to include:

- Tree removal protocols in line with the Department of Conservation protocols for minimising the risk of felling occupied bat roosts (2025, or subsequent version).
- Accurate descriptions of and quantitative estimates of the extent of loss of potential bat roosting habitat and actions to address this loss.

4.2.3 Indigenous birds

The author does not provide a list of birds that may occur at the site. They mention that there are a range of birds that “fly over or alight on the property, but none are likely to be directly or indirectly affected” by the works, with no coastal birds observed (Appendix 15, p. 33).

During the site visit in November 2025, I observed several indigenous birds within indigenous scrub on the property and within the construction footprint. Tūi (*Prothemadera novaeseelandiae*), korimako/bellbird (*Anthornis melanura*), riroriro/grey warbler (*Gerygone igata*), and pōpukatea/whitehead (*Mohoua albigilla*) were all heard within the planted indigenous forest to the south of SNA029. Indigenous scrub and forest at the site likely provide foraging and nesting habitat for these indigenous and other Not Threatened birds, rather than serving merely as a transit corridor. It is also possible that other rare and threatened bird species occur at the site, in addition to the pīhoihoi/pipit (e.g. kārearea/falcon (*Falco novaeseelandiae ferox*), kakariki/red-crowned parakeet (*Cyanoramphus novaezelandiae*), kākā (*Nestor meridionalis septentrionalis*), and koekoeā/long-tailed cuckoo (*Eudynamys taitensis*). The effects of indigenous scrub and forest clearance could therefore have direct effects on these species, particularly during the nesting season.

The author has provided further clarification in Appendix J that they have considered all indigenous bird species that could occur at the property. Nest checks should be included as a consent condition for all indigenous scrub or forest habitats across the entire construction footprint (and not just for SNA027), plus rank grassland habitat. If active nests are detected immediately prior to vegetation clearance, an appropriate setback will need to be implemented to avoid harming chicks and eggs.



Although the author has emphasised in Appendix J that there will be no nest relocation, Appendix 15 currently recommends that: “nesting birds can be translocated via the processes approved in the relevant Wildlife Authority” (p. 46). To be clear, relocation of indigenous birds’ nests would be a direct violation of the Wildlife Act (1953), as it would likely cause harm or death. Selection of nesting sites by birds is a complex and fine-tuned biological process and artificial relocation of active nests is likely to result in negative outcomes for those nesting individuals. Therefore, nest relocation must not be considered as a management option.

4.2.4 Indigenous lizards

Results of a lizard survey were supplied in June 2026. This lizard survey and report provide additional information, following requests for further information in my original report, and documents search effort (number of days, ACO or other equipment deployed, spotlighting hours), survey locations, and timing and weather conditions. Although this memo has been heavily redacted, it does provide information on the lizard species found to be present at the site.

4.3 Lizard Management Plan

I have reviewed Appendices 15 (ecological assessment) and 16 (Lizard Management Plan), together with the Lizard Survey Report. I have reviewed the available information noting the difficulty in assessing effects on lizards when attempting to interpret heavily redacted figures and tables. Based on this review, I consider several specific measures need to be addressed for lizards as detailed below.

Although the length of the lizard survey was unusually short (surveys would normally be undertaken over a full week rather than three days), two species of lizards were detected, including copper skink (*Oligosoma aeneum*), which is classified as nationally ‘At Risk – Declining’² and ‘Regionally Vulnerable’ on the mainland³. Therefore, the minimal survey effort can be overlooked.

The LMP claims no threatened lizard species are present at the site. The LMP therefore needs updating in accordance with the Department of Conservation principle that more threatened species require greater consideration than less threatened species.

Further contingency options should be described, including unexpectedly large numbers of lizards, unexpected species, and release site failure, etc. For example, the author states that salvage could be ceased after two days have passed with no lizards being recorded (p. 13 of Appendix 16). Due to variability in lizard captures, this approach is high risk and inappropriate.

The author states that lizard-proof fencing is not required due to the vegetation and habitat being removed in one operation, however, this depends on the methodology. If salvage is expected to occur over a week or more, lizard-proof fencing is required as lizards may attempt to return to the area from which they were salvaged during this time (due to a strong homing instinct) if they are not prevented from doing so.

In Appendix 16 the author states that searching of broadleaved species forest could not occur for safety reasons. It is not clear what these safety reasons are. The habitat within both SNA027 and SNA029 appear to be accessible, with parking available nearby. No spotlighting survey has therefore been undertaken in the indigenous forest or scrub at the site, and barking gecko (‘Threatened – Regionally vulnerable’) could also be present at the site. Given the lack of spotlighting survey, it is not possible to conclude that there is “a very low likelihood of other lizard species” being present at the site. Given the lack of spotlighting survey, it is not possible to determine whether 2–3 nights of spotlighting (as

² National threat rankings for lizards are from Hitchmough *et al.* (2026).

³ Regional threat rankings for lizards are from Crisp *et al.* (2023).



well as the supervised clearance) will be adequate salvage effort for arboreal geckos. Furthermore, two nights of spotlighting is insufficient and should be increased to a minimum of three nights due to detectability issues. A two-night (pre-salvage) spotlighting survey has been proposed prior to salvage (Appendix 16, p. 5): It is unclear how this will be carried out if safe access in this habitat type is not possible. If arboreal geckos were discovered during salvage, Karehana Bay Scenic Reserve would be an appropriate release site.

For lizard cover checks, at least three days of lizard cover checks immediately prior to construction is an insufficient time frame for an effective salvage operation (Appendix 16, p. 13). Two weeks minimum would be the standard approach.

To assess the appropriateness of the receiving sites, lizard surveys at the release sites are usually required (if these areas were not covered in the lizard survey). The Department of Conservation will require data on relative lizard abundance in forest, scrub, and grassland sites, to determine if the proposed management is appropriate (i.e. the carrying capacity of the release site should be estimated). As figures were redacted in the memo, we are unable to determine whether these sites were covered in the lizard survey (Table 1 of the LMP appears to indicate the areas were assessed using “expert judgement” only).

The applicant proposes two years of predator control at the release sites. More commonly this would range from three to seven years in duration, in order to allow lizards to establish and survive at the release site. The applicant proposes to pay \$2,000 to a volunteer pest-free group (working in Karehana Bay Scenic Reserve) for each species of arboreal lizard that is found during salvage (or survey). Payment per species is a minimalist approach, and the costing of a programme according to the numbers of released lizards would be more appropriate. This sum is also insufficient to cover pest control over multiple years using an intensive trap network that also targets mice (e.g. 25 metres x 25 metres).

Other key questions also remain unanswered:

- What is the entire amount of vegetation loss across the property, by vegetation and habitat type, including areas of rank grass?
- What areas were defined as not being lizard habitat, and what type of vegetation did they comprise?

Recommendations

The LMP should be updated to include management for the ‘At Risk – Declining’ copper skink, in accordance with the Department of Conservation principle that more threatened species require greater consideration than less threatened species.

The LMP should also include:

- Contingency plans if there are high numbers of lizards, as there should be a limit as to how many log piles will be placed before a contingency release site is used.
- For lizard cover checks immediately prior to construction, two weeks of checks is recommended.
- If possible, a spotlighting survey should also be undertaken in forest and scrub habitats prior to submission of the LMP to the Department of Conservation, so that the results can inform the lizard management required for the site.
- The author should not specify that supervision of tree-felling will take one day (Appendix 16, p. 5): the supervised period will be determined by the time it takes to fell the trees (i.e. which could be >1 day).



- Fencing of release site: Although they may not need to fence the *salvaged areas* (Appendix 6, p. 14), lizard-proof fencing is required at the *release site* to prevent lizards returning to salvage areas.
- To assess the appropriateness of the receiving sites, lizard surveys at the release sites will be required (if these areas were not covered in the lizard survey). Habitat surveys also need to occur at release sites for both terrestrial and arboreal sites to ensure management options are appropriate (i.e. to ensure survival of released lizards).
- For pest control at the release sites:
 - For Karehena Bay Scenic Reserve, proportional payment per number of ***lizards*** would be more appropriate than per number of ***species***.
 - I also recommend bait stations be placed at 25-metre spacings in the release site(s) to better target mice, noting that 50-metre spacings are typically used for possum and rat control.
 - A formal costing programme is needed to estimate costs of this pest-control programme.
 - This programme should also cover payment for labour.

5.0 Further Information Required

Overall, the ecological assessments remain incomplete. The following points should be addressed through the provision of additional information.

1. Indigenous vegetation:

- a. A clear description of the proposed works and the extent of clearance of each vegetation and habitat type is needed to quantify effects on vegetation and habitats.
- b. Vegetation and habitat type descriptions should include extents for all habitat types, including different categories for grazed and ungrazed grassland habitats.
- c. In the absence of information on extents of vegetation and habitat types, it is not possible to properly evaluate effects on indigenous fauna and flora.
- d. For offsetting the loss of indigenous vegetation, the author should provide empirical data that supports the use of the 3:1 offset ratio.
- e. They should also consider the loss of indigenous scrub and provide details on how that loss will be managed by applying the effects management hierarchy.
- f. The author should provide further details on the recipient site, including descriptions of the existing vegetation cover, the total areas that will be available for restoration, and how restoration will differ depending on the stated goals (i.e. restoration of the habitat to provide for translocated lizards, or restoration of the site to offset the loss of indigenous vegetation).

2. Bats:

- a. There are potential bat roosts at the site that will be affected by the proposed works (e.g. removal of mature pines, macrocarpas, etc).
- b. Results from a search of the Department of Conservation Bat Database search should be reported.
- c. An acoustic bat survey may also be required if bats have been reported within 25 kilometres of the site, and within the last ten years.

**3. Birds:**

- a. Nest checks should be included as a consent condition for rank grassland and indigenous scrub and indigenous forest habitats across the entire construction footprint.
- b. Relocation of indigenous bird nests should not be undertaken at any time.

4. Lizards:

- a. An updated Lizard Management Plan is required with appropriate management options for effects on Threatened – At Risk lizard species (copper skink). The updated LMP should include:
 - i. Contingency options should be described, e.g. for unexpectedly large numbers of lizards, unexpected species, release site failure, etc.
 - ii. An explanation as to how the applicant plans to undertake the necessary survey and salvage prior to vegetation clearance if safety is an issue for these forested sites.
 - iii. Lizard-proof fencing at the release site to prevent lizards returning to salvage areas.
 - iv. Further descriptions for the receiving sites (e.g. relative lizard abundance in forest, scrub, and grassland sites, and the existing vegetation cover)
 - v. Undertaking predator control at the Karehana Bay Scenic Reserve release site for at least five years to allow released lizards to establish and spread. Bait stations should be spaced appropriately to also target mice, and the predator control should be appropriately costed, including paid time for field contractors.

