



Ecological Review and Request for Further Information 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	
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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 Limited 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 has commissioned Wildland Consultants Limited (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.

2.0 Scope of the Technical Review

The ecological effects assessment was 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, its appendices, and the draft Lizard Management Plan.

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

Wildlands 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 did not include the eastern half of the site – it was restricted to the western half only of the property. 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.

4.1.2 Delineating vegetation types and areas cleared

Following the preparation of the map requested in Section 4.1.1 above, the author must clarify the extent of each vegetation type that will be lost as a result of the proposed subdivision, including the future loss of vegetation for the development of the lots. This is to ensure loss of ecological value associated with each vegetation type is correctly managed using the effects management hierarchy. This would be best illustrated with a figure that overlays the development footprint over the vegetation types. A table should also be provided outlining the areas proposed to be lost within each of the vegetation types.

Specifically, it is not clear from Figures 12 and 16 what vegetation is proposed for clearance to construct the roundabout. The author describes vegetation clearance east of SH59 (p 30), although the vegetation type is not clearly defined within the area of clearance. Furthermore, the author states that this habitat should not have been designated SNA, but does not provide adequate justification for this regarding what the vegetation type is within this specific area and how this section differs to the SNA it is part of.

When this information is provided, the ecological impact of vegetation removal can then be reviewed.

4.1.3 Indigenous vegetation loss

The author states in Section 5.4 that there will be approximately 1,400 m² of vegetation removed from SNA027 for the construction of the proposed roundabout. As laid out in section 4.1.2 above, it is unclear what area and associated vegetation types are included in these two estimates. For example, the author states that some habitat within SNA027 will be cleared (p 41) but is unclear whether other areas have been included in these estimates.

Using the polygons provided in Figure 16, we estimate that approximately 2,434 m² of indigenous habitat within SNA027 will be cleared. However, it appears that the author has excluded areas that were shown to be in pasture in 1995 (Figure 19, p 32). If this is the case, this might explain the final estimate of 1,400 m², and an explanation of this should be provided. That said, an assessment of value and effects for the excluded approximately 1000 m² from the final estimate will still be needed.

The author also does not provide an estimation of the clearance area of indigenous vegetation to the east of SH59 (i.e. within SNA029), which they state is an area of low value, being seral broadleaf shrubland with some pines. Further, the author does not provide the area of clearance for the indigenous scrub south of SNA029 (adjacent to a pine shelterbelt alongside the main farm track). Using the data shown in Figures 1 and 12 of the ecological assessment, and based on observations during the site visit, we estimate that an additional 0.5 hectares of indigenous scrub will be cleared. This includes:

- Clearance of 2,395 m² of indigenous-dominant scrub (<30 years old) for the SH roundabout, with a small portion being within SNA029 (although the author contests that this should not qualify as SNA); and



- Clearance of 2,380 m² of similar-aged indigenous-dominant scrub for development of the subdivision.

Given that these areas are reported to have been planted, and given the relatively young age of these stands, we agree that they are 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. However, 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. These fragments of indigenous scrub provide important refuges and corridors for indigenous species (see Section 4.2.3 below for indigenous bird species observed in indigenous scrub on the property). According to the EIANZ guidelines, these indigenous scrub fragments 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

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

The author has stated a replacement ratio of 3:1 for the loss of indigenous forest (i.e. 4,200 m² of revegetation planting for the loss of 1,400 m²). In our experience, this is a very low replacement ratio for mature indigenous-dominant forest with significant ecological values. Instead of an Ecological Compensation Ratio that was 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.

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, 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.



4.2 Terrestrial ecological values

4.2.1 Overview

The author states that there are virtually no indigenous terrestrial ecological values at the site (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.

4.2.2 Indigenous bats

The desktop and field assessment for bats and their habitats is incomplete. Mature macrocarpa (*Hesperocyparis macrocarpa*) and pine habitat are both scheduled for removal and could provide suitable bat roosting habitat. The author should report on results from a search of the DOC bat database. There appear to have been two recent (within last 10 years) reports of bats within 25 kilometres of the site (a long-tailed bat/*Chalinolobus tuberculatus*) on Kapiti Island in 2017, plus an unknown 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 DOC bat database also show that survey effort across the region is patchy and incomplete.

As such, an acoustic bat survey following DOC protocols for minimising the risk of felling occupied bat roosts is 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) will need to be prepared and implemented as a condition of consent. At minimum, the BMP must include:

- Tree removal protocols in line with the Department of Conservations 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 (p 33).

During the site visit in November 2025, a number of indigenous birds were observed within indigenous scrub on the property and within the construction footprint. Tūi (*Prosthemadera novaeseelandiae*), korimako/bellbird (*Anthornis melanura*), riroriro/grey warbler (*Gerygone igata*), and pōpukatea/whitehead (*Mohoua albicilla*) 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 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 novaeseelandiae*), kākā (*Nestor meridionalis septentrionalis*), and the koekoeā/shining cuckoo (*Eudynamys taitensis*).

The effects of indigenous scrub and forest clearance could therefore have direct effects on these species, particularly during the nesting season. Further clarification should be provided by the author



to show they have considered all indigenous bird species that could occur at the property, as the statement that “it is unlikely that native species that would trigger the Wildlife Act will be nesting and so affected at vegetation felling” (p 43) is not accurate.

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 SNA 027. If active nests are detected immediately prior to vegetation clearance, an appropriate setback will need to be implemented to avoid harming chicks and eggs.

The author also states 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 from a search of a recently updated DOC Bioweb Herpetofauna database should also be provided, including the size of the search area radius and the date for the version of the database. The author appears to rely on results from “studies for the Northern Growth Area Structure Plan (Boffa Miskell 2022)” (p 3) and Tony Payne’s expert opinion. However, an updated search of the herpetofauna database is needed. It is noted that the species listed by the author omit details of Whitaker’s skink (*Oligosoma whitakeri*; Threatened – Nationally Endangered), which has recently been recorded within five kilometres of the site.

No lizard survey appears to have been undertaken. Despite the Wildlife Approval Assessment stating that “Native lizards have not been confirmed within the site” (p. 8), this claim cannot be substantiated without survey data. A lizard survey and report should be provided prior to any works, documenting search effort (number of days, ACO or other equipment deployed, spotlighting hours), survey locations, and timing and weather conditions. This is necessary to establish which species are present and inform any relocation requirements, thereby reducing risk to lizards. A survey is further justified given the threat status of Whitaker’s skink and its proximity to the site.

Key questions that remain unanswered include:

- What is the size of the property?
- 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?

The numbers in Table 1 (p 9, Wildlife Approval Assessment) are unrealistic. If ngahere gecko (*Mokopirirakau* southern North Island”) or barking gecko (*Naultinus punctatus*) are present, it is likely that there will be more than one individual. Similarly, it is unclear how the estimates for copper skink (*Oligosoma aeneum*) and northern grass skink (*O. polychroma*) were reached. Northern grass skink can reach high numbers (thousands per hectare) in rank grassland and can be localised in microhabitats across a landscape. If a lizard survey has not been undertaken, and if the whole property was not assessed for lizard habitats, there is a risk of much higher numbers of northern grass skink being detected during the salvage.



4.3 Lizard Management Plan

No Lizard Management Plan (LMP) has been provided in Appendix 4, noting that we have previously reviewed a draft LMP which provided reasonably clear guidelines for how the effects on lizards will be managed. There were, however, major information gaps. For example, the draft LMP discusses a lizard survey (p 3), but instead describes a lizard habitat assessment, not a lizard survey.

Further contingency options should be described, e.g. for unexpectedly large numbers of lizards, unexpected species, 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). Due to variability in lizard captures, this approach is high risk and is an insufficient target.

Similarly, three nights should be the minimum needed for spotlighting (p 14). If there are high numbers of lizards, there should be a limit as to how many log piles will be placed before a contingency release site is used. The carrying capacity of the release site should also be estimated.

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.

The design of log stacks (p 19) is likely to also provide entry for predators such as mice, rats, and mustelids. Consideration to the spacing of the gaps within the log piles is needed to minimise access for lizard predators. Planting for lizards is also described (p 19) but only lists two plant species, only one of which is likely to benefit lizards. In addition, no planting numbers are provided. An Ecological Management Plan is needed that will detail plant numbers for each species, and the benefits of each species to the lizards being relocated (see below).

If arboreal geckos were discovered during salvage, Karehana Reserve would be an appropriate release site.

5.0 Request for Further Information

Overall, the ecological assessments are incomplete. The following points will need to 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 management of effects hierarchy.
- f. The author needs to 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 DOC 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. A lizard survey is required to be undertaken across the site during the lizard monitoring season (October-April) before construction begins.
- b. Results from a search of the DOC Bioweb Herpetofauna database are needed.
- c. Following the results from the lizard survey, an updated Lizard Management Plan may also be required.



Mt Welcome PCC terrestrial ecology review response

To: Torrey McDonnell, William Dorset

From: Dr Vaughan Keesing

Date: 08.06.2026

Project title: Mt Welcome

Dear Torrey

You have supplied to me the Wildlands terrestrial ecology review (dated May 2026) on behalf of Porirua City Council of the Mt Welcome Fast Track application. It includes a request for further information in section 5. I, as primary author of the ecological assessments for the Mt Welcome Fast Track application, make the following responses and observations of that review.

In section 4.1.1 the reviewers suggest that a figure be supplied that correctly maps the vegetation and habitat types across the entire development and delineates the extent (ha) of each vegetation type that will be lost including the future loss of vegetation for the independent lot where the primary development does not cause that loss. It requests that the mapping include pasture grass including rank grass.

The Mt Welcome ecology report (Appendix 15 to the Substantive Application) illustrates features of ecological note in Figure 5 and Figure 6 and the 14 site photos on pages 14 to 16. The reason there is no terrestrial vegetation map is that there is no indigenous vegetation remaining on the farmed land other than the 0.5ha of planted native shrubland above the main drive buffered by pine (see Figure 1). As such, it was not necessary to produce a map of areas of pasture and pine wood lots and shelter belts, or to identify the few lone macrocarpa present. We remain of the opinion that such a map does not add value in considering ecological values or habitat of indigenous fauna or relevant effects. For the record, all of the pastoral areas are/were being utilised for livestock, none were "rank".

In section 4.1.2, the reviewers reference Figures 12 and 16 which are about the SNA impacted by the required roundabout west of SH 59, and state that it is not clear what vegetation is proposed for clearance. The vegetation loss in the report has been calculated through GIS by the development engineers (Envelope) based on their spatial requirements to install the various infrastructure, and as such it is accurate.

The reference to SNA 029 on the east side of SH 59 not meeting SNA criteria but included in that SNA boundary reflected the exotic and poor condition of that area of riparian vegetation, for while it has some mahoe in the canopy the entire under canopy is dense tradescantia, covered in rubbish and a dying canopy of Coprosma repens with vine weeds.

In section 4.1.3 the reviewers challenge the indigenous clearance number undertaking their own calculations based on the polygons in figure 16 in the report, but as stated above, the clearance figure comes from Envelope's GIS footprint overlay of the roading requirements over the SNA boundary and aerial map and is therefore accurate. The polygons alone in figure 16 cover areas not in native vegetation. The reviewers have assumed that perhaps I did not include the pastoral areas seen in the 1995 aerial but that is not the case, the extent of clearance in my report was that calculated by the developer's engineers based on their design footprint and as such it is an accurate estimation. I note that while the reviewers questioned the absence of a

measure on the eastern side, I understand that the engineer's calculation included SNA vegetation on the eastern side of the state highway.

Lastly the reviewers state that I did not provide an estimation of the clearance of indigenous scrub south of SNA029. That is true as it is on NZTA land (road verge – open to clearance and management as required) and is a low diversity of common natives developed under the pine canopy and should not be considered as a requirement for remedy or offset in the same way that any native scrub developed under pine is considered when the pine is cleared.

The reviewers have therefore made an incorrect estimate of the area of indigenous vegetation, and I remain confident relying on the much more accurate GIS / footprint engineer's calculation.

I note that the reviewers also seek to add 2,380m² of "similar aged" indigenous dominant scrub for the subdivision will need to be cleared (section 4.1.3). They do not identify where this is, but I assume that this is the planted native piece above the main farm road and set back from the pine edge as shown in Figure 1 below.



Figure 1: Aerial photo of main farm track with indigenous planted vegetation above the road in lighter green

While the reviewers agree that this area is not significant in terms of the RPS criteria or the NPS IB, they consider the loss of the plantation is not negligible because of the land environment class in which it sits. It arguably sits on the boundary of the < 10% land form with cover of indigenous vegetation and the 20-30% remaining and arguably in this latter class.

The reviewers go on to state that such fragments are important refuges and corridors for indigenous species. This ignores the wide array of large SNA in the local environment. I assessed this area as having virtually no ecological functional value and remain of that opinion. While the reviewers accept it has a low value, it is unclear why they have determined it to have a moderate magnitude of effect (I assume the loss of it), without any detailed site research. Even so their level of effect is low. I did not and do not assess an effect of its removal if it is removed through the development (that is as yet unknown) and do not consider the relatively young plantation should be tested as a valued habitat at such an age and species composition and origin unless it was undertaken as a mitigation or offset for an activity. I do not consider that the NPS IB non-SNA provisions apply to this planted feature, as it is agreed that the effects are low and therefore there are no identified 'significant adverse effects' as per clause 3.16(1).

In regard to the commentary on Indigenous vegetation offsets (page 3), the reviewers do not appear to have appreciated the extent of the terrestrial offset stating it as a filling of a “small gap between SNA029 and SNA225”. The offset is both an extension of SNA225, and seeks to join the two SNA at the extent required by the ECR. It has the added value of joining the otherwise separated SNA, is additional and contiguous with the some of the lizard offset, and incorporates an area of wetland offset. It therefore provides the amount of offsetting required in a functionally important location.

The reviewers suggest in their experience that this is a low ratio for mature indigenous dominated forest with significant ecological values. And it is if the area lost was mature forest. The vegetation lost and detailed in section 3.6. It is a planted 60 year old broad leaf forest with a canopy of ngaio, mahoe, karamu, mamaku, Hoheria, kanuka and five finger (as well as a carpet of tradescantia). Mid serial native dominant broadleaf forest in wellington is commonly accounted for by a 3:1 ECR. While we used the Transmission gully example (an approach confirmed to be suitable by a board of inquiry) it was also ratio used for the Waikanae Summerset development and was found to be accurate by BOAM. I see no point in running a BOAM when there are sufficient examples that return a ratio in this order.

In addition to these two local examples, the published Bio researchers Kings Quarry assessment had a 3.3:1 for high value broadleaf forest (and kanuka forest). For Waihi Gold offset (OceanaGold 2025, Fast Track) of SNA native scrub was accepted at 2.1:1. JS Ecology for Brookby Quarry – Stage 3, (2023) had a 2.3 ECR for broadleaf scrub/forest a 5:1 for mature kauri podocarp broadleaf forest and a 4.4:1 for taraire, tawa, podocarp forest.

I therefore consider it is an appropriate ECR.

The reviewers then state that *“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, arboreal lizards)”* and that clarity is required to determine if offset actions will address the residual effects.

In the first instances (and discussed later also) there are no bats and bat habitat on site.

The lizard fauna is assessed and managed by the project herpetologist Mr Tony Payne and is detailed in a separate lizard report and management plan¹.

The issue appears to be further fragmentation of arboreal lizard habitat, and on that front I point out that the affected fragment is just that, it is already a fragment divided by the sealed public accessway along the western side, the rail corridor and SH59 on the eastern side. The connectivity with the greater KNE south is not affected and there remains the raised land corridor within the smaller linear fragment. The loss of the section required for the roundabout does not break the vegetated connection north and south, and being so thin is of marginal resource importance to local native species.

The reviewer calls attention to negligible effects in this instance, especially in raising cumulative habitat loss effects. In this wider landscape, most large native areas are SNA or otherwise recognised and practically no such accumulative losses can occur and it is only very small alterations that are possible, such as here.

4.2 Terrestrial ecological values.

The reviewers incorrectly consider that bat roosting habitat have been overlooked. The studies undertaken in support of the Structure Plan for PCC review the existing bat data and habitat conditions, and they do not record any bat activity or likelihood of bat population is present. 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. Nevertheless, there is no indication of bat presence or a likelihood of bat roost in the farmland exotic trees when there are substantive native SNA forests north and west.

¹ Refer appendices 16 and 17 of the Substantive Application, as well as a subsequent lizard survey dated 5 May 2026.

I see no risk to bat roosts and no requirement for DOC tree felling bat protocol for the felling of the pine wood lots and pine shelterbelts or individual macrocarpa trees on site. Nor do I see the need for “accurate” description and a quantitative estimate of the extent of potential bat roosting habitat in terms of the pine shelter belts and wood lots present. The Northern Growth Area District Plan Variation ecological assessment (Boffa Miskell 2022) concluded that bat studies were not necessary given the long absence in presence of bats in the area in the records and that potential habitat used by short-tailed bat remains secure (noting this refers to the older SNA areas with mature large suitable trees).

The Muri site immediately north had no such issues through its development, and it has large native forest SNA either side of substantive pine forestry.

With respect to indigenous birds, the reviewer is correct that the report does not provide a species list, but it does reference the Northern Growth study as outlined above which outline avian fauna present.

That study stated that with respect to birds, the NZ bush falcon is the only threatened species likely to be found in the native and exotic forests in the wider landscape and which may hunt over the property. Multiple at-risk species are also potentially found utilising the native and exotic forests (the SNA), such as the red-crowned parakeet, yellow-crowned parakeet, kākā and North Island robin. Again, the habitat for these species is the SNA areas and the large pine forest areas on the Muri block to the north (which is a harvest plantation), not the open farmlands. While NZ falcon may fly over these pastures, even prey on small exotic birds it does not use the property in a way that would be excluded by the development and is not resident.

Pipit are unlikely on the site, none have been recorded during site visits, as it is fully grazed and utilised as a farm and pipit require rank grasslands not grazed pastures.

If there are kaka, shining cuckoo, and kakariki they are in and associated with the larger native SNA forests and the Taupō swamp and KNE not the farmland, pine lots and shelter belts or even the narrow broadleaf forest of the SNA 027 fragment.

While the reviewers go on to say that *“effects of indigenous scrub and forest clearance could therefore have direct effects on these species, particularly during the nesting season”*, I consider that this risk is so small as to be negligible. This is especially so for loss of habitat, but I also recommend in section 6.1.2 protocol to minimise harm to potential nesting birds at the time of vegetation clearance.

While the reviewer considers the statement on page 43 of the Ecological Assessment that *“it is unlikely that native species that would trigger the Wildlife Act will be nesting and so affected at vegetation felling”* (p 43) is not accurate. However, page 43 does not say this and it is possible that Wildlands have reviewed an earlier version of the Ecological Assessment because there were changes to the Ecological Assessment that formed part of the relodged application. These changes included a protocol around the management of birds and lizards at felling that meant that a Wildlife Act authorisation was not required for birds because no harm is now to come to nesting birds. No translocations 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.

The management approaches then recommended by the reviewer (e.g. nest checks etc) are what has been recommended and proposed by the Applicant through conditions of consent (refer condition 43 in Appendix 7).

I note that the Application does not seek to translocate any bird or nest, such options do not work and absolutely do require Wildlife authorisation.

I leave the indigenous lizard considerations to Mr Payne, the herpetologist on the project.

Request for Further information

Request	Response
A clear description of the proposed works and the extent of clearance of each vegetation and habitat	We do not agree that additional mapping of pasture and pine shelterbelts is necessary for ecological effects assessment. The application already identifies and quantifies the areas of indigenous vegetation

type is needed to quantify effects on vegetation and habitats. Vegetation and habitat type descriptions should include extents for all habitat types, including different categories for grazed and ungrazed grassland habitats.	and habitat affected, including streams, wetlands, SNA 027, and the roundabout footprint. Detailed mapping is given for streams and wetlands and for the SNA027 and the roundabout (Figure 16) but there are no other mosaics of native habitat on the property as it is farmland and we do not propose to map out pastures as there are no grazed or non-grazed grasslands, pine shelter belts and wood lots do not require mapping as they are clearly visible on any aerial.
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.	Sufficient information is presented, there are no terrestrial indigenous habitats lost other than those recorded and quantified.
For offsetting the loss of indigenous vegetation, the author should provide empirical data that supports the use of the 3:1 offset ratio.	In this response, we have provided other examples and enforced the use of such a ratio, we do not consider that a BOAM is required.
They should also consider the loss of indigenous scrub and provide details on how that loss will be managed by applying the management of effects hierarchy	The indigenous scrub 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.
The author needs to 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.	Sufficient information is supplied including a restoration Landscape and Ecology draft plan (Appendix 23).
There are potential bat roosts at the site that will be affected by the proposed works (e.g. removal of mature pines, macrocarpas, etc). Results from a search of the DOC Bat Database search should be reported. 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.	As outlined in this response, we disagree with the reviewer that there is insufficient information with regards to bats.
Nest checks should be included as a consent condition for rank grassland and indigenous scrub and indigenous forest habitats across the entire construction footprint. Relocation of indigenous bird nests should not be undertaken at any time	We agree and suggest that that is our direction / recommendation and forms part of the proposal as outlined above.
Lizards	The project herpetologist can provide a response if required after Wildlands reviews the material provided with the Substantive Application.

In conclusion:

- The review requests have been considered.
- The ecological effects assessment and offset approach remains appropriate.
- Further specialist response on lizards can be provided separately if required

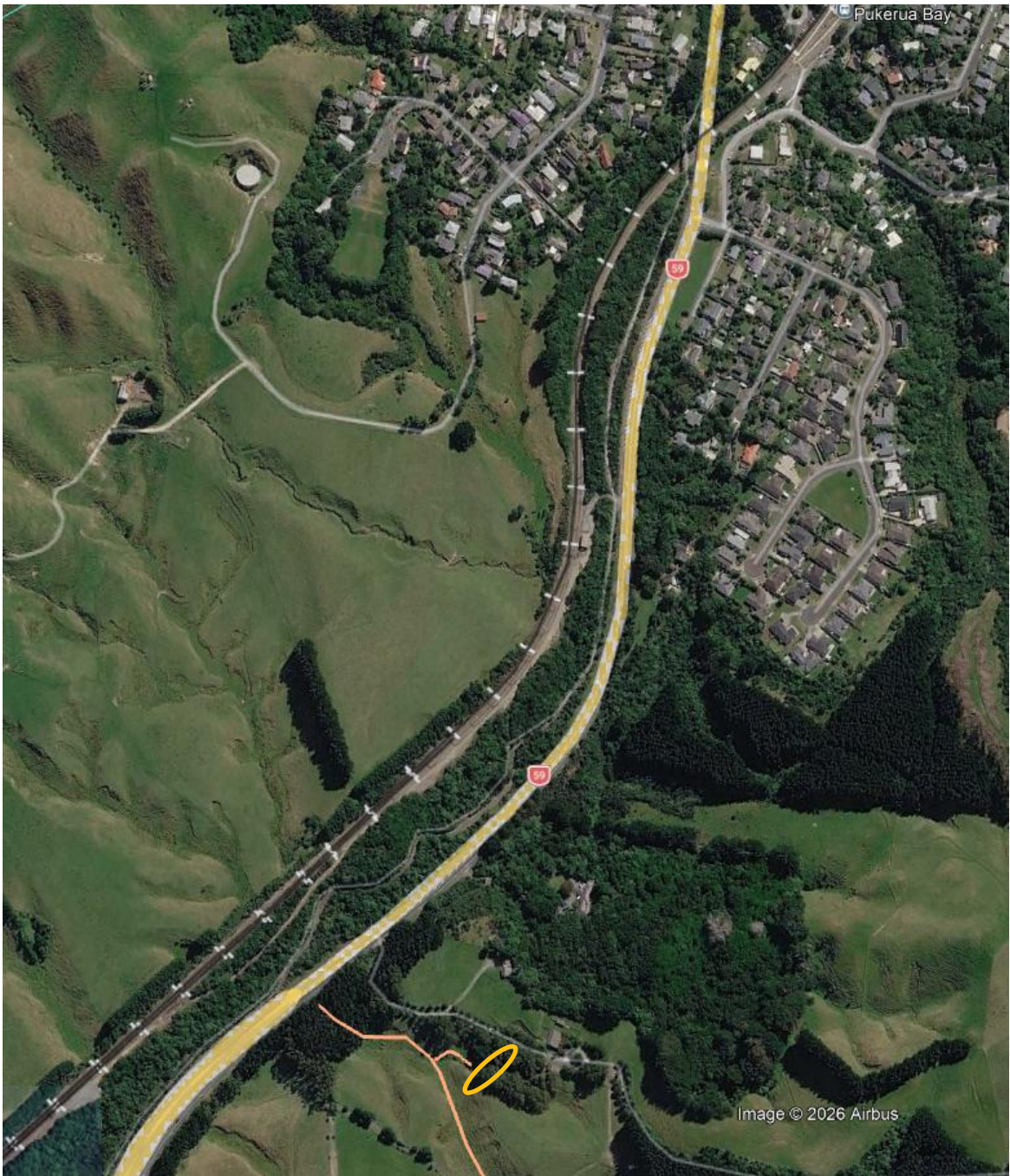
Yours Sincerely

A handwritten signature in blue ink, appearing to read 'V. Keesing', with a stylized flourish at the end.

Dr Vaughan Keesing

BlueGreen Ecology.

08.06.2026





Wildlands Response to Applicant's Response to Minute 3 of the Panel Convener

Provided to PCC by email on 8 June 2026

Wildland's Response

The applicant has not provided sufficient information to ensure that management at the site will result in less than minor ecological effects.

The matters we have raised regarding missing information and inappropriate management do not reflect differences in professional opinion to the appropriateness of the proposed development. The matters raised instead reflect concern that the development may result in overall negative effects for indigenous biodiversity, and a net loss of indigenous biodiversity contravenes the principles of the NPS-IB (2023). Direct harm or death to indigenous fauna would also contravene the Wildlife Act (1953). We provide guidance below on how these potential negative effects can be managed.

Vegetation, bats, and birds, and lizards

- *The applicant has not supplied clear descriptions for extent of clearance of each vegetation and habitat type.*
 - o *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*
 - *For example, for indigenous scrub, we have attempted to quantify the extent of removal of this habitat type (approximately 0.5 ha total).*
 - *The applicant should consider the loss of indigenous scrub and provide details on how that loss will be managed by applying the management of effects hierarchy*
- *There are potential bat roosts at the site that will be affected by the proposed works (e.g. removal of mature pines, macrocarpas, etc).*
 - o *Bats have been detected within 25 kilometres of the site, and within the last ten years.*
 - o *There has been insufficient survey effort across the region to effectively state that bats are unlikely to be present across this property.*
 - o *Therefore, following DOC protocols, an acoustic bat survey is recommended at the site to reliably determine presence/absence of bats*
- *Bird nest checks should also be included as a consent condition for rank grassland and indigenous scrub (as well as in indigenous forest habitats) to protect nesting indigenous birds during the breeding season*
- *Relocation of indigenous bird nests should not be undertaken at any time.*

- *In our previous report, we mentioned that the LMP will need updating once a lizard survey is undertaken*
 - *Following release of (redacted) results from the lizard survey, we explain below in greater detail where information or proposed management is lacking for lizards*

Specific concerns regarding lizard management

Wildlands has reviewed Appendix 15, 16 and the more recent Lizard Survey memo. Although it is also difficult reviewing effects on lizards using heavily redacted figures and tables, we have reviewed the available information, and a number of specific measures need to be addressed for lizards. These are detailed below:

Although the length of the lizard survey was unconventionally short (surveys would normally be undertaken over a full week rather than three days), two species of lizards were detected, including a Regionally Vulnerable (on the Mainland) species (copper skink). 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 (especially regarding mention of terrestrial lizards) in accordance with the Department of Conservation principle that more threatened species require greater consideration than less threatened species*
- *No spotlighting survey has been undertaken in the indigenous forest or scrub at the site, and barking gecko ('Threatened – Regionally vulnerable') could also be present at the site.*
 - *A spotlighting survey is proposed prior to the salvage (page 5, Appendix 16).*
 - *a two-night (pre-salvage) spotlighting survey has been proposed (in Appendix 16): this is insufficient and should be increased to a minimum of three nights due to detectability issues.*
 - *The author should not specify that supervision of tree-felling will take one day (page 5, Appendix 16): the supervised period will be determined by the time it takes to fell the trees (i.e. which could be >1 day).*
 - *A spotlighting survey should also be undertaken in forest and scrub habitats prior to submission of the LMP to DOC, so that the results can inform the lizard management required for 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 well as the supervised clearance) will be adequate salvage effort for arboreal geckos*
- *In order 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).*

- *DOC will require knowledge of relative lizard abundance in forest, scrub, and grassland sites, to then understand 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).*
- *Lizard surveys 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)*
- *If high numbers of lizards are recovered during salvage, there should be a limit as to how many log piles will be placed before contingency release sites are used.*
- *At least three days of lizard cover checks immediately prior to construction is an insufficient time frame for an effective salvage operation (page 13, Appendix 16).*
 - *Two weeks is recommended*
- *Although they may not need to fence the salvaged areas (page 14, Appendix 6), lizard-proof fencing is required at the release site to prevent lizards returning to salvage areas*
- *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 \$2000 to a volunteer pest-free group (working in Karehana Scenic Reserve) if a species of arboreal lizard is found during salvage (or survey).*
 - *This is an insufficient amount to cover pest control over multiple years using an intensive trap network (20m x 20m).*
 - *A formal costing programme is needed to estimate costs of this pest-control programme*
 - *This programme should also cover payment for labour*
 - *We also recommend bait stations be placed at 20-25m spacings in the release site(s) to better target rats and mice (50m spacings are used for possum control)*