

memo

Date: 9 January 2020

To: Brooke Dales, Consultant Planner (DCS Limited)
For: Premium Resource Consents Unit, Resource Consents Department

From: Peter Kensington, Consultant Specialist – Landscape Architect (KPLC Limited)
For: Design Review Unit, Auckland Design Office

Re: Review of an application for resource consent (LUC60347931) by Auckland Council, on behalf of the Tūpuna Maunga o Tāmaki Makaurau Authority, for:

- proposed removal (to stump) of exotic vegetation (160 trees) and undertaking native plant revegetation; at

1109 Dominion Road, Mount Roskill (Puketāpapa - Pukewīwī / Mount Roskill).

Landscape and visual effects

Dear Brooke

Introduction

1. I write in response to your request for specialist input brief dated 7 November 2019 which sought a landscape and visual effects technical review of the above application.
2. I am generally familiar with Puketāpapa - Pukewīwī / Mount Roskill and the surrounding area, but for the purposes of reviewing this application for resource consent, I visited the site and surrounding area on 17 November 2019. I also viewed the site from each of the representative public viewpoints that have been set out in the applicant's assessment of landscape and visual effects.
3. I am aware of the sensitive nature of the site from a landscape and visual effects perspective and this sensitivity is reflected in the statutory provisions which apply under the Auckland Unitary Plan (Operative in part) ("**AUP(OP)**").
4. I understand that the underlying zoning of the site under the AUP(OP) is Open Space – Conservation with a small portion (in the north-west extent) being Strategic Transport Corridor. Additionally, amongst other AUP(OP) overlays, part of the site is influenced by a natural heritage Outstanding Natural Features overlay (ID 113, Mt Roskill volcano (Puketapapa)). I am also aware that, under the AUP(OP), part of the site is identified as an Historic Heritage extent of place overlay (1580, Mount Roskill / Puketapapa R11_19). The site is located within an identified regionally significant height sensitive area overlay under the AUP(OP) and two regionally significant volcanic viewshafts (R1 / R2) protect views towards the Mount Roskill landform from the SH20 South-western motorway and from Dominion Road at Mount Albert Road.

5. I am relying on the discussion within the application's Assessment of Environmental Effects, which sets out further information in relation to these statutory provisions and records that the proposal overall is a discretionary activity.

Relevant application material reviewed

6. I have reviewed the following relevant application material:

- *"Tūpuna Maunga Authority, Puketāpapa–Pukewīwī/Mt Roskill, Vegetation restoration and exotic vegetation removal works, Assessment of Effects on the Environment and Statutory Assessment"*, prepared by Richmond Planning Limited, October 2019 [including eleven appendices, the relevant documents of which are listed below] ("**the AEE**")
- Appendix 5 *"Puketapapa Tree Removal Methodology"*, prepared by Arborlab Consultancy Services Limited, August 2019
- Appendix 6 *"Puketāpapa – Pukewīwī/ Mt Roskill Planting Plan 2019"*, prepared by Te Ngahere Limited (Anna Mairs and Richard Mairs), 11 October 2019
- Appendix 7 *"Communications Plan for Vegetation Restoration Pukewīwī / Puketāpapa / Mt Roskill"*, [author unknown], October 2019.
- Appendix 8 *"Heritage Impact Assessment of Proposed Tree Removals and Re-vegetation Planting Plan for Puketāpapa / Pukewīwī / Mount Roskill"*, prepared by Brent Druskovich, October 2019
- Appendix 10 *"Puketāpapa- Pukewīwī/ Mt Roskill Assessment of Ecological Effects"*, prepared by Te Ngahere Limited (Anna Mairs and Richard Mairs), 11 October 2019
- Appendix 11 *"Puketāpapa-Pukewiwi Restoration Project, Proposed Tree Removal, Landscape and Visual Effects Assessment"*, prepared by R. A. Skidmore Urban Design Limited, October 2019 ("**the applicant's assessment**").

7. I have also read the following documents, which have been prepared by the Tūpuna Maunga o Tāmaki Makaurau Authority: the *"Integrated Management Plan"*, approved 23 June 2016; and the *"Proposed Tūpuna Maunga Strategies"*, approved for public feedback 6 July 2019; as sourced from the Auckland Council website.

8. As you are aware, I have also provided specialist landscape and visual effects input during 2017-19 on other applications by the Tūpuna Maunga o Tāmaki Makaurau Authority / Auckland Council for exotic tree removal, including:

Consented

- Maungarei / Mount Wellington (LUC60311082);
- Te Pane-o-Mataaho / Te Ara Pueru / Māngere Mountain (LUC60326774);
- Ōwairaka / Mount Albert (LUC60328646);
- Te Ōhuiārangi / Pigeon Mountain (LUC60331431);

Current applications

- Ōtāhuhu / Mount Richmond (LUC60344578); and
 - Te Tātua-a-Riukiuta / Big King (LUC60345728).
9. As per my email to you dated 18 November 2019, based on my involvement with these similar applications, I confirm that I require no further information in order to complete a review of the proposal from a landscape and visual effects perspective, in terms of the proposal's actual and potential landscape and visual effects and consistency with the objectives and policies of the AUP(OP).
10. For the record, I note that, due to physical access constraints¹, the proposal within this current application excludes the proposed removal of 25 existing exotic trees² which are growing on the south-eastern slope of the site.
11. As we discussed and agreed with the applicant's representatives for other similar applications, I am comfortable that the drawings provided by the applicant sufficiently illustrate the general location of trees to be removed and trees to be retained. I note however, as we have previously agreed, should resource consent be granted, the schedule of trees within the Arborlab document (Appendix 5 of the AEE), should be the definitive reference document to confirm the specific tree locations.

Review comments

Preamble

12. I note that this application has some similarities with the following resource consents:
- LUC60311082 at Maungarei;
 - BUN60326771 at Māngere;
 - LUC60328646 at Ōwairaka; and
 - LUC60331431 at Te Ōhuiārangi.
13. In that regard, I am generally comfortable '*in principle*' with the intent and outcomes sought through this application and the long-term positive landscape and visual effects that will likely arise. From my review of the application, I can appreciate that the proposal will help to '*reveal*' the underlying landform of this maunga for the appreciation of the wider community and this will provide for a strong visual connection between maunga, particularly those which are visually proximate to Puketāpapa, including: Ōwairaka; Maungawhau; and Te Tātua-a-Riukiuta.
14. It is also pleasing to see the level of detail provided in the application planting plan (prepared by Te Ngahere) which is more extensive than those provided for earlier applications. As with the other applications and resource consents, attention to the ongoing tasks of weed management (which I understand forms part of the applicant's wider management programme for all maunga) will be challenging but also critical to the successful revegetation establishment, particularly so at this site given the established and vigorous exotic grass species present.

¹ Refer AEE, Appendix 5, paragraph 18, page 8

² English Hawthorn (x5); Himalayan Cedar (x15); and Monkey Apple (x5)

Landscape and visual effects

15. I concur with the applicant's assessment which provides an accurate description³ of the site and the landscape context of the site. I also agree with the key AUP(OP) Regional Policy Statement provisions set out in the applicant's assessment⁴ as well as the discussion on the relevant statutory provisions that apply.
16. I also concur with the applicant's assessment⁵ in terms of the landscape effects of the proposal, which, in my opinion will be positive in both the short and long term.
17. In terms of the visual effects of the proposal, I also concur with the applicant's assessment⁶, including the summary of visual effects under paragraph 4.33. This summary concludes that the proposal will result in very low adverse and positive visual effects for a range of viewing audiences.
18. While there will be construction activity and vegetation removal on a highly visible and over a relatively large extent of the maunga, including the tihi, which will no doubt draw a range of opinions from people that can see the works being undertaken, it is my opinion that the aims of the proposal will achieve a successful outcome and avoid, remedy and mitigate actual and potential adverse landscape and visual effects.
19. I note that the AEE⁷ and the applicant's assessment⁸ each highlight the landscape and visual effects that will result from the removal of an existing formal avenue, or allée, of Phoenix Palms on site. I agree that these palms contribute to the amenity values that people experience when viewing the site; however, I also concur with the applicant's assessment that the retention of these trees would be at odds with the applicant's overall restoration concept and that the proposed replacement planting that is to occur in this part of the site, will effectively mitigate adverse visual effects.

Relevant objectives, policies and assessment criteria

20. I concur with the applicant's assessment⁹ that the proposal is consistent with the relevant objectives and policies of both the Regional Policy Statement¹⁰ and the District Plan under the AUP(OP). I agree that the removal of exotic vegetation, particularly the large, dark and solid trees (which dominate and are at odds with the maunga's natural and cultural values) will better reveal the underlying landform. As such, I agree that the applicant's assessment (at paragraph 4.35) that the proposal:

"... will reinforce its character as a landscape feature in the local environment and will provide greater integrity for the natural landform together with its cultural associations. Rather than simply protect the values of the ONF (Obj. D10.2.1), the proposal will restore and enhance the ONF (Obj. D10.2.3). The proposal is consistent with the supporting policies set out in Section D10.3.3, and 4, 5, and 7."

³ Section 2 pages 1-4

⁴ Paragraphs 3.2-3.6 pages 4-5

⁵ Paragraphs 4.6-4.10 pages 7-8

⁶ Paragraphs 4.11-4.33 pages 8-13

⁷ Paragraph 5.30 page 17

⁸ Paragraph 4.9 page 8 and paragraph 4.18 page 10

⁹ Paragraphs 4.34-4.38 pages 13-14

¹⁰ Chapter B

21. In addition, I agree that the proposal will not result in adverse landscape and visual effects on the attributes and values of Puketāpapa - Pukewīwī / Mount Roskill (as an outstanding natural feature). Indeed, I concur with the applicant that the proposal will result in positive effects in relation to the outstanding natural feature and views towards it (including from the regionally significant volcanic viewshafts viewpoints). I also agree that the proposal is consistent with the relevant Open Space – Conservation policy framework under the AUP(OP).
22. Finally, I agree with each of the concluding statements in the application assessment.
23. In addition to the AUP(OP) provisions, I also note that the proposal is consistent with, at a strategic level, the Tūpuna Maunga Authority Integrated Management Plan, acknowledging that more specific guidelines and strategy for the localised landscape management regime for Puketāpapa - Pukewīwī / Mount Roskill, in terms of further planting and maintenance proposals beyond that proposed within the application, is a '*work in progress*'. While it would have been helpful to have a future plan to reference the proposed exotic tree removal within, I am comfortable that the proposal is not wholly inconsistent with the IMP provisions and I acknowledge that more detailed guidelines and landscape management strategies are being prepared.

Recommended conditions of consent

24. I note that the applicant has offered¹¹ various conditions of consent. From my reading of these conditions, they are very similar to those imposed for the Maungarei / Mount Wellington (LUC60311082); Te Pane-o-Mataaho / Te Ara Pueru / Māngere Mountain (LUC60326774); Ōwairaka / Mount Albert (LUC60328646); and Te Ōhūiārangi / Pigeon Mountain (LUC60331431) resource consents.
25. From my perspective, the condition which requires the consent holder to undertake public and stakeholder engagement prior to construction, is important, so that there are '*no surprises*' once the work on site commences, particularly for neighbours adjacent to the site, for users of the public open space and for the wider public.
26. As such, I am comfortable that these conditions are appropriate and, will assist with the mitigation of adverse landscape and visual effects and ensure that the application overall results in positive effects.

Conclusion

27. Following my review of the application from a landscape and visual effects perspective, I can support the grant of resource consent, subject to the conditions discussed above.

Please let me know if you require any further clarification.

Regards

Peter Kensington

Consultant Specialist – Landscape Architect
Registered NZILA and MNZPI

On behalf of: Auckland Council, Auckland Design Office, Design Review Unit

Email: peter@kplc.co.nz Phone: 027 227 8700

¹¹ Within section 10 at pages 38-41 of the AEE

To: Brooke Dales
From: Peter Runcie
Date: 9 March 2020
Subject: Exotic Vegetation Removal Works on Puketepapa/Mt Roskill

At: DCS on behalf of Auckland Council
At: SLR Consulting NZ Limited
Ref: 710.10063.00068-M01-v1.1 Mt Roskill Acoustics.docx

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INTRODUCTION

Auckland Council has received an application from the Tupuna Maunga Authority to remove exotic trees from Puketepapa (Mount Roskill) in Mount Roskill. The application is supported by an assessment of noise effects prepared by Styles Group (the Styles assessment¹) and two responses to requests for further information prepared by Styles Group (the Styles response²).

SLR Consulting NZ Limited (SLR) has been commissioned by Auckland Council to undertake a review of the Styles assessment and response to determine the validity of the methodology and results in order to confirm whether compliance can be achieved with the relevant Auckland Council noise limits.

PEER REVIEW

Proposal

The application seeks consent to remove up to 160 exotic trees from Puketepapa (Mount Roskill). The project is to be undertaken over 24 days. Equipment such as chainsaws, woodchippers, cranes and excavators are identified to be required to complete the works.

AUP Performance Standards

The Styles assessment references the requirements of Rule E25.6.27 of the Auckland Unitary Plan (AUP) and the assessment methodology of NZS 6803:1999 *Acoustics – Construction noise* in their assessment. Based on the proposed hours and duration of the work (anticipated timeframe of 24 working days), limits of 75 dB LAeq and 90 dB LAmax are identified as applicable to the proposed activity at surrounding occupied residential properties.

The Styles group has confirmed (in the Styles responses) that, in their opinion, AUP Rule E25.6.27 (construction noise) would be the appropriate control for noise effects associated with the proposed activity for the following reasons:

1. It involves earthworks as defined in Chapter J1 of the Auckland Unitary Plan; and

¹ Report “Puketepapa - Exotic Tree Removal” dated 29 September 2019.

² Consulting Advice Note dated 27 November 2019 and Consulting Advice Note dated 18 February 2020.

2. NZS 6803: 1999 defines construction work as “any work in connection with the construction, erection, installation, carrying out, repair, maintenance, cleaning, painting, renewal, removal, alteration, dismantling, or demolition of:” “(g) Any work in connection with any excavation, site preparation, or preparatory work, carried out for the purpose of any construction work;”

The February 2020 Styles response acknowledges that whilst the construction noise standard may not strictly apply (as inferred by legal opinions provided Auckland Council) this becomes a largely academic planning exercise; Styles consider the construction noise assessment requirements as the most appropriate approach to use for an assessment of effects. The impact of assessing the compliance against the activity noise limits for ongoing activities impacts only on the compliance status, rather than the resultant effects.

SLR Comment:

The approach referenced in the Styles assessment are considered appropriate.

SLR agrees that, in the absence of clear guidance or direction in either the Auckland Unitary Plan or NZS 6803: 1999 related to tree removal works, from an acoustic perspective the limits and controls for construction noise would be the appropriate tool to use for an assessment of effects.

Compliance with Performance Standards

The Styles assessment identifies the source sound power levels (SWLs) used as the basis for the assessment of ‘construction’ noise. A noise model based on those SWLs has been used to predict noise levels at the surrounding properties.

The assessment identifies that:

- The majority of tree removal operations (using chainsaws etc.) and operation of processing machinery (so long as the processing machinery is at least 25 m from occupied dwellings) are predicted to be compliant with the 75 dB LAeq construction noise limit at surrounding properties.
- When tree removal operations (using chainsaws etc.) are within 25 m of a dwelling, exceedance of the 75 dB LAeq construction noise limit is anticipated.
- Chainsaw noise levels of 89-91 dB LAeq are predicted at the dwellings on 31 and 59C Roseman Avenue.
- The predicted exceedances of the 75 dB LAeq construction noise limit are expected to be generated for a relatively short period at any one receiver, no more than 1-2 days.

The assessment suggests that the “primary mitigation measures” would be advising the neighbours likely to be exposed to noise levels above 75 dB LAeq. Further recommendation is made that the contractor should endeavour to undertake these works when the house is unoccupied (such that there would be no effects) when noise levels over 85 dB LAeq might be expected.

The Styles assessment includes recommended conditions to require:

- Owners and occupiers of buildings within 25 m of tree removal works to be advised in writing at least ten days prior to work commencing;
- The contractor to consult with the occupied of dwellings at 31 and 59C Roseman Avenue in an effort to schedule the tree removals at a time when the dwellings are unoccupied; and
- processing equipment to be a minimum of 25 m from the façade of occupied dwellings.

The Styles response identifies that there are no feasible opportunities to reduce the noise levels from chainsaw felling as this works takes place above ground and cannot be readily screened.

The Styles response sets out why it is not considered that a condition to guarantee a respite period is appropriate or necessary, principally because preferred respite periods may differ from receiver to receiver depending on the circumstances. The Styles response continues, however, to suggest a condition with reduced hours based on an assumption on the preferences of surrounding residents, contrary to the logic adopted to argue that this was not appropriate to do.

Styles concludes that, in their opinion, restricting the hours in such situations to 9:00 am – 4:00 pm would be suitable on the basis that they consider it would avoid disruption to the early morning routine of households (leaving for work and school), and the early evening period (when residents return home from work and school).

SLR Comment:

The source SWLs used by Styles are considered reasonable based on SLR's experience. Following ongoing discussions, the adoption of the activity noise limits for ongoing activities at surrounding properties is likely to result in non-compliance at the majority, if not all, of the immediately surrounding properties. However, as previously advised, the assessment of effects remains unchanged as below due to the temporary nature of the works and the types of activities proposed to be undertaken.

It should be noted that the location of an activity is fundamental to the predicted noise level from that activity at the receiver. It is important, therefore, that when activities are undertaken on site (such as processing of trees) they are undertaken in the locations adopted/recommended in the Styles assessment in order that resultant levels and effects reflect those assessed.

Predicted exceedances and associated effects up to 85 dB LAeq may be considered acceptable on the basis of the limited duration (identified as no more than 1-2 days at any one receiver) and the inclusion of consultation with the surrounding neighbours prior to commencing work.

SLR would typically expect to see a level of respite provided for receivers exposed to levels over 85 dB LAeq – even if this would only occur for 1-2 days. A not uncommon approach, in SLR's experience, would be to undertake such works between 9:00 am to midday and 2:00 pm to 5:30 pm to avoid early mornings and provide a break in the middle of the day for occupants who are at home throughout the day (retirees, young families, people working from home etc).

The Styles assessment does not provide an alternative methodology to guarantee respite if it cannot be arranged for the dwellings to be unoccupied. Further to a Council RFI, Styles have provided a recommendation to restrict such works to 9:00 am – 4:00 pm to avoid works "being undertaken during the busiest times of the day for most households". Whilst SLR acknowledges that there can be no 'perfect' solution, we disagree with the Styles approach which appears to be based on generally unoccupied dwellings (focusing on effects at either end of the day and appearing to assume that they are not occupied in between these hours) rather than the situation of dwellings occupied throughout the day where effects would be greater. Given that at this stage no information has been provided about the occupants of the two dwellings SLR considers 9:00 am to midday and 2:00 pm to 5:30 pm to provide provision of appropriate respite for a range of potential occupants (including those described in the Styles response). The provision of a minimum respite period provides a greater degree of certainty around the potential effects on these receivers. The proposed conditions (see below) still enables the contractor the flexibility to arrange alternative hours to suit the specific situations of occupants following consultation with the neighbours.

To control the effects of noise associated with the proposed activities SLR recommends that the following should be implemented:

- The inclusion of appropriately conditioned noise limits and hours for the proposed activities which are identified as expected to exceed the standard noise limits (see below).
- Controlling the locations of where certain activities can be undertaken; and
- Advising surrounding neighbours prior to commencing work.

PROPOSED CONDITIONS

SLR recommends the inclusion of the following conditions, which take into consideration the proposed conditions in the Styles assessment, discussions with the team and conditions applied to previous applications for similar activities which SLR has been involved in.

- a. Noise levels from tree removal and processing works shall comply with the following noise limits when measured 1 m from the facade of any occupied building in accordance with *NZS 6803:1999 Acoustics – Construction Noise*.

Receiver	Noise limit, dB LAeq
5A Youth Street 15 Roseman Avenue 25 and 25A Roseman Avenue 27 Roseman Avenue 31B Roseman Avenue 33, 33A and 2/33 Roseman Avenue 39 and 39A Roseman Avenue 43, 43A, 43B and 43C Roseman Avenue 59A and 59B Roseman Avenue 1131 Dominion Road 133A and 1133B Dominion Road	81 dB
31 Roseman Avenue 59C Roseman Avenue	91 dB
All other receivers	75 dB

- b. The Communications Plan shall require that owners and occupants of all neighbouring buildings within 25 m of tree removal(s) shall be advised of the works in writing at least ten (10) days prior to the commencement of works on site. The Plan shall set out a brief overview of the works, its expected duration, the mitigation measures to be implemented, availability of monitoring where concerns about noise are raised, the working hours, and a contact phone number for any concerns regarding noise.
- c. At least five (5) days prior to the intended removal of trees 135 - 138 adjacent to 59C Roseman Avenue, and trees 99 – 111 adjacent to 31 Roseman Avenue, the contractor shall consult with the occupiers of the dwellings to schedule the tree removals at a time when the occupiers are not at home where possible. Where this cannot be accommodated, such works shall only be undertaken between the hours of 9:00 am to noon and 2:00 pm to 5:30 pm Monday to Friday (unless otherwise agreed in advance with the occupants of those properties).
- d. All processing equipment shall be a minimum of 25 m from the facade of any occupied residential dwelling.

Memo

To: Brooke Dales – Planning Consultant, DCS
From: Joe Mills – Specialist Historic Heritage, Cultural Heritage Implementation Team
Date: 26/11/2019

Subject: Resource Consent Application LUC60347931: 1109 Dominion Road, Mount Roskill. Resource Consent Application for the removal of exotic vegetation and revegetation of native plantings on Puketāpapa–Pukewīwī /Mt Roskill.

Note: This memo is for internal use only.

1. Purpose of this memo

- 1.1. This memo sets out Auckland Council’s Cultural Heritage Implementation Team’s assessment of the impact that the proposed works, covered by resource consent application number LUC60347931 will have on historic heritage within the application boundaries.
- 1.2. The assessment was requested by Brooke Dales – Planning Consultant on behalf of Auckland Council.
- 1.3. This memo has been prepared by Joe Mills – Specialist Historic Heritage on behalf of the Cultural Heritage Implementation Team, within Auckland Council’s Heritage Unit.

2. Other teams involved

- 2.1. This application has not been referred to the Auckland Council’s Built Heritage Implementation Team, because the proposed works will have no foreseeable effects on built heritage within the applications boundaries.

3. Exclusions

- 3.1. This memo does not include an assessment of the cultural significance of the application area to mana whenua. The cultural and other values that mana whenua place on the area may differ from its historic heritage values, and are determined by mana whenua. It is the applicants’ responsibility to liaise with mana whenua to determine mana whenua values.

4. Documents reviewed

- 4.1. In making its assessment, the Cultural Heritage Implementation Team has reviewed the following documents, which were provided in support of the application:
 - *Assessment of Effects on the Environment and Statutory Assessment: Puketāpapa–Pukewīwī /Mt Roskill - Vegetation restoration and exotic vegetation removal works.* Prepared for the Tūpuna Maunga o Tāmaki Makaurau Authority by Richmond Planning Limited. October 2019.
 - *Puketāpapa Tree Removal Methodology.* Prepared for the Tūpuna Maunga o Tāmaki Makaurau Authority by Treescape Limited. August 2019.

- *Heritage Impact Assessment of Proposed Tree Removals and Re-vegetation Planting Plan for Puketāpapa/Pukewīwī/Mt Roskill*. Prepared for the Tūpuna Maunga o Tāmaki Makaurau Authority by Brent Druskovich. October 2019.
- *Puketāpapa–Pukewīwī /Mt Roskill Planting Plan 2019*. Prepared for the Tūpuna Maunga o Tāmaki Makaurau Authority by Te Ngahere. October 2019.

4.2. The team has assessed the information in these documents against the Auckland Unitary Plan Operative in Part (October 2019).

5. The proposed works

5.1. The proposed works are described in the resource consent application and its supporting documentation. They include:

- The removal of approximately 160 exotic trees, to stump, from Puketāpapa
- Revegetation of the maunga in biodiverse native flora

6. Historic heritage within the application boundaries

6.1. This section summarises the historic heritage of the area within the resource consent application's boundaries, and includes any specific historic sites that have been identified. The information derives from the resource consent application and its supporting documentation (see Section 4).

- Puketāpapa–Pukewīwī /Mt Roskill is one of the Auckland region's most significant historic heritage places with a rich history of pre-European Maori occupation resulting in highly significant archaeological remains covering the majority of the maunga. Ōtāhuhu is scheduled as a Category A* Historic Heritage Place (01579) in the Auckland Unitary Plan with archaeological controls. Large sections of the maunga have been historically quarried, excavated for the installation of Watercare and roading infrastructure, resulting in sections with less intact archaeological remains.

6.2. In any area with archaeological features there may be unrecorded, subsurface archaeological features present. These are likely within the application boundaries and could be affected by the proposed work.

7. Potential impact of the proposed works on historic heritage

7.1. The resource consent application and the assessment of environmental effects identify the following proposed works as occurring close to identified historic heritage sites and features.

- All tree removals, with the exception of those in areas historically disturbed. This includes tree removals via manual dismantling, dismantling using rigging, mobile elevated work platform, and crane assisted dismantling, and accessing these areas in potentially undisturbed (to be confirmed) areas.
- Revegetation in limited areas, except for revegetation in previously disturbed areas.

7.2. Overall the proposal is unlikely to result in adverse effects on identified historic heritage. There is some potential for unrecorded subsurface archaeological deposits to be disturbed by the proposed works.

8. Applicant's proposed consent conditions

8.1. The resource consent application and the assessment of environmental effects propose that the following conditions should attach to the resource consent, informed largely by the archaeological assessment by Mr Druskovich:

- **Pre-commencement Conditions:**

- Finalised Management Plans to be provided*

- A minimum of 5 working days prior to the commencement of the vegetation removal approved by this resource consent, the consent holder shall submit to the Council (Monitoring Team Leader Central) for approval in writing, final versions of the following management plans:

- Archaeological Works Plan addressing monitoring, recording, and reporting for tree removals and planting;

- **Historic Heritage (archaeology)**

- Should ground disturbance on the site result in the identification of any previously unknown archaeological site, the land disturbance – Regional Accidental Discovery rule [E12.6.1] set out in the Auckland Unitary Plan Operative in part (October 2019) shall be applied.
 - In the event that any unrecorded historic heritage sites are exposed as a result of consented work on the site, then these sites shall be recorded by the consent holder for inclusion within the Auckland Council Cultural Heritage Inventory. The consent holders project historic heritage expert shall prepare documentation suitable for inclusion in the Cultural Heritage Inventory and forward the information to the Team Leader (for the Manager: Heritage Unit, heritageconsents@aucklandcouncil.govt.nz) within one calendar month of the completion of work on the site.

- **Tree Removals**

- That each of the HNZ sites are inspected prior to Treescape setting up and if archaeological evidence is found those parts of the sections are temporarily fenced off to exclude them from the areas of operations, or if this is not practical other forms of protection such as track mats be used.
 - That any machinery involved with the removal of the Phoenix Palms should approach them from the northern side, if directional felling is to occur it should be designed to fell the trees to the north.
 - All processing of the Phoenix Palms should occur in the area between the cycleway and SH20.
 - Should vehicles not be able to enter the area between the cycleway and SH20 from Dominion Road, any movements across the land to the south of the cycleway should only occur when ground conditions are dry and across a route laid out with track mats.
 - Crash mats, tyres or similar should be laid beneath any trees to be felled with significant dead limbs.
 - Crane locations and associated processing sites that are not on the road surfaces should be archaeologically inspected prior to set up and if areas are deemed to have archaeological evidence they should be temporarily fenced

off to exclude them from the areas of operations, or if this is not practical other forms of protection such as track mats be used.

- Areas of high movement, such as where the excavators may operate within a processing site may require the laying down of track mats for them to operate on.
- Trees that are to be manually dismantled may be on the edge of earthworked and original ground or archaeological features. Any trees that are to be directionally felled should be felled towards the summit roading.
- Trees that are to be manually dismantled should be assessed on an individual basis to determine whether tyres or track mats should be laid beneath them to protect the ground surfaces.
- Conservation Planting
 - That the buffer plantings/rongoa (within the Historic Heritage Overlay area) and the nikau/kowhai trees (as depicted in Figure 11 of the Archaeological Assessment) have an archaeologist monitor their planting.
 - That plants that are not defined as suitable for planting on archaeological sites by either Jones (2007) or Mairs (2019) should be excluded from the lower 10m of the roadside plantings in front of the quarry face area.
 - That the project archaeologist is involved in the layout of the “roadside plantings in front of the quarry face” area.

8.2. These conditions will help avoid or mitigate the potential impacts of the proposed works on historic heritage within the application boundaries (see Section 7).

9. Cultural Heritage Implementation Team’s assessment

9.1. This section sets out Auckland Council’s Cultural Heritage Implementation Team’s assessment of the impact of the proposed works, as described in the submitted documents, against the provisions in the Auckland Unitary Plan (October 2019).

9.2. The Cultural Heritage Implementation Team appreciates the archaeological assessment by Mr Druskovich provided by the applicant.

9.3. Removals are taking place within historically quarried areas, areas disturbed by significant erosion, and areas that are effectively undisturbed with high archaeological potential. As such there are varied levels of risk of disturbing heritage values and the applicant has taken a blanket approach of zero ground disturbance. This commitment has resulted in a tree removal methodology that is sympathetic to the historic heritage values of the maunga and effectively mitigates the majority of potential effects.

9.4. Despite a strong commitment to avoiding ground disturbance there is still some potential for accidental ground disturbance which may impact historic heritage features. Such incidents can effectively be managed through adherence to the AUP Accidental Discovery Rule in addition to monitoring of works.

9.5. In addition to accidental ground disturbance there must be some caution about the cumulative effects of removing large swathes of vegetation that may be providing stabilisation in marginal soils. Destabilisation may, in turn, result in adverse effects on historic heritage features through increased erosion and feature degradation. This will need to be carefully managed by the project archaeologist and biodiversity team

through the de-vegetation and subsequent revegetation process. If historic heritage features are becoming destabilised, remedial works should be undertaken. Procedures for this should be written into the archaeological works plan.

- 9.6. The tree removal works are likely to have a net positive effect on the maunga, removing vegetation that poses a high risk of disturbing historic heritage features through their growth (extended root plate disturbance) and eventual death (tree throwing). The CHI team is supportive of these efforts.
- 9.7. Regarding conservation planting, planting areas have been selected based on historic disturbance – areas that are effectively devoid of extant archaeological material. As a result, planting in these areas is relatively low risk provided that archaeological oversight increases as the proximity to archaeological features increases, and that boundaries are established to ensure self-seeding is restricted to those 'safe' areas. The planting plan reflects these concerns, with suitable species being selected from an accepted guidance document for planting on archaeological sites, and clear delineation of suitable planting areas by the project archaeologist. These are reflected in the conditions offered by the applicant and the CHI team supports their adoption.

10. Conditions and advice notes

10.1. Where the planner supports the resource consent application, the Cultural Heritage Implementation Team recommends that the conditions and advice notes described in this section are specified in the resource consent.

10.2. The following consent conditions are recommended:

- **Pre-commencement Conditions:**

Finalised Management Plans to be provided

A minimum of 5 working days prior to the commencement of the vegetation removal approved by this resource consent, the consent holder shall submit to the Council (Monitoring Team Leader Central) for approval in writing, final versions of the following management plans:

- Archaeological Works Plan addressing monitoring, recording, and reporting for tree removals and planting;
- **Historic Heritage (archaeology)**
 - Should ground disturbance on the site result in the identification of any previously unknown archaeological site, the land disturbance – Regional Accidental Discovery rule [E12.6.1] set out in the Auckland Unitary Plan Operative in part (October 2019) shall be applied.
 - In the event that any unrecorded historic heritage sites are exposed as a result of consented work on the site, then these sites shall be recorded by the consent holder for inclusion within the Auckland Council Cultural Heritage Inventory. The consent holders project historic heritage expert shall prepare documentation suitable for inclusion in the Cultural Heritage Inventory and forward the information to the Team Leader (for the Manager: Heritage Unit, heritageconsents@aucklandcouncil.govt.nz) within one calendar month of the completion of work on the site.
- Tree Removals

- That each of the HNZ sites are inspected prior to Treescape setting up and if archaeological evidence is found those parts of the sections are temporarily fenced off to exclude them from the areas of operations, or if this is not practical other forms of protection such as track mats be used.
- That any machinery involved with the removal of the Phoenix Palms should approach them from the northern side, if directional felling is to occur it should be designed to fell the trees to the north.
- All processing of the Phoenix Palms should occur in the area between the cycleway and SH20.
- Should vehicles not be able to enter the area between the cycleway and SH20 from Dominion Road, any movements across the land to the south of the cycleway should only occur when ground conditions are dry and across a route laid out with track mats.
- Crash mats, tyres or similar should be laid beneath any trees to be felled with significant dead limbs.
- Crane locations and associated processing sites that are not on the road surfaces should be archaeologically inspected prior to set up and if areas are deemed to have archaeological evidence they should be temporarily fenced off to exclude them from the areas of operations, or if this is not practical other forms of protection such as track mats be used.
- Areas of high movement, such as where the excavators may operate within a processing site may require the laying down of track mats for them to operate on.
- Trees that are to be manually dismantled may be on the edge of earthworked and original ground or archaeological features. Any trees that are to be directionally felled should be felled towards the summit roading.
- Trees that are to be manually dismantled should be assessed on an individual basis to determine whether tyres or track mats should be laid beneath them to protect the ground surfaces.
- Conservation Planting
 - That the buffer plantings/rongoa (within the Historic Heritage Overlay area) and the nikau/kowhai trees (as depicted in Figure 11 of the Archaeological Assessment) have an archaeologist monitor their planting.
 - That plants that are not defined as suitable for planting on archaeological sites by either Jones (2007) or Mairs (2019) should be excluded from the lower 10m of the roadside plantings in front of the quarry face area.

That the project archaeologist is involved in the layout of the “roadside plantings in front of the quarry face” area.

Post Works Reporting

- The consent holders project historic heritage expert shall prepare documentation suitable for inclusion in the Cultural Heritage Inventory and forward the information to the Team Leader (for the Manager: Heritage Unit,

heritageconsents@aucklandcouncil.govt.nz) within one calendar month of the completion of work on the site.

10.3. The following advice notes are recommended:

Heritage New Zealand Pouhere Taonga Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 (*hereafter referred to as the Act*) provides for the identification, protection, preservation and conservation of the historic and cultural heritage of New Zealand. All archaeological sites are protected by the provisions of the Act (section 42). It is unlawful to modify, damage or destroy an archaeological site without prior authority from Heritage New Zealand Pouhere Taonga. An Authority is required whether or not the land on which an archaeological site may be present is designated, a resource or building consent has been granted, or the activity is permitted under the Auckland Unitary Plan (October 2016).

According to the Act (section 6) archaeological site means, subject to section 42(3) –

- a) any place in New Zealand, including any building or structure (or part of a building or structure), that –
 - i. was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; *and*
 - ii. provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; *and*
- b) includes a site for which a declaration is made under section 43(1)

It is the responsibility of the consent holder to consult with Heritage New Zealand Pouhere Taonga about the requirements of the Act and to obtain the necessary Authorities under the Act should these become necessary, as a result of any activity associated with the consented proposals.

For information please contact the Heritage New Zealand Pouhere Taonga Regional Archaeologist – 09 307 9923 or 307 9924 / archaeologistMN@historic.org.nz.

Protected Objects Act 1975 –

Māori artefacts such as carvings, stone adzes, and greenstone objects are considered to be tāonga (treasures). These are taonga tūturu within the meaning of the Protected Objects Act 1975 (*hereafter referred to as the Act*).

According to the Act (section 2) taonga tūturu means an object that –

- a) relates to Māori culture, history, or society; *and*
- b) was, or appears to have been –
 - i. manufactured or modified in New Zealand by Māori; *or*
 - ii. brought into New Zealand by Māori; *or*
 - iii. used by Māori; *and*
- c) is more than 50 years old

The Act is administered by the Ministry of Culture and Heritage. Tāonga may be discovered in isolated contexts, but are generally found within archaeological sites. The provisions of the Heritage New Zealand Pouhere Taonga Act 2014 in relation to the modification of an archaeological site should to be considered by the consent holder if tāonga are found within an archaeological site, as defined by the Heritage New Zealand Pouhere Taonga Act 2014.

It is the responsibility of the consent holder to notify either the chief executive of the Ministry of Culture and Heritage or the nearest public museum (for Auckland this is the Auckland War Memorial Museum), which shall notify the chief executive, of the finding of the taonga tūturu, within 28 days of finding the taonga tūturu; alternatively provided that in the case of any taonga tūturu found during the course of any archaeological investigation authorised by Heritage New Zealand Pouhere Taonga under section 48 of the Heritage New Zealand Pouhere Taonga Act 2014, the notification shall be made within 28 days of the completion of the field work undertaken in connection with the investigation.

Under section 11 of the Act, newly found taonga tūturu are in the first instance Crown owned until a determination on ownership is made by the Māori Land Court.

For information please contact the Ministry of Culture and Heritage – 04 499 4229 / protected-objects@mch.govt.nz.

11. Contact for further information



Joe Mills
Specialist Historic Heritage – Cultural Heritage Implementation Team
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This application seeks consent for the removal of 160 exotic trees from the Maunga, and the pruning of two Pohutukawa trees to facilitate the works. I have downloaded and reviewed the following documents provided with the application.

- Tree Removal Methodology report compiled by Arborlab Consultancy Services, dated August 2019.
- Assessment of Ecological Effects
- Applicant's AEE
- Replanting Plan and report.
- Planning Recommendation and Conditions.

The Arborlab Tree Removal Methodology (TRM) report discusses the options available for tree removal methods in terms of health and safety, cost, archaeological sensitive areas, outstanding natural features, and the challenging nature of the topography. These methods are listed in table 2 and Appendix A of the TRM report, along with a list of recommended operational requirements and protocols in Appendix B of the TRM.

Having reviewed the Arborlab Tree Removal Methodology in detail, I am able to concur with the report's concluding statement that "the tree removal methodology has been designed to avoid damage to the archaeological, landscape and natural values of the maunga, adopt the safest methodology and to minimise disruption to the stakeholders and residents bordering the maunga."

I have reviewed the Planning Recommendation report as this contains conditions that need to link back to the recommendations and protocols listed in the tree removal methodology. I note that the Recommendation report contains conditions for a 'finalised' tree protection methodology. Given that trees to be removed are in effect not afforded any protection, my assumption is that the requirement for a tree protection methodology must refer to trees that are to be retained that may be jeopardised by the proposed tree removal works. I support this requirement as there is no specific tree protection method provided in the Arborlab TRM, however, I consider that reference to a finalised tree protection methodology needs to include the addition of 'for retained trees.' As such, condition 5 – Finalised Management Plans to be provided should read: c) Tree Protection Methodologies for Retained trees.

Condition 4 requires that a pre-construction meeting is held, with a sub-section titled "The following information to be made available." Given that the Arborlab TRM also has a pre-start meeting requirement to discuss specific elements of the operational protocols, I consider that Condition 4 should include the following information to be made available:

- The Arborlab Tree Removal Methodology report, dated August 2019.
- The finalised Tree Protection Methodologies for Retained trees.

In addition, for purposes of clarity, I suggest that Condition 9 should read:

- All tree removals shall be undertaken in accordance with the procedures and protocols listed in Appendix A and Appendix B of the report titled 'Puketapapa Tree Removal Methodology, compiled by Arborlab Consultancy Services Limited, dated August 2019. (ref:30856)



Engineers & Consultants

Memorandum

Date:	28 January 2021
To:	Brook Dales
From:	Andrew Rossaak
Project number:	2490
Reviewed and released by:	Mark Lowe

Subject: Terrestrial Ecological Review for LUC60347931

Introduction

This memorandum documents a review of the actual and potential effects on terrestrial ecology associated with the resource consent application for the removal of 160 trees on Mt Roskill as part of the Tūpuna Maunga o Tāmaki Makaurau Authority's integrated management of the Maunga in the Auckland Region.

The application includes a revegetation plan, as part of the management plan, which includes the revegetation of native species and the removal of some large trees to maintain sight lines.

This memorandum reviews the application documents in respect to:

- Identified terrestrial ecological values
- Identified actual and potential effects on terrestrial ecology
- Proposed mitigation measures to manage the actual and potential effects on terrestrial ecology

The overall level of residual effects on terrestrial ecology is considered and recommended conditions of consent are proposed to ensure the actual and potential effects on terrestrial ecology are adequately managed.

This memorandum does not include:

- A full list of objectives, policies and legislation that may be relevant to consider.
- A full assessment against the relevant Auckland Unitary Plan (Operative in Part) (AUP:OP) objectives and policies.

This review is based on the following documents:

- '*Assessment of environmental effects on the environment and statutory assessment*', report prepared by Richmond Planning Limited, dated October 2019 (hereafter referred to as the AEE).
- '*Puketāpapa- Pukewīwi/ Mt Roskill Assessment of Ecological Effects*', prepared by Te Ngahere, dated 11th October 2019. (Referred to as the EclA)

- *'Puketāpapa – Pukewīwī / Mt Roskill Planting Plan 2019'*, prepared by Te Ngahere, dated 11th October 2019. (Referred to as the Planting Plan)
- *'Puketāpapa Tree Removal Methodology'*, prepared by Arborlab, dated August 2019 (Referred to as the Tree Removal Report)

Section 92 requests for additional information:

- *Resource consent application at 1109 Dominion Road, Mount Roskill (LUC60347931) - Section 92 request.* Email memo from Richmond Planning, dated 10 December 2019
- *Response to section 92 Request, Puketāpapa-Pukewīwī / Mt Roskill.* Memo from Richard Mairs, Ecologist, Te Ngahere, dated 10 December 2019

Additional information:

- *Email from Richard Mairs, Ecologist, Te Ngahere, dated 4 February 2020 Public concerns and protests at other Maunga being revegetated*

In Brief:

- The Tūpuna Maunga o Tāmaki Makaurau Authority (Tūpuna Maunga) is seeking multiple resource consents for the removal of exotic vegetation and the restorative plantings of native vegetation on Puketāpapa–Pukewīwī / Mt Roskill.
- The vegetation removal includes to removal of 160 trees and the trimming of two native pohutukawa trees.
- Works will occur in an area scheduled within the Auckland Unitary Plan: Operative in Part (AUP:OP) as Open Space - Conservation Zone.
- There are multiple additional overlays associated with the site. These include:
 - A Watercare designation for a water reservoir
 - Historic heritage overlay
 - Regionally Significant Volcanic Viewshafts (north and west portions)
 - Regionally Significant Volcanic Viewshafts And Height Sensitive Areas (greater local area)
 - Outstanding Natural Features Overlay
 - Quality Sensitive Aquifer Management Areas
- There is no significant Ecological Area or notable trees on the subject site.

Reasons for Consent

Within the terrestrial ecology scope of this assessment, the following reasons for consent are considered relevant:

- Consent is required for a restricted discretionary activity under the provisions of E16.4.1(A6) for tree trimming which does not comply with the standard (E16.6.1).
 - Two pohutukawa trees are to be trimmed for crane access, branches in excess of 100 mm diameter
- Consent is required for a restricted discretionary activity under the provisions of E16.4.1(A10) (incorrectly noted as A7 in the AEE) for the removal of any tree greater than 4 m in height or greater than 400 mm in girth in open space zones.
 - 160 trees will be removed in the open space zone.

Based on the evidence and methodology provided, it is considered that these are appropriate and that the planning overlays do not trigger activities under E15 of the AUP:OP.

The AEE states that overall the application is a discretionary activity.

Summary of Ecological Values and Effects of the Proposal

Vegetation

The EclA describes the vegetation of Puketāpapa as not having any areas designated as Significant Ecological Areas under the Auckland Unitary Plan (Auckland Council, 2009b), but includes small amounts of native plantings and open areas with a mix of native and exotic tree species.

“Overall open areas are dominated by open pasture rank with kikuyu grass with scattered trees primarily exotic. This includes 160 exotic trees (37 species) and 82 native trees (10 species).

Exotic trees, climbers and groundcovers noted that have Auckland Regional Pest Management Plan (Auckland Council, 2019c) include but are not limited to monkey apple, Chinese privet, tree privet, Japanese spindle, Japanese honeysuckle, tradescantia, phoenix palm, smilax, Brazilian pepper tree, English ivy, mistflower, periwinkle and woolly nightshade. Please see Appendix B for a full list of exotic species and RPMP designations.

Native plants are largely restricted to occasional amenity trees and gardens, some fern species around the quarry, small amounts of natural regeneration under native and exotic trees and pātītī grass in shaded areas.”

The EclA notes that there are tree species present that have national threat status, primarily due to the unknown potential effect of Myrtle Rust.

Despite the high proportion of mature exotic tree species, these contribute to the ecological function of the site and the wider ecological context. The EclA recognises this as a temporary loss of vegetation cover and habitat, however, remaining vegetation is reported to be available as refuge. As the remaining native (82) and exotic trees (25) are reasonably spread across the site, this is a reasonable assertion.

The temporary nature of the loss of habitat is not quantified in the EclA. In this regard, two important considerations are the time between clearing and the maturation of the new plantings (time lag) and the structural difference in the replanted species.

The temporal loss in biodiversity (biodiversity being not simply the composition of species, but also the complexity of structure and the functioning of the components) is reflected to be 10 to 20 years in the section 92 response. The author considers this to be more than a ‘temporary’ loss of biodiversity and habitat and would normally carry a weighting in offsetting and mitigation calculations. There is therefore some concern that this biodiversity loss through time lag is not adequately considered in the application.

The permanent loss is primarily due to the native species selected for planting. A large proportion (approximately 75%) of the almost 9,000 proposed new plants are low growing, herbaceous plants and thus the 160 mature trees removed will be a net loss in structural biodiversity. The proposed planting plan has 37 trees that will mature to large tall trees (excluding nikau palms), similar in size to the 160 being removed. Of the exotic trees to be removed, 79 of them (50%) are taller than 8 meters, and it would be more appropriate comparing the 37 replacement natives to the 79 exotics to be removed. It is recognised that the shift to low growing plants is to re-establish sight lines and for the cultural aspects of the maunga.

The removal of the exotic trees will occur generally in the north of the site and be in between existing native trees, with three small areas where there will be clear felling, area A (palms to the north of the

access road), C (old quarry area) and a portion of area D (mostly open area with amenity trees) have felling of exotic trees that are not mixed with natives that will be retained.

Fauna

No detailed fauna surveys were undertaken to inform the EclA.

No measures are proposed to mitigate the potential risk of injury or mortality to native fauna, apart from timing to avoid bird breeding season are provided. The EclA generally considers the effects to be temporary or positive for all fauna, however, does not consider the impact of time-lag to replanting.

Avifauna

The EclA lists species that had been observed during a site visit. These included both native and introduced birds and of the native birds noted (grey warbler, pukeko and kingfisher) none are noted as threatened. Native birds are, however, absolutely protected under the Wildlife Act.

The type and size of vegetation proposed to be removed is consistent with that likely to be valuable habitat for avifauna, including feeding, roosting and nesting. It is therefore likely that both native and introduced bird species would use the available habitat on the site.

Herpetofauna

No heptofauna surveys were undertaken, however the EclA suggests that it is likely the site is dominated by plague skink, and that copper skink may possibly be present. The EclA further provides that "*the likelihood of any other native skinks or geckos being present is low*".

The EclA notes that the vegetation removal and replanting will have a positive benefit on the fauna through increased habitat availability and diversity.

The potential harm or loss of habitat or time lag to vegetation loss is not considered. The likelihood of native skinks is agreed to be low, with plague skinks occupying similar ecological niche to native copper skinks. Nevertheless, as there is no baseline data, the presence cannot be ruled out as well as the resulting impact of the disturbance and time lag of habitat restoration.

Bats

The EclA considers a modelled distribution of long-tailed bats and this site is excluded in the model. No further consideration is offered on the likelihood of bats being present. Native bats are protected under the Wildlife Act.

Given the number of mature trees within the project footprint that could be potential roosting site, the possible presence of roosting bats cannot be ruled out. However, given the location, away from watercourses and the general species present it is agreed that the likelihood is low.

Ecological function

The site is not a Significant ecological Area, but it does provide important ecological function and habitat. The EclA considers significant vegetation areas to be 1.8 to 1.9km away, however it does not consider Akarana Golf Club immediately to the east, Maungakiekie Golf Club to the south and Nivana Reserve to the west which all provide similar types of habitat to that found on the subject site (open grass areas with amenity trees). These local sites, whilst not providing significant native vegetation, nevertheless, provide comparable habitat for birds and bats that may be temporarily displaced. It is noted that of the 267 trees on site, 107 will be retained, providing continued, but reduced onsite habitat.

Proposed Mitigation Measures

Overall, the application considers the removal of the exotic trees and other vegetation and replanting with natives to have a net positive ecological effect. Whilst the time lag to achieve this is not fully addressed, it is likely to be somewhat compensated by the 82 large native trees which will be retained and protected from harm during the removal of the exotic trees.

Vegetation

Vegetation removal using cranes and manual felling is expected to minimise damage to the native trees that are to be retained. The EclA maintains that the native plantings will reinstate removed vegetation and improve habitat. Continuation of the existing weed and animal pest control throughout wider site is expected to restore and enhance habitat and this will be supported with the maintenance of plantings.

The retention of exotic trees during planting, providing a nursery function, is recognised by the applicant ecologist as being beneficial (S92 email response). However, if planting was undertaken prior to felling this would restrict areas/methods available for carrying out the arborist work and there would be some losses expected during the operation. In addition, many of the proposed species for replanting are not forest species, and thus not necessarily benefiting from a nursery crop.

Overall, the site, in the medium to long term, will have the benefits of the restorative native plantings, providing more continuous habitat areas. The planting plan provides a diverse range of species. However, whilst removal is to be over a period of one month, the plantings may take a number of years to achieve (4) as it will rely on community groups and selected nurseries developing stock material. Of the 37 large trees in the Planting Plan, most of these are planted in year 2 or 3, increasing the time-lag to the replacement that habitat. The applicant ecologist does, however, not see any reason these large tree plantings could not be undertaken earlier or to require a 100% success after 5 years (S92 email response). A recommendation to achieve this outcome has been made below (condition X4). The planting plan provided is does not include detailed maintenance actions and measures of success. A finalised planting plan is offered and should incorporate the guidance of Appendix 16 of the AUP:OP. Monitoring proposed as being undertaken four times a year with fixed point photos and reporting to council 15 days after planting.

The existing pest plant and animal management plan is not provided, however, it is offered to be continued as part of the revegetation plan. This should be updated and incorporated into the planting plan, including monitoring and measures of success of pest controls and to ensure it caters for new planting risks.

Avifauna and Bats

The proposed vegetation removal will have an impact on the availability of foraging habitat for avifauna and potentially bats.

It is considered that the actual or potential effects on avifauna and bat foraging habitat loss can be adequately managed through the proposed revegetation and timing of works to be outside of breeding season. Potential impacts at other times are largely mitigated by the neighbouring reserves and golf courses.

Recommendations to ensure this is the case have been recommended below.

Herpetofauna

The EclA does not provide any mitigation to avoid the potential for injury or mortality to native lizards during the proposed vegetation clearance. Both the common introduced plague skink and copper skinks occupy similar ecological niche and habitat and it is therefore possible for native skinks to be found on the site. It is agreed that arboreal lizards are unlikely.

It is considered that where surface vegetation is removed, a reasonable search and salvage operation can be undertaken during the vegetation clearance to relocate any native lizards found.

Recommendations to this effect have been included below.

Conclusions

There are two effects from the proposal need to be further addressed, these being the time lag and the overall loss of large tree habitat and associated biodiversity. To address these, I have amended a proposed condition (condition X4). With the implementation of this and the other recommended conditions below, it is anticipated that the adverse terrestrial ecological effects will be very low.

Whilst not within the recommended conditions, the increase in the number of large native trees to be planted would reduce effects further.

Recommendation and Conditions

Adequacy of information

The above assessment is based on the information submitted as part of the application. It is considered that the information submitted as part of the application is sufficiently detailed to enable the consideration of the above matters on an informed basis. The level of information provides a reasonable understanding of the nature and scope of the proposed activities as they relate to the AUP:OP and the extent and scale of any adverse effects on the environment are able to be assessed.

Recommendation

As stated in section above (Proposed Mitigation Measures), it is considered that the adverse effects of the proposed vegetation removal can be appropriately mitigated with the native replanting and adherence to the included recommended conditions of consent. This memo does not identify any reasons to withhold consent for the aspect of the proposal which this review pertains to.

Recommended conditions of consent have been provided to ensure that the mitigation offered by the applicant and identified as appropriate in this memo are implemented in full and as anticipated.

Duration of consent: Section 123

It is considered for the vegetation removal aspects that a standard lapse date of 5 years is appropriate to allow for some contingency in the undertaking of the proposed works.

General conditions

- X.1 The vegetation removal shall be undertaken in accordance with the following plans and information as well as any amendments or subsequent documentation required by condition of consent:
- *'Assessment of environmental effects on the environment and statutory assessment'*, report prepared by Richmond Planning Limited, dated October.
 - *'Puketāpapa- Pukewīwī/ Mt Roskill Assessment of Ecological Effects'*, prepared by Te Ngahere, dated 11th October 2019.
 - *'Puketāpapa – Pukewīwī/ Mt Roskill Planting Plan 2019'*, prepared by Te Ngahere, dated 11th October 2019.
 - *'Puketāpapa Tree Removal Methodology'*, prepared by Arborlab, dated August 2019.
 - *Resource consent application at 1109 Dominion Road, Mount Roskill (LUC60347931) - Section 92 request.* Email memo from Richmond Planning, dated 10 December 2019

- *Response to section 92 Request, Puketāpapa-Pukewīwī/Mt Roskill.* Memo from Richard Mairs, Ecologist, Te Ngahere, dated 10 December 2019

Advice Note:

In the event that minor amendments to approved plans any such amendments should be limited to the scope of this consent. Any minor amendments should be provided to the Team Leader – Compliance Monitoring prior to implementation to confirm that they are within the scope of this consent.

- X.2 Under section 125 of the RMA, this consent lapses five years after the date it is granted unless:
- The consent is given effect to; or
 - The council extends the period after which the consent lapses.

Pre-commencement Conditions

- X.3 Prior to the commencement of the vegetation removal authorised by this consent, the consent holder shall hold a pre-start meeting that:
- is located on the subject site;
 - is scheduled **not less than five days** before the anticipated commencement of tree removal;
 - includes Auckland Council Compliance Monitoring staff; and,
 - includes representatives from the contractors who will undertake the works, including the works ecologist.

The meeting shall discuss the vegetation removal, works methodologies, enhancement actions and shall ensure all relevant parties are aware of and familiar with the necessary conditions of this consent.

The following information shall be made available at the pre-start meeting:

- Timeframes for key stages of the works authorised under this consent;
- Finalised Planting Plan, incorporating the pest plant and animal management plan; and
- Resource consent conditions.

Advice Note:

To arrange the pre-start meeting required by Condition (X.2) please contact the Team Leader - Compliance Monitoring to arrange this meeting on monitoring@aucklandcouncil.govt.nz, or 09 301 01 01. The conditions of consent should be discussed at this meeting. All additional information required by the Council should be provided 2 days prior to the meeting.

- X.4 Prior to the commencement of any vegetation removal, the consent holder shall submit to the certification of the Team Leader – Compliance Monitoring a Planting Plan, incorporating a Pest Plant and Animal Management Plan in accordance with Appendix 16: *Guideline for Native Revegetation Plantings* of the Auckland Unitary Plan: Operative in Part.

The Planting Plan and Pest Plant and Animal Management Plan shall include:

- A planting plan, including the species to be planted, size of plants, sourcing, planting densities and fertiliser use.
- Planting methodology, including any staging (required for the effective control of weeds prior to planting, and enhancement species to be used for infill planting once initial planting has established) in order to promote a WF7 rock forest habitat type.
- Plantings of the 37 large trees to be undertaken in year 1.
- All plantings from the Myrtaceae family of species shall be sourced from a nursery that is a signatory to Myrtle Rust Nursery Management Declaration V6, 11 October 2017 that certifies that the plant producer has implemented the New Zealand Plant Producers Incorporated Myrtle Rust Nursery Management Protocol (Myrtle Rust Nursery Management Protocol – V6, 11 October 2017).
- The monitoring and maintenance plan shall include as a minimum:
 - Monitoring criteria, methods and indicators to ensure the performance standards are met, including the removal of pest plants.
 - Pest plant and animal management performance standards and targets.
 - All planting shall achieve a minimum of a 90% survival rate for the first five (5) years after planting, apart from the 37 large trees which must achieve a 100% survival.

Monitoring shall be conducted at least four times a year for the first five (5) years and the results reported to the Team Leader – Compliance Monitoring within twenty (20) working days.

Advice note: *The application material contains a planting plan and the applicant has offered to provide a finalised version prior to the prestart meeting. The above condition is amended from a condition proposed by the applicant, including the 4 times a year monitoring.*

During works requirements

- X.5 For clearance of any surface vegetation, the Consent Holder shall ensure a suitably qualified and experienced ecologist/herpetologist is present to search for and salvage any native lizards.
- X.6 At the end of the five (5) year maintenance and monitoring period the consent holder shall confirm that all planting is compliant with the Regional Pest Management Strategy, being free from plant and animal pest species.
- X.7 Any plants that die during any time of year, shall be replaced during the following planting season.
- X.8 All vegetation shall be removed outside of bird breeding season (September to January inclusive), except where a suitably qualified ecologist has confirmed that woody vegetation is clear of any nesting birds, eggs, or chicks.

Upon Completion Conditions

- X.9 Upon completion of works, all findings resulting from the lizard search and rescue during vegetation removal condition shall be recorded by a suitably qualified and experienced ecologist/herpetologist approved by the council on an Amphibian/Reptile Distribution Scheme (ARDS) Card (or similar form that provides the same information) and sent the Team Leader - Compliance Monitoring within twenty (20) working days from the lizard search and rescue works.

Summary

This memorandum provides a review of the actual and potential effects on terrestrial ecology associated with the application for the vegetation clearance and native replanting at Puketāpapa–Pukewiwi /Mt Roskill.

This memorandum reviewed the application documents in respect to:

- Identified terrestrial ecological values
- Identified actual and potential effects on terrestrial ecology
- Proposed mitigation measures to manage the actual and potential effects on terrestrial ecology

The proposed vegetation removal is considered to have actual and potential effects including the loss of habitat for fauna and the associated risk of mortality or injury during the physical vegetation removal. The ecological effects of habitat fragmentation and the loss of ecological corridors, whilst the site is important in this regard, will not be impacted by the vegetation clearance and replanting.

The impact to edge effects as a result of the proposed vegetation clearance is considered low as the site does not form a cohesive forest area and thus edge effects are non-existent.

The actual and potential effects of loss of habitat for fauna and the associated risk of mortality or injury during the physical vegetation removal can be adequately mitigated through a combination of:

- Timing of vegetation removal
- Lizard salvage for any surface vegetation removal
- Habitat enhancement through native revegetation
- Retention and avoidance of harm to native trees to be retained

It is considered that the level of ecological assessment undertaken as part of the Assessment of Ecological Effects and EclA is sufficient to adequately assess the level of actual and potential impact to terrestrial ecology as a result of the proposed activity.

This assessment concludes that the actual and potential impacts of the proposed activity on the ecological values can be appropriately managed. The assessment in this memorandum does not identify any reasons to withhold consent, and the aspect of the proposal considered by this memo could be granted consent, subject to the inclusion of the recommendations above.



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