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MEMORANDUM

Attention: Deborah Manning

Date: 24 July 2019

From: Simon Chapman, Principal Ecologist

Subject: Western Springs SEA Pine Removal – Ecology Review

Dear Deborah,

INTRODUCTION

This memorandum provides a review of the ecological aspects of Auckland Council's resource consent application to remove 200+ pine trees from the Western Springs Significant Ecological Area (SEA) forest in a single removal operation. Also included in the review is consideration of the ecological aspects of hearing documentation and Auckland Council's decision to grant consent.

ECOLOGICAL VALUES

The ecological values of the SEA forest are not disputed by the ecologists involved in the project. Wildlands Consultants ('Wildlands'; the applicant's ecologist) and Boffa Miskell (ecology reviewers of the application) are reputable professional ecological consultants and I concur with their findings that the SEA forest has moderate ecological value. Larger areas of forest of moderate ecological value are not common on the Auckland Isthmus therefore the forest is ecologically significant at local and possibly regional scales.

Wildlands Consultants prepared several documents in support of the application. Overall, aside from the exceptions discussed below, I consider that the ecological assessment work carried out by Wildlands was generally in line with standard/best industry practice.

A weakness in the ecological assessments regarding native bats and the lack of a bat survey was acknowledged by Wildlands. However, the solution put forward cannot be considered best practice. Wildlands proposed a bat survey immediately prior to tree removal and, if bats are detected, a Bat Management Plan would be prepared and implemented. Current best practice for the removal of potential bat roosting trees involves the implementation of an appropriate Vegetation Removal Protocol (VRP). The initial steps involved in VRP

implementation typically involves a DOC-certified competent bat ecologist risk-rating the trees as potential bat roosting habitat, and then carry out targeted acoustic surveys.

A notable error in Wildlands' assessment is the conclusion that no 'At Risk' or 'Threatened' plant species are present (page 7). In fact, at least one 'At Risk' species is present (kanuka), and at least one 'Threatened' species is present (kauri). Also mentioned in that same paragraph is a comment that the site's diversity of indigenous flora is limited. In my opinion, the forest has a relatively diverse native. Given the context of a scarcity of larger patches of remnant and regenerating native forest in urban Auckland – and on the isthmus in particular – it would be reasonable to conclude that the site has relatively high botanical diversity.

PROJECT GOAL AND OBJECTIVES

The AEE states that the overall objective of the project is to fell all pine trees present within the site. However, the reasons for seeking to fell all 200+ pine trees are unclear. While the AEE states that the pine trees pose a risk to private property, the zoo and the park/track users (Paragraph 4.3), ecological restoration is also presented as a key driver for the project. An ecological restoration plan (prepared by LASF) appended to Wildlands' Ecological Assessment and Management Plan (the version last revised June 2018) showed additional tracks to be constructed through the forest, implying that increasing recreational opportunities may be an additional project driver.

Substantially increased clarity around the goal of the project is required. If ecological restoration is an important project goal, then aside from any targeted pine tree removal urgently required to protect people and property, the management of the site should be ecology-led. As it stands, the entire project comes across as a commercial tree removal project with the scope of ecological inputs restricted to support the stated overall project objective of removing all 200+ pine trees.

ASSESSMENT OF ALTERNATIVE OPTIONS

The application to remove all 200+ pine trees in a single operation is not well aligned with an ecological restoration project (discussed in further detail below). While the removal of some of the pine trees may be justified for health and safety reasons, and to prevent property damage, there seems to have been little or no consideration of whether a staged selective removal programme may achieve those objectives while substantially reducing adverse ecological effects.

Given the claimed focus on ecological restoration as a project objective, it seems very unusual that Wildlands were never asked to assess any options other than the removal of all 200+ pine trees in a single operation. Wildlands' Ecological Assessment and Management Plan purports to address management options (Introduction, Page 1). However, the report only addresses management options by suggesting areas where more sensitive methods of tree removal should be utilised. The obvious alternative approach of leaving at least some of the pine trees unfelled is not mentioned in any of Wildlands' documentation. It is unclear why Wildlands failed to consider such an obvious alternative approach for achieving the objective of ecological restoration.

As with Wildlands, Boffa Miskell's ecology reviewers did not consider any alternative approaches to removing the 200+ pine trees in a single removal operation. In fact, Boffa Miskell stated that any consideration of whether any of the pine trees can or should be retained was beyond the scope of their review (2nd paragraph of their review letter dated 15 October 2018).

It is unclear why such consideration of alternatives was not included in the scope of their review. However, despite stating that it was beyond their scope, Boffa Miskell pointed out later in their review that the Wildlands assessment did not assess the necessity of the removing the pine trees *per se* (3rd paragraph on page 2). In my opinion, Boffa Miskell's comments support a conclusion that no alternatives to the removal of all 200+ pines have been considered, and that no ecological advice was sought or provided regarding whether some of the pine trees could or should be retained.

AVOIDANCE AND MINIMISATION OF ECOLOGICAL EFFECTS

A consequence of failing to consider alternatives to removing all 200+ pines in a single removal operation is that the extent and magnitude of adverse ecological effects are likely to be much greater compared with a selective pine removal programme implemented over time. For example, the sudden loss of all or most of the site's large trees may have catastrophic adverse impacts on local populations of native forest bird species. While Wildlands acknowledge that the project will have adverse ecological effects, they suggest that the effects will be temporary, and that the proposed mitigation will lead to a net gain in ecological value over time. In my opinion, there is excellent potential to reduce the magnitude of the project's adverse ecological effects by reducing the number of pine trees to be removed and staging the removal over time.

Where feasible, the avoidance and minimisation of adverse ecological effects is a considerably better option than mitigating and offsetting. As mentioned above, the important step of considering options to avoid and minimise adverse ecological effects was not addressed by Wildlands (or Boffa Miskell). Any consideration of such options would almost certainly highlight the ecological benefits of retaining at least some of the pine trees unfelled.

BEST PRACTICE ECOLOGICAL RESTORATION

Ecological restoration of an SEA forest area with a pine canopy above a native subcanopy and understory should allow for the transition to take place over time. A transition over time provides for the maintenance of biological diversity through the process. Examples of adverse ecological effects that can occur if the process is rushed include: the elimination of nest/roost sites for birds and bats due to removal of a large proportion of trees, the loss of native lizard populations when undergrowth and groundcover are reduced substantially, and the loss of soil flora/fauna diversity (including mycorrhizal fungi) when leaf litter and soil are exposed to increased light and air movement.

On Auckland Council's large-scale ecological restoration projects (e.g., Project Twin Streams), the standard approach to transitioning vegetation communities dominated by weed/exotic species (including stands of pine trees) to native forest is gradual, holistic, and selective. Such an approach focuses on working with existing conditions rather than against them, which is especially appropriate in Significant Ecological Areas. Interestingly, the AEE points out that the objectives of the 1995 Lakeside Reserve Plan include 'progressively replacing the pine trees adjoining western springs stadium with a native podocarp forest'. In my opinion, rather than supporting wholesale pine removal as portrayed in the AEE, that objective actually highlights that the importance of a gradual transition from pine forest to native forest has been recognised, and anticipated, for this site for many years.

As mentioned above, it is important to minimise damage, retain at least some large trees, and allow enough time for alternative habitat (e.g., bird nesting sites) to develop when transitioning

stands of pine trees to native vegetation. For example, some trees may be removed immediately to protect health and safety and property, some may be left alive to provide bird and bat habitat, while others may be killed (e.g., by ring-barking or by poisoning with herbicide) but left standing to provide fauna habitat for some time while (and often long after) the trees die. There are many options, and combinations of options, which can and should be tailored to the site.

The consent granted for the removal of the Western Springs pine trees includes only one option – specifically, removing all 200+ trees in a single operation. Given the site's confirmed and potential ecological values (e.g., long-tailed bats may be present), the granting of consent for wholesale clearance as the sole option was, in my view, a flawed decision. Based on my experience, I doubt it is an approach that would be supported by Auckland Council's own Biodiversity team if it were proposed by any other consent applicant external to Auckland Council.

CONCLUSION

In my opinion, consent for the site should only be granted to remove the pine trees that pose an immediate risk to health and safety and property. The remaining trees should be managed as part of an ecology-led ecological restoration programme aimed at transitioning the site into native forest over time using best practice methodologies.

Should you have any further questions please do not hesitate to contact Simon on 021 436841 or at simon.chapman@ecologynz.nz.



Simon Chapman
Principal Ecologist