CRAIG WEBB
Consultant Arborist

HALLS FARM SUBDIVISION

AV JENNINGS LIMITED
ATTN: CAMERON HODGSON

REPORT PREPARED BY: CRAIG WEBB

DATE: 26 NOVEMBER 2019

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1 INTRODUCTION

1.1 *CWCA Limited* has been commissioned by *AV Jennings Limited* to prepare this arboricultural report relating to existing mature exotic trees within the Halls Farm Subdivision at Lot 3 DP 327701 and Lot 1 DP 310813, State Highway 1 Upper Orewa. The purpose of this report is to provide an assessment of the potential impact that the trees may have on future lots.

2 BRIEF/BACKGROUND/PLANS PROVIDED

2.1 This report has been compiled with reference to plans provided to me to show the subdivision layout and the areas of existing exotic trees that are proposed to be retained. The plans are attached to this report as Appendix A.

3 SITE VISIT

3.1 A site visit to carry out an assessment of the trees in question was carried out on 16 October 2019. This involved traversing a portion of the site to carry out a visual assessment of representative trees and groups of trees within the site. I have not carried out a detailed tree survey or assessment of individual trees.

4 SITE DESCRIPTION

4.1 The large site contains several areas that contain mature exotic trees that are planted in the manner of farm forestry plantations and shelter belts. The areas of trees are shown on the plan provided (refer Appendix A) as 'Existing Vegetation to be Retained and Enriched'.

4.2 The stands of trees contain species that are commonly used in farm forestry schemes. The following list of species was noted during the site walk-over.

Lawson cypress – *Chamaecyparis lawsoniana*
Japanese cedar – *Cryptomeria japonica*
Monterey cypress, macrocarpa – *Cupressus macrocarpa*
bangalay – *Eucalyptus botryoides*
shining gum – *Eucalyptus nitens*
Monterey pine, radiata pine – *Pinus radiata*
coast redwood – *Sequoia sempervirens*

5 ASSESSMENT

5.1 The plan provided shows the proposed layout of residential lots and the road network for the subdivision. In relation to the areas of existing vegetation to be retained and enriched, it is apparent that in most cases the areas of groups of trees are set some distance from the residential lots, or are adjacent to the rear boundaries of the lots. Due to the landform in many cases, the building platform for future dwellings will be at the road frontage, ensuring greater separation between these existing trees and habitable buildings.

5.2 In several isolated situations, proposed roads are adjacent to the areas of existing vegetation. In these situations, trees may be affected by construction and earthworks activities, and an arboricultural evaluation of the safe and healthy retention of trees in close proximity to civil

works should be conducted. Trees that are deemed to be affected by the subdivision works may require arboricultural management.

5.3 Changes to the landform, tree removal and impacts on tree root zones are evident within the site as a result of civil works that have been undertaken. The impacts of this work on the viability of individual trees has not been assessed in detail, but several instances were noted where trees will require further consideration in relation to their future sustainability, with consideration of their proximity to residential lots. An individual tree survey and management plan would be required to identify trees that require arboricultural intervention prior to development of individual lots.

6 DISCUSSION

6.1 Subdivision and development in the presence of existing trees can create unfavorable conditions, for both the trees and the future inhabitants of property. The various issues that can affect the trees and the development are explored in the following paragraphs.

6.2 Trees on development sites can be adversely affected by alteration and direct harm as a result of construction and earthworks. In this case, for the most part, the areas of vegetation have adequate separation distance between the proposed earthworks and construction to ensure that the trees will not be directly affected by the subdivision works. In other situations where road construction and earthworks are in closer proximity to areas of existing vegetation, trees could be adversely affected by physical change to landform or direct damage to roots and crown.

6.3 Alteration to landform and changes to drainage can have longer-term impacts on trees. Changes to the soil hydrology as a result of earthworks and infrastructure can have negative impacts on the availability of water, which can affect tree health. Significant increase or decrease in the water availability requires the trees to adapt if they are to survive. It is noted that many of the trees exist within stream margins, where they are likely to have enjoyed good water availability. Significant increase or decrease in the availability of water may result in decline in tree health.

6.4 Conversely, residential development in the presence of mature trees can result in actual or perceived problems for residents in new dwellings. Primary to this is the safety of trees that are within fall distance of habitable space or structures. In this instance the trees are for the most part sufficiently distanced from the building platform areas of the adjacent lots to ensure the safety of residents and residences in the event that tree failure occurs.

6.5 No specific defects that predispose trees to fail have been identified at this stage. Trees that have predispositions for failure and that are within fall distance of dwellings or habitable spaces should be identified as part of a detailed tree survey and management plan.

6.6 Secondary factors affecting inhabitants and residences are issues like shading and falling debris, which may be considered to be nuisance values. In general, the distance between the areas of trees and the residential lots is sufficient to reduce potential for these negative effects on residents and residences. The aspect and elevation of the lots relative to the areas of vegetation is an important factor when it comes to these nuisance effects.

6.7 Significant benefit can be derived from the presence of mature trees. Retention of the areas of existing vegetation can provides significant amenity value in the form of screening and pleasing outlooks from dwellings and outdoor living space. The stands of trees are likely to attract wildlife in the form of native birds that will nest and forage in exotic trees. The positive effect of trees on (for example) property values, human health and well-being, in creating a sense of place and in

providing a multitude of ecological services are well-documented benefits of mature trees. These positive effects should out-weigh negative and nuisance effects, except where trees are in close proximity to habitable spaces, or any actual risk to persons and property exists.

7 RECOMMENDATIONS

7.1 In most situations within the Halls Farm Subdivision, the areas of existing vegetation to be retained are suitably separated from proposed building platforms to ensure suitability for retention. Where the areas of vegetation to be retained are in close proximity to smaller lots or roads, or where lots will be positioned downslope and/or southward of large trees, consideration of management options for the tree stand is required.

7.2 Retention of mature trees should be conducted with on-going input from a consultant arborist. The input should include consideration of individual trees relative to proposed lots, roads and infrastructure. Selected tree removal, tree pruning or prescribed methods for works within the root zone of trees may be required to ensure suitable outcomes for trees and residents.

7.3 It is recommended that prior to the development of individual lots adjacent to areas of retained exotic trees, a detailed arboricultural survey and tree management plan is commissioned. The detailed assessment should form the basis of a tree management plan for the site.

8 ATTACHMENTS

Appendix A - Provided plans (untitled, undated).

Legend

Proposed Vegetation Areas

- Broadleaf Forest & Shrubland
- Kanuka Riparian Forest
- Formal Parkland
- Mixed Shrubland
- Kahikatea Swamp Forest
- Pine Trees Retained for Visual Character
- Indicative Street Tree
- Indicative Specimen Tree Clusters in Open Space
- Lots requiring 10 % Revegetation within landscape area
- Nukumea Reserve Protection Overlay
  60% of area to be revegetated
- Riparian Margin
  (10m either side of Streams)
- Existing Vegetation to be Retained and Enriched
- Boundary Screening Vegetation
- Precinct Boundary
- 10m/20m NSR Buffer Strip
  (Planted/ Revegetated)
- Permanent Stream
- Intermittent Stream
- 10m Stream Offset
- Indicative Green Pedestrian Corridor
- Indicative Green Ecological Link

NUKUMEA SCENIC RESERVE

AUCKLAND TO WAIWERA MOTORWAY (SH1)

TO OREWA

0 75m

Scale: 1:2500 @ A1 1:5000 @ A3

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