

PEERS BROWN MILLER LTD

Arboricultural & Environmental Consultants

PRELIMINARY ARBORICULTURAL & VEGETATION ASSESSMENT – TEITEI DRIVE BLOCK, OHAKUNE

PREPARED FOR: Kainga Ora – attn: Fletcher Wilson
BY: Richard Peers
DATE: 5 March 2023

1.0 Introduction

I visited the Teitei Drive Block (the site), on Saturday 18 February 2023, to inspect and identify the varying vegetation types around the perimeter of the site. The body of the site is pasture that does not appear to have been grazed, or mown, for some considerable time.

I had been supplied with the document titled: Site Development Feasibility Report – prepared by Cheal Consultants Ltd for Ruapehu District Council. From that report I extracted the following map, which I used as my main reference during the site walkover;

- Photo 1 – Site Location (Source: Ruapehu Maps)

It was noted that the geomap would be several years old, as there are now houses built on neighbouring sites that are shown as vacant on the map and some identified areas of vegetation within the site are now larger.

I have prepared a version of Photo 1 on which I have identified seven discrete areas of vegetation that are described in this report. There are also some notes on the map pointing out salient detail. The marked-up map is included as Appendix 1 to this report – and is also provided as an email attachment.

2.0 Area 1

This area is actually one feature tree with some under-storey weed vegetation under its canopy. The tree is a veteran mature Kapuka (*Griselinia littoralis*) that is in a good state of health. It has a particularly stout trunk which carries a dense and compact crown. Given its size and veteran status, I suspect it may be a remnant of original native bush that once covered the area.

The weeds are two Elderberry (*Sambuca nigra*) bushes and one Cotoneaster bush. They are growing up into the crown of the Kapuka.

Recommendations

1. Consider retention of Kapuka as a feature. Canopy can be pruned to remove dead wood and attain a balanced appearance
2. Remove the Elderberry and Cotoneaster. Treat stumps with herbicide – do not grind or extract by machine

Images



Image 1 – Kapuka, as viewed from west



Image 2 – close-up of trunk and scaffold system



Image 3 – showing elderberry and Cotoneaster weeds

3.0 Area 2

This is a stand of trees with an under-storey profusion of weed species and some native seedlings. The trees comprise;

- One over-mature (senescent) *Cupressus macrocarpa* that has been lopped and which displays sites of large limb failures. It has an unusually prominent above-ground buttress root plate
- Several *Chamaecyparis lawsoniana* (Lawson cypress). These range from full-crowned mature specimens through to dead specimens. Some dead trees have fallen and are hung-up against adjacent trees. One has been lopped from a neighbouring property. Many have deep-seated stem decay
- 1 x semi-mature Kahikatea tree stands beside a ditch. It is in a good state of health and is structurally sound
- 1 x Black Maire (*Nestegis cunninghamii*). This is a semi-mature native specimen in a good state of health that is crowded by adjacent trees. It is the source of several seedlings

The weed species comprise, for the most part, a dense mass of elderberry throughout the stand of trees. There are also dense areas of blackberry at the perimeter of the stand.

Recommendations

- Remove macrocarpa and Lawson cypress trees
- Remove all weed species and cut and fallen material
- Consider retention of Kahikatea

- Consider retention of Black Maire. However, when surrounding trees are removed, an arborist should assess the structural condition of its trunk, as included unions were observed but were not able to be closely inspected due to the crowding from adjacent trees and vegetation
- Offer Maire seedlings to a local native plant nursery to uplift

Images



Image 4 – Area 1, as viewed from west

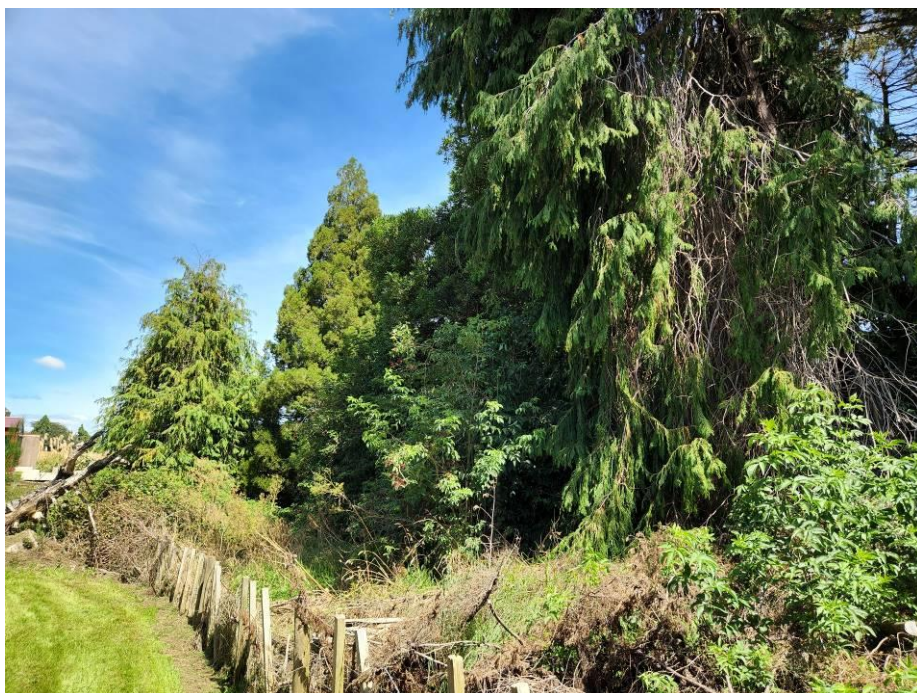


Image 5 – as viewed from yard of neighbouring property



Image 6 – interior view of Lawson cypress and elderberry



Image 7 – buttress root plate of macrocarpa



Image 8 – Blackberry against boundary



Image 9 – Kahikatea in centre



Image 10 – Crown of Maire in centre. Kahikatea to left



Image 11 – closer view of trunk formation of Maire



Image 12 – Maire seedlings

4.0 Area 3

This area is essentially a wetland linked to a ditch that contains, but not limited to, the following;

- Some seedling Lawson cypress
- Blackberry
- Broom
- Cotoneaster
- Buddleia
- Manuka

The Manuka is the main species that is not a weed. It is young and scrubby.

Recommendations

- Investigate whether this area meets the standards whereby it can be defined as a ‘wetland’ and whether there are any statutory protection mechanisms over such a natural environment
- Weeds should be eradicated at the least
- Manuka seems to be concentrated at the edges of the ditch, so maybe able to be retained if ditch is maintained as a water course – possibly with riparian planting carried out

Images



Image 13 – Area 3, as viewed from south



Image 14 – looking southwards. Note Manuka near ditch

5.0 Area 4

This area encompasses a mass of poplar suckers that run adjacent to a section of the southern boundary. These suckers emanate from a line of hybrid poplar trees in the neighbouring property that have been planted adjacent to the boundary fence. Within the subject site there is an approximately 3m width strip of suckers adjacent to the fence which have been allowed to grow on. Beyond this strip there is a profusion of lower suckers in the paddock – extending out to several metres in some places. It seems that the paddock has been mowed – leaving the 3m strip unmowed.

This root suckering from the poplars in the neighbouring property is potentially problematic should residential housing be planned for this area of the site. These trees are clearly very invasive.

Recommendation

- The suckering root mass from these trees must be physically removed if there is to be residential housing – or any land use, for that matter, adjacent to this boundary. However, making such an excavation cut at the boundary line would potentially destabilise the parent trees in the neighbouring property; thereby creating a hazardous situation. Therefore....
- An approach should be made to the owner of the neighbouring property – with a proposition that the poplar trees should be removed

Images



Image 15 – the line of poplar trees. Note the two tiers – the lower being sucker growth within the site



Image 16 – showing boundary fence – parent trees on right



Image 17 – another view of the boundary fence with root suckers on the right



Image 18 – one view of the suckering extending far out into the paddock

6.0 Area 5

This area is a staggered line of Lawson cypress trees which extends along a section of the western boundary. It crosses the flowing water course which exits the property there. The trees are over-mature. A close inspection of them under their canopy reveals that most have extensive decay in and around the bases of their trunks. This most likely originates from historic stock damage to their root buttresses over many years and/or from horses having stripped the bark from the trunks, as they are wont to do with this species of tree – from experience. There are some fallen stems, due to the weakness inherent in the decay. This line of trees currently performs a useful function as a windbreak for the site – of winds from the south.

There is the same under-storey mix beneath these trees as with Area 2, i.e. mostly elderberry, although of a sparser distribution.

Recommendations

- Serious consideration must be given to the safety rating of these Lawson cypress trees if residential housing is to be established in their vicinity/fall zone. Notwithstanding their poor structural condition, the trees are nearing the end of their useful life span in any case

Images



Image 19 – Area 5 as viewed from within site



Image 19 – eastern end of Area 5. Note fallen stem



Image 20 – typical condition of tree trunks



Image 21 – badly decayed trunk with split-out

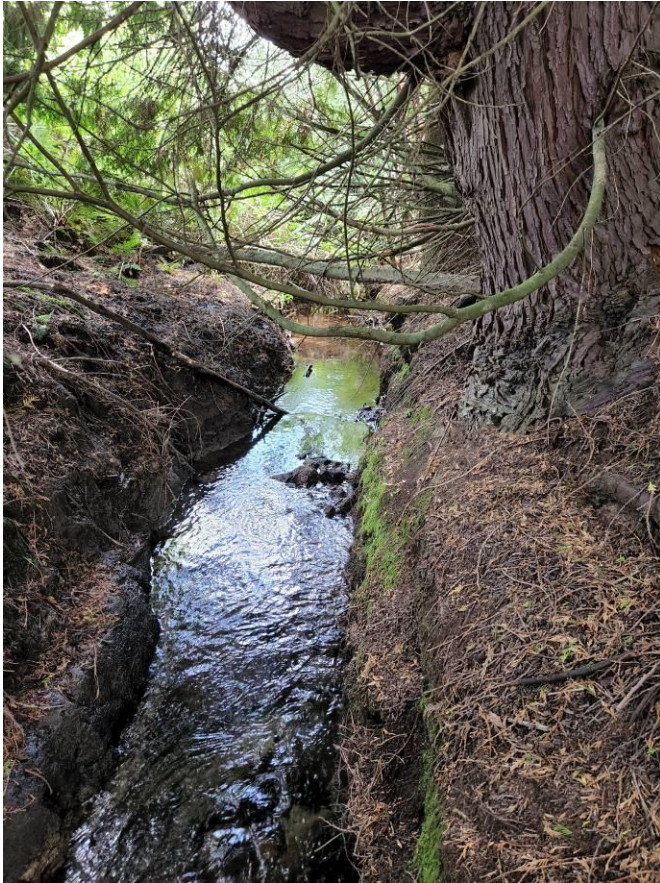


Image 22 – showing water course exiting site through Area 5



Image 23 – trees westwards of the water course



Image 24 – trees at western end of Area 5

7.0 Area 6

This area is a stand of closely-spaced, tall, lanky, drawn-up poplar trees in the northeast corner of the site. Some may stand in neighbouring properties to the west and north, and this will need to be ascertained. They appear to be in a good state of health and of generally sound structure. However, they tend to grow with a bias towards the east southeast.

Recommendation

- This stand of trees warrants closer inspection with a view to ascertaining (a) their stability in the ground, given their linkage to area 7, which is a wetland, (b) their vulnerability to windthrow should any surrounding vegetation be removed, (c) their general structural integrity and, (d) their ownership status. Dense thickets of weeds and other vegetation at their base makes it hard to inspect them thoroughly at this stage.

Image

(over page)



Image 25 – stand of poplars in the distance. Note broom lining the ditch which runs alongside the southern boundary

8.0 Area 7

This area is essentially a very weed-infested impenetrable (on foot) wetland that may originally have been channelled as a ditch – but which is now a sprawling and irregularly-shaped wet ground area. The northern boundary line is not defined. The most prevalent weeds are broom, blackberry and Cotoneaster that, in most places, is smothered by a dense blanket of convulvulus. There is scrubby Manuka dispersed through some of the area. Towards the eastern end are self-propagating Crack willow and Pussy willow trees.

Recommendations

As with Area 3....

- Investigate whether this area meets the standards whereby it can be defined as a ‘wetland’ and whether there are any statutory protection mechanisms over such a natural environment
- Weeds should be eradicated at the least
- The area may be so degraded by the intensity of the weed infestation that it may need to be totally cleared and either channelled or restored to a native wetland environment. Such a decision should rightfully be made with the input of an ecologist, and in consultation with Council planners or environmental officers

Images



Image 26 – southern end of Area 7. Poplar trees are likely to be offsite



Image 27 – showing blanket of convolvulus



Image 28 – looking south. Tall tree on right is a Lawson cypress which may or may not be within the site. Poplars in distance



Image 29 – commencement of willow tree grove



Image 30 – crossing through wetland – flanked by willow trees. Can be seen on map



Image 31 – view of willow grove. Mass of weeds in foreground. Seedling Silver birch tree near centre of picture



Image 32 – view to south from north corner where path from park turns to east

9.0 Conclusion

This report provides primarily an arboricultural overview of the site – with tree management and pest plant control recommendations offered. Peers Brown Miller Ltd does not specialise in ecological assessments, although we do work closely with ecologists on projects involving significant ecological areas – including wetlands, coastal environments and freshwater riparian environments. Therefore, comments made in this report that refer to ecological and wetland/riparian matters should properly be reviewed by an ecologist.

Please feel free to ask any questions that may assist with clarifying any aspect of this preliminary report.

Richard Peers
Director

Appendix 1 – Area Plan

