



16/10/18

Shire of Augusta Margaret River
PO Box 61
Margaret River 6285

Attention: Grant Gordon-Kirby

RE: Recommended works Foreshore Reserve, Augusta WA 6290.

As per the request, the additional trees located in the foreshore reserve south of Turner Caravan Park were visually inspected for any major features or defects regarding the safety of people and property.

The trees on site are a mixture of mature and post-mature *Agonis flexuosa* (WA Peppermint Trees), semi-mature *Metrosiderous excelsa* (New Zealand Christmas Trees) and semi-mature *Araucaria spp.* both *Araucaria heterophylla* (Norfolk Island Pine Trees) and *Araucaria columnaris* (Cook Island Pine Trees).

Most of the semi to post mature peppermint trees are showing features typical of this species occurring close to prevailing winds. Most trees show a windswept form with some evidence of decay. Some of the trees have been heavily pruned and as a result have a less windswept form. Most of the trees are located along target areas with footpaths, picnic benches and public seating underneath parts of the canopies.

As mentioned in the previous inspection the majority of the Peppermint Trees on site would benefit from some form of canopy works. The removal of cracked, broken and or hanging branches as well as the removal of hazardous deadwood would reduce risk to people or property. Reduction of some of the overextended windswept lateral branches may also reduce the likelihood of these limbs failing. Weight reductions on heavily decayed limbs in combination with a tree cable system will likely reduce the potential of those limbs failing.

Some of the Peppermint trees have specific canopy works that are noted on the attached spreadsheet. It is suggested that the majority of the large Peppermint trees be thoroughly inspected and whilst the arborist is in the tree any required preventative works be performed. The use of tree cables, tree props, understory planting and other non-invasive techniques should be considered as some of these trees are post mature and may pose some historical significance. Also, as trees are removed it is preferable to have some juvenile trees planted in their place.

The semi mature New Zealand Christmas trees on site do not pose any significant risk to people or property and do not require any works regarding safety. However, the removal of basal shoots and deadwood is recommended within the next 2 years and the trees will likely respond to the pruning positively.

Some of the *Araucaria spp.* on site have co-dominant apical stems. These stems should be reduced or removed to help promote a true singular apical dominance. This is highly advised. Whilst performing the works and there is the appropriate equipment on site it is also recommended to check all the *Araucaria spp.* for co-dominant stems and reduce or remove them appropriately.

The bush reserve circled in yellow in Figure 1 requires some remedial works. There are dead trees, large hazardous deadwood, previously failed hanging branches and heavy extended lateral branches. Although not part of the request it has been mentioned as some of these trees in this area are likely posing more risk to public than the adjacent inspected trees.

It is recommended that all Peppermint trees receive aerial pruning works including the removal of dead, damaged or diseased limbs and any suspect lateral limbs to be reduced in wind sail and or weight to a suitable growth point. Additional specific canopy works are required on 7 trees. These trees are numbered from 17-23 to prevent confusion between tree numbers on the previous reports. Attached is a table of specific canopy works for the 7 trees. Below are photos of the specific trees for the works. Once these works have been conducted I recommend the trees be re-inspected every 1 to 2 years.

These works should be carried out by suitably qualified and experienced arboricultural contractors and in compliance with Australian Standard AS:4373 (2007); Pruning of Amenity Trees. The contractors should be advised to report on any defects that may not be visible from a ground-based inspection in order that these may be addressed.

Kind regards,
Mitchell Keetley

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Figure 1: Site location with specific works trees numbered and general locations circled in red. Bush reserve circled in yellow.



Figure 2: Tree 17.



Figure 3: Tree 18.



Figure 4: Tree 19 and 20.



Figure 5: Tree 21.



Figure 6: Tree 22.



Figure 7: Tree 23.



Tree Number	Tree I.D	Recommended Works
1	<i>Eucalyptus diversicolor</i>	Weight reduction of extended laterals. Crown reduction of Extended upright limbs. Removal of deadwood. Cable instalation if required or benifical.
2	<i>Agonis flexuosa</i>	Tree Removal.
3	<i>Agonis flexuosa</i>	Heavy Crown Reduction to suitable growth points..
4	<i>Agonis flexuosa</i>	Weight reduction of extended laterals. Crown reduction of Extended upright limbs. Removal of deadwood. Cable instalation if required or benifical.
5	<i>Agonis flexuosa</i>	Heavy Crown Reduction to suitable growth points..
6	<i>Agonis flexuosa</i>	Crown reduction. Reduction and or removal of laterals extending over footpath.
7	<i>Agonis flexuosa</i>	Tree Removal.
8	<i>Agonis flexuosa</i>	Weight reduction over picnic bench.
9	<i>Agonis flexuosa</i>	Tree Removal. Tree could potentialy be retained if suitable tree prop is engineered.
10	<i>Agonis flexuosa</i>	Weight reduction of extended laterals. Crown reduction of Extended upright limbs. Removal of deadwood. Cable instalation.
11	<i>Agonis flexuosa</i>	Heavy Crown Reduction to suitable growth points..
12	<i>Agonis flexuosa</i>	Heavy Reduction of eastern limbs to suitable growth points. Remove limbs if no suitable growth points.
13	<i>Agonis flexuosa</i>	Tree Removal.
14	<i>Agonis flexuosa</i>	Remove stem over footpath.

Tree Number	Tree I.D	Recommended Works
15	<i>Agonis flexuosa</i>	Remove stem over footpath.
16	<i>Agonis flexuosa</i>	Tree Removal.
17	<i>Agonis flexuosa</i>	Prop or remove stem over public bench. Remove hanger.
18	<i>Araucaria heterophylla</i>	Remove basal shoots. Remove codominant apical stem.
19	<i>Araucaria heterophylla</i>	Remove codominant apical stem.
20	<i>Araucaria heterophylla</i>	Remove codominant apical stem.
21	<i>Araucaria columnaris</i>	Reduce codominant apical stems. Try to retain canopy shape whilst reducing 2 of the 3 codominant stems.
22	<i>Araucaria columnaris</i>	Reduce codominant apical stems. Try to retain canopy shape whilst reducing the codominant stems.
23	<i>Agonis flexuosa</i>	Remove dead stem. Remove cracked stem leaning towards river, reduce canopy of adjacent tree if required.