Attachment 1 – Index of Documents adopted by this Report

PC10 – all documents adopted by the report can be found at

Key Council authorising and scoping documents

- Published Council report: Long Term Plan 2015- 2025 dated 24th June 2015 (included consultation). Projects for 2015/16: "Review Combined Wairarapa District plan in particular notable trees...Work has also begun on developing a Plan change to update the protected trees schedule of the WCDP." As the 2015/25 LTP was adopted, a separate Council decision wasn't needed as funding was set aside for the project when the LTP was adopted.
- Published Council report: Annual Plan 2016-2017 dated 29th June 2016 (included consultation e.g. Greytown Tree Advisory Group (**GTAG**) submission number 72).
- Unpublished Internal report: Project scope report by SWDC Group Manager Planning and Environment dated c. 2nd June 2017 confirming PC10 scope¹, community evaluation approach, budget and estimated timeline.
- Published Council report: Decision report by Planning officer dated 8th August 2018 and
 corresponding nine resolutions carried in meeting minutes. This included receiving results of
 community evaluation, confirming proposed technical/ landowner evaluation approach (from a
 Planning and arborist point of view) and actions to draft planning evaluation approach/
 documents for public notification (including minimum 2 working day consultation).
- Published Council report: Decision report by Planning officer dated 4th December 2018 and corresponding six resolutions carried in minutes. This included receiving results of technical/landowner evaluation, confirming proposed planning evaluation approach and actions to notify **PC10** and engage a commissioner (including min. 2 working day consultation).

Step 1: Community evaluation documents

- SWDC Press release 15 August 2017
- Community tree nomination list (from written stakeholder and landowner submissions)
- GTAG meeting minutes and tree nomination list
- Unpublished communications between GTAG and SWDC Group Manager Planning and Environment (July 2017 – February 2018)

¹ "The report and subsequent plan change should be fit for purpose, legally compliant and technically supported so as to provide the basis for inclusion, removal or correction of details surrounding scheduled trees, while ensuring that costs to Council are minimised and high quality listings are put into Appendix 1.4" (Purpose statement, p. 3, Plan Change to Update Appendix 1.4 of WCDP – Notable Trees: Detailing an updated Appendix 1.4 of WCDP, unpublished Council report, c. 2 June 2017)

Community board and Maori Standing Committee PowerPoint slides

Step 2: Technical/ further landowner evaluation documents

- Further responses from landowners
- Suitably qualified and experienced professional (SQEP) STEM assessments for each tree –
 one PDF file for each record on the schedule
- SQEP summary report on notable tree evaluations 3rd July 2018; updated 27 September 2018
- SQEP STEM explanatory notes 3rd July 2018; updated 27 September 2018
- SQEP spreadsheet of all notable trees 3rd July 2018
- Key email interactions between project team and SQEP e.g. threshold with no landowner approval
- SQEP evaluation from a Planning perspective the Arborist approach taken
- Photographs of all trees

Step 3: Planning evaluation with arborist input

- Existing 2011 text 'Table 3: schedule of notable trees'
- Proposed amended text 'Table 3: schedule of notable trees' targeted distribution of each Ward, for example Featherston list, to property owners within that sub-District
- Proposed electronic database
- STEM assessments of trees
- RMR 2003 Form 5 Submission form
- Publicity materials; information sheet for community boards, public notices for newspaper and press release delivered to local media
- Contact details of all landowners informed of the proposed new Table 3
- Courtesy letter to all landowners with a dripline recorded for the first time
- Summary of submissions; and original copies of submissions (for further submission period)
- Summary of submissions; and original copies of submissions (for further submission period)
- Schedule 1 RMA Officers report
- s32 Cost/Benefit Evaluation report
- Schedule 1 RMA Officers report
- s32 Cost/Benefit Evaluation report

Attachment 2 - PC 10 Table 3 Appendix 1.4 as Notified

Plan change # 10 key (how to read this proposed plan change)

Table 1.4 (South Wairarapa District) is broken into 2 parts.

- Table 1.4, Part 1 = proposed Notable Tree register (see note below)
- Table 1.4, Part 2 = trees proposed to be removed from the existing Notable Tree register

New tree = Ts 00

Appendix 1.4 Notable Trees (South Wairarapa District)

Table 1.4, Part 1 (Featherston): *proposed* Notable Tree register (new tree = <u>Ts 00</u>)

Proposed Notable Tree(s) Reference Number	Tree Type (common name, botanical name)	Property (Location and allotment details)	Map Number
	Feath	erston	
Ts01a	Giant Sequoia (Sequoiadendron giganteum)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01b	Monterey Pine (Pinus radiata)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01c	Lawson Cypress (Chamaecyparis lawsoniana)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01d	Coastal Redwood (Sequoia sempervirens)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01e	English Oak (Quercus robur)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01f	English Oak (Quercus robur)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts01g	Lawson Cypress (Chamaecyparis lawsoniana)	40-48 Bell Street, Featherston (17 Johnson Street) (Lot 1 DP 11388)	63
Ts02	Common Walnut (Juglans regia)	63 Bell Street, St Teresa's School, Featherston (Lot 1 DP 52326)	65
Ts03a	Californian Live Oak (Quercus agrifolia)	38 Donald Street, Featherston (Lot 1 DP 359158)	65
Ts03b	Hard Beech (Fuscospora solandri)	38 Donald Street, Featherston (Lot 1 DP 359158)	65
Ts03c	Hard Beech (Fuscospora solandri)	38 Donald Street, Featherston (Lot 1 DP 359158)	65
Ts03d	Messmate (Eucalyptus obliqua)	38 Donald Street, Featherston (Lot 1 DP 359158)	65
Ts04a	Rhododendron "Sir Robert Peel" (Rhododendron arboreum)(3)	160 Fitzherbert Street, Featherston (Lot 1 DP 50757)	65
Ts04b	Golden Elm (Ulmus glabra 'Lutescens')	160 Fitzherbert Street, Featherston (Lot 1 DP 50757)	65
Ts05a	English Oak (Quercus robur)	Trunk: 54 Fitzherbert Street, Lang's Pharmacy, Featherston (Lot 6 Deeds	64

		Plan 134) Dripline: 52 Fitzherbert St,	
		Featherston (LOT 2 DP 356826)	
Ts05b	English Oak (Quercus robur)	Trunk: 54 Fitzherbert Street, Lang's Pharmacy, Featherston (Lot 6 Deeds Plan 134) Dripline: 52 Fitzherbert St, Featherston (LOT 2 DP 356826)	64
Ts05c	English Oak (Quercus robur)	Trunk: 54 Fitzherbert Street, Lang's Pharmacy, Featherston (Lot 6 Deeds Plan 134) Dripline: 52 Fitzherbert St, Featherston (LOT 2 DP 356826)	64
Ts06	Norfolk Island Pine (Araucaria heterophylla)	Trunk: 17 Johnston Street, Featherston (Lot 1 DP 13193) Dripline: Bell Street Road Reserve (adjacent to 17 Johnston Street)	64, 65
Ts07a	Kahikatea (Dacrycarpus dacrydioides)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts07b	Kahikatea (Dacrycarpus dacrydioides)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts07c	Kahikatea (Dacrycarpus dacrydioides)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts07d	Kahikatea (Dacrycarpus dacrydioides)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts07e	Kahikatea (<i>Dacrycarpus</i> dacrydioides)	Trunk: 60 Lyon Street, Featherston (Lot 1 DP 66586) Dripline: Lyon Street Road Reserve (adjacent to 60 Lyon Street)	64
Ts07f	Totara (Podocarpus totara)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts07g	Totara (Podocarpus totara)	60 Lyon Street, Featherston (Lot 1 DP 66586)	64
Ts08	English Oak (Quercus robur)	Trunk: 111 Revans Street, Featherston (Lots 37 38 39 Deeds Plan 4825-29) Dripline: 29 Waite Street, Featherston (Lot 1 DP 83371)	65
Ts09a	Sweet Chestnut (Castanea sativa)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts09b	Montpellier Maple (Acer monspessulanum)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts09c	Native numerous (Group)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road	63

		Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	
Ts09d	Douglas Fir (Pseudotsuga menziesii)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts09e	Deodar Cedar (Cedrus deodara)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts09f	Turkey Oak (Quercus cerris)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts09g	Turkey Oak (Quercus cerris)	78 Underhill Road/ 73-75 Johnston Street, Featherston Underhill Road Character Area, Featherston, (Secs 95 102 Featherston Suburban SO 1056)	63
Ts10a	Totara (Podocarpus totara)	79 Underhill Road, Featherston (Lot 14 DP 46642)	63
Ts10b	Kauri (Agathis australis)	79 Underhill Road, Featherston (Lot 14 DP 46642)	63
Ts10c	Black Maire (Nestegis cunninghamii)	Trunk: 79 Underhill Road, Featherston (Lot 14 DP 46642) Dripline: 4A Kereru Grove, Featherston (Lot 2 DP 522290)	63
Ts10d	Matai (Prumnopitys taxifolia)	79 Underhill Road, Featherston (Lot 14 DP 46642)	63
Ts10e	Kauri (Agathis australis)	79 Underhill Road, Featherston (Lot 14 DP 46642)	63
Ts10f	Turepo Milk Tree (Streblus heterophyllus)	79 Underhill Road, Featherston (Lot 14 DP 46642)	63
Ts11	Totara (Podocarpus totara)	Trunk: 87 Underhill Road, Featherston (Lot 1 DP 394595) Dripline: 87A Underhill Road, Featherston (Lot 2 DP 394595)	63
Ts12	Native numerous (Group: Totara (28) (Podocarpus totara) Matai (17) (Prumnopitys taxifolia)	96 Underhill Road (Barr Brown Reserve), Featherston (Lot 31 DP 46642)	63
Ts13a	Totara (Podocarpus totara)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18

Ts13b	Rimu (Dacrydium cupressinum)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
Ts13c	Black Maire (<i>Nestegis cunninghamii</i>) (2)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
Ts13d	Kahikatea (Dacrycarpus dacrydioides)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
<u>Ts13e</u>	Matai (Prumnopitys taxifolia)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
<u>Ts13f</u>	Totara (Podocarpus totara)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
<u>Ts13g</u>	Matai (Prumnopitys taxifolia)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
<u>Ts13h</u>	Matai (Prumnopitys taxifolia)	391 Underhill Road, Featherston (Lot 1 DP 80348)	18
Ts14a	Purple Beech (Fagus sylvatica 'Purpurea')	Trunk: 31 Wakefield Street, Featherston (Part Sec 115 Town of Featherston) Dripline: 27 Wakefield Street, Featherston (Part Section 113 Town of Featherston)	63, 64
Ts14b	Norfolk Island Pine (Araucaria heterophylla)	Trunk: Wakefield Street Road reserve (adjacent to 31 Wakefield Street) Dripline: 31 Wakefield Street, Featherston (Part Sec 115 Town of Featherston)	63, 64
Ts14c	Lawson Cypress (Chamaecyparis lawsoniana)	Trunk: Wakefield Street Road reserve (adjacent to 31 Wakefield Street) Dripline: 31 Wakefield Street, Featherston (Part Sec 115 Town of Featherston)	63, 64
Ts15	Native numerous (Group: all native vegetation that stands within the lot including Paratrophis banksii, Corynocarpus laevigatus, , Dacrycarpus dacrydioides, Podocarpus totara)	605 Western Lake Road, Pigeon Bush, Featherston (Lot 2 DP 89479), (Lot 2 DP 351055)	18
Ts16	Karaka (Corynocarpus laevigatus)	1280 Western Lake Road, Praire Holm, Featherston (Part Sec 80 Western Lake District)	24
Ts17	Matai (Prumnopitys taxifolia)	2232 Western Lake Road, Wairongomai, rural Featherston (Pt secs 46 47 BLK Xiii Wairarapa SD)	23
Ts18a	Giant Sequoia (Sequoiadendron giganteum)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23

Ts18b	Giant Sequoia (Sequoiadendron giganteum)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18c	Coastal Redwood (Sequoia sempervirens)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18d	Norfolk Island Pine (Araucaria heterophylla)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18e	Norfolk Island Pine (Araucaria heterophylla)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18f	Monterey Pine (Pinus radiata)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18g	Sweet Chestnut (Castanea sativa)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18h	Maritime Pine (Pinus pinaster)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18i	English Elm (Ulmus procera)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23
Ts18j	Bunya Bunya (<i>Araucaria bidwillii</i>)	2292-2388 Western Lake Road, Wairongomai, rural Featherston (Part Sec 19 Western Lake District SO 10683)	23

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
		Featherston		
Ts053	Eucalyptus obliqua	Waiorongomai, Western Lake Road (Part Sec 19 Western Lake District SO 10683)	23	No tree found
Ts056	Silver birch (Betula pendula)	Johnston Street, Featherston (Lot 1 DP 11388)	64, 68	Not worthy of protection, short lived species, approaching useful life expectancy
Ts056	Silver birch (Betula pendula)	Johnston Street, Featherston (Lot 1 DP 11388)	64, 69	Removed
Ts056	Silver birch (Betula pendula)	Johnston Street, Featherston (Lot 1 DP 11388)	64, 70	Removed
Ts061	Tasmanian bluegum (Eucalyptus globulus)	70a Woodward Street, Featherston (Lot 2 DP 65386)	64	Fails to meet threshold
Ts066	Elm (Ulmus sp) (2)	Langs Pharmacy, 54 Fitzherbert Street, Featherston (Lot 6 Deeds Plan 134)	64	Not worthy of protection, heavily sided, number of structural issues, considerable seasonal nuisance (new development taking place adjacent to trees in neighbouring property (shading, encroachment, suckering)

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
Ts070	Eucalyptus pulchella	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Not worthy of protection, suppressed small canopy, moderate form adjacent to building.
Ts070	Beech (Fagus sylvatica)	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Not worthy of protection, decay on upper side of most of the limbs, low vigour
Ts070	Ulmus sp.	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Not worthy of protection, invasive nature, sucker growth through reestablishing bush margin
Ts070	Quercus cerris	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Not worthy of protection, significant stem failure
Ts070	Castanea sativa	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Not worthy of protection, coppiced specimen
Ts070	Pinus radiata	75 Johnston street, Featherston Underhill Road Character Area, Underhill Road, Featherston (Sec 95 & Pt Sec 102 Featherston Suburban SO 10563)	63	Located in a protective native area delist due to invasive habit - seed dispersal into protected bush area

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
Ts075	Chinese windmil palm (Trachycarpus fortunei)	160 Fitzherbert Street, Featherston (Lot 1 DP 50757)		Not worthy of protection, small specimen of no notable value
Ts076	Magnolia grandiflora	29 Waite Street, Featherston (Lot 1DP 83371)	65	Removed

Plan change # 10 key (how to read this proposed plan change)

Table 1.4 (South Wairarapa District) is broken into 2 parts.

- Table 1.4, Part 1 = proposed Notable Tree register (see note below)
- Table 1.4, Part 2 = trees proposed to be removed from the existing Notable Tree register

New tree = Ts 00

Appendix 1.4 Notable Trees (South Wairarapa District)

Table 1.4, Part 1 (Greytown) = *proposed* Notable Tree register (new tree = <u>Ts 00</u>)

Notable Tree(s) Reference Number	Tree Type (common name, botanical name)	Property (Location and allotment details)	Map Number			
	Greytown					
Ts19	English Oak (Quercus robur)	Trunk: 2 Clara Anne Grove, Greytown (Lot 2 DP 399141) Dripline: 1 Clara Anne Grove, Greytown (Lot 3 DP 67142) Dripline: 41E Reading Street, Greytown (Lot 1 DP 313478) Dripline: 41D Reading Street, Greytown (Lot 2 DP 313478)	59			
<u>Ts20a</u>	English Oak (Quercus robur) (77)	Trunk: Cotter Street - Woodside Road, Greytown Rail Trail, Greytown (Lot 1 DP 30169) Dripline: Greytown Dogpark, Cotter Street, Greytown (Lot 25 DP 455345)	60			
<u>Ts20b</u>	English Oak (Quercus robur) (18)	Cotter Street - Woodside Road, Greytown Rail Trail, Greytown (Greytown Rail Trail Road Reserve)	60			
Ts21	English Oak (Quercus robur)	Trunk: 7A Cotter Street, Greytown (Lot 2 DP 399141) Dripline 7 Cotter Street, Greytown (Lot 1 DP 399141); 9 Cotter Street, Greytown (Lot 1 DP 53797)	60			
Ts22	Peruvian Peppercorn Tree (Schinus molle)	Trunk: 21 East Street, Greytown (Lot 6 DP 22662) Dripline:19 East Street, Greytown (Lot 7 DP 22662); East Street Road Reserve (adjacent to 21 East Street, Greytown)	59			
Ts23	English Oak (Quercus robur)	Trunk: 73-99 East Street, Greytown Primary School, Greytown (Part Sec 29 Greytown Tn Belt) Dripline: East Street Road Reserve, Greytown	61			
Ts24	Red and Pin Oaks; northern side of Avenue (Quercus rubra and Q. palustris) (Row of 10)	Trunk: 190-194 East Street, Old Hospital, Greytown (Pt Reserve of Greytown) Dripline: Hospital Road Road Reserve (adjacent to 190-194 East Street, Greytown)	60			
<u>Ts25a</u>	Canary Island Palm (<i>Phoenix</i> canariensis)	193 East Street, Greytown (Lot 6 DP 461648)	60			

Ts25b	Canany Island Dalm (Phoenix	193 East Street, Greytown (Lot 6 DP	60
18250	Canary Island Palm (<i>Phoenix</i> canariensis)	461648)	60
Ts26	Wych Elm (Ulmus glabra "horizontalis")	Trunk: 195 East Street, Old Hospital Grounds, Greytown (Lot 5 DP 461648) Dripline: 197 East Street, Greytown (Lot 4 DP 461648)	60
Ts27a	Common Lime (Tilia x europaea)	197 East Street, Old Hospital Grounds, Greytown (Lot 1 DP 461648)	60
Ts27a	Wych Elm (Ulmus glabra "horizontalis")	Trunk: 197 East Street, Old Hospital Grounds, Greytown (Lot 4 DP 461648) Dripline: 199 East Street, Greytown (Lot 3 DP 461648)	60
Ts28	Red and Pin Oaks; southern side of avenue (Quercus rubra and Q. palustris) (Row of 9)	Trunk: 2 Hospital Road, Old Hospital, Greytown (Lot 1 DP 405286) Dripline: Hospital Road Road Reserve (adjacent to 2 Hospital Road, Greytown)	60
<u>Ts29</u>	Totara (Podocarpus totara)	Trunk: 32 Humphries Street, Greytown (Lot 1 DP 21677) Dripline: 8 Awhina Drive, Greytown (Lot 1 DP 329641)	60
Ts30	English Oak (Quercus robur)	34 Humphries Street, Greytown (Lot 2 DP 61702) Dripline: Humphries Street Road Reserve (adjacent to 34 Humphries Street)	60
Ts31a	Tulip Tree (Liriodendron tulipifera)	Trunk: Jellicoe Street Road Reserve (adjacent to 53 Reading Street/ 2-8 Jellicoe Street) Dripline: 53 Reading Street/ 2-8 Jellicoe Street (Lot 2 DP 398828)	59
Ts31b	Tree Photinia (Photinia serratifolia)	Trunk: Jellicoe Street Road Reserve (adjacent to 53 Reading Street/ 2-8 Jellicoe Street) Dripline: 53 Reading Street/ 2-8 Jellicoe Street (Lot 2 DP 398828)	59
Ts31c	Horse Chestnut (Aesculus hippocastanum)	Trunk: Jellicoe Street Road Reserve (adjacent to 10 Jellicoe Street) Dripline: 10 Jellicoe Street (Lot 3 DP 398828)	59
Ts32	Pin Oak (Quercus palustris)	Trunk: 17 Jellicoe Street, Greytown (Lot 1 DP 71160) Dripline: 15A Jellicoe Street, Greytown (Lot 4 DP 30632) Dripline: 5 Clara Anne Grove, Greytown (Lot 7 DP 67142)	59
<u>Ts33</u>	English Oak (Quercus robur)	Trunk: 31 Kempton Street, Greytown(Lot 2 DP 57466) Dripline:	60

		Collier Reserve, West Street, Greytown (Lot 9-11 DP 14965)	
<u>Ts34</u>	Common Ash (Fraxinus excelsior)	Trunk: 47 Kempton Street, Greytown (Lot 5 65594) Dripline: 45 Kempton Street, Greytown (Lot 4 65594)	60
Ts35a	Common Lime (<i>Tilia x europaea</i>) (Row of 55)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35b	London Plane (<i>Platanus</i> × <i>acerifolia</i>) (Row of 20)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35c	Sycamore (Acer pseudoplatanus)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35d	Purple Beech (Fagus sylvatica 'Purpurea') (5)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35e	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35f	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35g	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35h	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35i	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35j	Common Beech (Fagus sylvatica)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35k	Common Beech (Fagus sylvatica)	Trunk: 11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement) Dripline: 6B James Kidd Place, Greytown (Lot 12 DP 482633)	59
Ts35l	English Elm (<i>Ulmus procera</i>) (Row of 55)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59
Ts35m	Common Beech (Fagus sylvatica) (5)	11-55 Kuratawhiti Street, Soldiers Memorial Park, Greytown (Part Sec 4 Greytown Small Farm Settlement)	59

Ts36a	Common Beech (Fagus sylvatica)	Trunk: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Dripline: 42 Kuratawhiti Street, Greytown (Lot 2 DP 83851) Dripline: 46 Kuratawhiti Street, Greytown (Pt Section Greytown SM FM Settlement)	59
Ts36b	Common Ash (Fraxinus excelsior)	Trunk: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Dripline: 42 Kuratawhiti Street, Greytown (Lot 2 DP 83851) Dripline: 46 Kuratawhiti Street, Greytown (Pt Section Greytown SM FM Settlement)	59
Ts36c	Common Lime (<i>Tilia x europaea</i>)	Trunk: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Dripline: 42 Kuratawhiti Street, Greytown (Lot 2 DP 83851)	59
Ts36d	Common Ash (Fraxinus excelsior)	Trunk: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Dripline: 42 Kuratawhiti Street, Greytown (Lot 2 DP 83851)	59
Ts36e	Common Beech (Fagus sylvatica)	Trunk: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Dripline: 42 Kuratawhiti Street, Greytown (Lot 2 DP 83851) Dripline: 46 Kuratawhiti Street, Greytown (Pt Section Greytown SM FM Settlement)	59
Ts36f	Common Lime (Tilia x europaea)	Dripline: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Trunk: Kuratawhiti Street Road Reserve, Greytown	59
Ts36g	Tree Photinia (<i>Photinia serratifolia</i>)	Dripline: 40 Kuratawhiti Street, Greytown (Lot 1 DP 83851) Trunk: Kuratawhiti Street Road Reserve, Greytown	59
Ts37	Common Lime (Tilia x europaea)	42 Kuratawhiti Street, Greytown (Lot 2 DP 83851)	59
<u>Ts38</u>	English Oak (Quercus robur)	Trunk: 58B Kuratawhiti Street, Greytown (Lot 1 DP 34617) Dripline: 58A Kuratawhiti Street, Greytown (Lot 2 DP 34617)	60
<u>Ts39a</u>	Totara (Podocarpus totara)	93 Kuratawhiti Street, Greytown (Lot 3 DP 501795)	59
<u>Ts39b</u>	Lawson Cypress (Chamaecyparis lawsoniana)	93 Kuratawhiti Street, Greytown (Lot 3 DP 501795)	59
<u>Ts39c</u>	Coastal Redwood (Sequoia sempervirens)	93 Kuratawhiti Street, Greytown (Lot 3 DP 501795)	59

Iusitanica 3 DP 501795	58
Totara (Podocarpus totara) 209 Kuratawhiti Street, Greytown (Lot 1 DP 26094)	
Totara (Podocarpus totara) Dripline: 209 Kuratawhiti Street, Greytown (Lot 1 DP 26094) Trunk: Kuratawhiti Street Road Reserve, Greytown (adjacent to 209 Kuratawhiti Street)	59
Greytown (Lot 1 DP 26094) Trunk: Kuratawhiti Street Road Reserve, Greytown (adjacent to 209 Kuratawhiti Street) Totara (Podocarpus totara) Dripline: 209 Kuratawhiti Street, Greytown (Lot 1 DP 26094) Trunk: Kuratawhiti Street Road Reserve, Greytown (adjacent to 209 Kuratawhiti Street) Ts43 Hard Beech (Fuscospora solandri) Trunk: 22 Mahupuku Street, Greytown (Lot 4 DP 492 569) Dripline: 33 McMaster Street, Greytown (Lot 3 DP 492569) Dripline: Mahupuku Street Road Reserve,	59
Greytown (Lot 1 DP 26094) Trunk: Kuratawhiti Street Road Reserve, Greytown (adjacent to 209 Kuratawhiti Street) Ts43 Hard Beech (Fuscospora solandri) Trunk: 22 Mahupuku Street, Greytown (Lot 4 DP 492 569) Dripline: 33 McMaster Street, Greytown (Lot 3 DP 492569) Dripline: Mahupuku Street Road Reserve,	59
Greytown (Lot 4 DP 492 569) Dripline: 33 McMaster Street, Greytown (Lot 3 DP 492569) Dripline: Mahupuku Street Road Reserve,	59
Street/ 33 McMaster Street)	61
Ts44 English Elm (<i>Ulmus procera</i>) Trunk: 12A Main Street, Greytown (Part Lot 4 DP 17732) Dripline: 16 Main Street, Greytown (Pt Section 8 Tn of Greytown) Dripline: Main Street Road Reserve, Greytown (adjacent to Pt Lot 4 DP 17732)	59
Ts45a English Elm (<i>Ulmus procera</i>) Trunk: 16 Main Street, Greytown (Part Sec 8 Town of Greytown) Dripline: Main Street Road Reserve, Greytown (adjacent to 16 Main Street)	59
Ts45b English Oak (<i>Quercus robur</i>) Trunk: 16 Main Street, Greytown (Part Sec 8 Town of Greytown) Dripline: Main Street Road Reserve, Greytown (adjacent to 16 Main Street)	59
Ts46a English Oak (<i>Quercus robur</i>) Trunk: 48 – 50 Main Street, Arbor House, Greytown (Lot 1 DP 10779) Dripline: Main Street Road Reserve, Greytown (adjacent to 48-50 Main Street)_	59
Ts46b Camperdown elm (<i>Ulmus glabra</i> 48 – 50 Main Street, Arbor House, Greytown (Lot 1 DP 10779)	

Ts47	Common Walnut (Juglans regia)	74-78 Main Street, Greytown (Lot 1 DP 491776)	60
Ts48a	Common Lime (<i>Tilia x europaea</i>)	Trunk: 75 Main Street (beside BNZ building, Reserve land), Greytown (Lot 1 DP 76572) Dripline: 73 Main Street (Pt Lot 1 DP 13517) Dripline: 73 Main Street (Pt Lot 3 DP 13517) Dripline: Main Street Road Reserve, Greytown (adjcacent to 73-75 Main Street)	59
Ts48b	Common Lime (Tilia x europaea)	75 Main Street (beside BNZ building, Reserve land), Greytown (Lot 1 DP 76572) Dripline: Main Street Road Reserve, Greytown (adjcacent to 75 Main Street)	59
<u>Ts49</u>	Pin Oak (<i>Quercus palustris</i>) (Group of 5)	Trunk: 83-87 Main Street, Greytown (Lots 1-4, Deeds 271) Dripline: McMaster Street Road Reserve, Greytown (adjacent to 83-87 Main Street) Dripline: Main Street Road Reserve, Greytown (adjacent to 83-87 Main Street)	59
<u>Ts50</u>	Pin Oak (<i>Quercus palustris</i>) (Group of 5)	Trunk: 89-91 Main Street, Greytown (Lots 12-15, Deeds 271) Trunk: McMaster Street Road Reserve, Greytown (adjacent to 89-91 Main Street) Dripline: Main Street Road Reserve, Greytown (adjacent to 89-91 Main Street) Dripline McMaster Street Road Reserve (adjacent to 89-91 Main Street)	59
Ts51	Canary Island palm (<i>Phoenix</i> canariensis) (Group of 3)	115-117 Main Street, Old Greytown Public Library grounds, Stella Bull Park, Greytown (Lot 1 DP 118555)	59
Ts52a	Magnolia (Magnolia grandiflora)	129 Main Street, Greytown (Pt Sec 55 Tn of Greytown)	60, 61
<u>Ts52b</u>	Camellia (Camellia sp.)	129 Main Street, Greytown (Pt Sec 55 Tn of Greytown)	60, 61
Ts53a	English Oak (Quercus robur) (Row of 6)	Trunk: 133-137 Main Street, St Lukes Church Greytown (Lot 2 DP 86779) Dripline: Church Street Road Reserve, Greytown (adjacent to 133- 137 Main Street, Greytown)	61
Ts53b	Mountain Ash (Eucalyptus regnans)	Trunk: 133-137 Main Street, St Lukes Churchyard, Church Street, Greytown (Lot 2 DP 86779) Dripline: Main Street Road Reserve/ Church Street Road Reserve, Greytown (adjacent to 115-117 Main Street)	61

<u>Ts55</u>	Horse Chestnut (Aesculus hippocastanum)	163D Main Street, Greytown (Pt Sec 73 Tn of Greytown) Dripline: Main Street Road Reserve, Greytown (adjacent to 163D Main Street) Dripline: 165 Main Street, Greytown (Lot 2 DP 24040) Dripline: 163A Main Street (Lot 2 DP 429753) Dripline: 163 Main Street (Lot 1 DP 429753) Trunk:169-173 Main	60
1856	Common Ash (Fraxinus excelsior)	Street, Cobblestone Museum, Greytown (Lot 8 DP 31241) Dripline: 175-177 Main Street, Greytown (Lots 1-7 DP 31241)	60
<u>Ts57</u>	Liquidambar (Liquidamber styraciflua)	Trunk: 174 Main Street, (Part Section 68 TN of Greytown) Dripline: Main Street Road Reserve, Greytown (adjacent to 174 Main Street)	60
Ts58	Douglas Fir (<i>Pseudotsuga menziesii</i>)	Trunk: 200 Main Street, Greytown (Lot 1 DP 719) Dripline: Main Street Road Reserve, Greytown (adjacent to 200 Main Street, Greytown)	60
Ts59	Deodar Cedar (Cedrus deodara)	Trunk: 18 Mole Street, Greytown (Lot 1 DP 89116) Dripline: Mole Street Road Reserve, Greytown (adjacent to 18 Mole Street)	59
Ts60a	Messmate (Eucalyptus obliqua)	42 Moroa Road, The Cottage, Greytown (Lot 1 DP 25852)	19
Ts60b	English Oak (Quercus robur)	42 Moroa Road, The Cottage, Greytown (Lot 1 DP 25852)	19
Ts61	Pear (Pyrus sp.)	89 No. 1 Line, Tauherenikau, Greytown (Lot 24 DP 991)	19
Ts62a	Horse Chestnut (Aesculus hippocastanum)	191 No 1 Line, Lowlands, Tauherenikau, Greytown (Lot 2 DP 22068)	19
Ts62b	Red Oak (Quercus rubra)	191 No 1 Line, Lowlands, Tauherenikau, Greytown (Lot 2 DP 22068)	19
Ts62c	Tasmanian Bluegum (Eucalyptus globulus)	191 No 1 Line, Lowlands, Tauherenikau, Greytown (Lot 2 DP 22068)	19
Ts62d	Tasmanian Bluegum (Eucalyptus globulus)	191 No 1 Line, Lowlands, Tauherenikau, Greytown (Lot 2 DP 22068)	19
Ts63a	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59

<u>Ts63b</u>	Large Spindle Bush (Euonymus lucidus)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63c	Matai (Prumnopitys taxifolia)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63d	Matai (Prumnopitys taxifolia)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63e	Matai (Prumnopitys taxifolia)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63f	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63g	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63h	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63i	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63j	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63k	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63l	Totara (Podocarpus totara)	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts63m	Native numerous (Group: Totara - Podocarpus totara (40), Matai (Prumnopitys taxifolia) (4), understory mature Titoki (Alectryon excelsus) and a white maire (Nestegis lanceolate))	20 Orchard Road, Greytown (Lot 2 DP 480553)	59
Ts64a	Maritime Pine (Pinus pinaster)	Trunk: SH 2 Road Reserve (adjacent to 2 Bidwills Cuttting Road, Greytown) Dripline: 2 Bidwills Cutting Road (Lot 1 DP 52118)	60
Ts64b	Mexican Cypress (Cupressus lusitanica)	Trunk: SH 2 Road Reserve (adjacent to Greytown Substation) Dripline: Greytown Substation (Lot 1 Deposited Plan 63604)	
Ts64c	Monterey Pine (Pinus radiata)	Trunk: SH 2 Road Reserve (adjacent to Greytown Substation) Dripline: Greytown Substation (Lot 1 Deposited Plan 63604) Dripline: 14 Bidwills Cutting Road, Greytown (Lot 1 DP 419976)	60
Ts64d	Maritime Pine (Pinus pinaster)	Trunk: SH 2 Road Reserve (adjacent to 14 Bidwills Cutting Road, Greytown) Dripline: 14 Bidwills	60

		Cutting Road, Greytown (Lot 1 DP 419976)	
Ts64e	Monterey Pine (Pinus radiata)	Trunk: SH 2 Road Reserve (adjacent to 14 Bidwills Cutting Road, Greytown) Dripline: 14 Bidwills Cutting Road, Greytown (Lot 1 DP 419976)	60
Ts64f	Monterey Pine (Pinus radiata)	Trunk: SH 2 Road Reserve (adjacent to 14 Bidwills Cutting Road, Greytown) Dripline: 14 Bidwills Cutting Road, Greytown (Lot 1 DP 419976)	60
Ts65a	Totara (Podocarpus totara)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65b	Matai (Prumnopitys taxifolia)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65c	Common Lime (Tilia x europaea)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65d	Common Lime (Tilia x europaea)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65e	Common Lime (Tilia x europaea)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65f	English Oak (Quercus robur)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65g	English Oak (Quercus robur)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65h	London plane (Platanus x acerifolia)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65i	London plane (Platanus x acerifolia)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65j	Japanese Maple (Acer palmatum 'Purpureum')	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65k	Horse Chestnut (Aesculus hippocastanum)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19

Ts65l	Hiba (Thujopsis dolabrata)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3	19
		DP 346532)	
Ts65m	Kahikatea (Dacrycarpus dacrydioides)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
Ts65n	Totara (Podocarpus totara)	1498 SH 2, Tauherenikau Racecourse, rural Greytown (Lot 3 DP 346532)	19
<u>Ts66</u>	Totara (Podocarpus totara)/ Kahikatea (Dacrycarpus dacrydioides)	2466 SH 2, Greytown (Lot 3 DP 391939)	58
<u>Ts67</u>	Coastal Redwood (Sequoia sempervirens)	Dripline: 53 Udy Street, Greytown (Lot 14 DP 82671) Trunk: Udy Street Road Reserve, Greytown (adjacent to 53 Udy Street)	59
Ts68a	Pin Oak (Quercus palustris)	Trunk: 31 West Street, Greytown (Part Sec 16 Town of Greytown) Dripline: West Street Road Reserve, Greytown (adjacent to 31 West Street)	59
Ts68b	Purple Beech (Fagus sylvatica 'Purpurea')	Trunk: 31 West Street, Greytown (Part Sec 16 Town of Greytown) Dripline: West Street Road Reserve, Greytown (adjacent to 31 West Street)	59
<u>Ts68c</u>	Pin Oak (Quercus palustris)	Trunk: 31 West Street, Greytown (Part Sec 16 Town of Greytown) Dripline: 32 Main Street, Greytown (Pt Sec 16 Tn of Greytown) Dripline: 30 Main Street, Greytown (Lot 1 DP 315591)	59
Ts69	English Oak (Quercus robur)	Dripline: 86 West Street, Greytown (Lot 1 DP 17731) Trunk: West Street Road Reserve, Greytown (adjacent to 86)	59
Ts70	English Oak (Quercus robur)	Dripline: 100 West Street, Greytown (Lot 1 DP 64859) Trunk: West Street Road Reserve, Greytown (adjacent to 100 West Street)	59
Ts71	Irish Yew (Taxus baccat' fastigiata)	Trunk: 106 West Street, Greytown (Lot 2 DP 70079) Dripline: 108 West Street, Greytown (Lot 1 DP 70079	59
Ts72a	Purple Beech (Fagus sylvatica 'Purpurea')	Trunk: 134 West Street, Greytown (Lot 21 DP 16344) Dripline: 132 West Street, Greytown (Lot 2 DP 68967)	60
Ts72b	Douglas Fir (Pseudotsuga menziesii)	Dripline: 134 West Street, Greytown (Lot 21 DP 16344) Trunk: 136 West	60

		Street, Greytown (Pt Lot 17 Deeds Plan 45)	
Ts73a	English Oak (Quercus robur)	Trunk: 162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420) Dripline: 29 Kempton Street, Greytown (Lot 2 DP 56989) Dripline: 31 Kempton Street, Greytown (Lot 2 DP 57466)	60
Ts73b	Common Ash (Fraxinus excelsior)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73c	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73d	Common Ash (Fraxinus excelsior)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73e	Common Ash (Fraxinus excelsior)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73f	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73g	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73h	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73i	Common Ash (Fraxinus excelsior)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73j	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73k	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73l	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73m	Common Ash (Fraxinus excelsior)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73n	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73o	Horse Chestnut (Aesculus hippocastanum)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
Ts73p	English Oak (Quercus robur)	162 West Street, Collier Reserve, Greytown (Lot 3 DP 43420)	60
<u>Ts74a</u>	Pear (Pyrus sp. 'Perry')	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74b</u>	Kowhai (Sophora microphylla)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58

<u>Ts74c</u>	Kowhai (Sophora microphylla)	60 Wilkie Street, Kahikatea Gardens,	58
		Greytown (Lot 2 DP 85329)	
<u>Ts74d</u>	Totara (<i>Podocarpus totara</i>)(Group of 5)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74e</u>	Totara (Podocarpus totara)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74f</u>	Totara (Podocarpus totara)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74g</u>	Titoki (<i>Alectryon excelsus</i>) (Group of 3)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74h</u>	Totara (<i>Podocarpus totara</i>)(Group of 4)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74i</u>	Totara (<i>Podocarpus totara</i>)(Group of 6)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74j</u>	Kahikatea (Dacrycarpus dacrydioides)	60 Wilkie Street, Kahikatea Gardens, Greytown (Lot 2 DP 85329)	58
<u>Ts74k</u>	Kahikatea (Dacrycarpus dacrydioides)	Dripline: 60 Wilkie Street, Greytown (Lot 2 DP 85329) Trunk: Wilkie Street Road Reserve, Greytown (adjacent to 60 Wilkie Street)	58
<u>Ts75</u>	English Oak (Quercus robur) (Row of 6)	Trunks: 21 Wood Street, Greytown (Lot 2 DP 459259) Dripline: Wood Street Road Reserve, Greytown (adjacent to 21 Wood Street) Dripline: 17C Wood Street, Greytown (Lot 2 DP 361982) Dripline: 17B Wood Street, Greytown (Lot 3 DP 361982)	59
Ts76	English Elm (<i>Ulmus procera</i>) (Row of 5)	Dripline: 23-25 Wood Street, Greytown (Lot 1 DP 459259) Trunk: Wood Street Road Reserve, Greytown (adjacent to 23-25 Wood Street)	59
Ts77a	English Oak (Quercus robur)	35 Wood Street, Greytown (Lot 9 Deeds 310)	59
<u>Ts77b</u>	Rhododendron (Rhododendron sp.)	35 Wood Street, Greytown (Lot 9 Deeds 310)	59
<u>Ts77c</u>	Rhododendron (Rhododendron sp.)	35 Wood Street, Greytown (Lot 9 Deeds 310)	59
<u>Ts77d</u>	Rhododendron (Rhododendron sp.)	35 Wood Street, Greytown (Lot 9 Deeds 310)	59
<u>Ts77e</u>	Kauri (Agathis australis)	35 Wood Street, Greytown (Lot 9 Deeds 310)	59
<u>Ts78</u>	Coastal Redwood (Sequoia sempervirens)	47-49 Wood Street Greytown (Lot 1 DP 303922)	59

APPENDIX 1 - SCHEDULE OF NATURAL & HISTORIC HERITAGE SITES

Ts79	Liquidambar (Liquidamber styraciflua)	Dripline: 54 Wood Street, Greytown	60
		(Lot 1 DP 32333) Trunk: Wood Street	
		Road Reserve, Greytown (adjacent to	
		54 Wood Street) Dripline: 52 Wood	
		Street, Greytown (Lot 2 DP 32333)	
		,	

Table 1.4, Part 2 (Greytown) = trees proposed to be *removed* from the existing Notable Tree register

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment		
	Greytown					
Ts001	Common Ash (Fraxinus excelsior)	17B Jellicoe Street, Greytown (Lot 3 DP 71160)	59	No tree present		
Ts001	Liquidambar (Liquidamber styraciflua)	17 Jellicoe Street, Greytown (Lot 1 DP71160)	59	No tree present		
Ts006	Bunya bunya (Araucaria bidwillii)	200 Main Street, Greytown (Lot 1 DP 719)	61	Significant buttress rot and chlorotic canopy - indicating irreversible decline. Has been removed with a resource consent.		
Ts012	Totara (Podocarpus totara)	16 Main Street, Greytown (Part Sec 8 Town of Greytown)	59	No tree present		
Ts012	Evergreen magnolia (Magnolia grandiflora)	16 Main Street, Greytown (Part Sec 8 Town of Greytown)	59	No tree present		
Ts018	Eucalyptus	15B Udy Street, Greytown (Lot 2 DP 308336)	59	No tree present		
Ts022	Lime (Tilia x europaea)	206 Main Street, Greytown (Lot 4 DP 1213)	60	No tree present		
Ts024	Quercus palustris (last tree R side of Ave)	Cnr of Hospital Grounds, East Street, Greytown (Lot 1 DP 405286 90535)	60	Located at the wrong address, tree stands as part of an avenue of American oaks which are heritage (Hs11), so this tree has been added to that listing.		

WAIRARAPA COMBINED DISTRICT PLAN

PART D – APPENDICES

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
Ts024	Picea sp (Buchanan Wing),	Hospital Grounds, East Street, Greytown (Lot 1 DP 90535)	60	No tree present
Ts025	Fraxinus excelsior	188 Main Road, Greytown (Lot 1 DP 342812)	60	No tree present
Ts035	Mountain ash (Eucalyptus regnans)	Greytown Primary School, East Street, Greytown (Part Sec 31 Greytown Belt)	61	Removed
Ts035	Mountain ash (Eucalyptus regnans)	Greytown Primary School, East Street, Greytown (Part Sec 31 Greytown Belt)	61	No tree present
Ts035	Mountain ash (Eucalyptus regnans)	Greytown Primary School, East Street, Greytown (Part Sec 31 Greytown Belt)	61	No tree present
Ts039	Quercus robur	54 Wood Street, Greytown (Lot 1 DP 32333)	59	No tree present
Ts041	Quercus robur	76B West Street, Greytown (Lot 2 DP 70711)	59	No tree present
Ts043	Fagus sylvatica purpurea	46 Kuratawhiti Street, Greytown (Part Sec 5 of Greytown Small Farm Settlement	59	Removed
Ts044	Horse chestnut (Aesculus hippocastanum)	40 Kuratawhiti Street, Greytown (Lot 1 DP 83851)	59	Fails to meet threshold

Plan change # 10 key (how to read this proposed plan change)

Table 1.4 (South Wairarapa District) is broken into 2 parts.

- Table 1.4, Part 1 = proposed Notable Tree register (see note below)
- Table 1.4, Part 2 = trees proposed to be removed from the existing Notable Tree register

New tree = Ts 00

Appendix 1.4 Notable Trees (South Wairarapa District)

Table 1.4, Part 1 (Martinborough) = *proposed* Notable Tree register (new tree = <u>Ts 00</u>)

Notable Tree(s) Reference Number	Tree Type (common name, botanical name)	Property (location and allotment details)	Map Number		
	Martinborough				
Ts80	English oak (Quercus robur)	Trunk: 29 Broadway Street, Martinborough (Lot 1 DP 426707) Dripline: Broadway Street Road Reserve (adjacent to 29 Broadway Street)	68		
Ts81a	English oak (Quercus robur)	Centennial Park, Martinborough (Pt Lot 655 DP 249)	68		
Ts81b	Golden Elm (Ulmus procera 'Louis Van Houtte'	Centennial Park, Martinborough (Pt Lot 655 DP 249)	68		
Ts81c	Golden Totara (Podocarpus totara 'Aurea')	Centennial Park, Martinborough (Pt Lot 655 DP 249)	68		
Ts82	Kahikatea (Dacrycarpus dacrydioides)	73 Diversion Road, Martinborough (Pt Lot 2 DP 6881 Sec 33 Pt Sec 92 Moroa)	18, 19, 24, 25		
Ts83	Deodar Cedar (Cedrus deodara) (Row/ hedge of 19)	Trunk: 1-9 Dublin Street, Martinborough Swimming Pool, Martinborough (Lot 663 DP 249) Dripline: Dublin Street Road Reserve (adjacent to 1-9 Dublin Street)	68		
Ts84a	Golden Elm (Ulmus procera 'Louis Van Houtte'	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 662 DP 249)	68		
Ts84b	Red Oak (Quercus rubra)	Trunk: 10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 663 DP 249) Dripline: 10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 662 DP 249)	68		
Ts85a	Claret Ash (Fraxinus angustifolia subsp. oxycarpa)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68		
Ts85b	Tree of Heaven (Ailanthus altissima)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68		

Ts85c	Pin Oak (Quercus palustris)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85d	English oak (Quercus robur)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85e	Northern Pin Oak (Quercus ellipsoidalis)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85f	English oak (Quercus robur)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85g	Northern Pin Oak (Quercus ellipsoidalis)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85h	Northern Pin Oak (Quercus ellipsoidalis)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85i	English oak (Quercus robur)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85j	English oak (Quercus robur)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85k	Northern Pin Oak (Quercus ellipsoidalis)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85l	Northern Pin Oak (Quercus ellipsoidalis)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85m	English oak (Quercus robur)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts85n	Turkey Oak (Quercus cerris)	10 Dublin Street, Martinborough Holiday Park, Martinborough (Lot 1 DP 4545)	68
Ts86a	Large-leaved Lime (Tilia platyphyllos)	14-16 Dublin Street, Martinborough School, Martinborough (Pt Lot 67 and 68 Deeds Plan 24)	68
Ts86b	Pin Oak (Quercus palustris)	14-16 Dublin Street, Martinborough School, Martinborough (Pt Lot 67 and 68 Deeds Plan 24)	68
<u>Ts86c</u>	Himalayan Oak (Quercus leucotrichophora) (Row of 11)	14-16 Dublin Street, Martinborough School, Martinborough (Pt Lot 67 and 68 Deeds Plan 24)	68

Ts87	English oak (Quercus robur)	Trunk: 43 Dublin Street, St Andrews Anglican Church, Martinborough (Lots 547 DP 248) Dripline: 54 Jellicoe Street, Martinborough (Lot 552 Dp 248) Dripline: Dublin Street Road Reserve (adjacent to 54 Jellicoe Street	69
Ts88	Honey Locust (Gleditsia 'Sunburst')	113-129 Dublin Street, Martinborough (Lot 1 DP81880)	69
Ts89a	Gum Tree (Eucalyptus sp.)	236 Haurangi Road, Patuna Farm, Martinborough (Lot 1 DP 395437)	31
Ts89b	Matai (<i>Prumnopitys taxifolia</i>)	236 Haurangi Road, Patuna Farm, rural Martinborough (Lot 1 DP 395437)	31
Ts90a	Grey Gum (Eucalyptus punctata)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts90b	Canary Island Palm (<i>Phoenix</i> canariensis)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts90c	Canary Island Palm (<i>Phoenix</i> canariensis)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts90d	Canary Island Palm (<i>Phoenix</i> canariensis)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts90e	Gum Tree (Eucalyptus sp.)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts90f	Gum Tree (Eucalyptus sp.)	35 Huangarua Road, Te Rehua, Martinborough (Lot 5 Deposited Plan 2891)	69
Ts91a	Holm Oak (Quercus ilex)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91b	Atlantic Cedar (Cedrus atlantica)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91c	Ponderosa Pine (Pinus ponderosa)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91d	Silver Fir (Abies alba)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91e	English Elm (Ulmus procera)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91f	Coastal Redwood (Sequoia sempervirens)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25

Ts91g	Coastal Redwood (Sequoia sempervirens)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91h	English Oak (Quercus robur)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91i	Black Pine (<i>Pinus nigra</i>)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91j	Bunya Bunya (Araucaria bidwillii)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts91k	Bunya Bunya (Araucaria bidwillii)	693a Kahutara Road, Pihautea, Martinborough (Lot 1 DP 423275)	25
Ts92a	Himalayan Cypress (Cupressus torulosa)	808 Kahutara Road, Rototawai, Martinborough (Pt Lot 1 DP 14477)	24
Ts92b	Californian Redwood (Sequoia sempervirens)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
Ts92c	Common Lime (Tilia x europaea)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
Ts92d	English Oak (Quercus robur)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
Ts92e	English Oak (Quercus robur)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
Ts92f	English Oak (Quercus robur)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
Ts92g	Holm Oak (Quercus ilex)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92h</u>	Deodar Cedar (Cedrus deodara)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92i</u>	Turkey Oak (Quercus cerris)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92j</u>	Deodar Cedar (Cedrus deodara)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92k</u>	Common Ash (Fraxinus excelsior)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92l</u>	Turkey Oak (Quercus cerris)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92m</u>	Deodar Cedar (Cedrus deodara)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92n</u>	Holm Oak (Quercus ilex)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24
<u>Ts92o</u>	Dutch Elm (Ulmus hollandica)	808 Kahutara Road, Rototawai, Martinborough (Part Lot 1 DP 14477)	24

24
24
24
24
24
24
24
24
24
24
- 04
24
24
24
0.1
24
24
24
24
24
68
00
68
30
_

Ts96a	Holm Oak (Quercus ilex)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96b	Holm Oak (Quercus ilex)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96c	English Oak (Quercus robur)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96d	English Oak (Quercus robur)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96e	English Oak (Quercus robur)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96f	English Oak (Quercus robur)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96g	English Oak (Quercus robur)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96h	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96i	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96j	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96k	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96l	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96m	English Elm (Ulmus procera)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96n	Red Oak (Quercus rubra)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts960	Red Oak (Quercus rubra)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68

WAIRARAPA COMBINED DISTRICT PLAN PART D – APPENDICES

T-00:-	D-d O-l- (O	Managial Courses Martinhaussah	
Ts96p	Red Oak (Quercus rubra)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96q	Red Oak (Quercus rubra)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96r	Red Oak (Quercus rubra)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96s	Medlar (Mespilus germanica)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96t	Silky Oak (Grevillea robusta)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96u	Red Flowering Gum (Eucalyptus ficifolia)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96v	Red Ironbark (Eucalyptus sideroxylon)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96w	Chinese Windmill Palm (Trachycarpus fortunei)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96x	Tasmanian Yellow Gum (Eucalyptus leucoxylon Rosea)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts96y	Peruvian Peppercorn Tree (Schinus molle)	Memorial Squere, Martinborough (Closed Road Survey Office Plan 17366)	68
Ts97	Camden Woollybutt (Eucalyptus macarthurii)	47-57 Princess Street, Martinborough Vineyard, Martinborough (Lot 2 DP 82458)	68
Ts98	Hard Beech (Fuscospora solandri)	Trunk: 4 Radium Street, Martinborough (Lot 15 Deeds Plan 152) Dripline: 3 Radium Street, Martinborough (Lot 12 Deeds Plan 152) Dripline: 38 Dublin Street, Martinborough (Lot 3 DP 19459)	69
Ts99	Matai (Prumnopitys taxifolia)	115 Ruakokoputuna Road, Martinborough (Lot 6 DP 523930)	31
Ts100	Wych Elm (Ulmus glabra)	Trunk: 12 Weld Street, Martinborough (Lot 18 Deeds Plan 24) Dripline: 18 Weld Street, Martinborough (Lot 1 DP 434612)	69

WAIRARAPA COMBINED DISTRICT PLAN PART D – APPENDICES

APPENDIX 1 - SCHEDULE OF NATURAL & HISTORIC HERITAGE SITES

Ts101	Totara (Podocarpus totara)	950A White Rock Road,	31
		Martinborough (Lot 1 DP 82444)	

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
	,	Martinborough	1	•
Ts055	Giant sequoia (Sequoiadendron giganteum)	Pihautea, 693A Kahutara Road (Lot 1 DP 423275)	25	Not worthy of protection, heavy decline, almost dead standing
Ts062	Eucalyptus camaldulensis	Otahuna, 1027A Kahutara Road, Featherston (Lot 2 DP 91007)	24	Removed
Ts062	Eucalyptus pulchella	Otahuna, 1027A Kahutara Road, Featherston (Lot 2 DP 91007)	24	Removed
Ts062	Eucalyptus pulchella	Otahuna, 1027A Kahutara Road, Featherston (Lot 2 DP 91007)	24	Removed
Ts062	Fagus sylvatica	Otahuna, 1027A Kahutara Road, Featherston (Lot 2 DP 91007)	24	Removed
Ts062	Eucalyptus camaldulensis	Otahuna, 1027A Kahutara Road, Featherston (Lot 2 DP 91007)	24	Dead
Ts068	Fagus sylvatica	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, small stunted specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose tree protection.
Ts068	Quercus robur	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, medium sized specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose protection.

WAIRARAPA COMBINED DISTRICT PLAN PART D – APPENDICES

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
Ts068	Quercus robur	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, medium sized specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose protection.
Ts068	Ulmus sp	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, small sized specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose protection.
Ts068	Tilia x europaea	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, small sized specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose tree protection.

WAIRARAPA COMBINED DISTRICT PLAN

PART D – APPENDICES

Existing Notable Tree(s) Reference Number	Tree Type - Common name (<i>Botanical nam</i> e)	Location and Legal Description (where known)	Map Number	Comment
Ts068	Acer palmatum	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, structurally compromised specimen no historic reason for protection, located in a very remote location away from any public view, landowners oppose tree protection.
Ts068	Sequoia sempervirens	Tahora, 925 Kahutara Road, Featherston (Lot 2 DP 4854)	24	Not worthy of protection, medium sized specimen in poor health with no historic reason for protection, located in a very remote location away from any public view, landowners oppose tree protection.
Ts079	Common walnut (Juglans regia) & Pin Oak (Quercus palustris)	10 Daniel St, Martinborough (LOT 12 D P 2042)	69	Fails to meet threshold
Ts082	Common walnut (Juglans regia) and ginkgo (Ginkgo biloba)	20 Roberts Street, Martinborough (Lot 4 DP 414627)	69	Walnut almost dead, Ginko removed
Ts083	Common walnut (Juglans regia)	17 Suez St, Martinborough (Lot 290 DP 248)	69,70	Fails to meet threshold
Ts084	Common walnut (Juglans regia)	18 Weld Street, Martinborough (lot 1 DP 434612)	69	Fails to meet threshold
Ts085	Peruvian peppercorn tree (Schinus molle)	29 Broadway Street, Martinborough (Lot 1 DP 426707)	68	Removed
Ts088	Eucalyptus sp.	Kitchener Street, Martinborough (Lot 1 DP 304500)	68	Removed
Ts089	Karaka (Corynocarpus laevigatus)	54 Jellicoe St, Martinborough (lot 552 DP 28)	69	Fails to meet threshold
Ts090	Pin oak (Quercus palustris)	7 Strasbourge St, Martinborough (Lot 107 DP 248)	68	Fails to meet threshold

Attachment 3 – Summary of Submissions by Topic (including further submissions)

Plan Change 10: Register of Notable Tree's – summary of submissions received by topic

Sub No.	Personal info				Substanti	ve information		
	Submitter	Speak at hearing	Ward	Topic	Reference to specific listing	Points raised in submission (for the entire content of the submission see PDF)	Position of submitter	Decision sought from Council
1	Dennis Burns	no	Greytown	Request to add record/ part record to Table 3	Ts68c	Request for additional dripline of Pin Oak over 27 West Street, Greytown as well.	Amend	Accept with amendments
2	Alistair & Merryn Kennedy	no	Greytown	Request to add record/ part record to Table 3	No specific reference	Proposed new listing of a Totara on submitters property 188 Underhill Road.	Amend	Accept with amendments
3	Shirley Nightingale	no	Greytown	Request to add record/ part record to Table 3	No specific reference	Proposed new listing of an Oriental Plane on submitters property 56 Pah Road.	Amend	Accept with amendments
9	Mike & Judith Richards	no	Greytown	Request to add record/ part record to Table 3	No specific reference	Proposed new listing of 4 trees (various species) on submitters property (9 Mole St)	Amend	No spec reference
10	Garry W O'Dwyer	yes	Featherston	Request to add record/ part record to Table 3	No specific reference (Ts12)	Proposed addition to listing Ts12 Barr Brown reserve Featherston of approximately 10 various exotics in the road reserve of Harrison St West and Bell Street.	Amend	Accept with amendments
12	Peter Crawshaw	no	Featherston	Request to add record/	No specific reference	Proposed new listing of 2 English oaks at 138A	Amend	Accept with amendments

20	Barbie Barton	110	Greytown	add record/ part record to Table 3	No specific reference	Californian Redwood on submitters property – 156 Underhill Road, Greytown.	σαρροιτ	Accept as is
25	Redacted Roger &	no	Greytown	Request to add record/ part record to Table 3	No specific reference No specific reference	Proposed new listing of a Lacebark tree on submitters property – 209 Wood St, Greytown. Old remnant of the original lowland podocarp forest endemic to the Wairarapa Valley. Proposed new listing of	Support	No spec reference Accept 'as is'
20	Greytown Tree Advisory Group (GTAG) #1)	yes	All wards	Request to add record/ part record to Table 3	No specific reference	Proposed inclusion of Copper Beech in register at 134 Main St, Greytown.	Oppose	Decline 'as is'
19	Redacted	no	Greytown	Request to add record/ part record to Table 3	Ts62a,Ts62b,Ts62c,Ts62d	Support for the listings of the trees referenced in the submission at Lowlands, 191 No 1 Line, Greytown. Proposed new listing of Kahikatea on the same property.	Amend	Accept with amendments
18	Nicholas Key & Rochelle Retter	no	Greytown	Request to add record/ part record to Table 3	No specific reference	workshop. Believe Ernest Shackleton planted the Oak trees. Proposed new listing of 3 new trees (various species) at submitters property 121 Kuratawhiti Street with historic references and tree details.	Amend	Accept 'as is'
				part record to Table 3		Fitzherbert St – formerly Donal's farm and blacksmiths		

27	Rosemary &	no	Greytown	Request to	No specific reference	Proposed new listing of various	Support	Accept 'as is'
	lan			add record/		trees on submitters property		
	Montgomerie			part record		162 Ward's Line, Greytown		
				to Table 3		with historical details included.		
28	Redacted	no	Martinborough	Request to	No specific reference	Proposed new listing of	Support	No spec
				add record/		Californian Redwood on		reference
				part record		submitters property – 2 Suez		
				to Table 3		Street, Martinborough.		
34	Polly Cantlon	yes	Greytown	Request to	Ts24	Proposed new listing of Red	Amend	Accept with
				add record/		and Pin Oaks (4) on allotment		amendments
				part record		adjacent to SH2/ Hospital		
				to Table 3		Road, Greytown currently not		
						included in a nearby listing.		
35	Redacted	no	Featherston	Request to	No specific reference	Proposed new listing of	Amend	Accept with
				add record/		macrocarpa Lot 7 DP396767		amendments
				part record		(adjacent to 10 Harrison St		
				to Table 3		West). Age and size details		
						included.		
37	Clive Paton	yes	Martinborough	Request to	No specific reference	Proposed new listing of 300	Amend	Accept with
	and Ro			add record/		Claret Ash trees on Puruatanga		amendments
	Griffiths			part record		Road Reserve and Martins		
				to Table 3		Road Reserve, Martinborough.		
						Trees enhance a barren stretch		
						of road and general amenity		
						discussed.		
42	David and	No	Martinborough	Request to	No specific reference	Proposed new listing of 2	Amend	Accept with
	Tracie Donald			add record/		Totara, 12-15 Kahikatea and a		amendments
				part record		tawa understorey including		
				to Table 3		"My Tree" named by Lord		
						Bledisloe.		
5	BASL Trust	no	Greytown	Request to	Ts72b	Request to remove Douglas Fur	Amend	Accept with
				remove		from register at 134 West St,		amendments
						Greytown.		

				record from Table 3		Questions around scoring, safety and land-owner consent process		
6	Redacted	yes	Featherston	Request to remove record from Table 3	Old Ts066	Support for the removal of the Elms from the proposed register (which has been proposed)	Amend	No spec reference
7	Shane Atkinson	yes	Greytown	Request to remove record from Table 3	Ts53b,	Request for the removal of Eucalypt at St Luke's Church, Main St, Greytown Long submission, numerous reasons provided, e.g. cost of maintenance, reached end of useful life etcetera.	Amend	Accept with amendments
13	Jeremy Thurlow Thompson	no	Featherston	Request to remove record from Table 3	Ts01g,Ts01f	Request referenced notable trees be removed due to questions about notability.	Amend	Amend if not declined
15	RJ & K Harvey	yes	Greytown	Request to remove record from Table 3	Ts38	Request for removal from register of English Oak at 58 B Kuratawhiti St – submitters property. Long submission, numerous reasons provided e.g. scoring methodology, safety, scoring itself, damage/ nuisance under property act etcetera.	Amend	Accept with amendments
16	Malcolm I & Celia M Bridge	no	Greytown	Request to remove record from Table 3 (implied)	Ts22	Highlighting adverse effects to nearby properties of Peruvian Peppercorn Tree 21 East St, Greytown. No specific request in the submission for it to be removed.	Amend	Accept with amendments

21	St Teresa's	no	Featherston	Request to	Ts02	Request for removal from the	Amend	No spec
	School			remove		register – Common walnut at St		reference
				record from		Teresa's School, Featherston.		
				Table 3				
23	Daniel	yes	Featherston	Request to	Ts14a	Request for removal from	Amend	No spec
	Williams &			remove		register – Copper Beech at 31		reference
	Abby			record from		Wakefield St, Featherston.		
	Waterson			Table 3		High nuisance, risk of damage		
						to the property, future issues.		
29	Terence &	no	Greytown	Request to	Ts22	Request for removal from	Oppose	Accept with
	Bonita			remove		register – Peruvian Peppercorn		amendments
	Lahman			record from		Tree at 19/21 East St –		
				Table 3		submitters property. Various		
						nuisances identified and other		
						risks.		
30	SN	no	Greytown	Request to	Ts79	Request for removal from	Amend	Accept with
	Hargreaves-			remove		register – Liquid Amber at 54		amendments
	Williamson &			record from		Wood St. Long submission;		
	J Williamson			Table 3		various safety concerns for		
						pedestrians and cyclists and		
						likely hazard.		
32	Redacted	no	Greytown	Request to	Ts35k, Ts35i	Concern about 'suckering'	Amend	Accept with
				remove		roots of Elms (Ts35i) on		amendments
				record from		property. Requesting		
				Table 3		clarification of the protection		
				(implied)		status.		
36	Foley Wines	yes	Martinborough	Request to	Ts97	Request for removal from	Amend	No spec
	Limited			remove		register – Eucalyptus at 47-57		reference
				record from		Princess St. Contaminating		
				Table 3		grapes grown on vineyard		
						beneath/ surrounding tree.		

38	Gordon and Alison Paterson GTAG	yes	Greytown All wards	Request to remove record from Table 3 (implied) Specific	Ts38, Ts76, Ts44 No specific reference	Highlighting tree's referenced high maintenance of the trees, siting and safety risks. No specific request in submission for it to be removed. Minor correction to STEM	Amend Oppose	No spec reference Decline 'as
	community group (#1)			errors/ minor corrections requested to Table 3	·	threshold – 210 points for no landowner approval rather than correct 230.		is'
22	NZ Notable Trees Trust	no	All wards	Specific errors/ minor corrections requested to Table 3	No specific reference	Minor corrections to spelling etc.	Amend	No spec reference
20	GTAG community group (#1)	yes	All wards	STEM™ Criteria	No specific reference	Very long and detailed submission. Various concerns – 11 numbered matters as well as a range of general concerns and 7 recommendations. Please see submission for further details on the following headings: New landowners consent issues New STEM threshold issues	Oppose	Decline 'as is'

						 New adapted STEM methodology not support by District Plan Section 32 inadequacies and lack of rigour 		
22	NZ Notable Trees Trust	no	All wards	STEM™ Criteria	No specific reference	Long, detailed submission on the following headings:	Support	Accept with amendments
33	GTAG community group (#2)	yes	All wards	STEM™ Criteria	No specific reference	Submission #2 from this submitter. Further detailed submissions with questions around STEM methodology, and relatedly threshold, s32 issues and land owner consent issues. 12 specific questions raised and wanting answers in s42A report. Please see full copy of submission for details.	Oppose	Decline 'as is'
20, 33	GTAG community group (#1 & 2)	Yes	All wards	S32 report	No specific reference	Inadequacies and lack of rigour	Oppose	Decline 'as is'
20	GTAG community group (#1)	yes	All wards	Council procedures	No specific reference	Change to Councils overall approach to District Plan Tree Protection	Oppose	Decline 'as is'

						Notification Process and Procedural Issues Specific errors in Council documents Recommendations		
4	Redacted	no	Greytown	Maintenance funding	Ts21	Request for Council help for tree maintenance on Oak tree on submitters property	No spec reference	No spec reference
7	Shane Atkinson	yes	Greytown	Maintenance funding	Ts53b,	Argument presented for Council to provide maintenance funding.	Amend	Accept with amendments
8	Alison Paterson	yes	Greytown	Maintenance funding	Ts38, Ts44, Ts45a,45b, Ts76,	Highlighting age and condition of the tree's referenced and the ongoing maintenance of the trees and effects on surrounding properties. No specific request in submission for it to be removed.	Amend	No spec reference
31	Russell Hight	no	All wards	Maintenance funding	No specific reference	Concerns about cost of maintenance of notable trees and requested Council financial support.	No spec reference	Accept with amendments
11	Barry T Williams	no	Greytown	Other	Ts66	Support for the tree to be protected	Support	Accept 'as is'
14	Trevor Morris, Polly Cantion	no	Greytown	Other	Ts34	Support for the tree to be protected	Support	Accept 'as is'
17	Neil & Greg Montgomerie	no	Greytown	Other	No specific reference	General support for the updated tree register.	Support	Accept 'as is'
24	Tania H Connelly	no	Greytown	Other	Ts19	Support for tree to be protected at 41E Reading St, Greytown.	Support	Accept 'as is'

Plan Change 10: Register of Notable Tree's – Summary of Further Submissions received by topic

Sub			Substantive information						
No.	Submitter	Speak at hearing	Ward	Topic	Reference to specific record	The relevant submission and sections supported/ opposed	Reasons for position	Recommended status of submission	
41	Greytown Tree Advisory Group (GTAG)	yes	All	Multiple	No specific reference	Clarifying submission number 20 only – GTAG Instructs Council to re-classify their original submission to 'accept with amendments'. Highlights the amount of work completed by Council whilst acknowledging all other issues remain.	Change in approach.	Amend original submission	
39	The New Zealand Notable Tree Trust	no	All	STEM™ criteria	No specific reference	Oppose submission number 20 – GTAG Section 5 Clauses referring to replicability and implications for other Wairarapa Councils	Various reasons provided by the submitter including the pre-assessment of trees and reference to SQEP reporting.	Disallowed	
40	Greytown Tree Advisory Group (GTAG)	yes	All	STEM™ criteria		Oppose submission number 22 – NZ Notable Tree Trust Section 3	'New' thresholds have not been adequately explained 'New' thresholds ineffective Threshold for no landowner consent is too high – prevent listing of new trees.	n/a	

Attachment 4 – Statement of Evidence Arborist Mr. Richie Neville Hill

Before the South Wairarapa District Council Hearings Panel

Under The Resource Management Act 1991

In the matter Plan change # 10 Wairarapa Combined

District Plan 2011 - Notable (protected)

trees register

STATEMENT OF EVIDENCE OF RICHIE NEVILLE HILL ON BEHALF OF SOUTH WAIRARAPA DISTRICT COUNCIL

6 November 2019

Introduction

- My full name is Richard Neville Hill I am an arborist with over 18 years' experience,
 years as a tree contractor and 8 years solely as an arboricultural consultant providing advice on tree issues.
- I have been asked by South Wairarapa District Council (SWDC) to provide evidence in support of S42a report on Proposed Plan Change 10. In particular, I have been asked to evaluate the trees that are listed in Appendix 1 as Table 3, Appendix 1.4 Schedule of notable trees of the Wairarapa Combined District Plan.
- I have also been asked to evaluate trees proposed by the public that are not currently listed in Table 3, Appendix 1.4 Schedule of notable trees. In particular, as to whether the proposed trees should be included on the list.

Professional Qualifications and Experience

- 4. I am a professional arborist working on my own account. I am a qualified arborist and the principal consultant of Paper Street Tree Company Ltd based in Greytown. I hold the following qualifications:
 - (a) Diploma in Arboriculture (Telford):
 - (b) Certificate in Quantified Tree Risk Assessment (QTRA). No.4842
 - (c) Use amenity tree evaluation methods and describe timber markets (NZQA 2776)
 - (d) Arborist Certificates CS 30, 31, 32, 38, 39, 41 and UA1 (NPTC). AG0307 (WINTEC).
- 5. I am a professional member of both the NZ Arboricultural Association (NZ Arb), and the Royal New Zealand Institute of Horticulture (RNZIH).
- 6. In addition to my professional qualifications, I have been working in the field of arboriculture for over 18 years. The extent of this work has led me to make observations of trees over this period. To supplement this field-based experience and my formal education I have also attended numerous courses, seminars and conferences in order to maintain a high level of professional knowledge within the

field of arboriculture. Much of the work involves dealing with trees within an amenity context, from development activities through to management works. An intrinsic component of such works is assessing a tree's importance within the environment in which it stands.

- 7. I am very familiar in the use and application of the Standard Tree Evaluation Method (STEM) and have used it to evaluate over 500 notable and heritage trees. One such project included the 2017 STEM re-assessment of the Wellington City Council heritage trees.
- 8. I confirm that I have read the Code of Conduct for Expert Witnesses contained in Schedule 4 of the High Court rules 2016. I have read and agree to comply with that Code. I have also been provided with a copy of Rule 9.34 of the District Court Rules 2014 and I have read and agree to comply with the requirements in Rule 9.3.
- 9. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

Scope of Evidence

- In my evidence I provide detailed explanatory notes and a summary of The STEM process carried out in this review, details of which are attached as Appendices 1 and 2. The assessments were undertaken between 2018 and 2019, during this period more than 755 individual trees and multiple tree groups where inspected.
- 11. In undertaking my assessments and preparing my evidence I have reviewed the following:
 - 11.1 Appendix 1 as Table 3, Appendix 1.4 Schedule of notable trees of the Wairarapa Combined District Plan
 - 11.2 New Zealand Forest Services Forest Research Institute. Historic and Notable Trees of New Zealand Wairarapa, Manawatu and Wellington (18.03.1974)
 - 11.3 A List of Notable Trees in the Borough of Greytown as Complied by Members of the Beautifying Society Committee (November 1982).

- 11.4 STEM. A Standard Tree Evaluation Method. Ron Flook (1996).
- 12. In addition to the above, numerous web base searches and various discussions were held with members of the community to assist in evaluating a tree's notability score which is part of the STEM assessment.
- 13. I confirm I have visited all the sites where the trees stand as detailed in my evidence.

Overview of Submitters Concerns

- 14. The submissions have been organised into three categories:
 - Submissions for adding trees
 - Maintenance funding
 - Request to remove record from Table 3
 - STEM Criteria

Where appropriate, additional comments are provided for certain submissions to provide clarity to particular tree issues raised by submitters.

Submissions for adding new trees

15. 19 Submissions either support (14, 17 & 24) trees being included/protected, add dripline (1) or to add new trees to the register (2, 3, 9, 10, 12, 18, 19, 25, 26, 27, 28, 34, 35, 37, 42).
15 submissions were made for additional trees to be assessed. Appendix 1 contains a summary of those submissions.

Maintenance funding

- 16. Submission 4, 7, 8, 15, 16, 21, 23, 30, 31 and 38, all contain comments in regard to support/fund maintenance for Notable Trees this concern was expressed by a number of notable tree owners. This is considered outside the scope of this review, but it is an important discussion point. Risk and safety were another major concern for notable tree owners, which can be mitigated through good management works.
- 17. If the community is to ensure tree longevity within the landscape, and valuable notable tree items are preserved, considering that the majority of trees have the genetic capacity to live for hundreds of years, these trees will at times require

- management. If a landowner does not have the resources to maintain their trees, it is unlikely that any maintenance will be carried out in my experience.
- 18. The benefits of trees are felt community wide and not just restricted to the landowner, especially for large trees. Therefore, if a community receives a degree of benefits from an asset, I am of the opinion that it is reasonable to expect the community to provide some assistance to maintain trees that have been identified as valuable community assets (Notable Trees).

Request to remove record from Table 3

- 19. 12 submissions included requests to remove existing trees from Table 3; these were submission numbers 5, 6, 7, 13, 15, 21, 23, 29, 30, 32, 36, 38.
- 20. All trees meet the recommended thresholds for protection, apart from the elm trees (*Ulmus sp.*) referred to in Submissions 6 and 11.
- 21. A summary of concerns raised by submitters can be put into five categories: risk, nuisance, maintenance and other. Maintenance has been discussed above, therefore the remaining categories are discussed below.

22. Risk

22.1 Tree risk is often cited in part, as one of the reasons for a tree to be delisted (5, 7, 13, 15, 23, 29, 30 and 38. The overall risk to human safety from trees is extremely low (the UK reports, with a population of roughly 60 million people, 1 death in 10 million per a year from a falling or fallen trees and branches1)When dealing with the risk management of trees it is often the perception of risk, as opposed to the actual risk itself, that concerns people the most. This can often be heighted by anecdotal comments, disproportionate advice from a misinformed arborist, or after a tree incident has occurred.

National Tree Safety Group. 2011, *Common sense risk management of trees*. Published by The Forestry Commission.

- 22.2 Trees are natural shedding organisms, where perfectly healthy trees can fail if the wind conditions are extreme enough. The only way to achieve absolute safety would be to remove all trees that could conceivably fall on a person or on someone's property. This of course would be entirely disproportionate to the growing body of research (refer to explanatory notes, s4.4, s5.4 and s5.5 in Appendix 3) that quantify how trees provide immense environmental and societal benefits. Therefore, management of tree risk needs to be proportionate to the benefits we receive and balanced against the actual risk of harm or damage occurring.
- 22.3 It is important to note that the above is not to diminish any genuine risk, or acknowledge anxiety can be heightened when living adjacent to trees. The aim is to remove some of the inherent subjectivity that comes from determining tree risk, and to provide a platform so that informed balanced discussions can be had, so that resources are not wasted, and reasonable management practices can occur.

23. Nuisance

- 23.1 Nuisance has been defined in the attached guidance notes (Appendix 3). I am of the opinion that none of the assessed trees impose a serious nuisance or would be fall outside what would be considered general maintenance of a tree.
- 23.2 Submission 23 raises the issue of subsidence as being a reason for the trees removal from Table 3. I am not a soils expert and I do not know the exact soil type at the site, but from my observations having worked within the Featherston area that the soil type is more likely well-drained silty loam (not shrinkable clay soils). I therefore consider that it is highly unlikely that it is a valid reason for the tree's delisting unless further expert investigation proves otherwise.

24 Notability

24.1 Submissions 5 and 13, questions the notability status of protected trees. This was also a constant theme when dealing with multiple notable tree owners. There was no information provided when engaged to carry out these assessments in terms of previous assessments, or reasons/ documentation why trees where initially proposed.

- 24.2 Every attempt has been made, to provide greater clarity to the nobility status of the trees for public clarity. But these are within the limitations that exist when reviewing such a large volume of trees with no base information, and in consideration to the practicalities/cost of carrying out research for each site/tree. Therefore, it is likely that additional information exists, but further resources would be required.
- 24.3 Therefore to provide greater clarity to landowners as to the notability status of their tree, four categories were created trees as trees of: National Significance, Heritage, Landscape or General (refer to s1.3 of Appendix 3 and s3.1 of Appendix 2 for additional details).
- 25. Other
- 25.1 Submission 15
- 25.1.1 Submission 15 requests the tree to be delisted for a number of reasons, below summarises the arboricultural and STEM concerns raised, which are not covered within the STEM assessment and in the guidance notes:
- 25.1.2 In reference to s2.2. The tree scored well above the recommended threshold for existing trees set at 120 points for heritage items with a final score of 228 points. A preliminary assessment was carried out which was provided to the landowner prior to the completion of the project. Once all tree information was accrued minor alterations took place within the explanatory notes. Subsequently all previous STEM assessments where modified accordingly to suit the final version of the explanatory notes, to ensure the process was consistent and fair, and this is why there is an increase in the score. The tree still scored well above the recommended threshold for the initial assessment and therefore its status remained the same.
- 25.1.3 In reference to paragraph 2.4. I have reviewed the STEM assessment where the tree scored 96 points. In my opinion this assessment was highly questionable, and, in my view, it would not stand up to peer review.
- 25.1.4 The submitter states that the tree is in "poor condition" (s2.5) yet also states that the tree exhibits "rapid growth" (Photo 4) and "vigorous growth" (s2.2). I observed the tree to be in excellent health. The tree exhibited some overextended limbs which is not uncommon of trees of this age, hence why I assessed 'form' as good, rather than very good or specimen.

- 25.1.5 The submitter goes on to say that the tree has low ecological value and low landscape value. How these were covered is described in explanatory notes s4.4, s5.4 and as a consequence I scored the tree 'significant' in the Function criteria and 'significant' in Role criteria.
- 25.1.6 In s2.5. The submitter argues that the tree will require pruning ever 3-5 years. From my broad experience, especially carrying out works on large old trees I do not agree that maintenance will need to be carried out this often. In my view the tree is unlikely to require any programmed maintenance for at least 7 years if not more.
- 25.1.7 In s2.7 the submitter suggests that the tree poses a "safety issue, even with pruning"). The tree has been recently reduced which, in my view, substantially reduces any potential of risk. I consider that the risk of harm occurring from a limb failure to be broadly acceptable and no different to any other tree that stands in good condition.
- 25.1.8 In s2.8 the nuisance of shading is raised. On the basis that the tree is located to the western rear corner of the house and I therefore do not consider shading to be a serious nuisance.
- 25.1.9 With respect to the comments below photo 4 of the submission. It is stated that there is a lack of strength in the branches due to the high percentage of sapwood. It is unclear if the statement is made by the submitter or a third party but it relates to the pervasive myth that slower growth = stronger wood. This is only true for a very small group of conifers. There are no significant differences between sapwood and heartwood mechanical properties of Quercus robur². The image shows perfectly healthy normal growth. Rapid grown English oak is also actually stronger than slow grown wood because of the higher percentage of high-density latewood compared to low-density earlywood. This is a completely normal characteristic of all tree species that produce ring-porous wood³.

² Merela, Čufar (2013) Density and Mechanical Properties of Oak Sapwood Versus Heartwood. DRVNA INDUSTRIJA 64 (4) 323-334 (2013)

³ Are fast-grown trees of low quality? Adam Taylor, Associate Professor and Extension Specialist, the University of Tennessee. Extension Bulletin W253

26. Submission 36 suggests that the tree could affect wine production. But there is no evidence to show that the subject tree is actually affecting wine production. Therefore, I do not support the delisting of this tree.

STEM criteria

27. Submission 20, 22, 33, 39, 40 all provide comments in relation to the process, and how the trees were assessed. This is summarised into 3 points, and expanded on below; firstly Qualifying Thresholds, secondly No Landowner Consent Threshold and lastly, the application of STEM.

28. Qualifying Thresholds

28.1 "100 point threshold"

There is no 100 point threshold referenced within the District Plan nor any documentation presented to me that notable trees are to be assessed against a 100 point threshold. During preparing a proposal for the project I specifically asked for any existing thresholds and for all notable tree records. The Council informed me that there is no existing threshold, or such documentation. I was instructed to make recommendations for thresholds for Council to consider. Threshold recommendations were given to Council, where an agenda (sent on the 3. 8. 18) was set for a council meeting to be held on the 8.8.19. At that the meeting Council accepted the threshold recommendations.

- 28.2 I feel that it is important to put a "100 point" threshold into context. There is a wide range of ability between practitioners and how they might apply STEM, as seen in submission 15 (s2.4) where a significant tree only scored 96 points. Therefore a threshold should be set to ensure only important trees qualify, otherwise the method can become an inappropriate mechanism for general tree protection, which dilutes the importance of the list to identify significant natural features within the district, and trees can be easily contested which furthers dilutes the process.
- 28.3 Therefore a consistent approach is needed to ensure that only the most significant trees qualify. I consider this was achieved after taking the following approach:

- First a pre-assessment was undertaken on each tree to ensure that trees in poor condition, that are of low quality and value were screened out. This also identified trees of high nuisance and low value so they were not considered for protection.
- Trees were then categorised into the following groups, 'Trees of National Interest', 'Heritage Trees', 'Landscape Trees', and 'General Trees'. This was done to provide the general public with easy identifiers to show which of the trees in their community are of greatest significance and why they should be protected.
- Finally, four qualifying threshold scores were established in order to give additional weight to trees with high public interest. Please refer to paragraph 3.1 in the summary notes (Appendix 2) for further details.

28.4 With this approach:

- 88 new records were created which includes over 137 new trees to the list.
- 25 trees were either missing (removed) of dead standing
- 21 trees failed to meet the pre-assessment process and;
- 29 trees failed to make the thresholds. STEM assessments have been provided for all these trees which clearly shows the trees are small insignificant items not worthy of being considered notable.

29. No landowner consent threshold for proposed trees

- 29.1 Approximately 48 listings containing multiple trees were proposed for protection that had no landowner consent.
- 29.2 In most cases the landowner refused permission to enter their property to allow the assessment of those trees.
- 29.3 Where a STEM assessment is able to be carried out on a tree without landowner consent then Council needs to be certain that a tree is highly significant to the community to warrant pursuing its protection.

- 29.4 In my opinion trees would need to score high in each of the three STEM categories to be a high value to the community. I recommended to Council that this threshold be set at 230 points. 1 tree group reached that threshold the Mead oaks (at 21 Wood Street Greytown)
- 29.5 GTAG Submission 20 objects to the copper beech at 124 Main Street not being listed as notable (para.11). The submitter believes the STEM score should have been higher, yet provides no explanation to support a higher score. I assessed the tree with a STEM score of 170 points. As a consequence the tree failed to meet the threshold for a no landowner consent proposed tree. Within the summary attached as appendix 1 s3.3.2 it recommends that consultation takes place within the landowner for consideration for it to be listed.

30. STEM Criteria

- 30.1 Submission 21 and further submission 39 were made by the copyright holder of STEM, the New Zealand Notable Tree Trust. The submissions support the thorough application of STEM in the assessment of trees for the Plan Change and the qualifying score thresholds that were recommended (S.2 and 3). The submission also supported the pre-assessment of nominated trees to ensure unacceptable trees were not considered for protection (S. 3).
- 30.2 The submitter also acknowledged my engagement with them over the development of my Explanatory Notes. They remarked that the notes will provide "an important role in guiding the use of STEM to ensure subjectivity has been minimised in its application and to enable robust tree assessment for SWDC. The Explanatory Notes will also provide the general public full insights into the tree assessment process".

Richie Hill

06 November 2019

Appendix 1 PSTC Summary of Notable Tree Submissions (for additional trees assessed)



PREPARED BY PAPER STREET TREE COMPANY

For

SOUTH WAIRARAPA DISTRICT COUNCIL
 NOTABLE TREES

Date: 13.09.19

EST. **PS** 2013

ARBORICULTURE CONSULTANCY

1 INTRODUCTION

- 1.1 I have been engaged by South Wairarapa District Council (SWDC) to review submissions where additional trees have been proposed by the public.
- 1.2 Trees were assessed using the STEM method, as set out in the following reports. These reports should be referred to, where additional information or background information is required:
 - Summary of Notable Trees Evaluations. By Paper Street Tree Company, dated 3 July 2018
 - STEM Explanatory Notes. By Paper Street Tree Company, dated 3 July 2018
- 1.3 39 submissions were received. 14 of these submissions were made for additional trees to be considered for inclusion on to the notable tree register.
- The following section, provides a summary for those submissions. STEM assessments have also 1.4 been provided separately and should be referenced for any specific tree details relating to the STEM scores.

SUMMARY OF ASSESSED SUBMISSIONS 2

2.1 The following table provides a brief summary of the submissions, where further details can be found in the relevant subsection noted.

2.2 Guide to below table

Relevant section (Rel. sel.)

Notes section to refer to for additional detail

Meets threshold

Notes whether the tree meets the proposed threshold

STEM

Stem score for assessed trees

Notable reference

Each tree, or tree group, is assigned a letter to indicate its importance, in respect to the category in which a tree is assessed to hold the most value in, as shown below:

Tree Value							
General	Landscape	Heritage	National interest				

Each tree or tree group is given a letter prior to its number which corresponds to the above value category i.e. G = General tree, L= Landscape tree, H= Heritage tree and NI= National Interest tree.

Sub No.	Address	Comments/ trees proposed	Not. ref.	STEM	Meets thres.	Rel. sec.
1	31 West St, Greytown	Amended Ts68c listing to include dripline over 27 Main St.	n/a	n/a	n/a	
2	188 Underhill Rd,	Totara (Podocarpus totara)	Н	192	Υ	
	Woodside	Matai (Prumnopitys taxifolia)	Н	144	Υ	
3	56 Pah Rd, Papawai	Oriental plane tree (Platanus orientalis)	Н	174	Υ	

Sub No.	Address	Comments/ trees proposed	Not. ref.	STEM	Meets thres.	Rel. sec.
9	9 Mole St,	Blue atlas cedar (Cedrus atlantica 'Glauca')	L	144	Υ	
	Greytown	Deodar cedar (Cedrus deodara)	L	138	Υ	
		Plume Japanese cedar (Cryptomeria	L	150	Υ	
		japonica 'Elegans')	L	150	'	
		Camelia sp.	L	108	N	
		Copper beech (Fagus sylvatica 'Purpurea')	G	114	N	
10	Barr Brown	Giant sequoia (Sequoiadendron giganteum)	Н	234	Υ	
	Reserve,	English oak (Quercus robur)	Н	177	Υ	
	Featherston	Giant sequoia (S. giganteum)	Н	240	Υ	3
		Monterey pine (Pinus radiata)	Н	177	Υ	
		Monterey cypress (Cupressus macrocarpa)	Н	156	Υ	
12	138a Fitzherbert	English oak (Q. robur)	Н	132	Υ	
	St, Featherston	English oak (Q. robur)	Н	132	Υ	
18	121 Kuratawhiti	Ginkgo (<i>Ginkgo biloba</i>)	Н	171	Y	
	St, Greytown	Southern magnolia (Magnolia grandiflora)	Н	159	Y	
		Flowering cherry (Prunus sp.)	Н	129	Υ	
19	191 No. 1 Line, Lowlands	Tree fails to meet threshold	n/a	n/a	n/a	4
25	209 Wood St, Greytown	Ribbonwood (<i>Plagianthus regius</i>)	NI	246	Υ	
26	156 Underhill Rd,	2 x Totara (<i>P. totara</i>)	Н	168	Υ	
	Greytown	Totara (P. totara)	Н	156	Υ	
		Douglas fir (Pseudotsuga menziesii)	L	177	Υ	
		Giant sequoia (S. giganteum)	L	222	Υ	
27	162 Wards Line, Morrisons bush	Kahikatea x 3 groups (<i>Dacrycarpus</i> dacrydioides)	Н	210	Υ	
28	2 Suez St, Martinborough	Dawn Redwood (<i>Metasequoia</i> glyptostroboides)	Н	147	Υ	5
34	Hospital Rd, Greytown	No landowner consent	n/a	n/a	N	6
35	Lot 7 DP396767	Tree not suitable for protection – terminal decline	n/a	n/a	n/a	7
37	Huangarua Rd, Puruatanga Rd and Martins Rd, Martinborough	Trees not suitable for protection	n/a	n/a	n/a	8
38	24 Moroa Rd,	Totara (P. totara) x 2	Н	165	Υ	
	Tauherenikau	Kahikatea (D. dacrydioides)	NI	297	Υ	

- 3 BARR BROWN RES (FEATHERSTON DOMAIN)
- There are seven trees listed under Ts01 shown in Appendix 1.4 of the proposed Notable Tree register 3.1 that stand in the Town Reserve of Featherston:
 - Ts01a Giant sequoia
 - Ts01b Monterey pine
 - Ts01c Lawson cypress
 - Ts01d Coastal redwood

- Ts01e English oak
- Ts01f English oak
- Ts01g Lawson cypress
- During the initial assessment in 2017 the list (Wairarapa Combined District Plan Part D Appendix 1 -3.2 Schedule of Natural Historic Heritage Sites, SWDC last amended 25 May 2011) provided, only contained the following under original listing Ts57:
 - Giant sequoia (referenced now as Ts01a)
 - Monterey pine, (referenced now as Ts01b)
 - Lawson cypress (which could be referenced as Ts01c or g)
- 3.3 The submission made was to include further exotics that are considered to be of an age where the trees would have been planted in C1900, as the submitter believed these trees were planted for bank stability, after the bank was cleared to provide access for water to the steam trains. Tress assessed that were not previously assessed were:
 - Monterey pine (additional pine to Ts01b).
 - English oak (likely to either be Ts01e or Ts01f)
 - 2 x Giant sequoia (one of these would be Ts01a)
 - Monterey cypress
- 3.4 Due to the association with a planned event, the introduction of steam trains, the trees are considered to be historic. The threshold for historic trees is proposed at 120. The trees score between 150 – 240, meaning they would all meet the threshold for protection. There is no coastal redwood on site, or another English oak.
- 3.5 It's likely the listing under Ts01 is from a previous version, then the "amended version" list back in 25 May 2011. However, when carrying out the assessments in 2017 it became apparent that the provided list contained numerous inaccuracies, missed trees etc. so would explain the missed trees.
- 3.6 Both Lawson cypress trees (Ts01c and g) where GPS plotted back in 2017, but no STEM assessments where carried out as instructed. Ts01a and Ts01b were also GPS plotted back in 2017. A STEM assessment has been carried out for Ts01a due to the tree likely to be the tallest tree recorded during this review.

3.7 **Recommendations**

- Under giant sequoia Ts01a place giant sequoia assessed (PSTC reference No. H208)
- Remove species under reference Ts01d (coastal redwood) as the tree is no longer present and replace with Monterey pine (PSTC reference No.H341).
- Remove species under reference Ts01e (English oak) as the tree is no longer present and replace with Monterey cypress (PSTC reference No.H342).
- Under English oak Ts01f place English oak assessed (PSTC reference No.H340)
- Add listing Ts01h giant sequoia (PSTC reference No.H339)



Fig.1 Trees proposed highlighted in yellow

4 191 NO. 1 LINE

A submission was made to add an additional tree to the existing listing on the property. The tree proposed was a Kahikatea that did not meet the threshold in the original assessment - landscape threshold of 130, tree scored 127. The tree is a standalone specimen with considerable damage to its root plate and exhibits a large cavity within its base. The tree exhibits some vigour and vitality, due to these factors the tree scored low in those areas. Its important to note the tree is not considered a hazard, cavities are typically present for trees of this age. The upper side of roots are all decayed, historically damaged, but as Kahikatea produce a "sinker root system" (sends vertical descending roots from lateral roots) the tree would still have enough structural support, for the interim. But considering health, size of decayed areas the tree is unlikely to be able to compensate for the structural loss over time.





Fig. 2 Delisted Kahikatea

4.1 Recommendations

Previous assessment stands tree did not reach threshold

5 2 SUEZ ST

The dawn redwood tree scores 147 points and would make the threshold with landowner consent. It is unclear if the submitter is the landowner as the site where the tree stands is rented.

Recommendations 5.1

Confirm landowner and landowner consent



Dawn redwood Fig. 3

6 HOSPITAL RD

The submission was to include additional trees, which stand behind existing notable trees, located adjacent to Hospital Rd and Main St. The aerial image below shows the trees location. The trees have been numbered with a brief description to their condition following the image.



Fig 4. Trees highlight in red not suitable to be assessed

- 1 Pin oak (*Quercus palustris*): Stump regrowth, weak attachment points at regrowth not a suitable specimen for consideration (fig. 6).
- 2. Claret ash (*Fraxinus oxycarpa* 'Raywoodii'): Fair condition suppressed by adjacent oaks (fig.5)
- 3 Pin oak: good specimen some structural pruning required, in moderate health (fig.5).
- 4 Claret ash: Good medium sized specimen in good health (fig.5)
- 5 Claret ash: Good medium sized specimen in good health
- 6 Pin oak: Bifurcated at base weak structure, not suitable for consideration

Contact was made with the new property owner, who gave no landowner consent was given. The highest score tree within group was 135. The threshold for no landowner consent is proposed at 230, therefore the trees would not meet that threshold.

6.1 **Recommendations**

No landowner consent trees fail to make proposed threshold for protection without approval.



Fig. 5 Example of Trees proposed, ref No. for trees shown



Fig. 6 Tree 1

7 LOT 7 DP396767

The tree is infected with Cypress canker (*Seridium sp.*). Cypress canker, especially within the milder climates of NZ, can have a devastating effect on Monterey cypress. In recent years, the spread, and the rate of canker infection, appears to have increased within the region. Canker leads to dieback, mild to severe, multiple infections can result in terminal decline.

There are inherent genetic variations within species, where certain trees are more resistant to certain pathogens and climatic change than others within the same species. I was unable to access site but viewed the tree from Churchill Cres, where it was clear that this tree is highly affected by canker, where terminal decline is foreseeable.

7.1 **Recommendations**

Tree is not considered suitable for protection status, due to being considered as being in a state
of irreversible decline due to canker.

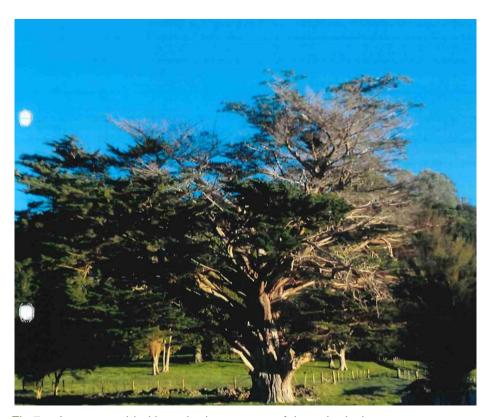


Fig.7 Image provided by submitter as part of the submission

8 HUANGARUA RD, PURUATANGA RD AND MARTINS RD, MARTINBOROUGH

Approx. 300 juvenile maturing claret ash trees are proposed for consideration. The trees form an avenue spreading 3km in length. Most of the trees located on the southern side of the road are beneath powerlines. The majority of the trees exhibit columns of decay, and significant wounds around their base. Health, as a group, is considered mixed but overall good, and structure mixed but overall poor to moderate.

Claret ash is regarded to be a good selection for street tree planting, due to the autumn displays and being relatively hardy specimens. However, these trees require good formative pruning during establishment for trees to achieve good structures, as this cultivar is regarded to have a high frequency for limb failure. No such pruning has been carried out, where many these trees exhibit developing structural issues within their crowns.

Most trees exhibit damage/wounding either along the main stem or at their base, and at times this damage is significant. Once the bark is removed, the wood is exposed to the atmosphere where decay can spread. Mechanical wounding to, and around, the base of trees can be highly detrimental to stability, as decay spreads, and to health in terms of compromising the tree's vascular system (effectively ring barking the tree).

The southern avenue of trees is located beneath the power lines. These are open canopy trees that can reach heights and canopy spreads in excess of 15m. Maintaining so many trees under the powerlines by SWDC to meet currently regulations and health and safety obligations, will come at a considerable cost, and would be regarded as a significant disservice.

Recommendations 8.1

In consideration to the above, the proposed trees are not considered appropriate for notable tree status due to the practicalities and costs in maintaining this volume of trees, for powerline clearance and in regard to their developing structural issues.



Fig.8 Ash trees located along Martins Rd



Fig.9 Ash trees located along Huangarua Rd



Fig.10 Examples of tree damage



Fig.11 Examples of mechanical damage

RICHIE HILL

PAPER STREET TREE COMPANY

Appendix 2 PSTC Summary of Notable Tree Evaluations



PREPARED BY PAPER STREET TREE COMPANY

For

SOUTH WAIRARAPA DISTRICT COUNCIL
 NOTABLE TREES

Date: 27.09.18

EST. **PS** 2013

ARBORICULTURE CONSULTANCY

INTRODUCTION 1

- I have been engaged by South Wairarapa District Council (SWDC) to provide an updated 1.1 evaluation of the Notable Trees attached as Appendix 1 to the Council's Wairarapa District Plan. I have also evaluated trees and tree groups proposed by members of the public and the Greytown based Tree Advisory Group. In total approximately 534 trees were reviewed as part of this process.
- 1.2 The trees were assessed using STEM - A Standard Tree Evaluation Method (Flook, R., 1996); a tree evaluation methodology used to determine the intrinsic quality of trees. It is designed as a tool to facilitate the decision making processes, for determining tree importance within urban and rural environments. It is currently being used by over 30 local authorities in New Zealand to identify important community trees for their respective district plans.

1.3 Summary of existing Notable Trees

Appendix 1 of the District Plan lists 97 Items under Notable Trees for the South Wairarapa region. Trees are either listed as individual Items or as a group. The total number of Notable Trees recorded during this process was 299 trees. Some of the listings where vague in details, which meant the exact total of trees originally listed is uncertain, as some listings were referenced with plus marks, e.g. oak 7+, or plural used for species e.g. oaks. These listings where for properties that contained numerous trees, making it impossible to determine what was initially proposed. Landowners were also unclear as to what trees are protected as no trees where mapped. For instances like these, discussion took place with landowners where high quality trees were selected from the listings. Out of the 299 trees, 25 trees were no longer present and a further 20 trees have been proposed to be delisted for no longer being suitable for protection status. Resulting in 254 existing trees to be listed.

Summary of trees to be added to the Notable Tree schedule 1.4

53 trees have been proposed by general members of the public, throughout the South Wairarapa district, and approximately 227 trees have been proposed by the Tree Advisory Group of Greytown.

Constraints 1.5

The existing listed trees had no recorded location data which hindered the assessment process, especially for rural destinations. In certain instances, the exact number of trees were not recorded, nor was it clear which of the trees were protected when multiple trees of the same species existed within a site. Most of the trees had no notable information, or reasons for being either initially protected, or as to why trees where protected or being proposed. In addition to this, it was found that a number of addresses were incorrect. During the last review some tree groups were relisted as a single tree e.g. an oak is listed, but on site there is an avenue of oaks.

- 1.5.1 Furthermore, there was no land owner approval/consultation for all the trees proposed by the Tree Advisory Group prior to our engagement. This led to complexities/delays to the process included misidentified trees and incorrect addresses/locations. Therefore, carrying out a STEM assessment for all the trees within an allocated budget was not possible and consequently STEM assessments were prioritised as follows:
 - 1 Existing listed trees STEM assessed first;
 - Proposed trees with landowner approval STEM assessed second, and 2
 - Proposed trees with no land owner approval STEM assessed third, where budget 3 allows.
- 1.5.2 Further strategies were put in place to make the process efficient, to enable as many trees as possible to be assessed. On the recommendation of the Council's previous Environmental Manager Murray Buchanan, Council owned notable trees were to be visually inspected and only GPS located, and no STEM assessment carried out for these trees. For trees proposed that stand in road reserves, Mr. Buchanan also suggested that these trees were not to be prioritized due to already receiving a degree of protection.
- 1.5.3 To further increase assessment efficiencies a series of detailed explanatory notes have been provided, to show how the trees are assessed, and how the scores are reached. These are set out in the Paper Street Tree Company STEM Explanatory Notes, dated 27.09.18.
- 1.5.4 In total 231 notable items (tree and tree groups), existing and proposed, have been STEM assessed, with 99 Council owned notable items inspected and GPS located.

3 SUGGESTED IMPROVEMENTS TO THE SWDC NOTABLE TREE LISTINGS

3.1 Apply tree identification numbers and identify importance category

All the notable items assessed have been given new identification numbers, in order to make trees easily identifiable. Trees are either identified as an individual specimens, or as a tree group. Trees that have been classed as a tree group are for trees that are;

- located in unique ecosystem environment, such as a bush remnant, where certain individual trees are reliant on that ecosystem for survival or;
- for trees that are either the same species located in proximity to one another identified or valued as a single entity e.g. an avenue of trees.
- 3.1.1 Each tree, or tree group, has also been assigned a letter to indicate its importance, in respect to the category in which a tree is assessed to hold the most value in, as shown below:

Tree Value						
General	Landscape	Heritage	National interest			

Each tree is given a letter prior to its number which corresponds to the above valuation category i.e. G= General tree, L= Landscape tree, H= Heritage tree and NI= National Interest tree. This ensures the appropriate consideration is given to trees that are of public importance. This will also be beneficial tool for determining STEM thresholds.

3.2 **GPS locations**

Every tree assessed or inspected has been GPS located. This location is found on the relevant assessment sheet. Trees that have been listed in a groups either have each tree recorded, or a polygon is laid over the trees where each corner has been GPS plotted marking the edge of the group. For these group trees, an illustrative plan also accompanies the relevant assessment sheet with the polygon overlaid on an aerial image of the site.

3.3 Trees nominated that have no landowner consent

Even though it was considered there was not enough time to carry out a STEM assessment for all the trees proposed with no land owner consent, all these trees were visually inspected to ensure trees of public interest were considered for protection. Most of these trees had to be assessed from the street, due to no approval from the landowner to assess the trees within their property.

Given the cost of engagement and meeting the section 32 of the Resource Management Act 3.3.1

requirements to provide sufficient rationale for including trees in the Appendix, it is my

recommendation that a tree would need to score quite highly in each criteria of STEM to be

a tree worthy of Council perusing the matter further with the landowners. Therefore, a STEM

score of 230 points was set as a benchmark. Such trees are easily identifiable as they are

trees of significant size, age, and historic importance, or rarity. Where a tree is considered

to meet or be close to that threshold score a STEM assessment was carried out.

3.3.2 Only one tree reached that threshold, i.e. a group of heritage oaks (the Mead oaks in

Greytown). These trees are one of the first exotics plantings in the Wairarapa and are located

near the Greytown centre; at the bottom of Wood Street. I consider these trees to be of local

historic importance.

Another tree worthy of consideration, which did not meet the threshold but is worthy of

consideration for further consultation with the landowner, is the copper beech located on 134

Main Street in Greytown. Due to its location town centre as a landscape tree and being a tree

of local interest.

Recommended STEM thresholds 3.4

As the trees are assigned into categories of importance specific threshold are set to reflect

the public value those trees hold, therefore it's recommended that:

Trees of National Interest are given a threshold of 110

Trees of historic value are given a threshold of 120

• Trees of landscape value are given a threshold of 130

Trees of general value are given a threshold of 140

Further details or explanations can be provided for on request, should any further information be

necessary.

RICHIE HILL

PAPER STREET TREE COMPANY

Appendix 3 PSTC STEM Explanatory Notes



SOUTH WAIRARAPA DISTRICT COUNCIL HERITAGE TREES

Date: 26.09.18

Contents

- 1 INTRODUCTION
- PRE-ASSESSMENT OF A TREE OR TREE GROUP
- EXPLANATORY NOTES FOR STEM ASSESSMENT CRITERIA 3
- CONDITION (HEALTH) EVALUATION
- AMENITY (COMMUNITY BENEFIT) EVALUATION
- 6 NOTABLE EVALUATION

REFERENCES

INTRODUCTION 1

- STEM A Standard Tree Evaluation Method (Flook, R., 1996) determines the intrinsic quality 1.1 of trees in both urban and rural environments. More than thirty Local Authorities in New Zealand use it to identify important community trees for their district plans.
- 1.2 These notes explain how trees should be evaluated. Their purpose is to minimize subjectivity and make assessments easily understood by anyone not an expert. They are divided into sections that correspond to the sections found on a STEM sheet. Scholarship is cited when necessary to justify scores, and terms are defined in the following section. Any specific detail relating to a tree or tree group is noted on its STEM sheet. Otherwise trees are scored as directed below.

Terms used 1.3

Considered: An opinion given by the assessor based on his/her experience of working

with trees.

Cultural services: The non-material benefits from ecosystems.

Cultural The aesthetic, historic, scientific, social or spiritual value for past, present

significance or future generations (ICOMOS Australia Burra Charter)

General tree: A typical example of a species found within the region.

Heritage tree: A tree that contributes to an understanding and appreciation of New

Zealand's history and cultures, or is associated with, or connected to, a

person, group, or community.

Landscape tree: A tree notable for its large dimensions, or for being of special visual

interest or cultural significance.

National interest A tree rare in New Zealand, or the earliest known planting, or of large

tree: diameter, height, or canopy spread (ranked nationally among the top 5),

or a tree considered to be an outstanding specimen, or remnant of an

original forest.

Nuisance: An activity or set of circumstances that causes a substantial and

unreasonable interference with a person's land, or his/her use or

enjoyment of it.

Proximity of trees: Nearness of other trees to the subject tree or tree group. [Surely this is

redundant. Everyone knows what proximity means]

Structural Damage to a structure, considered to be caused by a tree or tree group,

that requires part or complete rebuilding. damage:

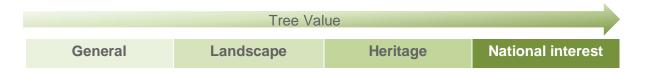
Tree disservice: Nuisance resulting from, but not limited to; spreading of invasive species,

> shade, limb failure, fruit/leaf fall, bird roosting, animal excrement, honeydew deposits, proximity to power lines or causing structural

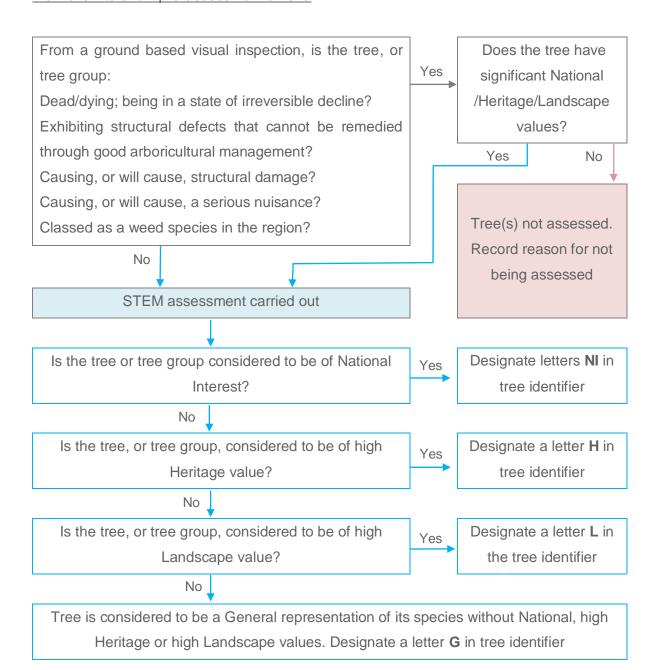
damage.

2 PRE-ASSESSMENT OF A TREE OR TREE GROUP

2.1 Prior to a STEM assessment, a tree is pre-assessed to ensure that only trees of quality are considered for protection. Each tree or tree group that qualifies for a STEM assessment is given a unique identifier denoting its rank within a hierarchy of importance (see below)



2.2 Flow chart to show pre-assessment criteria



2.3 STEM thresholds

Thresholds are set to identify trees that are worthy of protection, in consideration to tree importance; the public value that those trees hold. For the South Wairarapa region thresholds have been set as follows:

- Trees of national interest 110 points
- Trees of historic value 120 points
- Trees of landscape value 130 points
- Trees of general value 140 points

EXPLANATORY NOTES FOR STEM ASSESSMENT CRITERIA 3

Below is an example of a STEM assessment sheet with definitions where necessary. Explanations are given in the numbered sections.

Address	Address where the tree stands					
Tree name	Species (botanical and common names) Ref number including value letter i.e. heritage, landscape or general					
Location of the tree on the site	Where the tree stands on the site					
Legal address	Title on where the tree is located					
Lat / Long	GPS coordinates for the tree(s)					
Date of STEM Assessment	When assessment took place	Assessed by Name of assessor		Name of assessor		

Tree Dimensions (TD)

Height: Measurement of tree height noting measurement device	Girth @ 1.4m: (cm)	Spread: (m) x (m)
--	--------------------	-------------------

Condition (Health) Evaluation

Points	3	9	15	21	27	Score	
Form	Poor	Moderate	Good	Very Good	Specimen	0	
Occurrence	Predominant	Common	Infrequent	Rare	Very Rare	0	Explained in
Vigour & Vitality	Poor	Some	Good	Very Good	Excellent	0	detail in
Function	Minor	Useful	Important	Significant	Major	0	section 4
Age (years)	10+	20+	40+	80+	100+	0	
					Subtotal	0	

Amenity (Community Benefit) Evaluation

Points	3	9	15	21	27	Score	
Stature (m)	3-8m	9 - 14m	15 - 20m	21 - 26m	27+	0	
Visibility (km)	0.5	1.0	2.0	4.0	8.0	0	End to be a differ
Proximity	Forest	Parkland	Group of 10+	Group of 3+	Solitary	0	Explained in detail in section 5
Role	Minor	Moderate	Important	Significant	Major	0	Section 5
Climate	Minor	Moderate	Important	Significant	Major	0	
					Subtotal	0	

Notable Evaluation

Recognition Points	3	9	15	21	27	Score	
Stature Feature	Local	District	Regional	National	International	0	
Form	Local	District	Regional	National	International	0	
Historic Age 100+	Local	District	Regional	National	International	0	
Association	Local	District	Regional	National	International	0	Explained in
Commemoration	Local	District	Regional	National	International	0	detail in
Remnant	Local	District	Regional	National	International	0	section 6
Relict	Local	District	Regional	National	International	0	
Scientific Source	Local	District	Regional	National	International	0	
Rarity	Local	District	Regional	National	International	0	
Endangered	Local	District	Regional	National	International	0	
	_	_			Subtotal	0	

Total Points 0

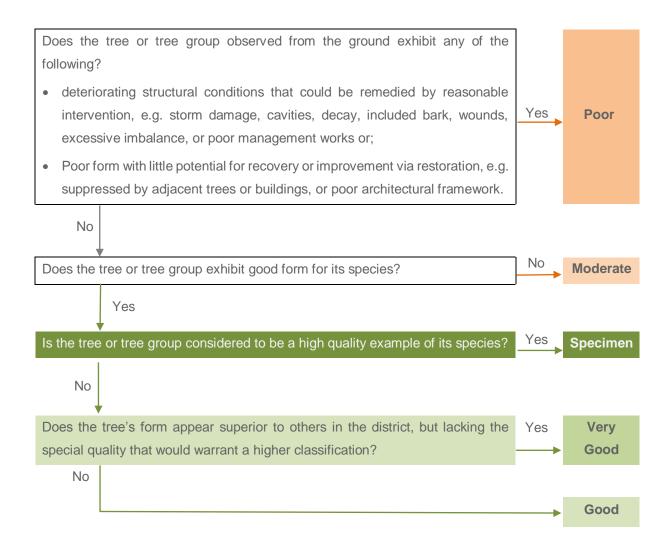
4 CONDITION (HEALTH) EVALUATION

4.1 Form of the Tree

4 CONDITION EVALUATION

In assessing the structural form and symmetry of a tree, higher scores are given to specimens considered to be good examples of the species.

4.1.2 Flow chart for calculating form



4.2 Occurrence of the Species

4 CONDITION EVALUATION

The occurrence of a species is based on local knowledge of the frequency with which it occurs within the district. An unusual or rare specimen is also considered in a wider context, regional, national, and international. Other arboricultural specialists or botanists, local and international, are consulted to confirm its rarity.

4.2.1 The primary purpose of this section is to award points to uncommon trees, as a very common species can be vulnerable to a pest or pathogen. Increased diversity, provides greater opportunity for tree functions to operate across a broader range of conditions, biodiversity insures against future environmental uncertainties such as climate change, pests, and disease.

4.3 *Vigour and Vitality*

Vigour and vitality assess the health of the tree or tree group, as defined below:

- Vigour
 - Is the genetic capacity of a tree to grow and endure stress (genetic feature (static))
- Vitality

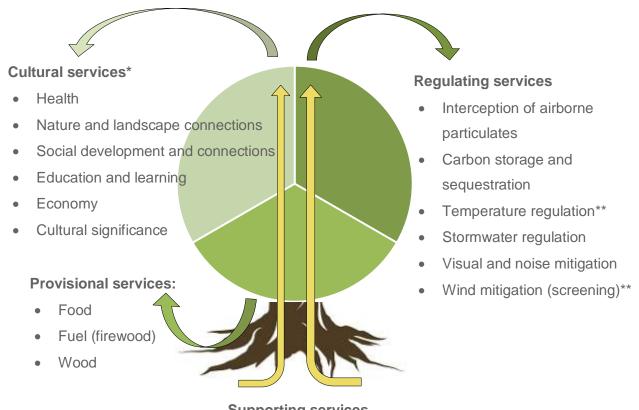
Is the ability of a tree to grow and survive in its environment (environmental factors (dynamic))

4.3.1 When the assessment spans different seasons, some trees may be devoid of foliage, increasing the difficulty of assessing the tree's health. When size, density, discoloration and distortion of leaf cannot be assessed to determine vitality, consider the hue and tracery of the canopy, density of buds, fruit set, and the absence or presence of lichens on small diameter branches. Previous and current growth increments help to assess levels of vigour.

Function (Usefulness) 4.4

CONDITION EVALUATION

This section assesses the ecosystem services (the benefits that people derive from nature) the tree or tree group provides within its setting. The Millennium Ecosystem Assessment (MEA, 2005) and the UK National Ecosystem Assessment (UK NEA, 2011) divide ecosystem services into four categories as shown in the diagram below.



Supporting services

- Primary production (where plants make their own food and use that food to live and grow)
- Production of atmospheric oxygen
- Soil formation and retention,
- Nutrient cycling
- Biodiversity/habitats for wildlife, fungi, bacteria etc.

^{*}Assessed in section 4.4 under Role

^{**}Assessed in section 4.5 under Climate

- 4.4.1 Cultural services, temperature regulation, and wind mitigation are assessed elsewhere. This section focuses on provisional, regulatory, and, where applicable, supporting ecosystem services.
- 4.4.2 Tree size significantly affects the provision of ecosystem services. Larger and more mature trees with larger canopies and stem diameters provide more varied benefits than small and immature trees.(Gill et al., 2007; McPherson et al., 2007) They fix more carbon than smaller trees (Stephenson, et al., 2014). The figure below provides a visual interpretation of the increasing value with age of these services.

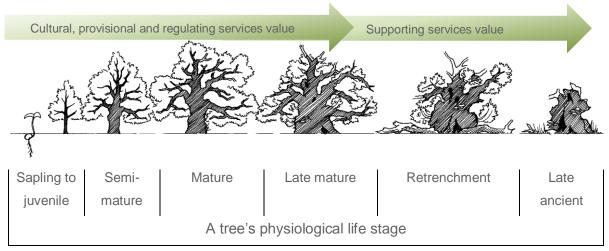


Fig. 1 A tree's physiological life stage

CONDITION EVALUATION

4.4.3 The benefits people derived from trees should allow for negative effects identified as tree disservices, defined in section 1.3. A tree disservice is a tree that is causing, or will cause, a nuisance or structural damage. Therefore, tree disservices are factored into the calculation for Function, and are offset against benefits as shown in the following flowchart.

4.4.4 Flow chart for calculating function:

CONDITION EVALUATION

Is the tree, or tree group, seen from the ground, in an advanced state of maturity, of biological, aesthetic, or cultural interest? Or exhibit a growth stage considered ancient or post mature, or a chronological age that is old relative to others of the same species nationally or internationally? No Yes Does the tree or tree group provide a disservice, as What is the significance of the value, described in section 1.3? taking into account any disservice? Yes No What is the largest recorded dimension of the tree or tree group (canopy width or height) 3-8m 9 - 14m 15 - 20m 21 - 26m 27 +Minor Useful **Important Significant** Major What is the largest recorded dimension of the tree or tree group (canopy width or height) 3-20m 21m+

4.5 Age

Minor

A tree's age is determined by the age of a nearby dwelling and the history of the tree's role in the landscape (is it likely that the tree was part of the original gardens); by comparing its dimensions with others of the species within the region whose age is known; by examining its environment to deduce its rate of growth; by examining earlier images, when available; and by comparison with trees listed, with date of planting, in the New Zealand Tree Register (www.notabletrees.org.nz).

Useful

5 AMENITY (COMMUNITY BENEFIT) EVALUATION

5.1 *Stature (size)*

AMENITY EVALUATION

The tree or tree group's greatest dimension from either height or crown spread is used to score this criterion. In the case of a tree group, the combined spread of the group is measured.

5.2 Visibility of the tree or tree group

Score the visibility and stature of the tree or tree group from the distance a person would reasonably be able to see, and distinguish, it.

5.3 *Proximity of other trees*

A tree or tree group standing by itself, especially in urban areas, is considered to be of greater interest. The fewer the trees within the landscape, the greater their value.

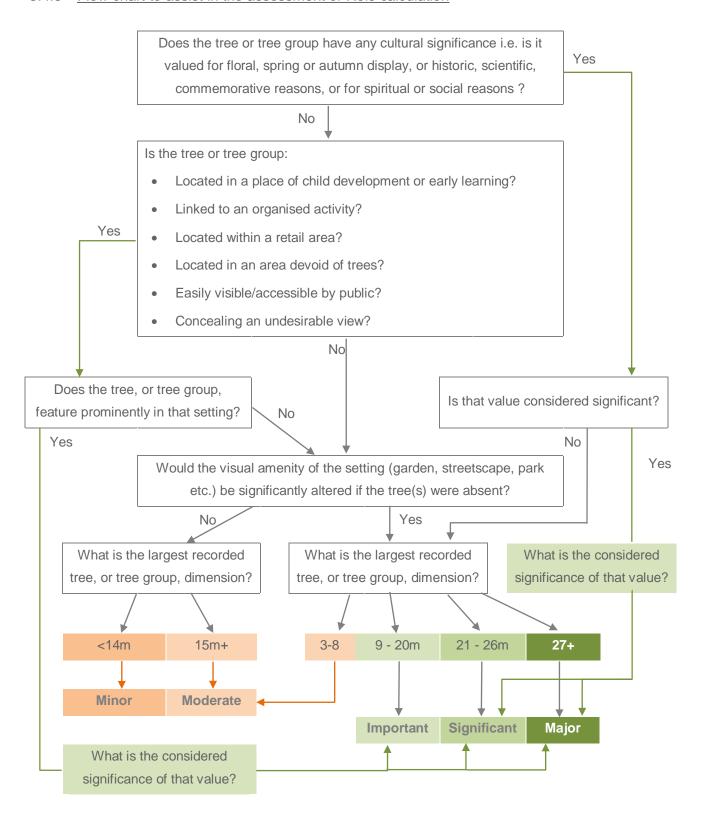
5.4 Role in setting

This is a subjective assessment of a tree or tree group's visual contribution to the landscape. Trees promote wellbeing. Scientists link encounters with trees, even passively from homes, vehicles, and when walking to wellness (Wolf, 2015)). Consider location, prominence, and visual contribution when scoring.

- 5.4.1 People report reduced mental distress and greater wellbeing after moving to urban areas with more green space from areas with less (White *et al.*, 2013). Kuo (2001) found that street trees in deprived residential areas significantly benefit a child's cognitive function.
- 5.4.2 Trees, especially large trees, make shopping areas provide economic benefits in terms of retail areas being more enjoyable for consumers (Wolf. 2004 & 2005), and property values increase in highly treed suburbs over suburbs with fewer trees (Tryvainen et al., 2000; Donovan et al., 2010).

5.4.3 Flow chart to assist in the assessment of Role calculation

5 AMENITY EVALUATION



5.5 Climatic Influence

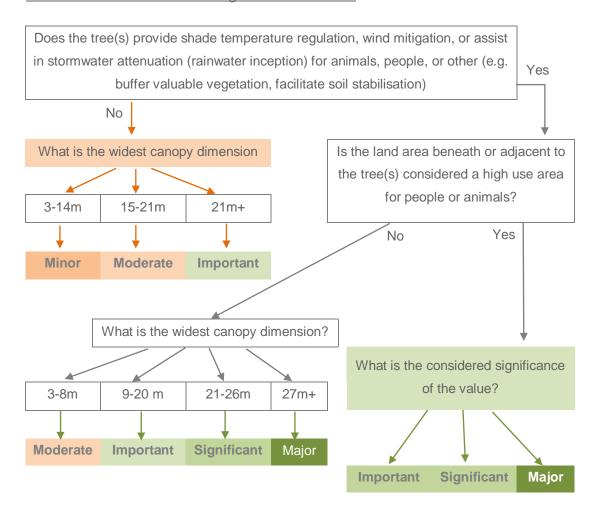
AMENITY EVALUATION

Trees intercept rainfall, screen from winds, and regulate local temperatures by providing shade, by cooling, and by reducing runoff by up to 60%. Shade increases the comfort of both animals and people, lowering temperatures in towns by up to 4-7°C and surfaces by 15-20°C. Their evapotranspiration removes up to 50% of the energy from ultraviolet (UV) radiation (Ennos *et al.*, 2014).

- 5.5.1 Shade and the ability of trees to intercept UV provides benefits to New Zealanders especially owing to the intensity of UV radiation between September and April. Whereas 10 on the UV index is considered to be extreme, in a New Zealand summer the level may reach 12, and exceed 13 in the far North (NIWA).
- 5.5.2 Hard surfacing such as asphalt, tarmac and brick absorb more short-wave radiation (sunlight) and heat than vegetation (which reflect more radiation), resulting in warmer air temperatures over urban areas compared to those over rural areas. This effect is more pronounced during heatwaves. Canopies of trees also shade hard surfacing reducing surface temperatures and convective heat. Trees also reduce warming of the local environment through evapotranspiration where, by the evaporation of water from leaf surfaces, a tree can cool the surrounding air improving human thermal comfort (Davis *et al.*, 2017). For both rain water inception and temperature regulation, the greater the leaf area the greater the benefits (Gill *et al.*, 2007). Temperature regulation and rain water inception can contribute to preserving/maintaining soil condition which is viewed as a supporting service. Therefore, this should be taken into consideration if climate is not viewed to benefit people or animals.

5.5.3 Flow chart to assist in assessing Climatic influence

5 AMENITY EVALUATION



6 NOTABLE EVALUATION

A tree should be scored only when it is considered to be an exceptional example, is of great age, a landmark, or is part of the historical framework of the site.

6.1 *Stature*

Feature

A trees scores for being very prominent or easily recognizable as a point of interest or landmark

• Form

A trees scores only if it is an impressive example of its species.

6.2 *Historic*

Age

To be scored only when certain that the tree is more than 100 years old.

Association

For a tree to score in this criteria it must have a well-established connection with a natural or planned event, or an eminent person, or be culturally significant whether as a sense of place; tangible characteristic of a place, or as a characteristic that makes a place special or unique.

Commemoration

A tree planted to mark a special occasion. To be scored only when supported by reliable evidence.

Remnant

Tree or tree group that stand as part of an original native forest, or exotic tree plantation, now modified (e.g. group of forest trees now growing in urban subdivision) that is left after the greater part has been used, removed, or destroyed.

Relict

A tree that is the sole remnant of a formerly widely distributed group living in an environment altered from that in which it originated.

6.3 *Scientific*

Source

A tree is scored when considered to be a source of seeds for an exceptional example of the species, or for the natural regeneration of remnant trees, or for trees that exhibit a distinctive variation of the species.

Rarity

A tree is considered to be rare when there are less than a handful of known examples of the species, subspecies, variety, or cultivar.

Endangered

To be scored only when a species is assessed as threatened applying the criteria set out by the International Union for the Conservation of Nature (ICUN) or the Conservation Status of New Zealand Indigenous Vascular Plants (2017).

REFERENCES

NOTABLE EVALUATION

Armson, D., Rahman, M.A. and Emmos, A.R. (2013a). A comparison of the shading effectiveness of five different street tree species in Manchester, UK. Arboriculture and Urban Forestry 39(4), 157–64.

Davies, H., Doick, K., Handley, P., O'Brien, L., and Wilson, J. (2017). Delivery of ecosystem services by urban forests Forestry Commission Research Report Forestry Commission, Edinburgh. i–iv + 1–28pp.

Ennos, A.R., Armson, D and Rahman, M.A (2014). How useful are Urban trees? The lessons of the Manchester Tree Project. In; Johnston, M and Percival, G. Trees People and Urban Environment II. Institute of Chartered Foresters, Edinburgh, UK, pp. 62-70

Flook, R. (1996) STEM A Standard Tree Evaluation Method

Gill, S.E., Handley, J.F., Ennos, A.R. and Pauleit, S. (2007). Adapting cities for climate change: the role of the green infrastructure. Built Environment 33(1), 115–33.

Kuo, F.E. (2001). Coping with poverty: impacts of environment and attention in the inner city. Environment and Behaviour 33(1), 5–34.

MacPherson, E.G., Xiao, Q.F and Aguaron, E. (2013) A new approach to quantify and map carbon stored, sequestered and emissions avoided by urban forests

Stephenson, N. L., Das, A. J., Condit, R., Russo, S. E., Baker, P. J., Beckman, N. G., & Zavala, M. A. (2014). Rate of tree carbon accumulation increases continuously with tree size. Nature, 507(7490), 90-93. doi:10.1038/nature12914

Tryvainen, L. and Miettinen, A. (2000). Property prices and urban forest amenities. Journal of Environmental Economics and Management 39, 205–23.

White et al., 2013 M.P. White, I. Alcock, B.W. Wheeler, M.H. Depledge. Would you be happier living in a greener urban area? A fixed-effects analysis of panel data Psychological Science, 24 (6) (2013), pp. 920-928

Wolf, K.L. & Robbins, A.S.T (2015) Metro Nature, Environmental Health, and Economic Value. Environmental Health Perspectives 123:390

Wolf, K. (2004). Trees and business district preferences: a case study of Athens, Georgia, U.S. International Society of Arboriculture 30, 336–46.

Wolf, K. (2005). Business district streetscapes, trees and consumer response. Journal of Forestry, 103, 396–400.

Attachment5 – PC Table 10 as Recommended

Appendix 6- Electronic Database