

URBAN FOREST PLAN

CENTRAL WARD THEME – STREET TREES

Adopted by Central Community Committee on 21 November 2011

1. BACKGROUND

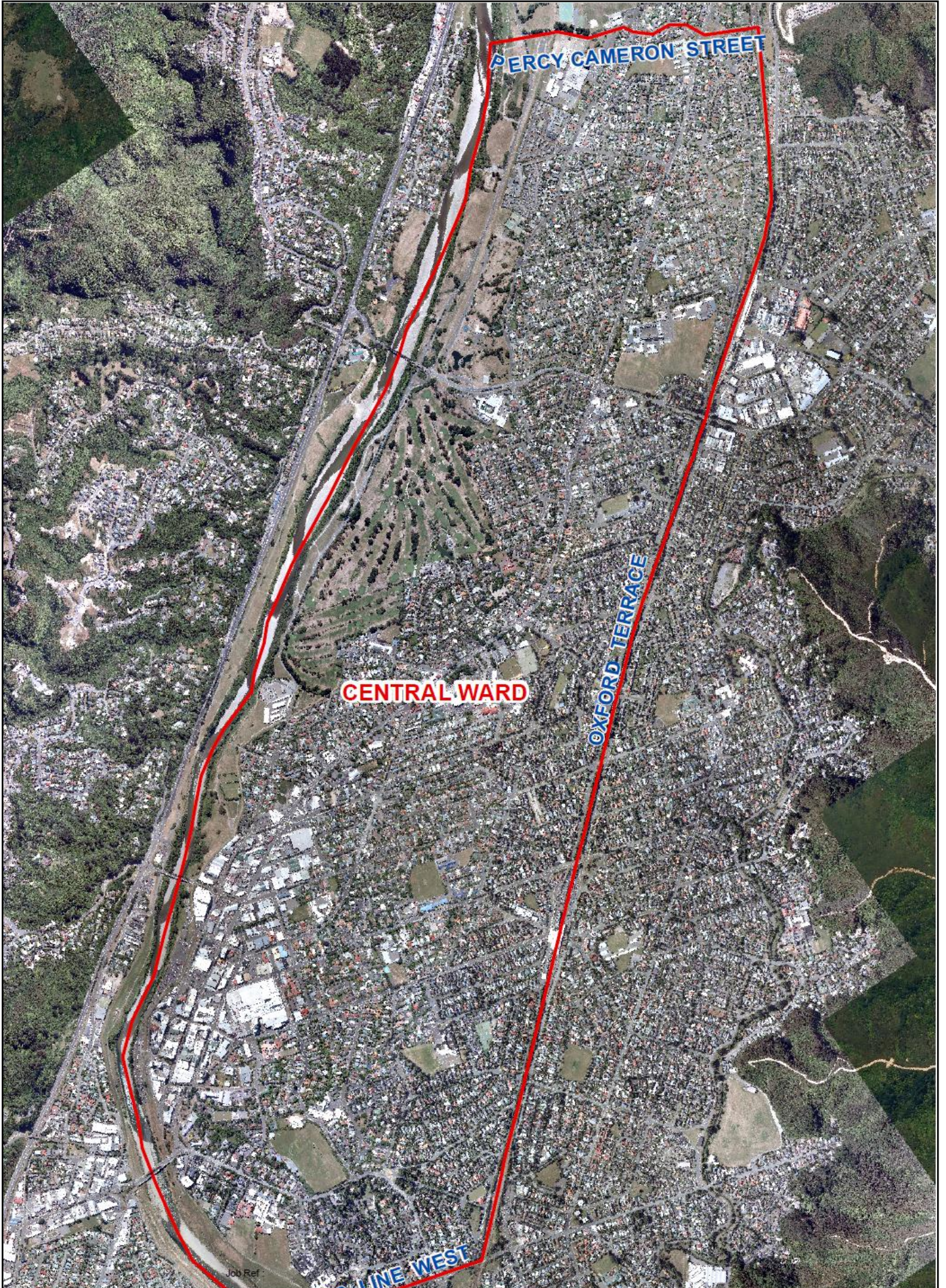
Council adopted the Urban Forest Plan on 15 December 2009. The plan sets a number of objectives for managing vegetation in Hutt City. In particular, the plan provides elected members, council officers and Council's tree contractor with clear direction for planning and managing street trees across the whole city.

In order to identify objectives for specific geographical areas of the City, Council requires Community Committees and Community Boards to set a Ward Theme. The Ward Theme will provide a lead for developing individual tailor made plans for streets within the Ward or Board territory. These plans for individual streets will be called Street Tree Master Plans.

There are 2854 street trees in the Central Ward. There are 144 streets in the Central Ward. Of these, 121 feature street trees. Overall, the Central Ward is well treed in road reserve and on private properties.

The City's most dense populations exist in the Central Ward (Epuni West and Waterloo West) currently and the area of densely populated land is forecasted to expand in the Central Ward, particularly in Avalon East.

Council specified that the Central Ward would be treated as the top priority area for implementing the Urban Forest Plan. The Central Community Committee adopted this Ward theme at their ordinary meeting on 21 November 2011.



2. THE SOLUTIONS FOR THE CENTRAL WARD

PRIORITIES FOR CENTRAL WARD

- Removing pest plant species, hazardous trees and toxic species
- Implementing Making Places by planting additional street trees in CBD
- Suburban Shopping centres – Epuni, VIC Corner, Park Avenue and Boulcott
- Route to CBD from Melling and Woburn Station and other main arterials and hubs
- Making decisions about trees under overhead lines, especially those that do not currently require clearance under lines
- Phased removal of street trees that require line clearance where quality cannot be achieved
- Where trees are damaging roads, footpaths and underground pipes, combine physical works (infrastructure and trees work) as single job

Note that the approach to the Central Ward from the Dowse Interchange is also an important consideration.

NEW TREE PLANTING

Most areas of the Central Ward have good numbers of street trees. Overall, it is unlikely that the number of street trees in the Central Ward will increase.

The target for new street trees are likely to be those streets where there are currently no or few street trees and the layout of the berms, overhead lines, underground services and vegetation on private property are suitable for street trees.

Some replanting may be needed in streets where removals occur but this is likely to involve relatively small numbers in most situations as Council will no longer be planting under lines except in exceptional circumstances.

While there are streets that provide little or no opportunity for street trees at all, there will be some with unrealised potential for new planting. New street tree plantings need to comply with the Street Tree Planting Guide.

Each street will be individually considered and planned in detail as part of the street tree master planning process.

Where trees are desirable but the road reserve is unsuitable for street trees, officers and willing residents/property owners will consider opportunities for planting on private property.

PROPOSED MAIN SPECIES FOR CENTRAL WARD

NATIVE OR EXOTIC?	SPECIES	GENERAL COMMENT
Exotic	Alder Alnus cordata and some other species	
Exotic	Turkish Hazel Corylus colurna	Being trialled
Exotic	White Ironbark Eucalyptus leucoxydon rosea	
Exotic	Ash Fraxinus angustifolia	
Exotic	Ash Fraxinus americana	
Exotic	Thornless Honeylocust Gleditsia triacanthos inermis	
Exotic	Pillar Apple Malus tschonoskii	Being trialled
Exotic	Bead Tree Melia azedarach	
NativeL	Northern Rata M. robusta, Metrosideros umbellata	
NativeL	Ribbonwood or Manatu Plagianthus regius	
Exotic	Callery Pear Pyrus calleryana	
Exotic	Pepper Tree Schinus molle	
Native	Kowhai Sophora species and hybrids (S. microphylla, S. godleyi, S. tetraptera, S. chathamica)	
Exotic	Water Gum Tristanopsis laurina	Being trialled
Exotic	Chinese Elm Ulmus parvifolia and cvs eg U. Frontier	
Exotic	Keaki Zelkova serrata	

The Central Ward Committee have specified metrosideros cultivars are not to be used and only Northern Rata is to feature in the preferred species list

PROPOSED SECONDARY SPECIES FOR CENTRAL WARD

NATIVE OR EXOTIC?	SPECIES	GENERAL COMMENT
Exotic	Birch Betula sp (usually other than B. Pendula)	
Exotic	Maidenhair Tree Ginkgo biloba	
Exotic	Gordonia yunnanensis	Being trialled
NativeL	Narrow Leafed Lacebark Hoheria angustifolia	Being trialled
NativeL	Long Leafed Lacebark Hoheria sexstylosa	Being trialled
Exotic	American Sweetgum Liquidambar styraciflua	
Native	Pohutukawa cultivars Metrosideros excelsa cvs	
Native	Pohutukawa and Kermadec Pohutukawa Metrosideros excelsa, M. kermadecensis	
NativeL	Lemonwood Pittosporum eugenoides	
NativeL	Totara and Mountain Totara Podocarpus totara, Podocarpus cunninghamii	

LIKELY REMOVALS

- Trees growing under overhead lines that are unlikely to develop into quality specimens – those that will require pruning to clear lines within next 12 months and those that are already receiving regular clearance
- Poor quality street trees not under lines
- Pest plant species, weedy species, hazardous trees and toxic species

WHO IS INVOLVED

The primary contributors to the Central Ward Theme will be the members of the Central Ward Committee, the Parks and Gardens Division and other professional advisors (primarily landscape architect and arborist). Council's Road and Traffic Division and Capacity will be involved.

DELEGATION

The Central Community Committee is responsible for adopting a final Ward Theme that complies with the Urban Forest Plan objectives. This will influence Street Tree Master Plans.

Requirements for funding beyond the current operational budget for street trees will be considered within Long Term Plan and Annual Plan processes.

The Central Community Committee may wish to have one or two members represent them in some whole of street tree master planning processes. Officers support this kind of participation.

METHOD FOR DEVELOPING WARD THEME FOR CENTRAL WARD

1. Develop and modify Draft Central Ward Theme (this document)
2. Determine whether there are particular Street Tree Master Plans that will need Committee/Board contribution
3. Revise the Draft
4. Adopt a final Ward Theme

The Ward Theme will be adopted through the formal meeting process of the Central Community Committee.

KEY ASPECTS OF THE URBAN FOREST PLAN

- Compliance with the Electricity (Hazards from Trees) Regulations 2003 is paramount - Council avoids planting trees under lines and prioritises removal of trees under lines when they are unlikely to develop into quality specimens
- Our aim is to improve quality street trees – 60% of street trees to be in good health, good form and 7 to 15m high by 2050 (currently 10% of our trees meet this criteria)
- The overall balance of species used as street trees citywide is poor and Council is actively working to make sure that the 5 most common species make up no more than 10% each of street tree numbers citywide.
- A professional/expert planning and design approach is required to improve the City's street tree asset. It is beneficial and appropriate to involve the community in some street tree planning decisions.
- It is not necessary to have a tree on the berm in front of every house and where street trees are provided 25% to 75% rate of planting is likely to be the normal range – in other words between 1 street tree per 4 dwellings to 3 street trees per 4 dwellings.
- Citywide, Council aims to provide approximately 12,000 to 14,000 street trees by 2050 (currently 12,000)

3. SPECIFIC ISSUES FOR CENTRAL WARD

CLIMATE

- Strong gusty winds, particularly in spring causes damage to new growth and causes atypical forms (although on the whole the Central Ward is probably one of the most sheltered parts of the City)
- Some salt laden winds affect vegetation to Whites Line West and occasionally further inland
- Frosts

IN-GROUND CONDITIONS

- Reasonably fertile soils, comprising some areas of dryer river gravels
- Soil conditions range from summer dry to winter damp in specific locations
- Soil profile and water table has been modified as a result of the city's development
- Road construction and private developments have modified soil conditions and have limited the supply of nutrients, water and air to soil
- Compaction of berms is an issue in places
- Presence of underground services and requirement to maintain them constrain some tree opportunities and cause ongoing damage, also is an ongoing cost to Council eg repairs to private and public drains

ABOVE GROUND CONDITIONS

- Trees are required to comply with the clearances set by the electricity and roading legislation – this requires annual inspection and regular pruning
- A number of over-dimension and arterial routes have been established in the Central Ward – special canopy clearance requirements apply – see map on page 8 for routes and diagrams on pages 9, 10 and 11 for clearance requirements. Street poles, street lights, traffic signals, signage etc have legitimate rights to space in the road reserve and significantly influence tree decisions
- A number of streets with no or narrow berms (under 1m) which limit or exclude planting opportunities
- A mix of underground electrical (11,000v, 400v and 240v) and telecommunication services and overhead lines in various layouts
- A number of streets where tunnel pruning has been successful eg Arika Street and a number of streets where tunnel pruning may eventually result in some quality, mature specimens given time
- A few streets where quality mature specimens are unlikely to result from the current stock
- Some streets that can be considered as “over planted” with street trees

NATIVE OR EXOTIC?

SPECIES

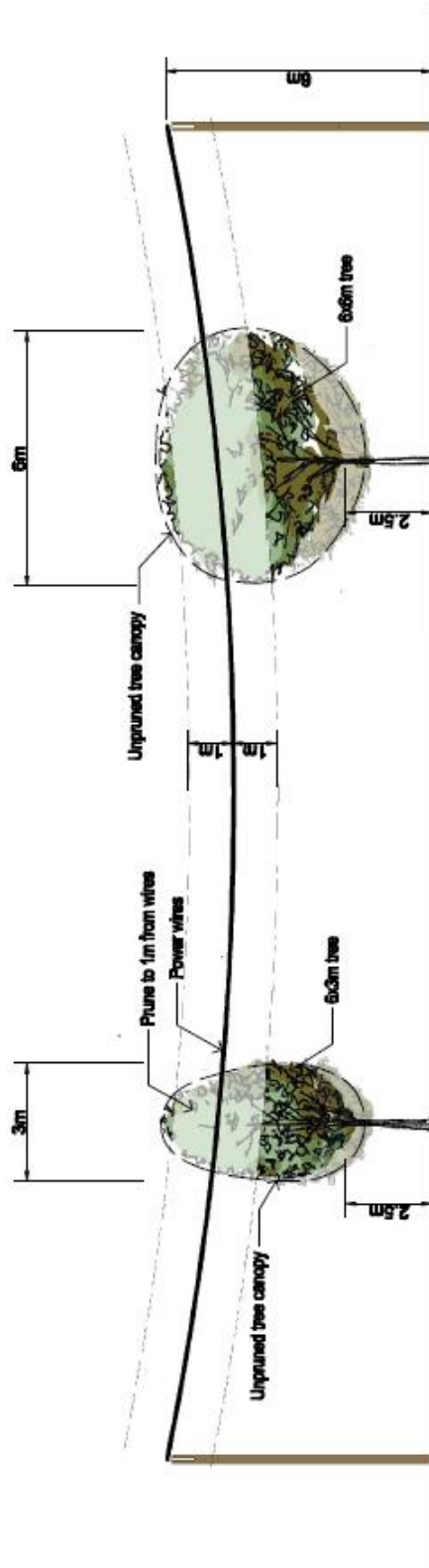
GENERAL COMMENT

Exotic

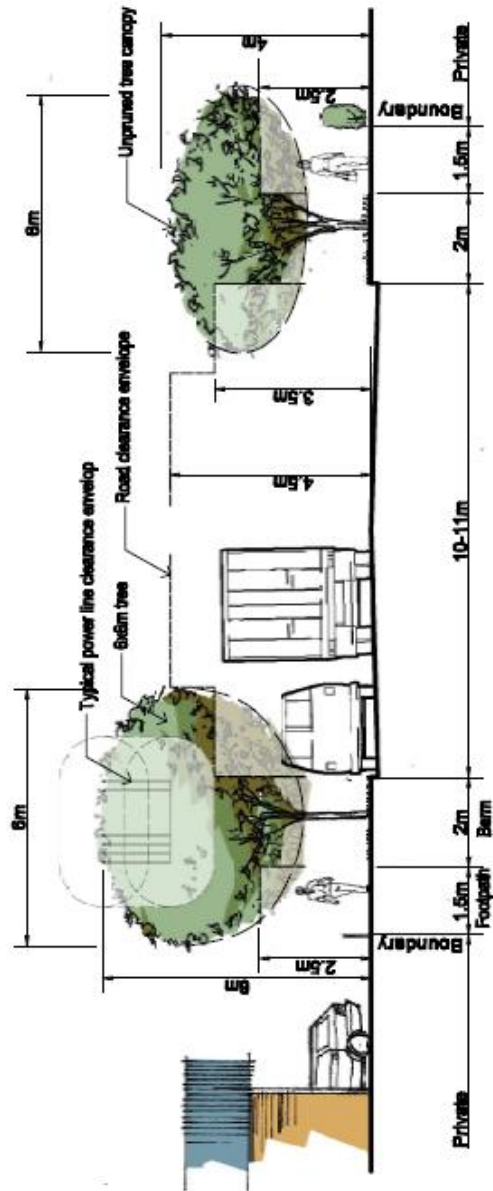
Alder

Alnus cordata and some other species

Tree Pruning Requirement A
-2 forms of small trees in a typical residential road with overhead services



Tree Pruning Requirement B
-small trees in a typical residential road with overhead services and road clearance



Tree Pruning Requirement C
-small and large trees in a typical residential road with road clearance



4. LANDSCAPE CONSIDERATIONS THAT RELATE TO THE CENTRAL WARD

Well managed street trees contribute to a high quality public realm which is inviting. Street trees can create settings that help attract businesses and residents. This particularly applies to the Central Ward.

Street trees provide a range of practical benefits, including:

- contributing to air quality, water quality, soil conservation and flood mitigation
- muffling traffic noise
- providing shade and shelter from wind
- provide food sources for birds and insects

Streets in the Central Ward are generally well treed and well supported with trees on private property which often make a significant contribution to the streetscape. In the southern area of the Central Ward the Special Residential Activity Area influences building height, intensity, scale and the size of lots in order to “maintain and enhance the distinctive residential characteristics, and special amenity values of sites and surrounding residential environment”. This improves the overall provision of trees in this area and in sites where it is not practical to provide street trees, eg Woburn Road, because the large trees in private gardens make a tremendous contribution to the attractive, leafy character of the neighbourhood.

5. LANDSCAPE CONTEXT

In the Central Ward views are a relatively minor consideration. However, the backdrop to a street can influence perceptions of a street’s character. The Urban Forest Plan recognises that vegetation on the Eastern and Western Hills contributes significantly to the perception that the city is green and leafy. The view from one end of a street can be completely different to the view from the other because of the background and the ability of vegetation to absorb visual clutter.

The issues that affect streets and street tree planting in the Central Ward generally fall into three categories.

STREETS WITH TREES OF POOR FORM

Form is probably the biggest issue affecting tree quality in the Central Ward. Form is an important consideration. Trees displaying poor form often make a negative impact on the streetscape, appearing ugly or deformed or simply unhealthy.

The factors that influence form most are:

- Wind
- pruning requirements to achieve clearances specified for road and overhead services
- species selection
- early formative care
- unintentional damage and vandalism; and
- previous topping

Pruning for overhead services is a recurrent theme in street tree management and will be the driver behind many street tree removals. As overhead services are usually located down one side of a street, the removal of trees from one side only can potentially result in an unbalanced streetscape. Having well vegetated private properties can lessen the impact of this, but this is likely to be a recurrent issue in the Central Ward particularly.

OVERPLANTED SPECIES

Again, this is more likely to be an issue in the Central Ward than in other areas. Over planting is usually a result of planting species that grow too large for the space available or planting specimens too closely. This gives a “tunnel-like” appearance and casts heavy shade. Selection of the best specimens and removing others in overplanted streets may be the solution but in some cases the trees may simply be the wrong species for the location. The solutions will vary for each street but options may include: removal, removing some specimens, a phased replanting programme.

INAPPROPRIATE SPECIES OR DISJOINTED PLANTING

Inappropriate tree selection can result in trees that are out of scale with the street (too small to make a worthwhile impact or too large for the space available).

Shade and leaf litter concern some Central Ward residents while others appreciate the effect of privacy, shade and character offered by street trees. Closely spaced, large, evergreen species can create year round shade which negatively affects the lives of neighbours.

Trees that are unsuited to the local climate often develop into unhealthy, poorly formed specimens that struggle and fail to thrive.

Street trees can create an identity to a street, providing a unifying element in a street where different styles of architecture and diverse private plantings exist. Street trees can soften and incorporate the unattractive features such as of poles, wires, garages, parked cars. Disjointed and random collections of street trees add to the visual confusion.

6. MAKING PLACES IMPLICATIONS

Making Places is the umbrella for a wide range of Council initiated projects which will improve the vibrancy and vitality of the Lower Hutt CBD. The result will be a popular and thriving city centre economy, additional residents, better quality buildings, fewer vacancies, more recreation and cultural activity, improved retail and hospitality choices, improved amenities and an enhanced landscape.

Additional street trees are a part of Making Places and the first of these will appear in our CBD streets in 2012 winter

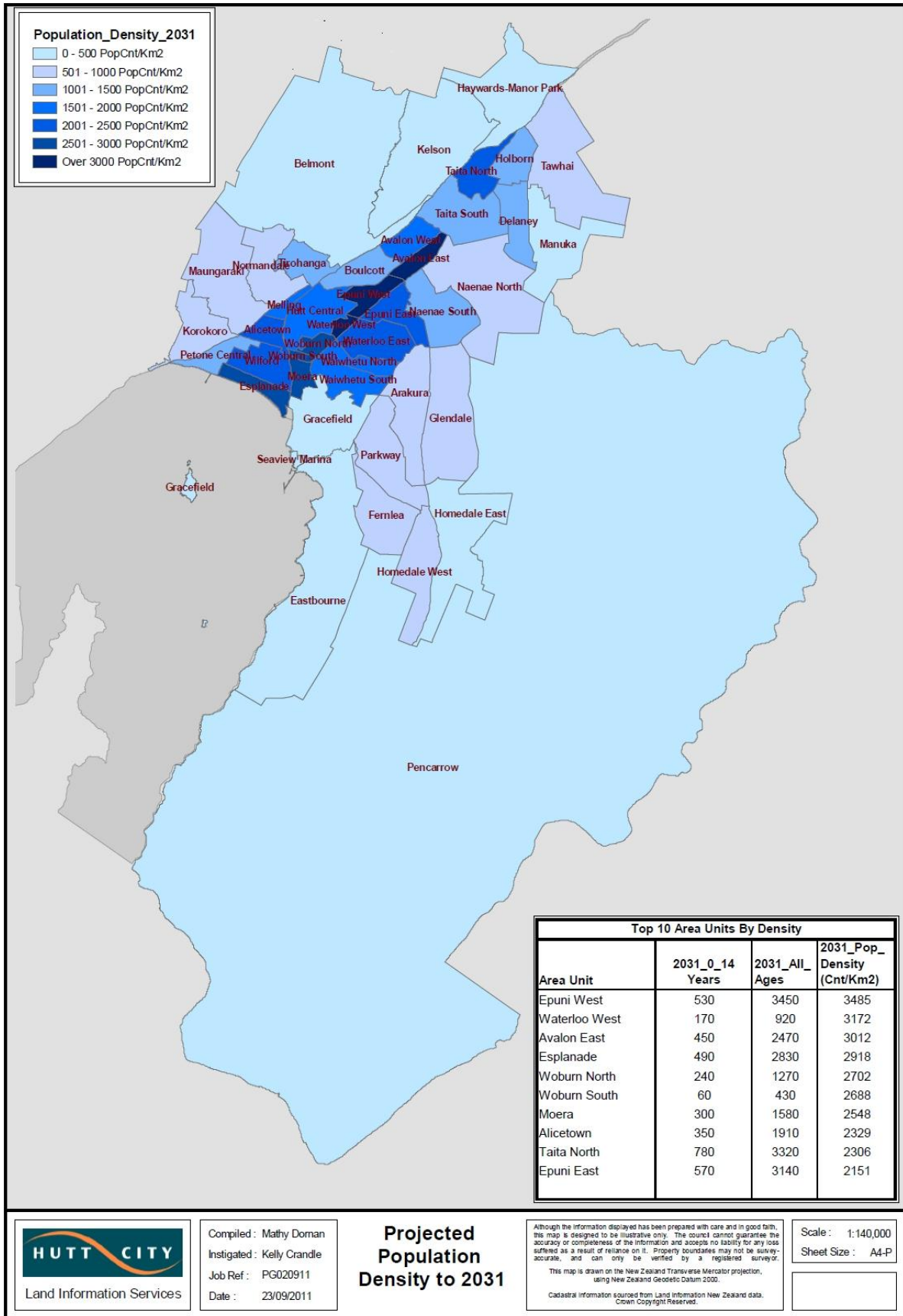
7. HOUSING DENSITY FORECAST FOR CENTRAL WARD

Population forecasts for 2010 and 2031 indicate that the population of Hutt City will grow. This growth is likely to have most effect on street trees in the Central Ward, particularly in Avalon East, Epuni West and Waterloo West. New dwellings will be constructed and the local population will become denser, ie more people will live in the same area).

When new dwellings are constructed through in-fill style subdivisions the following happens:

- New driveways create additional hard surfaces and inhibit the flow of nutrients and water to existing trees
- New driveways can occupy space on the berm that host or could host street trees
- Sections of 300m² and 400m² (and sometimes smaller) provide less choice about where dwellings, drives and garages can be placed. Unprotected trees are removed to develop new lots. Set back from the front boundary does not provide adequate clearance from existing or future tree canopies in many cases. Trees are more likely to interfere with domestic services in the berm
- Smaller sections have less space for tree planting and few medium to large trees will be planted
- New sections require additional underground services and this may rule out tree planting in the berm.

Council aims to provide street trees which enhance the perception that suburban areas are green and leafy, within the bounds of good industry practice. The irony is that as sections sizes decrease there is less space available for trees and an increasing requirement for medium and large specimen trees to be provided on Council land (in reserves or road reserves). In practical terms, the space available for street trees decreases as dwellings are added.



Compiled : Mathy Doman
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Projected Population Density to 2031

Although the information displayed has been prepared with care and in good faith, this map is designed to be illustrative only. The council cannot guarantee the accuracy or completeness of the information and accepts no liability for any loss suffered as a result of reliance on it. Property boundaries may not be survey-accurate, and can only be verified by a registered surveyor.
 This map is drawn on the New Zealand Transverse Mercator projection, using New Zealand Geodesic Datum 2000.
 Cadastral information sourced from Land Information New Zealand data. Crown Copyright Reserved.

Scale : 1:140,000
 Sheet Size : A4-P

STOCK TAKE OF CURRENT STREET TREES IN CENTRAL WARD

	ALL AREAS	CENTRAL
Total Street Trees	11983	2854
Total Houses	35652	7176
One Street Tree per ? Houses	3.0	2.5
Rateable properties	39598	7035
One Street Tree per rateable property	3.3	2.5
Total Streets	936	144
Streets With Street Trees	652	121
% Streets With Street Trees	70%	84%
Streets Without Street Trees	284	23
% Streets Without Street Trees	30%	16%
Streets without Street trees that do not have easily available space for Street trees	93	13
% Streets without trees that do not have easily available space for Street trees	33%	57%
Streets with Street trees greater than 25%	407	93
% Streets with Street trees greater than 25%	43%	65%
Streets with Street trees greater than 75%	105	35
% Streets with Street trees greater than 75%	11%	24%

HCC STREET TREE SUMMARY	TARGETS		ALL AREAS		CENTRAL	
Total trees			11983	12.0%	2854	3%
Native Local	30%		1323	11%	415	15%
Native	20%		3755	31%	913	32%
Exotic	50%		6905	58%	1526	53%
Health	Good	65%	4810	40%	1110	39%
	Average	30%	6345	53%	1540	54%
	Poor	5%	762	6%	183	6%
Form	Good	65%	3100	26%	826	29%
	Average	30%	7377	62%	1732	61%
	Poor	5%	1446	12%	283	10%
Trees under lines *			6241	52%	1664	58%
Trees currently being cleared from lines		Under 15% by 2020 citywide	1988	17%	602	21%
Trees of good health and good form and less than 7m in height			1413	11.8%	338	12%

CURRENT SPECIES MIX IN CENTRAL WARD

CENTRAL	CURRENT MAIN STREET TREES	SPECIES	GENERAL COMMENT
18%	516	Pohutukawa Metrosideros excelsa	Good performer, tolerant of pruning and wind. Evergreen, can cast heavy shade. Requires a lot of room.
13%	384	Kowhai Sophora sp	Good performer but suffers in windy site
12%	330	Birch Betula sp	Responds poorly to pruning, short lived, frequently susceptible to silver leaf disease (fungal pathogen)
7%	213	Flowering Cherry Prunus sp	Frequently develops atypical form (result of wind), short lived, frequently susceptible to silver leaf disease (fungal pathogen)
7%	197	Ash Fraxinus ornus	Poor performer locally
4%	106	American Sweetgum Liquidambar styraciflua	Good performer but tend to develop into more rounded form as a result of wind
61%	1746	Total top 6 species	
	2854	Total street trees in Central Ward as at 11 October 2011	