

Summary of the Regional Ecosystem Model of Tasmanian biodiversity

The Regional Ecosystem Model (REM) is a comprehensive spatial modelling system of Tasmanian biodiversity. It:

- Integrates spatial data on the distribution of the major components of biodiversity, and the factors affecting them;
- Models key biodiversity attributes that derive from multiple inputs;
- Analyses the relationships among the components of biodiversity and the environment; and
- Spatially identifies areas which have immediate or potential conservation concerns, and provides indicators of their relative importance, to inform approaches and priorities for management.

The REM was developed by Natural Resource Planning Pty Ltd using funds from the Australian Government's Caring for Our Country program. The following briefly summarises the REM, which is described in more detail in Knight and Cullen 2009¹, 2010².

The REM is based on a comprehensive 'Strategy Review' of both the strategic framework for biodiversity management in Tasmania and of the major themes in the relevant scientific literature. Issues identified from the Strategy Review are examined against a range of criteria to determine their suitability for incorporation into the REM, including:

- The ability of each Issue to be stored spatially and analysed in a GIS;
- Whether Issues are confounded, i.e. in combining multiple Issues into one and thus compromising objective assessment of more fundamental Issues; and
- Whether Issues are logically consistent and supported by scientific opinion.

¹ Knight, R.I. & Cullen, P.J. (2009). A review of strategies for planning & management of the natural resources of biodiversity, freshwater, land & soils in the Tasmanian midlands. A report of the Caring for Our Country project 'Using landscape ecology to prioritise property management actions in Tasmania'. Natural Resource Planning, Hobart, Tasmania.

² Knight, R.I. & Cullen, P.J. (2010). Specifications for a Regional Ecosystem Model of natural resources in the Tasmanian Midlands. A report of the Caring for Our Country Project 'Using landscape ecology to prioritise property management actions in Tasmania'. Natural Resource Planning, Hobart, Tasmania.

The resulting list of biodiversity Issues are placed in a conceptual framework which separately considers the biological significance of the components of biodiversity and their landscape-scale ecological context. Figure 1 shows this conceptual structure.

Issues identified as appropriate for inclusion in the REM are assessed to identify:

- Indicators that represent important ways of viewing each Issue;
- Classes within each Issue that indicate relevant ranges of variation and suitable thresholds for categories; and
- A 'Level of Concern' to be assigned to each class to be used as a guide in determining management priorities.

'Level of Concern' is considered to vary according to the management context and is defined in two ways:

- Immediate – an estimate of the relative priority for immediate management action to address current risk to the natural resource; and
- Potential – an estimate of the relative priority to protect and manage the natural resource from risks which may arise in the future.

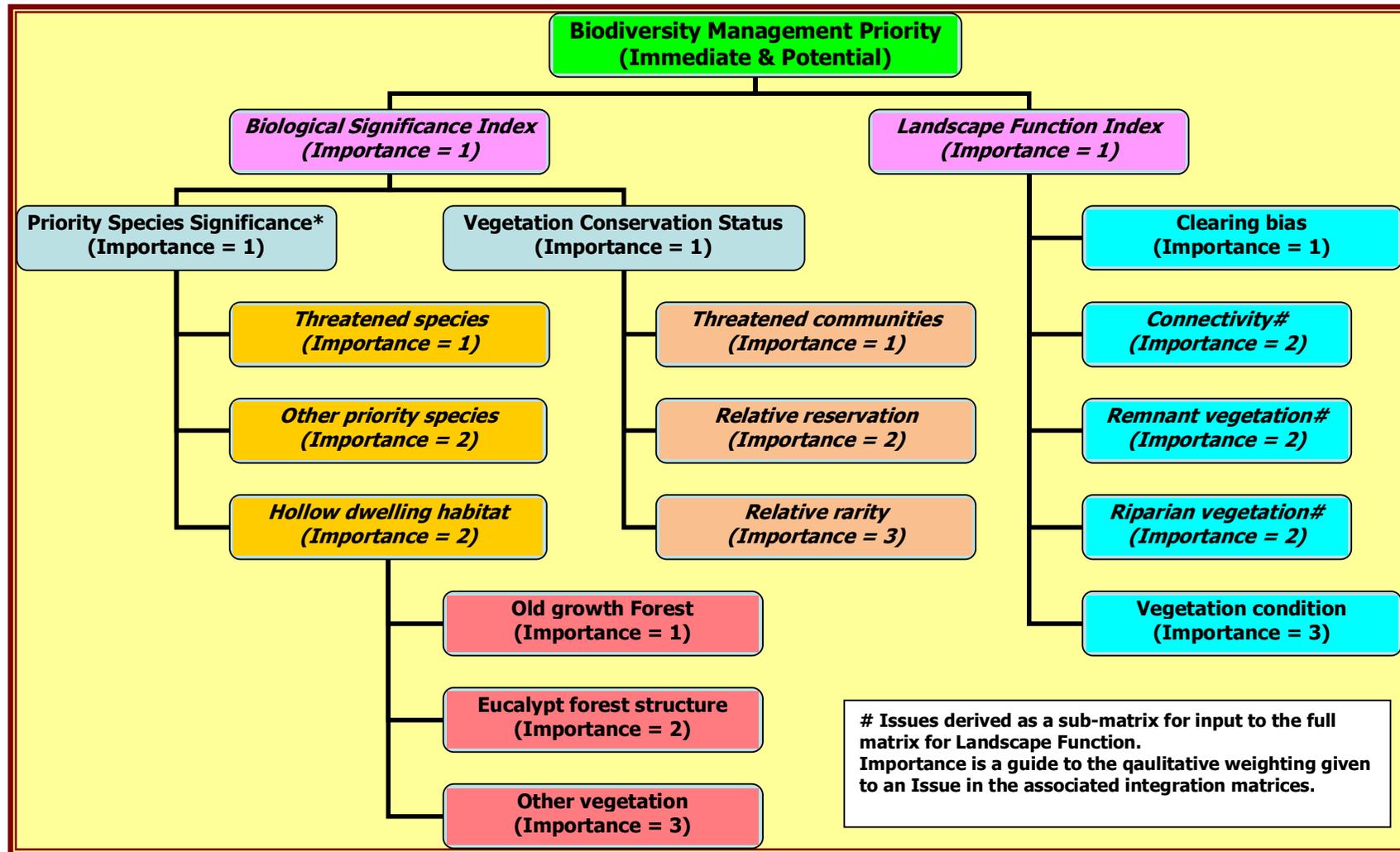
The two types of Level of Concern are designed to be consistent with the definitions of Conservation Management Priority in the Conservation of Freshwater Ecosystems Values project (DPIWE 2008³), which also uses the Immediate and Potential perspectives.

Use of Immediate Level of Concern is generally most appropriate where past management may have created a need to improve the condition of an Issue, or where there is continuing landuse which may place the resource at risk if not managed appropriately. For example, native vegetation whose condition has been degraded may need to be improved to help address biodiversity conservation needs.

Potential Level of Concern is generally appropriate in circumstances where a change in management could be detrimental. An example for native vegetation might be an area where its condition is considered important to maintain to address biodiversity needs, or whose loss would compromise those needs.

³ Department of Primary Industries & Water (2008). Conservation of Freshwater Ecosystems Values (CFEV) project technical report. CFEV program, Department of Primary Industries & Water, Hobart.

Figure 1. Assets and Issues in the Biodiversity Asset Class



Where possible, classes in each Issue were chosen to reflect thresholds which have been applied elsewhere or identified in the scientific literature. An example of classes within an Issue, and their associated Level of Concern, is shown below.

Example classification: Remnant vegetation (patch size)

Native vegetation patch size (ha)	Concern – Immediate	Concern – Potential
<2ha	M	L
2-20ha	VH	VH
20-200ha	H	VH
>200ha	L	M

The ranges of patch size classes within the indicator reflect first the range of 2-200ha for remnants nominated by Kirkpatrick *et al.* (2007), with patches >2ha generally retaining much higher conservation values than smaller patches. Remnant <2ha are considered to be of little importance to landscape function, while those >200ha are subject to the processes which affect remnants at a significantly diminished intensity and effect. The split in the middle size class in the indicator is based on the RFA assessment of remnant vegetation, which considered patches <20ha, though potentially locally important, as below the threshold for importance in maintaining existing processes or natural systems at the regional scale (Tasmanian Public Land Use Commission 1997).

Source: Knight and Cullen (2010), p14.

Not all Issues have Level of Concern which diverges according to whether they are Immediate or Potential. Threatened species, for example, have statutory recognition that they are likely to become extinct. Thus both Immediate and Potential Level of Concern are considered identical, as the species status applies to the entire taxon. However, for any given species the management response at a given site may be different to that elsewhere.

Each Issue in the REM has Level of Concern classes assigned in a classification matrix (see remnant vegetation example above). Each matrix is designed to transparently illustrate how the Issue is treated in the REM, to assist interpretation, and to provide a simple method by which the REM parameters can be altered if required (e.g. where new research indicates thresholds in a matrix may need alteration).

The REM separately assesses each Issue within the Biodiversity Asset Class, but also places them in a hierarchically structured matrix that integrates related issues. This provides an overall indicator of Biodiversity Management Priority, but also means that the important issues for managing biodiversity at any one location can be readily identified. Attachment 1 summaries the terms used in the REM. Attachment 2 provides a full illustration of the prioritisation process and relationships in the REM.

The highest level in the REM classification is Biodiversity Management Priority. It is derived through integrating the prioritisation matrices of two contributing themes in biodiversity conservation:

- Biological Significance - the relative importance of the elements of biodiversity and hence their priority to be protected through appropriate management regimes; and
- Landscape Ecological Function - an assessment at multiple scales of the characteristics of the landscape and its ability to maintain the elements of biodiversity it contains.

The matrix which integrates Biological Significance and Landscape Ecological Function is shown below. An important feature of the matrix structure is that it does not dilute a high level of concern for one if the other is low. This approach addresses a known limitation that arises when using additive or averaging indices for conservation purposes and has the further advantage of being simple, transparent and flexible for use in testing different approaches.

Integration matrix for Biodiversity Management Priority

Biological Significance Index	Landscape Function Index			
	VH	H	M	L
VH	VH	VH	VH	VH
H	VH	VH	H	H
M	VH	H	M	M
L	VH	H	M	L

Similar forms of integration matrices are used at each level of the REM, with some variation according to the issues being addressed and the relative importance of each Issue to the overall index being derived. The full set of REM matrices is shown in Attachment 2.

Within the Biological Significance component of the REM are two Assets (see Figure 1) towards which management goals are likely to be directed:

- Native vegetation - composed of vegetation communities with Level of Concern a function of each community’s conservation status, bioregional extent and percentage level of reservation; and
- Priority species - the subset of species and species groups identified as requiring consideration in management as a result of them being listed as threatened,

otherwise identified as priorities (e.g. Regional Forest Agreement priorities, poorly reserved flora species), or as the habitat for the group of 29 species identified in Tasmania as hollow dwelling (Koch et al. 2009⁴).

A unique feature of the REM is its system for generating spatial habitat modelling for all threatened and priority species. This is based on a two stage process that:

- Models habitat of all species from known locations, based on a simple model that considers factors such record accuracy and data, the distributional characteristics of each species (e.g. do they occur in highly restricted locations or more generally in an area), and the types of vegetation they occur in; and
- More detailed models of about 100 threatened fauna species, whose habitat is generated from within the REM data based on a model developed for the particular species (see Knight 2014⁵ for details).

The Landscape Ecological Function component of the REM is designed to account for the factors that can affect biodiversity through the presence/absence of critical characteristics of the environment at multiple scales. The REM addresses Landscape Ecological Function by considering Issues at three scales:

- Broad scale habitat loss is a major threat to biodiversity and cause of biodiversity decline, which can continue after habitat loss has ceased due to ecological inertia associated with extinction debt. Habitat loss is characterised by patterns in the types of land from which habitat has been removed. The Issue of Clearing Bias measures these patterns at the landscape scale by assessing the percentage of each land component (land facet is also sometimes used) within Tasmania land systems that exist as native and cleared vegetation. More heavily cleared land components have higher Clearing Bias.
- Medium scale landscape patterns are addressed through the examination of the configuration of three landscape variables. Connectivity characteristics of the landscape are assessed by measuring the relative of isolation of remnants and the permeability of cleared land to species movements. The size of patches of native vegetation is assessed against thresholds for identifying Remnant Vegetation. The proportion of native Riparian Vegetation within each river section catchment provides an indicator of the health of the aquatic environment within each catchment, and its distal effects on biodiversity.

⁴ Koch, A.J., Munks, S.A. & Woehler, E.J. (2009). Hollow-using vertebrate fauna of Tasmania: distribution, hollow requirements & conservation status. *Australian Journal of Zoology*, 56(5):323-349.

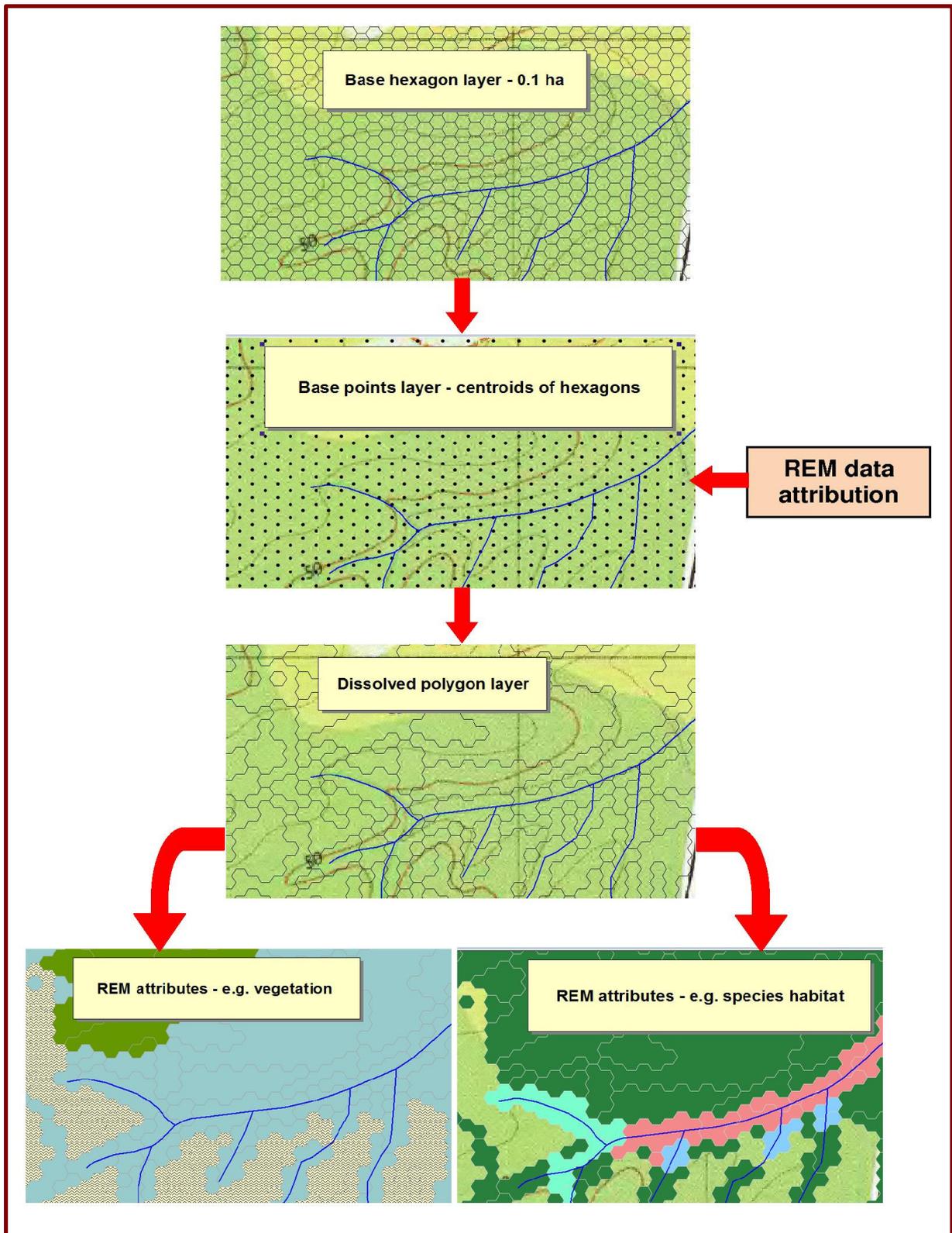
⁵ Attachment 7 in Knight, R.I. (2014). Biodiversity data, models & indicators for Forestry Tasmania's Forest Management Unit. A report to Forestry Tasmania, March 2014. Natural Resource Planning, Hobart, Tasmania.

- Local scale landscape processes are assessed through assessing vegetation condition, which is expressed in the REM as Biophysical Naturalness. This assesses the characteristics of native vegetation for perturbation in structure and composition within each patch of native vegetation.

Each element of the REM is underpinned by Statewide spatial data layers. Each data layer has clear rule sets for its use in building the REM. The integrated REM spatial layers contain all the input data from the base layers, including multiple inputs for the same Issue where available (e.g. desktop and field vegetation mapping), and all the derived Level of Concern indicators.

The REM is built on a novel spatial architecture designed to store and process large amounts of spatial data efficiently and at fine scales. It is based on a non-overlapping layer of hexagonal polygons of 0.1 ha size, which approximates to a spacing of about 30 m. The centroids of the polygons are extracted and are used to process the REM and its data. The point format significantly reduces complexity of the spatial geometry and hence increases processing speed. The REM generated in the points layer is then re-attributed to the parent hexagons. A subset of the combination of primary inputs to the REM is then used to dissolve the hexagon layer to a more manageable number of polygons. Derived attributes are then re-attached to the data and the polygon layer used for multiple purposes. Figure 2 summarises the REM architecture.

Figure 2. Simplified REM spatial architecture and process



The core components of the REM described above are common to all applications. A spreadsheet version of the REM is also available⁶ which can be used in the absence of spatial data to generate the full range of REM indicators. This can be used, for example, to determine REM indicators where the input data is wrong or to model the changes in indicators resulting from management actions. A standard output is also a summary REM profile, which displays all the indicators as a percentage of the area of interest, as shown in Figures 3 and 4. These tools can also serve as a useful tool for modelling change, whether planned or actual, arising from conservation investments and from development.

Attachment 3 provides a simple guide giving examples of how to interpret REM indicators for particular issues and circumstances.

The REM can be further customised for each project and users to deliver outputs and tools that assist meeting their specific needs. Customised add-ons that have been developed include tools to cross tabulate priority species with vegetation types, generate REM summary tables of the characteristics of multiple areas, and additional layers to assist in use of the REM. For example, an urban threat index spatial layer has been developed to assist in local government application, and for property planning the REM can be linked to data on issues such as salinity and erosion risk.

Use of the REM is licensed by NRP to clients for approved purposes, in accordance with the commercialisation provisions of the Australian Government's funding for its development. NRP wishes to establish ongoing partnerships with a wide range of potential users of the REM. Access to the REM is provided under a data license agreement and subject to a license fee negotiated on a case by case basis. License fees are designed to be cost effective – to encourage use – while also reflecting the reasonable costs to NRP of development, maintenance and support.

Clients who have used the REM or its components since completion of the original project include:

- Australian Government Biodiversity Fund;
- Clarence Council;
- Forestry Tasmania;
- Gunns Limited;
- Kingborough Council;
- NRM South;
- Norske-Skog;
- PF Olsen Pty Ltd;
- Southern Midlands Council and
- The Understorey Network.

⁶ <http://www.naturalresourceplanning.com.au/landscape-ecology-tools/>

Figure 3. Sample REM profile – Immediate Level of Concern

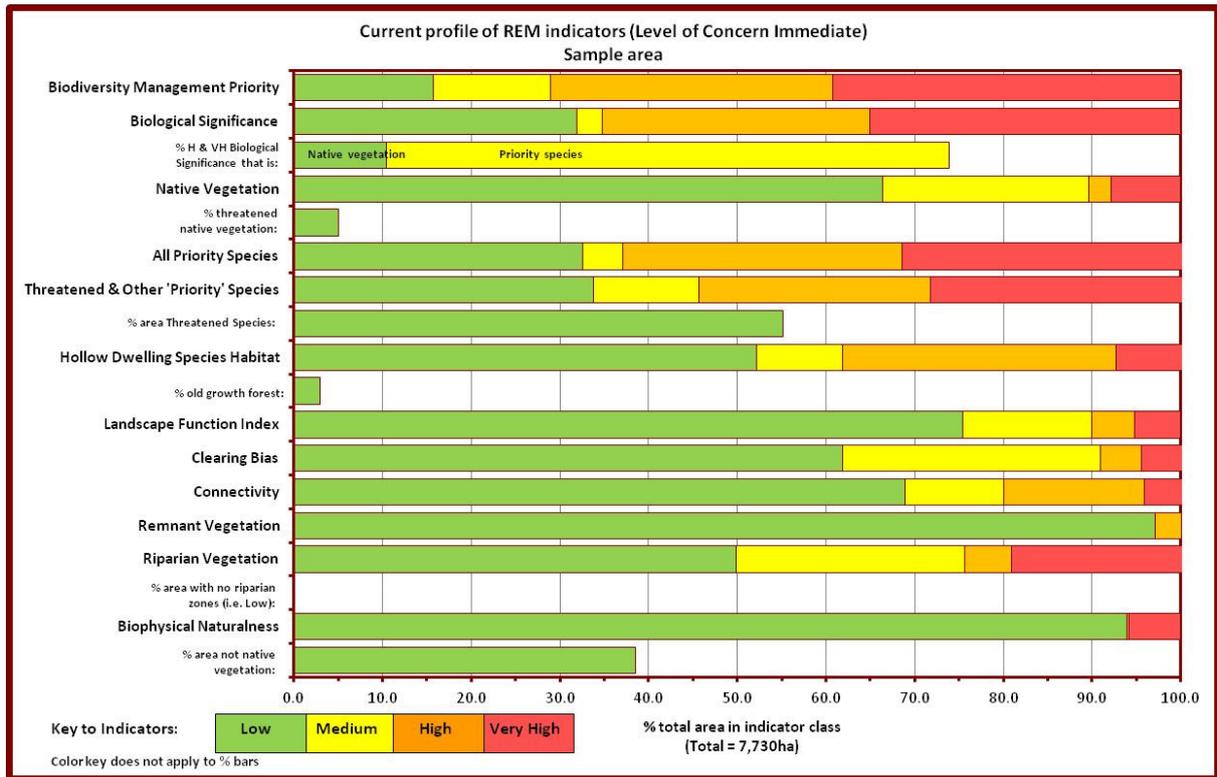
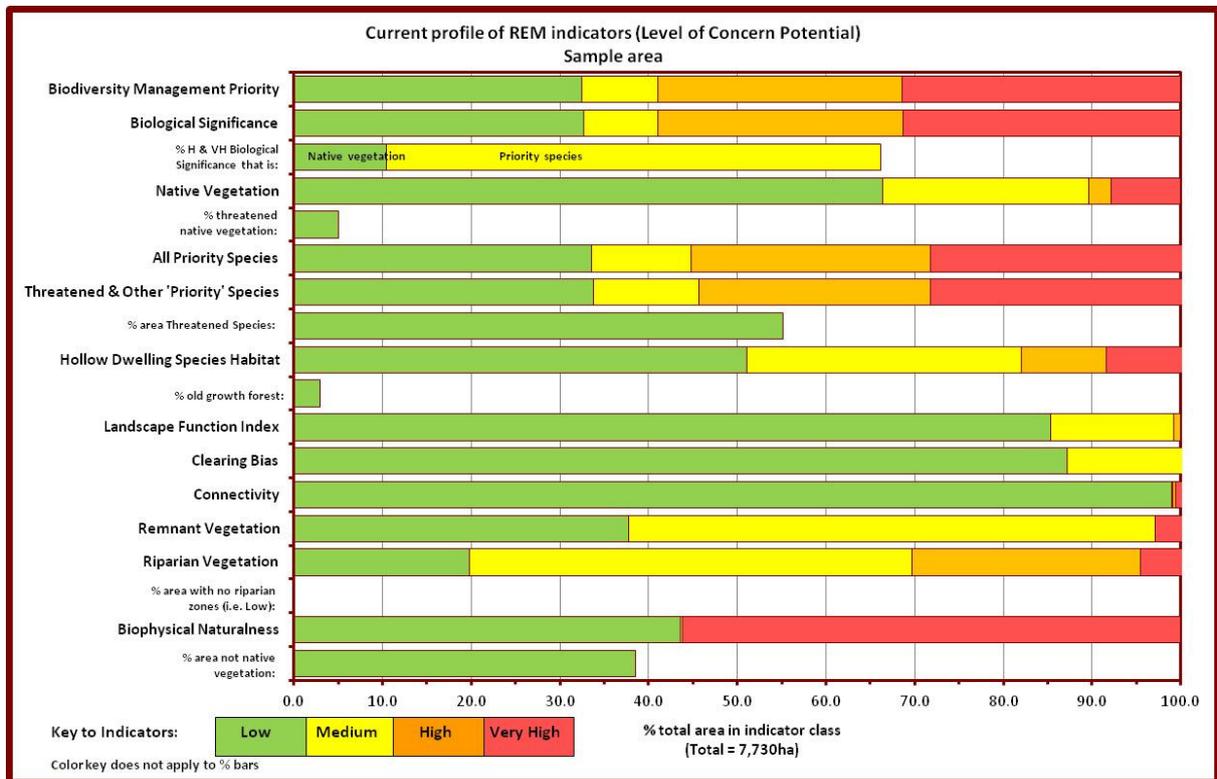


Figure 4. Sample REM profile – Potential Level of Concern



Attachment 1. Summary of REM assets, indicators and Issues

Issue	Definition	Summary	Indicator
Biological Significance	Biological significance measures the relative priority for management of the elements of biodiversity contained within a given area.	Biological significance is one of two arms of the REM and represents a structured classification of biodiversity. It is comprise of Native Vegetation and priority species (see below).	Classes ranked from Low-Very high derived from a matrix of Level of Concern classes for Native Vegetation and Priority Species.
Native Vegetation	Native vegetation communities based on the classification used in Tasveg.	Native vegetation comprises all areas mapped to the Tasveg classification, except for cleared land types ("F" codes), water, (OAQ"), sand and mud (OSM) and rock (ORO). An additional native vegetation mapping unit has been introduced to the REM for areas comprised of native vegetation plantings (DEP).	The REM contains a grouped classification for native vegetation which is used in various parts of its application.
Vegetation conservation status	Native vegetation communities with legislative recognition of being threatened.	na	Vegetation communities listed as threatened under the Tasmanian Nature Conservation Act 2002 or Commonwealth Environment Protection and Biodiversity Conservation Act 1999.
Relative reservation	Reservation status is a measure of the degree to which vegetation communities are included in the Comprehensive, Adequate and Representative (CAR) reserve system	Higher levels of reservation give greater confidence that the species for which vegetation communities are surrogates are likely to be protected, subject to appropriate geographic and biophysical distribution in the landscape.	Percentage bands of reservation of the vegetation communities, utilising the lesser of the Statewide or relevant bioregional reservation level.
Relative rarity	The extent of a native vegetation community in the bioregion being assessed.	Relative rarity is scale to reflect increased importance for vegetation types which are more restricted, and less importance for those which are relatively extensive.	The REM stratifies the extent of each community in each bioregion into bands, which are then form part of the matrix for deriving Level of Concern for native vegetation.
Priority species	Priority species are those that are recognised as threatened and certain classes of other species that are identified as priorities for conservation.	Classification within the group is structured around species listed as threatened and other priority species.	Level of Concern for priority species is classified from Low-Very High through a matrix combining threatened species status, number of threatened species, other priority species and hollow dwelling species habitat.

Issue	Definition	Summary	Indicator
Listed threatened species	Species listed as threatened under the Tasmanian Threatened Species Protection Act (1975) or Commonwealth Environment Protection and Biodiversity Conservation Act (1999)	na	Threat status and number of co-occurring threatened species in an area.
Other priority species	Non-threatened species identified as priorities for attention to conservation and management.	Other priority species comprises non-threatened species identified in the Regional Forest Agreement as Priority Species, including species groups such as hollow dwelling species, and flora species identified as inadequately reserved at the State or bioregional level.	The presence of other priority species (excluding hollow dwelling species habitat) is assigned a single ranking the REM (Medium), above that for no priority species and below that for threatened species.
Hollow dwelling species	Habitat for hollow dwelling species.	Hollow dwelling species comprise a group of 29 species listed in the Regional Forest Agreement as a priority species group.	Hollow dwelling species habitat is classed from Low-Very High depending on the type of vegetation present, eucalypt forest structure, predicted hollow abundance and presence/absence of old growth forest.
Old growth forest	Old growth forest is ecologically mature forest demonstrating the characteristics found in older and/or minimally disturbed forests	na	Old growth forest is classed as Very High Level of Concern (Potential) and as low Level of Concern (Immediate) in the Hollow Dwelling Species component of the REM.
Eucalypt forest structure	Forest structure classes derived from air-photo interpreted vegetation mapping.	Eucalypt forest structure is derived from the published RFA map depicting standard classes as Silviculturally Regeneration, Regrowth, Predominantly Regrowth/Some Mature, Predominantly Mature/Some Regrowth and Mature. This is supplemented with more up to date data where available.	Classes ranked from Low-Very High reflecting higher Immediate Level of Concern where structure is likely to contain fewer hollows and higher Potential Level of Concern where hollows are likely to be more abundant.
Non-eucalypt vegetation.	Vegetation communities in the Tasveg classification that are not recognised as eucalypt forest.	Eucalypt forest classes are identified in Tasveg by the prefixes "W" and "D".	Non-eucalypt vegetation is ranked Low in the schema for hollow dwelling species habitat due to the absence of eucalypts.

Issue	Definition	Summary	Indicator
Landscape Function	The ability of the landscape to sustain the elements of biodiversity it contains.	Landscape function integrates five indicators representing successively finer partitioning of the landscape.	Classes ranked from Low-Very High using a 3 way matrix combining the same classes of Clearing Bias, a submatrix combining Connectivity, Remnant Vegetation and Riparian Vegetation, and Biophysical Naturalness.
Clearing bias	Clearing bias is a measure of the patterns of habitat loss in a region.	There is potential for ecological collapse at a regional level where >70% of a region has been cleared, and potential localised collapse and stress within the region where lower levels of clearing have occurred due to preferential clearing of certain land types.	The percentage of each land component that has been cleared, stratified spatially into areas now cleared or with extant native vegetation.
Connectivity	Connectivity is the degree to which patches of native vegetation are inter-connected and the extent to which species can move between patches,	Remnant vegetation may suffer loss of species in some taxonomic groups, and loss of ecosystem function, if the distance between remnants and the impermeability of the interstice (e.g. through absence of paddock trees) exceeds that which each organism is capable of crossing.	For remnant vegetation patches, the distance to the nearest non-remnant patch. For cleared land, the distance to the nearest patch of native vegetation.
Remnant vegetation	Remnant vegetation is defined as islands of native vegetation, below a specified size, that are surrounded by cleared land.	In heavily cleared landscapes, patches of remnant vegetation can contribute significantly to the maintenance of ecosystem function, while their loss and decline is a major factor in ecosystem collapse. Their smaller size makes them vulnerable to ongoing degradation through various combinations of anthropogenic and natural ecological processes	The indicator for remnant vegetation is the contiguous extent of each patch of native vegetation communities, stratified into size classes.
Riparian vegetation	Riparian vegetation is the vegetation that adjoins freshwater features (e.g. rivers wetlands) and has ecological characteristics which are influenced by the freshwater environment.	Riparian vegetation has been found to have consistently high biodiversity values relative to its extent and therefore contribute disproportionately to landscape function. Its values are also multi-faceted, providing protection for terrestrial biodiversity, land and soils resources, and freshwater ecosystems, and multi-scale in extending beyond the immediate riparian zone.	The percentage of the local catchment of each of river section and wetland which is under native riparian vegetation, stratified into bands as described for the CFEV project. The indicator applies equally to both the cleared and native vegetation components of the catchment.

Issue	Definition	Summary	Indicator
Vegetation condition	Vegetation condition is the composition and structure of native vegetation relative to a reference framework for the particular type of vegetation.	Vegetation condition is an indicator of the ability of native vegetation at the local physical and near-temporal scale to maintain and sustain the elements of biodiversity it contains.	Modified biophysical naturalness classes derived from RFA mapping and application of logical consistency rules to Tasveg community attributions and limited condition descriptors.

Attachment 2. Tasmanian Regional Ecosystem Model - Indicators, Content & Prioritisation Matrices



Native Vegetation Index	Priority Species Index			
	VH	H	M	L
VH	VH	VH	VH	VH
H	VH	VH	H	H
M	VH	H	M	M
L	VH	H	M	L

Biological Significance Index	Landscape Function Index			
	VH	H	M	L
VH	VH	VH	VH	VH
H	VH	VH	H	H
M	VH	H	M	M
L	VH	H	M	L

Threatened & Other Priority Species	Hollow Dwelling Species Habitat				
	VH	H	M	L	
Two or more listed species	VH	VH	VH	VH	VH
Endangered, Critically Endangered	VH	VH	VH	VH	VH
Vulnerable, Rare	H	VH	H	H	H
Other Priority Species	M	H	H	M	M
None	L	H	M	L	L

Component Cleared (%)	Concern - Immediate	Concern - Potential
<i>Cleared</i>		
>90%	VH	L
70-90%	H	L
30-70%	M	L
<30%	L	L
<i>Native veg.</i>		
>90%	VH	VH
70-90%	H	H
30-70%	M	M
<30%	L	L

Species category/attribute	Concern - Immediate	Concern - Potential
Two or more listed species	VH	VH
Endangered, Critically Endangered	VH	VH
Vulnerable, Rare	H	H
Other priority species	M	M
None	L	L

Distance of:	Concern - Immediate	Concern - Potential
<i>Cleared land to native veg.</i>		
<50m	L	L
50-250m	M	L
250-1,000m	H	L
>1,000m	VH	L
<i>Native remnant to non-remnant</i>		
<50m	L	VH
50-250m	M	H
250-1,000m	H	M
>1,000m	VH	L
<i>Non-remnant Any</i>	L	L

Status and bioreg. extent	Concern - Immediate & Potential Reservation level (Min. % State/bioregion)			
	<10%	10-30%	30-60%	>60%
<i>Threatened</i>				
Any	VH	VH	H	H
<i>Not threatened</i>				
<i>Bioregional extent</i>				
<2,000ha	VH	VH	H	M
2,000-5,500ha	VH	VH	H	M
5,500-15,000ha	VH	H	M	L
15,000-55,000ha	H	M	M	L
>55,000ha	M	M	L	L

Biophysical naturalness category	Concern - Immediate	Concern - Potential
5 (highest)	L	VH
4	L	VH
3	M	H
2	H	M
1 (lowest)	VH	M
0 (non-native)	L	L
-1 (water, sand, mud)	na	na

Descriptor of hollow probability (eucalypt forest only)	Concern - Immediate	Concern - Potential
Old growth forest	L	VH
Mature; Predominantly Mature, Some Regrowth	M	H
Predominantly Regrowth, Some Mature	H	M
Regrowth, Silvicultural Regeneration	VH	L
All other vegetation	L	L

Forest Practices Authority - predicted hollow abundance	Concern - Immediate	Concern - Potential
High	L	VH
Medium	M	H
Low	H	M
Not rated	L	L

Native vegetation patch size (ha)	Concern - Immediate	Concern - Potential
<2ha	M	L
2-20ha	VH	VH
20-200ha	H	VH
>200ha	L	M

River section catchment or wetland riparian vegetation (%)	Concern - Immediate	Concern - Potential
<1	VH	L
1-20%	H	VH
20-80%	M	H
>80%	L	M

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Attachment 2 (cont). Derivation of Landscape Function Index

Sub-matrix of Connectivity, Remnant Vegetation & Riparian Vegetation (CRR)

Connectivity	Remnant Vegetation	Riparian Vegetation	CRR Index	Rank (1 = highest)
VH	VH	VH	VH	1
H	VH	VH	VH	2
VH	VH	H	VH	3
VH	H	VH	VH	4
M	VH	VH	VH	5
H	VH	H	VH	6
VH	VH	M	VH	7
H	H	VH	VH	8
VH	H	H	VH	9
VH	M	VH	VH	10
L	VH	VH	H	11
M	VH	H	H	12
H	VH	M	H	13
VH	VH	L	H	14
M	H	VH	H	15
VH	H	M	H	16
H	M	VH	H	17
VH	M	H	H	18
VH	L	VH	H	19
L	VH	H	H	20
M	VH	M	H	21
H	VH	L	H	22
L	H	VH	H	23
VH	H	L	H	24
M	M	VH	H	25
VH	M	M	H	26
H	L	VH	H	27
VH	L	H	H	28
L	VH	M	H	29
M	VH	L	H	30
L	M	VH	H	31
VH	M	L	H	32
M	L	VH	H	33

Connectivity	Remnant Vegetation	Riparian Vegetation	CRR Index	Rank (1 = highest)
VH	L	M	H	34
H	H	H	H	35
M	H	H	M	36
H	H	M	M	37
H	M	H	M	38
L	VH	L	M	39
L	L	VH	M	40
VH	L	L	M	41
L	H	H	M	42
M	H	M	M	43
H	H	L	M	44
M	M	H	M	45
H	M	M	M	46
H	L	H	M	47
L	H	M	M	48
M	H	L	M	49
L	M	H	M	50
H	M	L	M	51
M	L	H	M	52
H	L	M	M	53
L	H	L	M	54
L	L	H	M	55
H	L	L	M	56
M	M	M	L	57
L	M	M	L	58
M	M	L	L	59
M	L	M	L	60
L	M	L	L	61
L	L	M	L	62
M	L	L	L	63
L	L	L	L	64

Clearing Bias	CRR sub-matrix	Condition	Landscape Function Index	Rank (1 = highest)
VH	VH	VH	VH	1
VH	VH	H	VH	2
VH	H	VH	VH	3
VH	VH	M	VH	4
VH	H	H	VH	5
VH	VH	L	VH	6
H	VH	VH	VH	7
VH	M	VH	VH	8
VH	H	M	VH	9
H	VH	H	VH	10
VH	M	H	VH	11
VH	H	L	VH	12
H	H	VH	VH	13
H	VH	M	VH	14
VH	L	VH	VH	15
VH	M	M	VH	16
H	H	H	H	17
H	VH	L	H	18
M	VH	VH	H	19
VH	L	H	H	20
VH	M	L	H	21
H	M	VH	H	22
H	H	M	H	23
M	VH	H	H	24
VH	L	M	H	25
H	M	H	H	26
H	H	L	H	27
M	H	VH	H	28
M	VH	M	H	29
VH	L	L	M	30
H	L	VH	H	31
H	M	M	H	32
M	H	H	M	33

Full Landscape Function Index matrix

Clearing Bias	CRR sub-matrix	Condition	Landscape Function Index	Rank (1 = highest)
L	VH	VH	M	34
M	VH	L	M	35
H	L	H	M	36
H	M	L	M	37
M	M	VH	M	38
M	H	M	M	39
L	VH	H	M	40
H	L	M	M	41
M	M	H	M	42
M	H	L	M	43
L	H	VH	M	44
L	VH	M	M	45
H	L	L	M	46
M	L	VH	M	47
M	M	M	M	48
L	H	H	L	49
L	VH	L	M	50
M	L	H	L	51
M	M	L	M	52
L	M	VH	L	53
L	H	M	L	54
M	L	M	L	55
L	M	H	L	56
L	H	L	L	57
M	L	L	L	58
L	L	VH	L	59
L	M	M	L	60
L	L	H	L	61
L	M	L	L	62
L	L	M	L	63
L	L	L	L	64

Attachment 3:
A simple guide to using the
Regional Ecosystem Model for biodiversity planning

The REM contains assessments of four attributes of biodiversity that may need to be considered for conservation:

- Native vegetation (Tasveg-based units assessed Statewide and bioregionally);
- Priority species (threatened and other important species);
- Hollow dwelling species habitat; and
- Landscape ecological function – the ability of the landscape to maintain the elements of biodiversity it contains.

Actions may range from retention in an existing state, rehabilitation to a better state or restoration of native vegetation. Actions can be guided by the REM classification of attributes from two prioritisation perspectives:

- Immediate – importance for intervention to restore or rehabilitate; and
- Potential – important to protect from further loss or degradation.

In the REM these are termed ‘Level of Concern’. All REM Level of Concern attributes are rated on a scale of Low, Medium, High or Very High. Immediate and Potential priorities are identical for native vegetation and priority species, but are different for hollow dwelling species habitat and landscape ecological function.

Priorities to be assigned to any of the REM attributes will be heavily influence by the purpose and objectives being considered and the adequacy of resources to effect desired outcomes. REM priorities can also be considered on an entirely objective basis, and used to judge whether objectives and resources are appropriately targeted, adequate to achieve outcomes. Monitoring over time can also be facilitated by the REM.

Prioritising areas or actions may require consideration of any of the four key attributes either singly or in combination. The potential range of combinations is large. However, for regions which are relatively intensively developed a fairly consistent set of combinations can be identified, particularly through focusing on priorities classified as either High or Very High. These are identified in the table that follows.

REM attribute (High or Very High)	Co-occurring attributes	Key considerations
Native vegetation	Priority species	Actions will depend on individual species' conservation needs.
	Landscape function – Potential	Landscape has some sensitivity to further loss or degradation. Action to protect the vegetation should be considered.
	Landscape function – Immediate	Landscape function is degraded. Consider whether actions to protect or enhance the native vegetation can make a difference.
	None	Consider if there are potential threats or other benefits that would arise from intervention. Also consider if there is a residual reservation target for the vegetation community and whether a good example of the community would be secured.
Priority species	None	Consider the conservation needs of each individual species individually.
	Landscape function – Potential	Landscape is sensitive to further loss or degradation. Consider whether this might have negative effects on each species.
	Landscape function – Immediate	Landscape function is degraded. Consider if landscape characteristics are contributing to the species status or likely persistence.
Hollow dwelling species habitat – Immediate	None	Vegetation is lacking in hollows. Look at the landscape context to determine if there is a likely benefit from taking actions which would improve long term prospects to have adequate mature eucalypt abundance, e.g. is the area a gap in distribution. The primary attribute field [Vstr_clasZ] should be used for this.
Hollow dwelling species habitat – Potential	None	Mature eucalypt abundance is likely to be relatively high. Act to protect and enhance, especially if either Immediate or Potential landscape ecological function classes are high.
Landscape function – Immediate	None	Landscape function is degraded. Consider what aspects of can be improved – condition, patch size, riparian vegetation or connectivity – within the available resources. The spreadsheet version of the REM can be used to explore scenarios.
Landscape function - Potential	None	Landscape function is sensitive to further loss or degradation. Consider what action can be take to secure landscape attributes.
Landscape function – Immediate	Landscape function - Potential	These are generally more important remnants. Consider whether resources are sufficient to both secure and improve landscape attributes.



Two part process for spatial modeling of species habitat in the Regional Ecosystems Model

Rod Knight, November 2014

Natural Resource Planning's Regional Ecosystem Model is a comprehensive system for:

- Integrating spatial data on the distribution of the major components of biodiversity, and the factors affecting them;
- Analysing the relationships among the components of biodiversity and the environment; and
- Spatially identifying areas which have immediate or potential conservation concerns, and providing indicators of their relative importance, to inform approaches and priorities for management.

The REM was originally developed with funding from the Australian Government's Caring for Our Country program. It has since been applied in a variety of contexts, including forest management and certification, local government planning, property management, and as a decision support tool for ecological restoration and rehabilitation projects.

The REM is built on:

- A systematic, hierarchical model of biodiversity attributes (vegetation and priority species) and indicators of landscape scale ecological function (e.g. condition, patch size, connectivity). Attachment 1 shows the structure of the model.
- A spatial architecture designed to capture and analyse data on all components of the model at high resolution (0.1 ha).

A key factor in the REM having sufficient utility for its intended purposes is the ability to spatially model habitat of as many species of 'priority' flora and fauna as possible. Priority species in this context are those whose conservation needs may not be adequately met simply by managing native vegetation communities (a surrogate for species assemblages) or of the landscape generally. The priority species modeled in the REM are all listed threatened species in Tasmania, flora species identified as poorly reserved either Statewide or in some of their bioregions, and some non-listed fauna species considered to be of particular concern, priority or importance for other reasons (e.g. Eastern Quoll, Tasmanian Betting).

Detailed spatial habitat models exist for only some of the Tasmanian priority species. To address this limitation, a two part modeling process is used in the REM to ensure that all species are addressed:

- A generic model incorporating relatively few habitat variables to model habitat of all priority species from known locations in the Natural Values Atlas; and
- More detailed models developed for individual species using a broader range of habitat variables identified as having strong associations with the species concerned.

Both types of models are maintained on a continuous improvement basis. They are updated regularly to reflect changes in species data, understanding of species habitats, new models and also feedback from users of the modeled outputs.

Generic species models

The generic species models in the REM are based on each priority species being classified according to a small number of habitat variables that are contained within Natural Values Atlas data or the standard data captured by the REM (Table 1). Table 2 provides some examples of the range of generic species modeling rules. Figure 1 shows some examples of modeled species habitat generated using this method.

Table 1. Habitat attributes used in generic modeling process

Habitat attribute	Description
Record accuracy.	The minimum accuracy for an NVA record to be used for modeling the species. Tighter accuracy limits are used for species that tend to occur in fixed, localised situations (e.g. many threatened flora), with more relaxed limits used for species which occur generally around their locations or are relatively mobile.
Record distance	The maximum distance from an NVA record in which habitat can be attributed. As with record accuracy, model distances are tighter for localised and immobile species and more relaxed for species with more general distributions or higher mobility.
Year	The earliest year for an NVA record to be included in a species model. This variable is designed to account for species whose distributions are known or reported to have changed (e.g. Eastern Barred Bandicoot, Tasmanian Devil).
Riparian	Where species are known to have strong riparian associations, the modeling process restricts the attribution of habitat around records to the riparian zones around streams, waterbodies and wetlands. Note: where records of such species are not in riparian zones, a standard point based model based on the other habitat variables is applied.
Water	This habitat variable allows the habitat of certain species to be modeled in water (e.g. waterbodies and larger streams). It applies to species such as fish and crayfish.

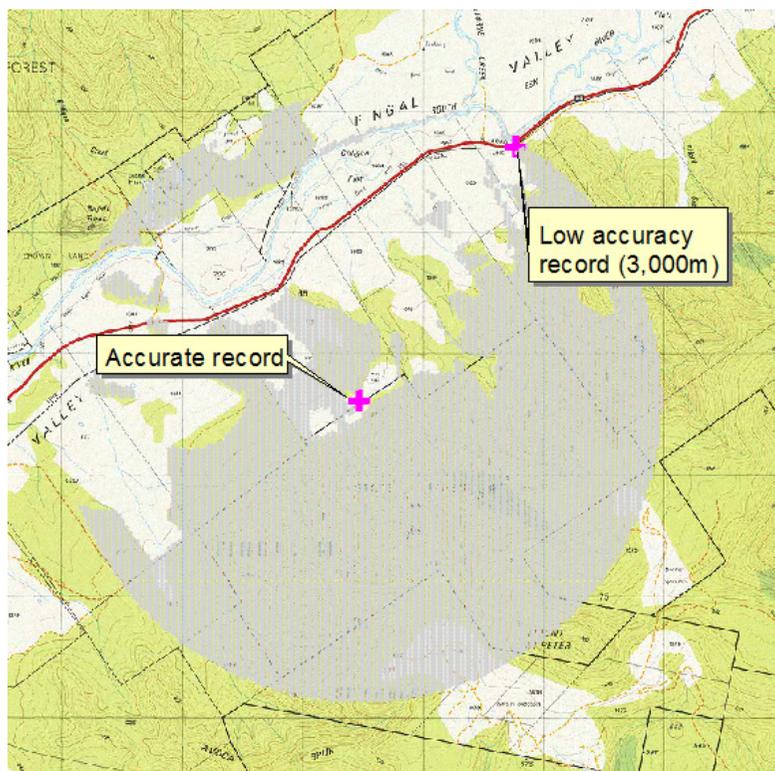
Habitat attribute	Description
Native	This habitat variable restricts the attribution of species habitat to areas of native vegetation only. The attribute is applied particularly to mobile fauna species with large proportions of their recorded locations from road kill. The model attempts to capture native vegetation which may be used for denning and shelter (and is usually accompanied by a larger value for the record distance variable).
Plantation	This habitat variable relaxes the modeling of habitat so that it can be attributed in plantations. Application of the variable is currently restricted to the zones around raptor nests, which may be sensitive to disturbance.
Bioregions	The habitat variable contains a list of bioregions in which flora species are identified as poorly reserved (<2 locations in reserves in the bioregion). The modeling process restricts the attribution of habitat to only those bioregions in the list.

Table 2. Examples of generic species modeling rules

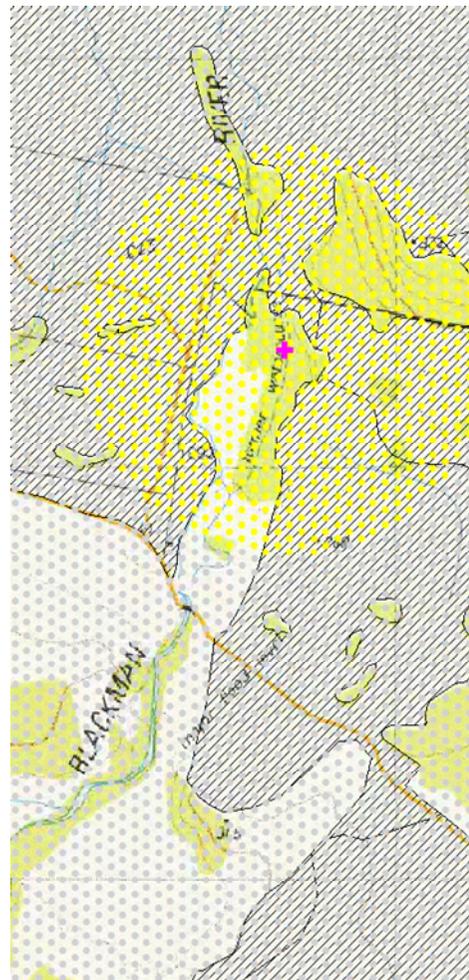
Species	Accuracy	Distance	Year (earliest)	Riparian	Plantation	Water	Native only	IBRA regions	Notes
<i>Acacia axillaris</i>	200	500	0	Y					Models riparian zones within 500m of NVA record
<i>Aquila audax subsp. fleayi</i>	200	500	0		Y				Models 500m around known nest sites, including in plantations
<i>Caladenia anthracina</i>	200	100	0						Models everything within 100m of record
<i>Caladenia atrata</i>	200	100	0					FL;NS;	Non-threatened species, poorly reserved in Flinders and Northern Slopes bioregions.
<i>Perameles gunnii</i>	500	2000	1980				Y		Models native vegetation within 2,000m of post-1980 records
<i>Prototroctes maraena</i>	200	500	0	Y		Y			Models riparian zones and water within 500m of records
<i>Sarcophilus harrisii</i> (post 2005)	200	2000	2005				Y		Model native vegetation within 2,000m of post-2005 records

Figure 1. Example of generic species habitat model outputs

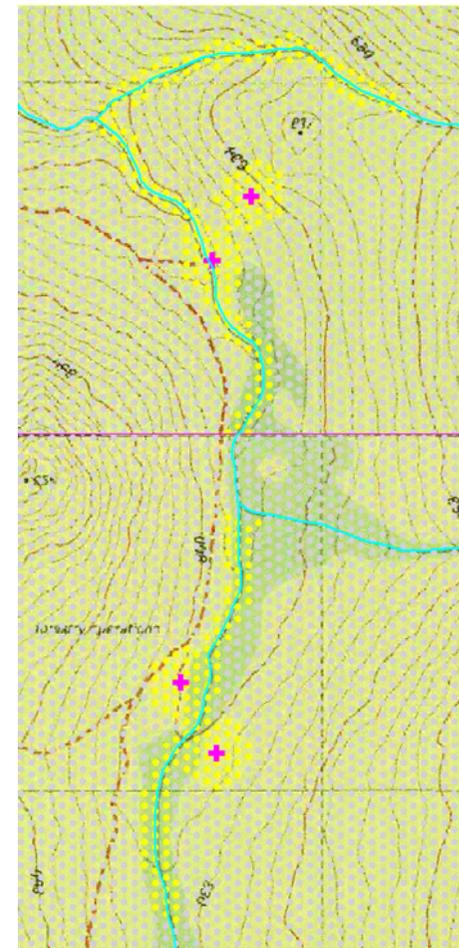
**Eastern Quoll
(native veg. within 2.5 km of
500m accuracy records)**



Wedgie – nests



Acacia axillaris



Detailed species habitat models

The focus for developing detailed spatial habitat models is those species less likely to be accurately modeled from known location records. It is particularly important for a number of fauna species. Detailed species habitat models are developed for the REM using an expert-based rules system in which the characteristics of each species are described from current knowledge and available data, which are in turn converted to GIS-based rules to achieve spatial outputs.

The current basis for both the list of species to be modeled and, as far as possible, the characteristics of the model to be produced, is descriptions of species range, habitat and significant habitat developed by the Forest Practices Authority¹. The species being considered in that process have been described in terms of their:

- core range;
- potential range;
- known range;
- potential habitat;
- significant habitat; and
- other habitat definitions used in management.

The process of developing each detailed species model involves reviewing the standard FPA descriptors and other relevant information (e.g. other models, communications with researchers). Some species models can be developed relatively simply from this information.

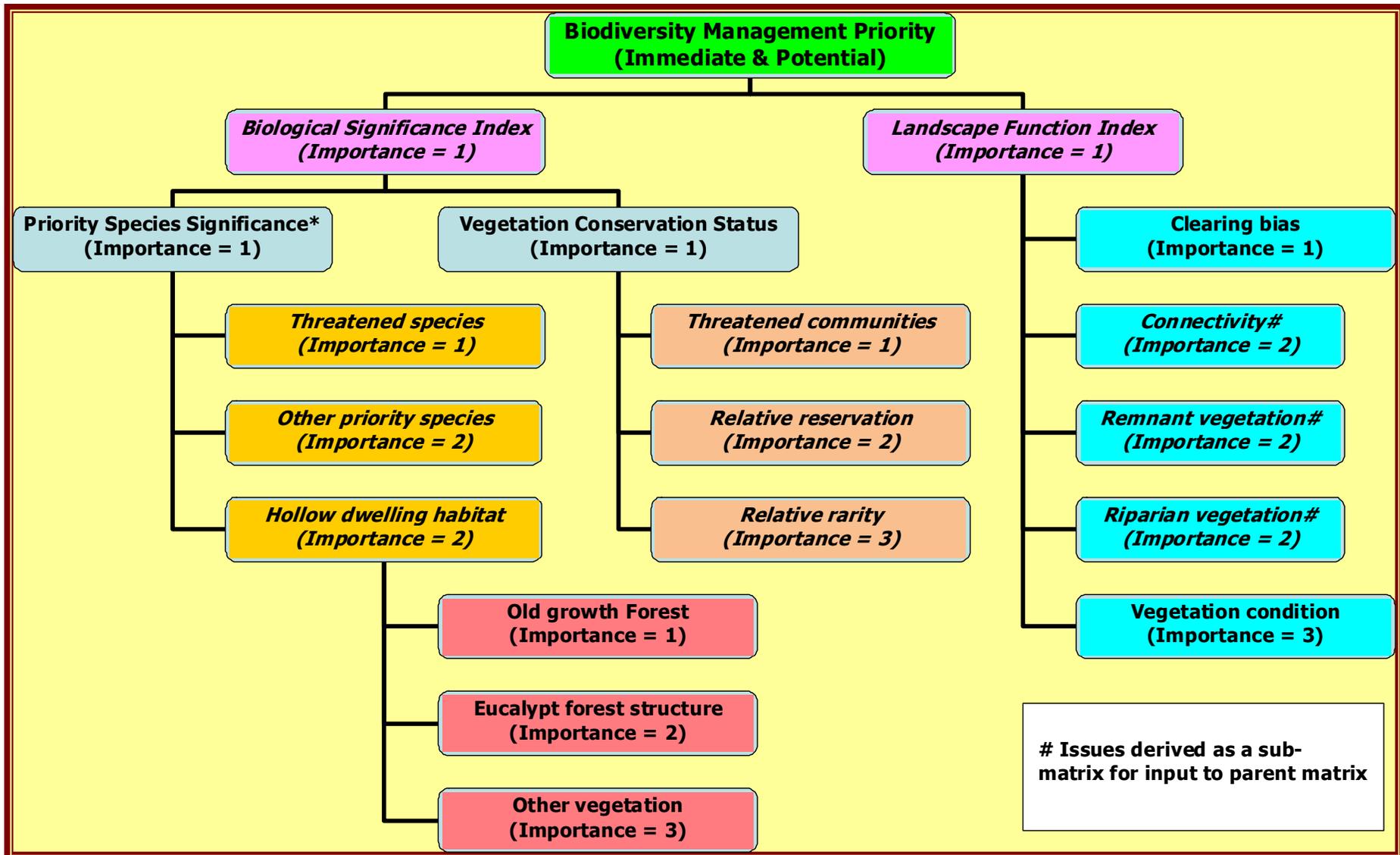
For other species the modeling process involves reviewing a range of GIS data to determine if there are strong associations between described species habitat and attributes recorded in GIS data available for use in the REM. Once strong associations are identified a revised set of descriptors of the model is described (called the “REM habitat model” to avoid confusion), and GIS processes are developed to produce a spatial model that reflects the descriptors. The outputs from this process are then reviewed to determine if the spatial model is consistent with the description.

Approximately 100 fauna species have detailed spatial habitat models developed through the above process. Coverage of the model of each species varies, as the habitat model is only developed for areas covered by the REM. This is typically on a project-by-project basis but is being transformed to a regularly maintained and complete Statewide coverage.

Some examples of REM habitat model descriptions are shown in Attachment 2. A full list of the current model descriptions is available on request. Spatial characteristics and patterns in these models vary considerably depending on model formulation, so no examples are provided.

¹ Forest Practices Authority (2014). Summary of threatened fauna species range boundaries and habitat descriptions. v1.7 August 2013, Forest Practices Authority, Hobart. Table is an updated summary of information in Forest Practices Authority and Threatened Species Section (2012). Review of Threatened Fauna Adviser: background report 2: Review of information on species & management approach. Forest Practices Authority, Hobart.

Attachment 1. Conceptual structure of biodiversity in the Regional Ecosystem Model



Attachment 2. Examples of REM habitat models

Species: Orange-bellied Parrot
Neophema chrysogaster

Species attribute	Definition
FPA attributes	
Core range	N/A
Potential range	The potential range of the orange-bellied parrot comprises the potential foraging range and the potential breeding range. [still to be developed]
Known range	N/A
Potential habitat	Potential habitat for the orange-bellied parrot comprises potential breeding habitat and potential foraging habitat. Potential breeding habitat is mature eucalypt forest and woodland, including copses amongst plains, with obvious hollows present. Potential foraging habitat is dunes, heathlands, coastal grasslands and saltmarshes.
Significant habitat	N/A
Other habitat definitions	N/A
CARSAG habitat model	N/A
Other information	<p>Additional information on the species is contained in the Orange-bellied Parrot recovery plan (2006²), which includes a map of the Breeding Range and Non-breeding Range in Tasmania:</p> <p>“Eucalypt forest (in the breeding range) saltmarshes, coastal dunes, pastures, shrublands, estuaries, islands, beaches and moorlands, usually within ten kilometres of the coast, make up the diverse habitats used by Orange-bellied Parrots.</p> <p>Breeding habitat is a mosaic of eucalypt forest, rainforest, and extensive fire dependant moorland and sedgeland plains, intersected by wooded creeks, rivers and estuaries within the Tasmanian Wilderness World Heritage Area (Brown and Wilson 1982, 1984; Stephenson 1991). Nesting occurs predominantly in the hollows of live Smithton Peppermint <i>Eucalyptus nitida</i> in patches of forest throughout coastal southwest Tasmania, but focused within 20 km of Melaleuca and 5km of Birch’s Inlet (Brown and Wilson 1984; Higgins 1999). The entire known breeding population is contained within the Tasmanian Wilderness World Heritage Area (in particular the Southwest National Park) and Southwest Conservation Area.</p>

² Orange-bellied Parrot Recovery Team (2006). National recovery plan for the Orange-bellied Parrot (*Neophema chrysogaster*). Threatened Species Section, Department of Primary Industries & Water, Hobart.

<http://www.environment.gov.au/system/files/resources/f493ebf4-a19b-412c-ac15-413b7d413a69/files/orange-bellied-parrot-recovery.pdf>

Species attribute	Definition
	<p>On passage in western and northwestern Tasmania (including offshore islands) the species occurs in dunes, heathland, coastal grasslands, saltmarsh and pasture. On King Island, they mostly occur in saltmarsh dominated by Beaded Glasswort <i>Sarcocornia quinqueflora</i>, flanked by tall dense Swamp Paperbark <i>Melaleuca ericifolia</i> forest (Higgins 1999).” p3 of Recovery Plan</p>
REM habitat model	<ol style="list-style-type: none"> 1. Breeding habitat for the species is native vegetation containing mature forest elements (any density) in the breeding range, as defined in the 2006 Recovery Plan. 2. Foraging habitat is vegetation communities in the species inclusion list (see below) within either the breeding range or the foraging range, based on the map and description in the 2006 Recovery Plan.
Notes	<p>The inclusions list for the species is the Tasveg communities in which the species has been recorded in the NVA since 1983 at accuracy <=500 mm and that are consistent with the descriptions of the foraging habitat: ARS ASS, AUS, AWU, GHC, MBS, SCA, SSC and SSK.</p>
Data	<p>Breeding range polygon generated from map in 2006 Recovery Plan. Foraging range polygon (outside of the breeding range) generated from the map and descriptions in the 2006 Recovery Plan, comprising the Breeding range, 10km inland of the coast from Veridian Point (SW Tas) to Sisters Beach (NW Tas), and King, Hunter, Three Hummock, Walker, Robbins and Perkins Islands. Vegetation mapping from Tasveg and/or NRP Atomic Planning Units data.</p>
Model status	<p>Model tested and used in the REM.</p>

Species: Dwarf Galaxias
Galaxiella pusilla

Species attribute	Definition
FPA attributes	
Core range	The core range of the dwarf galaxiid incorporates known sites and the catchments above known sites.
Potential range	The potential range of the dwarf galaxiid is the broader catchments defined by specialists where the species may occur and where surveys have not been conducted.
Known range	N/A
Potential habitat	Potential habitat for the dwarf galaxiid is slow-flowing waters such as swamps, lagoons, drains or backwaters of streams, often with aquatic vegetation. It may also be found in temporary waters that dry up in summer for as long as 6-7 months, especially if burrowing crayfish burrows are present (although these will usually be connected to permanent water). Habitat may include forested swampy areas. Juveniles congregate in groups at the water surface in pools free of vegetation.
Significant habitat	Significant habitat for the dwarf galaxiid is all potential habitat and a 30 m stream-side reserve within the core range.
Other habitat definitions	N/A
CARSAG habitat model	APUs of riverine, wetland or water vegetation within 500 m of known locations, plus some areas individually tagged.
Other information	N/A
REM habitat model	<ol style="list-style-type: none"> 1. LIST wetlands and 2D watercourses, and Tasveg wetlands, within the Core Range that are <50 m altitude. 2. Native riparian vegetation on Class 1, 2 streams in the Core Range that are <50 m altitude. 3. Native riparian vegetation on Class 3 and 4 streams in the Core Range that are <50 m altitude AND have a streambed slope (CFEV data) of <2 degrees.
Notes	<p>82% of record locations that intersect stream buffers are on Class 2 streams.</p> <p>All NVA records with an accuracy <=200 m are on CFEV river sections with a slope of <2 degrees (CFEV data), and are also at <50 m altitude.</p>
Data	<p>Vegetation data from NRP Atomic Planning Units.</p> <p>LIST Hydarea layer.</p> <p>CFEV river sections data (contains bed slope data).</p>
Model status	Model tested and used in the REM.
Known issues	DPIPWE advised on 30 January 2014 that it needs to develop a new range boundary for the species to correct erroneous TMAG data points. This occurred after the model had been developed and may need to be incorporated into a future revision.

Species: Glossy Grass Skink
Pseudemoia rawlinsoni

Species attribute	Definition
FPA attributes	
Core range	N/A
Potential range	The potential range of the glossy grass skink is a 5 km (radius) buffer centred on known sites.
Known range	N/A
Potential habitat	Potential habitat for the glossy grass skink is wetlands and swampy sites (including grassy wetlands, tea tree swamps and grassy sedgeland), and margins of such habitats.
Significant habitat	N/A
Other habitat definitions	N/A
CARSAG habitat model	N/A
Other information	N/A
REM habitat model	<ol style="list-style-type: none"> 1. The Core Range (500 m buffer of known locations), excluding urban areas (Tasveg FUR, FUM). 2. Parts of the land system polygons that are within one kilometre of the Core Range and have any of the following characteristics: <ol style="list-style-type: none"> (i) are LIST freshwater features classified as wetlands, wet areas or floodplains; or (ii) are land components that are gentle lower slopes or lower plains with the Tasveg communities for wetlands ("A" codes), grasslands, (GSL, GCL) swamp forests (NLM, NME), forests known to occur on wet areas (DOV, DOW, DVS) or wet scrubs (SRI, SSC).
Notes	<p>The Core Range data on the NVA is a 500 m buffer, not 5km.</p> <p>Some recorded locations are on the edge of urban areas, with the Core Range buffer extending into them.</p> <p>78% of NVA records with accuracy <=500 m are on land components that are gentle lower slopes or lower plains.</p>
Data	<p>NRP Land systems components data.</p> <p>LIST Hydarea layer.</p> <p>Vegetation from NRP Atomic Planning Units.</p> <p>Additional data generated by a script embedded in the REM.</p>
Model status	Model tested and used in the REM.
Known issues	DPIPWE advised on 30 January 2014 that the revised boundary developed by the FPA needs to be included in the repository on the NVA. This occurred after the model had been developed and may need to be incorporated into a future revision.

Species: Chaostola Skipper
Antipodia chaostola

Species attribute	Definition
FPA attributes	
Core range	The core range of the chaostola skipper is a 2 km (radius) buffer centred on the known sites.
Potential range	The potential range of the chaostola skipper is the distribution of <i>Gahnia radula</i> and <i>G. microstachya</i> .
Known range	N/A
Potential habitat	Potential habitat for the chaostola skipper is dry forest and woodland supporting <i>Gahnia radula</i> (usually on sandstone and other sedimentary rock types) or <i>Gahnia microstachya</i> (usually on granite-based substrates).
Significant habitat	N/A
Other habitat definitions	N/A
CARSAG habitat model	Sites identified by Neyland (1994 ³) as having good stands of <i>Gahnia radula</i> which provide suitable habitat for the species.
Other information	N/A
REM habitat model	<ol style="list-style-type: none"> 1. Areas within 200 m of known locations. 2. Native vegetation in the Core Range that is dry eucalypt forest (Tasveg "D"), native grassland (Tasveg "G") or dry scrub types (SCH, SHL, SHU). 3. Native vegetation that is dry eucalypt forest (Tasveg "D"), native grassland (Tasveg "G") or dry scrub types (SCH, SHL, SHU) on land system polygons within 5km of the Core Range which are sedimentary or acid igneous (granitic) rock types, <300 m altitude and <750 mm rainfall
Notes	<p>The use of <i>G. radula</i> and <i>G. microstachya</i> as a predictor of potential habitat on its own is not supported by data on environmental characteristics of the species recorded locations.</p> <p>91% of Chaostola Skipper records occur on sediments (though the number of known sites is small so this figure may not be reliable). In comparison, only 42% of the <i>Gahnia</i> species records occur on sediments.</p> <p>There are additional strong associations with rainfall, with 82% of Chaostola Skipper locations in areas with <750 mm rainfall, and altitude, with 93% of locations on areas <300 m ASL.</p> <p>The species also has a strong association with distance from the coast, with no records locations more than 21km inland.</p>
Data	
Model status	Model developed and tested.

³ Neyland, M. (1994). The ecology & conservation status of three rare hesperiid butterflies in Tasmania. Wildlife Report 94/3, Parks & Wildlife Service, Hobart.

Species attribute	Definition
Known issues	DPIPWE advised on 30 January 2014 that it needs to update the range boundary for the species to include new populations at Grasstree Hill and Buckland. This occurred after the species model had been developed and may need to be incorporated into a future revision.

APPENDIX 14

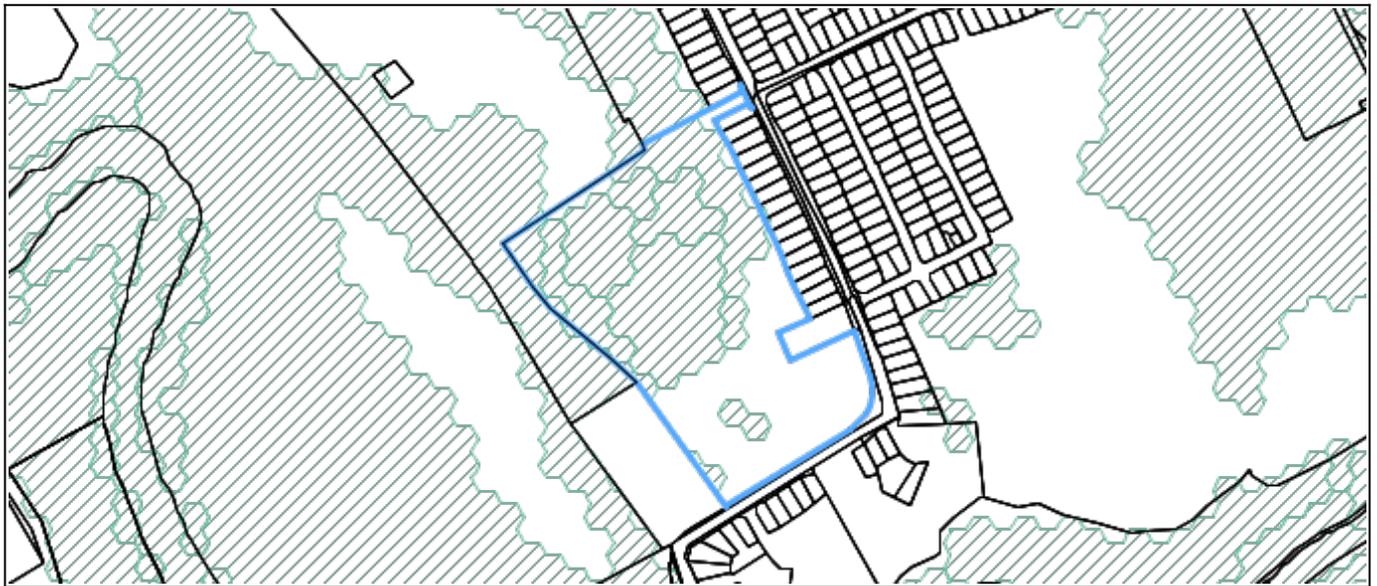


Priority Vegetation Report

PID	CT	Address	Locality	Improvements	Area (m ²)
7523859	29364/1	100 Ravenswood Road RAVENSWOOD TAS 7250			

Priority Vegetation Overview

PRIORITY VEGETATION OVERVIEW MAP



This Priority Vegetation Area overlay report shows a subset of the Regional Ecosystem Model. The overlay contained in the planning scheme is shown only over zones to which it can apply.

The Regional Ecosystem Model (REM) is a comprehensive, high resolution spatial analysis that identifies:

- native vegetation and threatened species and their relative conservation status and management priority;
- the characteristics of the landscape that may affect its ability to sustain these elements.

The subsets of information that are included are:

- Threatened native vegetation communities is based on TasVeg 3.0, but has been corrected for inherent logical consistency issues and includes credible field-based mapping where it was available.
- Threatened flora and fauna species locations and habitat are modelled using two methods:
 - Rules applied to Natural Values Atlas (NVA) records that are customised for each species to reflect their patterns of local distribution (e.g. riparian species), based on a limited number of habitat variables; and
 - More detailed habitat models for about 100 threatened fauna species that reflect agreed habitat definitions used by the Forest Practices Authority but utilise a much wider range of data, including landforms and vegetation structural maturity, to more accurately identify habitat and potential habitat.

- Native vegetation of local importance includes:
 - a subset of threatened fauna species habitat models,
 - native vegetation with limited bioregional reservation and extent and native vegetation remnants on heavily cleared types of land where local factors affect ecological sustainability of the landscape.

Each local area contributes to the survival of threatened vegetation communities, threatened flora and threatened fauna within a State wide mosaic that enables the distribution of species to be maintained and provides for mobility of fauna through connected habitat.

Each subset of data that is identified on the property is described below.

Priority Vegetation Details

Threatened Flora



- blue grasslily
- variable raspwort

These are species listed as threatened under the Tasmanian Threatened Species Protection Act (1975) or Commonwealth Environment Protection and Biodiversity Conservation Act (1999).

Listed threatened species have statutory recognition that they are likely to become extinct if the factors causing them to be threatened are not managed. Species may be listed due to historical loss since settlement, natural rarity giving rise to potential risk, or impacts of particular land use and land management practices.

Threatened flora habitat characteristics are mostly localised and are modelled solely on Natural Values Atlas records with a limited number of habitat variables.

Why is it included?

- Statutory recognition that species extinction is likely

Data Source:

- NVA records combined with REM point-based modelling rules
- Generally highly localised

Reliability:

- Reasonably reliable - on-ground field verification

Management:

- Check species observation source
- Potentially require on-ground field verification

Relative Reservation



Relative Reservation

- (NBA) Bursaria - Acacia woodland and scrub

Reservation status is a measure of the degree to which vegetation communities are included in the Comprehensive, Adequate and Representative (CAR) reserve system. Higher levels of reservation give greater confidence that the species for which vegetation communities are surrogates are likely to be protected, subject to appropriate geographic and biophysical distribution in the landscape. Reservation provides greater certainty of the maintenance of better condition vegetation and hence maintenance of ecological function at local and landscape scales.

Why is it included?

- Less than 30% of extent in bioregion is in reserves

Data Source:

- TasVeg 3.0 (minor exceptions)

Reliability:

- Highly variable

Management:

- Check TasVeg for field verification
- Consider local extent, condition & management options
- Potentially require on-ground field verification

Threatened Fauna and Significant Habitat



Threatened Fauna
• glossy grass skink



Threatened Fauna Habitat
• eastern quoll
• spotted-tailed quoll
• tasmanian devil

These are species listed as threatened fauna under the Tasmanian Threatened Species Protection Act (1975) or Commonwealth Environment Protection and Biodiversity Conservation Act (1999). Listed threatened species have statutory recognition that they are likely to become extinct if the factors causing them to be threatened are not managed. Species may be listed due to historical loss since settlement, natural rarity giving rise to potential risk, or impacts of particular land use and land management practices.

Threatened fauna habitat characteristics are extremely varied and are modelled as significant based on Natural Values Atlas records with a limited number of habitat variables or more detailed customised models for about 100 fauna species. Some species habitat occurs across the landscape but not all sites may be essential for species survival and not all suitable habitat may be occupied. Species that rely on this type of habitat are classified as landscape-dependent and are regarded as being of local importance, however the relative importance of the site to the survival of the species can only be known in response to field verification, the context and the nature of a proposal.

Why is it included?

- Statutory recognition that species extinction is likely, however not all sites are important or occupied

Data Source:

- NVA records combined with REM point-based modelling rules
- Habitat-based models

Reliability:

- Variable

Management:

- Check species observation source
- Check data on habitat and local context
- Potentially require on-ground field verification

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APPENDIX 15: SCENIC PROTECTION PROJECT REPORT

Author	Reviewer	Date
Marilyn Burns, Urban Design Planner	Claire Fawdry, Senior Town Planner	05 August 2019

Contents

1	Introduction	2
1.1	Project Scope	2
2	Changes to the Code	2
2.1	Code Application Guidelines	3
3	Assessment	4
3.1	Existing Scenic Management Precincts	5
3.1.1	Trevallyn Hillside Precinct	5
3.1.2	Tamar Estuary Precinct	6
3.1.3	Western Hillside Precinct	7
3.1.4	Carr Villa and Punchbowl Reserve Precinct	8
3.1.5	Central Hills Precinct	9
3.1.6	North Esk Flood Plain Precinct	10
3.1.7	Eastern Hillside Precinct	11
3.1.8	Rural Hills Precinct	12
3.1.9	Rural Local Setting Precinct	13
3.1.10	Dilston Wetlands Precinct	14
3.2	Existing Scenic Road Corridors	15
3.2.1	Bass Highway	15
3.2.2	Midland Highway	16
3.2.3	North East Corridor	17
4	Recommendations	18
4.1	Proposed Scenic Protection Areas	19
4.1.1	Tamar River Protection Area	19
4.1.2	North Esk Protection Area	21
4.1.3	Rural Hills Protection Area	23
4.2	Proposed Scenic Road Corridors	25
4.2.1	Tamar Valley Road Corridor	25
4.2.2	North East Road Corridor	27
5	Conclusion	29
6	References	29

1 Introduction

It is the Tasmanian government's policy for a single planning scheme for Tasmania, known as the Tasmanian Planning Scheme (TPS) to provide consistent state-wide provisions. The TPS consists of State Planning Provisions (SPPs) which were endorsed by the Minister of Planning and Local Government on the 22 February 2017. Local councils are required to prepare their Local Provision Schedules (LPSs) in accordance with Guideline No. 1 Local Provisions Schedule (LPS): zone and code application.

The SPPs provide a Scenic Protection Code (SPC) to protect local areas of significant landscape value. While similar to the previous Scenic Management Code (SMC), the code has a slightly different purpose and intent. The aim of this report is to determine scenic protection areas and road corridors to be included in the LPS.

1.1 Project Scope

The report seeks to:

1. Assess the existing SMC precincts and road corridors for areas to be considered in the SPC; and
2. Create appropriate scenic protection areas and road corridors to be included in the SPC.

The project will be focused around existing SMC precincts and tourist road corridors where specific protection of the character of the area is considered to still be relevant and required.

2 Changes to the Code

The purpose of the SMC is as follows:

E7.1.1 The purpose of this provision is to:

- (a) *ensure that siting and design of development protects and complements the visual amenity of scenic road corridors; and*
- (b) *ensure that siting and design of development in scenic management areas is unobtrusive and complements the visual amenity of the locality and landscape; and*
- (c) *ensure that vegetation is managed for its contribution to the scenic landscape.*

The purpose of the SPC is as follows:

8.1.1 To recognise and protect landscapes that are identified as important for their scenic values.

The emphasis of LIPS focuses on ensuring that development is unobtrusive and complementary to the visual amenity of the scenic management area through siting and design mechanisms. This indicates an overarching management approach to scenic

management values as opposed to a protection approach. In contrast, TPS has a strong emphasis on protecting areas that are identified as important for their scenic values.

2.1 Code Application Guidelines

The Commission has issued Guideline No. 1 which provides assistance with the preparation of the draft LPSs.

The code provides for individual scenic protection areas and scenic road corridors to be listed in the LPS. The inclusion of specific scenic values and management objectives allows for greater guidance in the assessment of proposals against the code.

The scenic protection area and scenic road corridor overlays may be applied to land identified at the local or regional level as important for the protection of scenic values.

These may include areas:

- (a) containing significant native vegetation or bushland areas with important scenic values (such as skyline areas); or
- (b) identified for their significant scenic views.

The scenic protection area and scenic road corridor overlays should be justified as having significant scenic values requiring protection from inappropriate development that would or may diminish those values.

The scenic protection areas and scenic road corridors may only be shown on the overlay map for the following zones:

- (a) Rural Living Zone;
- (b) Rural Zone;
- (c) Agriculture Zone;
- (d) Landscape Conservation Zone;
- (e) Environmental Management Zone; or
- (f) Open Space Zone.

The SMC was not limited by the zones of the associated sites. As such some of the land previously covered by the code is no longer applicable (see Fig. 1).

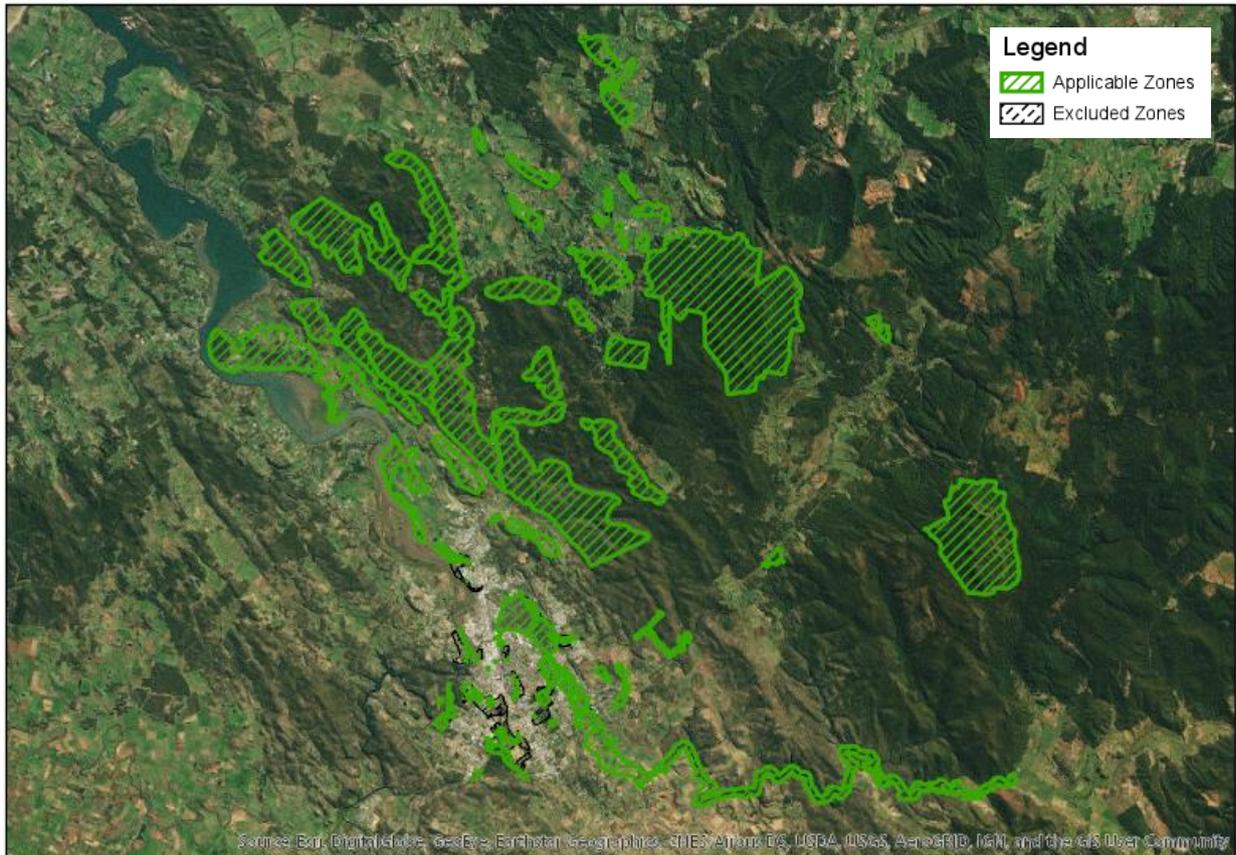


Figure 1: Map of applicable zones in the existing SMC precincts.

3 Assessment

The existing SMC precincts were assessed in relation to the applicable zones and standards for the SPC. This involved initial desktop analysis through the use of 3D modelling and consideration of standards of the associated zones and overlays. Initial potential protection areas were determined. The draft areas were assessed for scenic value and risk potential. Photographic studies of each area were then conducted by boat, car and foot, with additional use of drones where required. The boundaries of the scenic management areas were reviewed and refined based on the visibility of the area from major roads, public places and key viewpoints. Following this, draft descriptions and management objectives were produced.

When considering the scenic road corridors, it was determined that setbacks should be based on the centreline for the roads. This was due to the variation in title boundaries for the associated highways. Draft maps were produced, with overlays showing a setback at 120m and 500m. The 120m setback was based on the existing setbacks of the SMC and the proposed setbacks of the SPC. The 500m setback was based on the definition of the immediate foreground from existing landscape analysis procedures.

During the final mapping of the areas and road corridors, consideration was given for the ease of boundary determination. Where it was considered possible, the scenic protection areas align with title boundaries to prevent confusion. However, due to the size of lots, particularly in the rural and agricultural zones, along with the discretionary pathway for any proposal for works greater than 500m², this was considered

unnecessarily onerous where development would be inevident from public places. Therefore boundaries for the areas were also considered in relation to zoning boundaries and contours.

3.1 Existing Scenic Management Precincts

Under the LIPS, the Launceston municipality has ten existing scenic management areas that cover approximately 33,400ha.

3.1.1 Trevallyn Hillside Precinct

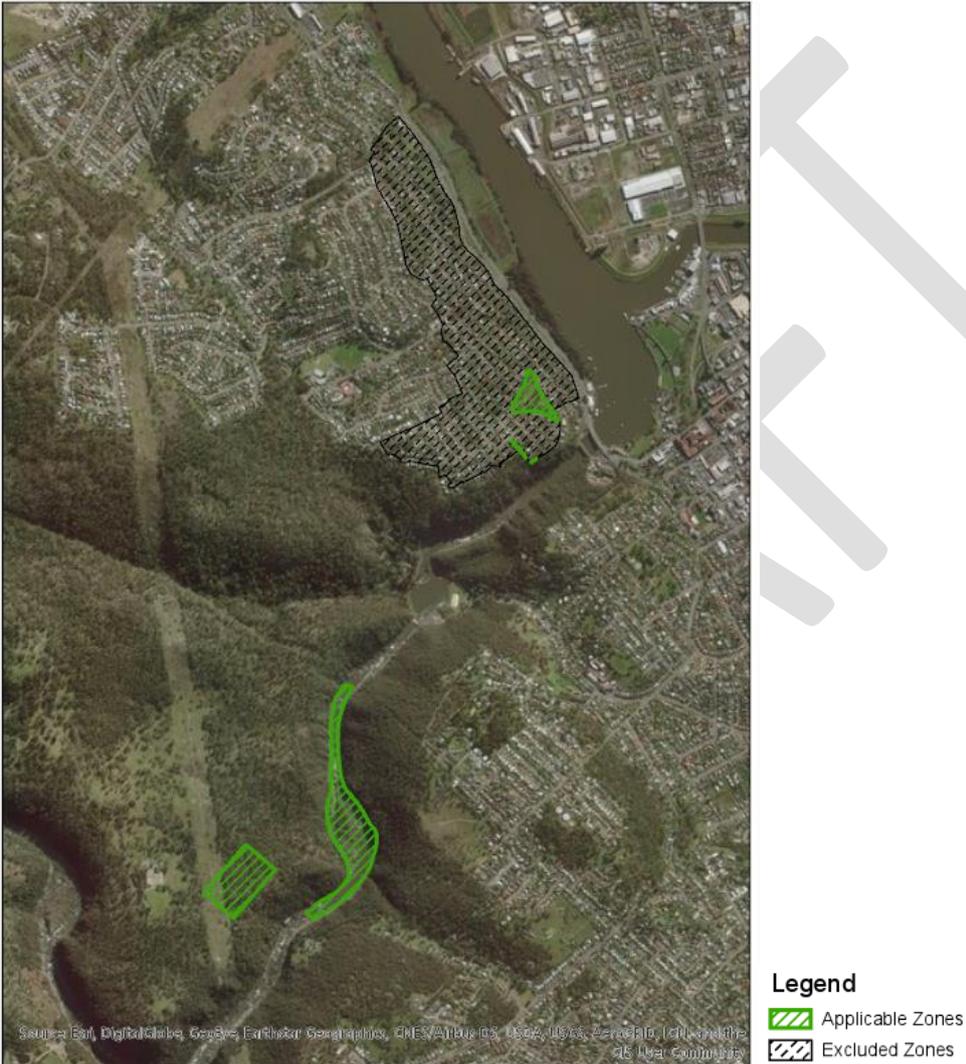


Figure 2: Map of applicable zones in the Trevallyn Hillside Precinct.

The majority of the existing precinct is zoned General Residential, which is not applicable in the SPC. There are three areas that are covered by applicable zones (see Fig. 2). All three areas are public assets maintained by the City of Launceston (CoL), and as such development is restricted through specific internal guidelines. The first area is Trevallyn Reserve. There are no additional overlays on the area; however potential development is likely to be limited to maintenance work. The two remaining areas are part of the Cataract Gorge Reserve, which is intended to be covered with an independent Specific Area Plan (SAP). The areas are also covered by the Local Historic Heritage Code and Natural Assets Code. Once again, potential development is likely to

be limited to maintenance work. It is determined that the Trevallyn Hillside Precinct can be excluded from the SPC.

3.1.2 Tamar Estuary Precinct



Figure 3: Map of applicable zones in the Tamar Estuary Precinct.

The existing precinct contains a variety of zones that are not applicable to the SPC, including General Residential, Low Density Residential and Recreation zones. There are three remaining areas that are covered by applicable zones (see Fig. 3). The first is composed of a series of lots that make up the Hardwicke Street Reserve owned by CoL and land owned by private stakeholders. The Hardwicke Street Reserve is a public asset and development is restricted through specific guidelines. The land owned by private landholders is setback 280m from the River Tamar Edge, and is not visible from key viewpoints along the river. This is considered the main purpose of the Tamar Estuary Precinct. The properties in question are also subject to the Environmental Management Zone, which will restrict potential development. Removal of the area from the SPC is not considered to be detrimental.

The second area is composed of Kings Park and the West Tamar Walking Trail. They are public assets maintained by the CoL, and as such development is restricted through

specific guidelines. Furthermore, they are covered by The Natural Assets Code and the Flood-Prone Areas Hazard Code. Kings Park is also subject to the Local Historic Heritage Code. Removal of the area from the SPC is not considered to be detrimental.

The third area covers the northern areas zoned Rural around the intersection between the East Tamar Highway and University Way. This is a key access point and consideration should be given to potential development of the existing university campus. It is recommended that this area be considered in the SPC.

3.1.3 Western Hillside Precinct



Figure 4: Map of applicable zones in the Western Hillside Precinct.

The majority of this precinct is zoned General Residential, Low Density Residential or Utilities. The applicable areas can be split into three types (see Fig. 4). The first is made up of parks, such as Woods Reserve and Fraser Street Park. They are public assets maintained by the CoL. The second are composed of land owned by state government bodies, such as Mount Pleasant Laboratories and the Kate Reed Reserve, and are covered by the Natural Assets Code. Potential development in these areas is likely to be limited to maintenance work.

The remaining area is the Mount Pleasant Estate that fronts the Midland Highway or Bass Highway. It is privately owned and makes up part of the southern entry into Launceston. While it is important that the visual amenity is maintained, it is considered that a separate SAP covering the southern entry into Launceston would be more appropriate. The SAP could also then cover the residential zones that are considered of scenic value. Therefore, it is determined that the Western Hillside can be excluded from the SPC.

3.1.4 Carr Villa and Punchbowl Reserve Precinct



Figure 5: Map of applicable zones in the Carr Villa and Punchbowl Reserve Precinct.

Most of the existing precinct is zoned General Residential, Low Density Residential, Community Propose or Recreation. These zones are exempt under the SPC. The only applicable areas are Carr Villa and the Punchbowl Reserve (see Fig. 5), which are public assets maintained by CoL. There are no additional overlays on the area; however potential development is likely to be limited to maintenance work. It is determined that the Carr Villa and Punchbowl Reserve Precinct can be excluded from the SPC.

3.1.5 Central Hills Precinct



Figure 6: Map of applicable zones in the Central Hills Precinct.

Most of the precinct is zoned General Residential or Low Density Residential. Remaining applicable areas are parks and buildings owned by CoL, such as City Park, Albert Hall, Design Tasmania, Princes Square, Talbot Road Lookout and Brickfields Reserve (see Fig. 6). They are public assets and several are also covered by the Local Historic Heritage Code. It is determined that the Central Hills Precinct can be excluded from the SPC.

3.1.6 North Esk Flood Plain Precinct

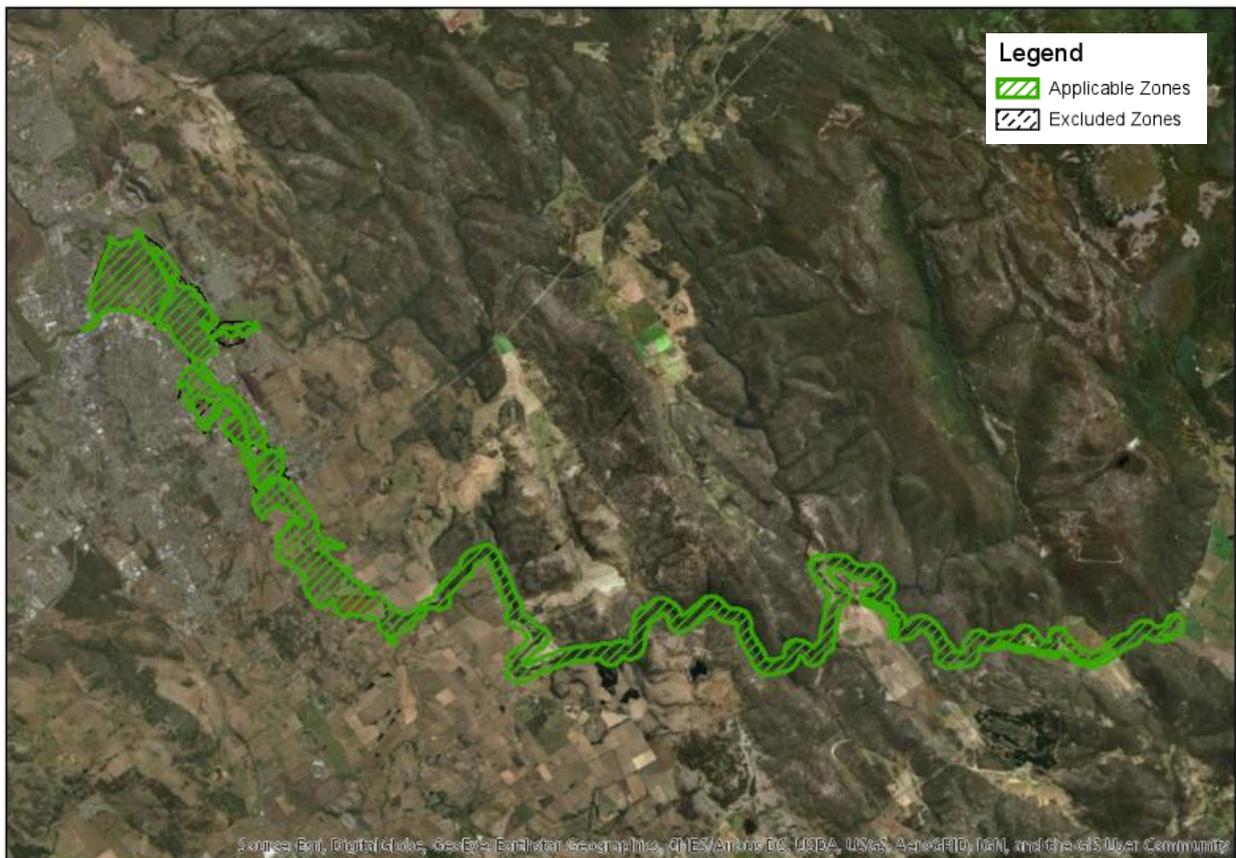


Figure 7: Map of applicable zones in the North Esk Flood Plain Precinct.

One of the larger precincts, it covers the North Esk Flood Plain as the North Esk River heads eastward (see Fig. 7). The majority of the area is zoned Agricultural or Environmental Management, which are applicable zones. The western section of the precinct is visible from the major tourism roads heading east. It includes historic sites such as Northcote and Corra Lynn.

The eastern section encompasses a narrow gorge and the wildlife sanctuary Paterson Island, as well as passing through many privately owned parcels. The area covered by the overlay is not readily visible from public roads and places, so it is considered that there is provision for the area covered by the overlay to be reduced. Furthermore, it will be subject to the Natural Assets Code.

In several instances, the precinct only covers sections of associated properties, and it is considered that there are suitable areas of land that can be developed outside of the overlay. In conclusion, the precinct is significant for its scenic, environmental, geological, historic and landscape values, and it is recommended that the area be considered in the SPC.

3.1.7 Eastern Hillside Precinct



Figure 8: Map of applicable zones in the Eastern Hillside Precinct.

The majority of the precinct is zoned Rural, Rural Living or Agricultural, which are applicable zones. The area includes prominent hills in St Leonards, Waverley, Ravenswood, Mowbray and Rocherlea (see Fig. 8). It is valued for its scenic contribution towards the landscape of the eastern suburbs. Ti Tree Crescent Park is also included in the area. It is a public asset maintained by the City of Launceston, and as such development is restricted through specific guidelines. It is considered that it is not detrimental for the Park to be removed from the precinct. It is recommended that the rest of the area be considered in the SPC.

3.1.8 Rural Hills Precinct

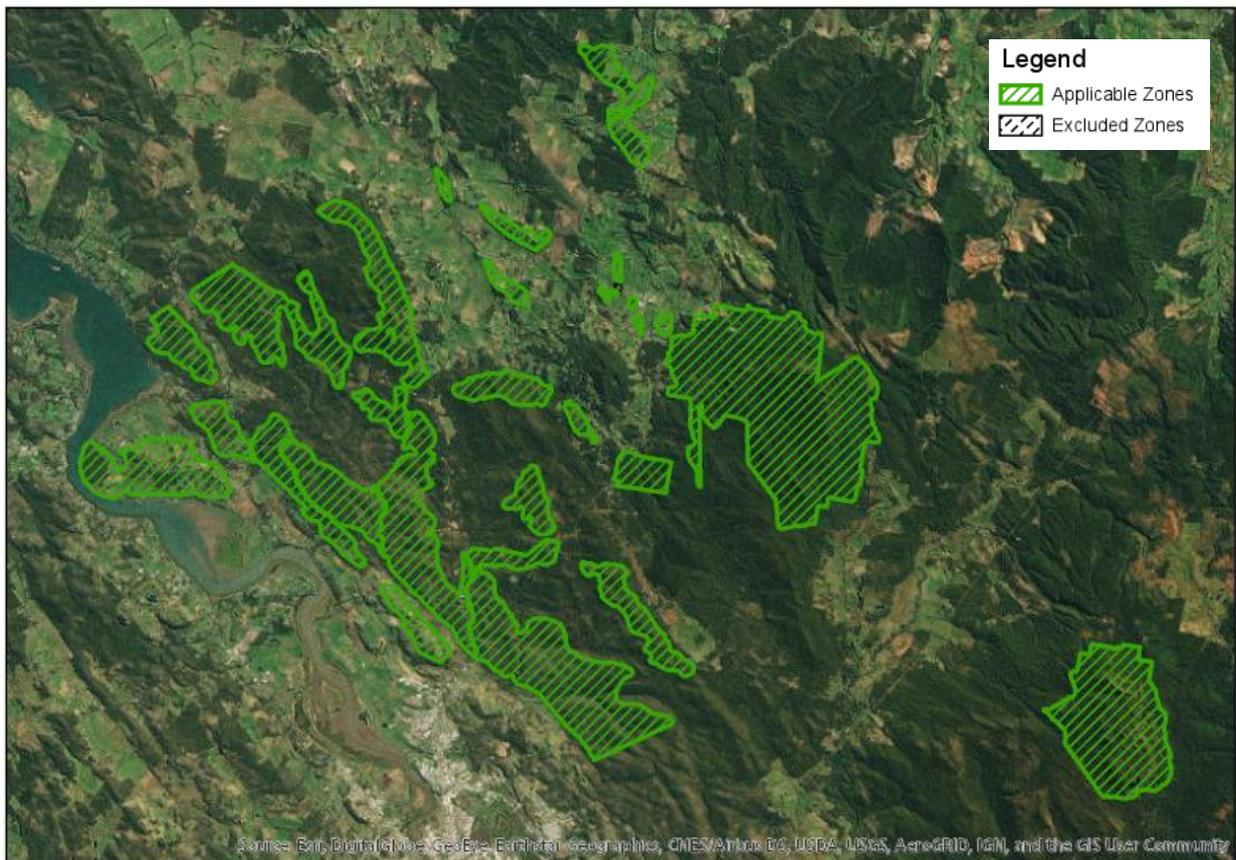


Figure 9: Map of applicable zones in the Rural Hills Precinct.

The existing precinct covers visually dominant skylines and vegetated corridors within the rural outskirts of Launceston that provide a scenic backdrop (see Fig. 9). The area is almost entirely zoned Rural, Agricultural or Environmental Management. It covers a range of public and private land that is both historically and ecologically significant, such as Mt Arthur, Mt Barrow, Mt Direction signal station, Fingerpost Hill and Boomer Hill. In conclusion, the precinct is significant for its scenic, ecological, historic and landscape values, and it is recommended that the area be considered in the SPC.

3.1.9 Rural Local Setting Precinct

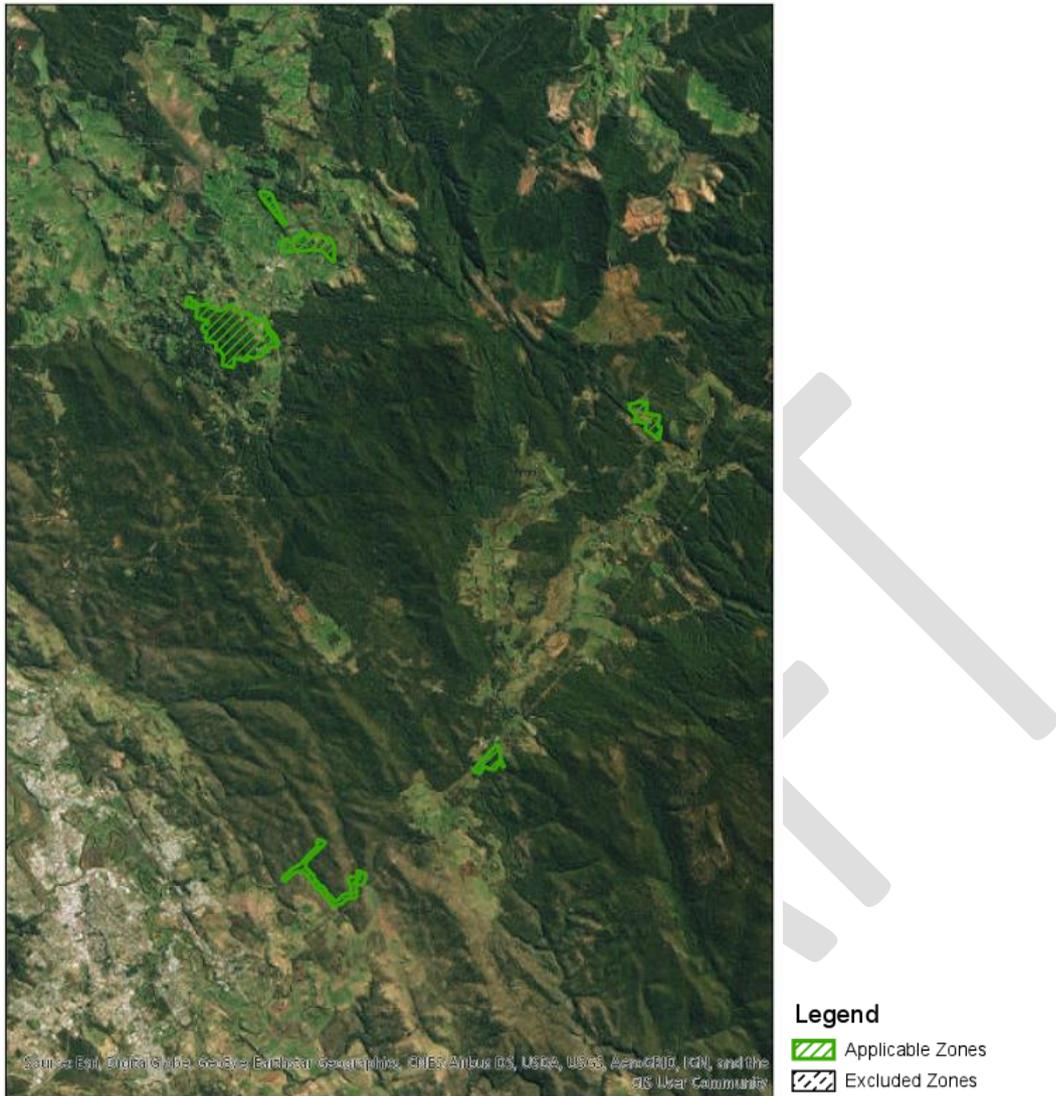


Figure 10: Map of applicable zones in the Rural Local Setting Precinct.

The existing precinct is almost entirely zoned Rural, Agricultural or Environmental Management. It includes a number of key scenic sites with natural and heritage values (see Fig. 10). This includes Lilydale Falls, Rhododendron Garden, Hollybank Reserve, Nunamara Intake Dam, and Scamps Reserve. The precinct is significant for its scenic, environmental and historic values, and it is recommended that the area be considered in the SPC.

3.1.10 Dilston Wetlands Precinct



Figure 11: Map of applicable zones in the Dilston Wetlands Precinct.

The existing precinct is part of the Tamar estuary and covers a significant area of lowland bordering the Tamar River to the east (see Fig. 11). It provides a backdrop to the East Tamar Highway and West Tamar. The majority of the land is zoned Agricultural, though there are some areas of Rural or Rural Living. In conclusion, the precinct is significant for its scenic, environmental and landscape values, and it is recommended that the area be considered in the SPC.

3.2 Existing Scenic Road Corridors

The Launceston municipality has three existing scenic road corridors that cover approximately 1,600ha.

3.2.1 Bass Highway



Figure 12: Map of applicable zones in the Mass Highway Scenic Road Corridor.

The existing corridor starts at the intersection with Meander Valley Road and finishes at the intersection with the Midland Highway (see Fig. 12). The surrounding land has a variety of zones applied. Only the Kate Reed Reserve has an applicable zone. It is zoned Environmental Management and is owned by the Department of Tourism, Parks, Heritage and the Arts. Potential development is likely to be limited to maintenance work.

The overall road corridor makes up part of the southern entry into Launceston. While it is important that the visual amenity is maintained, it is considered that a separate SAP covering the southern entry into Launceston would be more appropriate. The SAP could also cover the various zones abounding the road. Therefore, it is determined that the Midland Highway can be excluded from the SPC.

3.2.2 Midland Highway



Figure 13: Map of applicable zones in the Mass Highway Scenic Road Corridor.

The existing corridor starts at 9 Charbooday Drive and finishes at the intersection with the Bass Highway (see Fig. 13). The surrounding land has a variety of zones applied. Only two sites have applicable zones. The first is the Kate Reed Reserve. It is zoned Environmental Management and is owned by the Department of Tourism, Parks, Heritage and the Arts. Potential development in these areas is likely to be limited to maintenance work. The remaining area is the part of the Mount Pleasant Estate that is zoned Rural. It is privately owned. While it is important that the visual amenity is maintained, it is considered that a separate SAP covering the southern entry into Launceston would be more appropriate. The SAP could also cover the various zones abounding the road. Therefore, it is determined that the Midland Highway can be excluded from the SPC.

3.2.3 North East Corridor

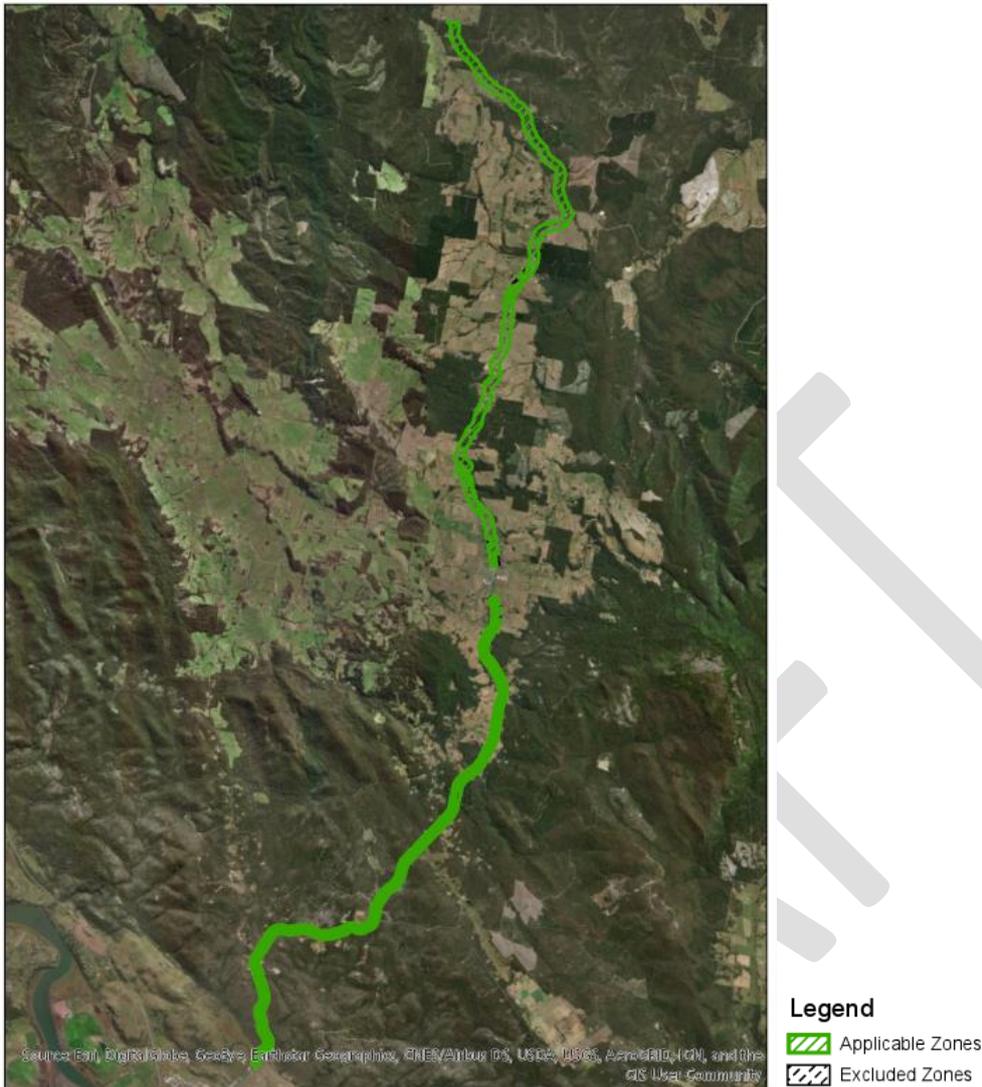


Figure 14: Map of applicable zones in the Mass Highway Scenic Road Corridor.

The existing Corridor is part of the North East Trail tourist route connecting Launceston with Bridport, as well as part of the Tamar Valley Wine Route (see Fig. 14). The existing corridor is split into three parts. The first starts from the Intersection with Russell Plains Road and finishes at 19 Lalla Road. It connects Rocherlea with Lilydale. The road provides access to Hollybank Forest Reserve and several mountain bike trails.

The second part starts from the 12 Golconda Road and finishes at the intersection with Pipers Brook Road. The corridor connects Lilydale with Lebrina. It provides access to several scenic spots like Lilydale Falls. The third part starts at the intersection between Golconda Road and Pipers Brook Road and finishes at 678 Pipers Brook Road.

The majority of the abounding sites are large rural lots and are heavily vegetated along the road edge. It is recommended that the North East Corridor be considered in the SPC. Furthermore, it is recommended that the corridor be mapped, as opposed to applying the standard setback. This will allow for the setbacks to respond to the surrounding landscape, and will make it easier for planners, residents and developers to know exactly what land is covered by the corridor.

4 Recommendations

There are three scenic protection areas and two scenic road corridors proposed in the draft LPS. They cover approximately 40,800ha in total. The scenic protection areas and scenic road corridors have been aligned so that there is no overlap between areas (see Fig. 15). The areas that were previously covered by the existing SMC that are now excluded total approximately 5,000ha. This includes areas that are in excluded zones or minor modifications due to title boundaries.

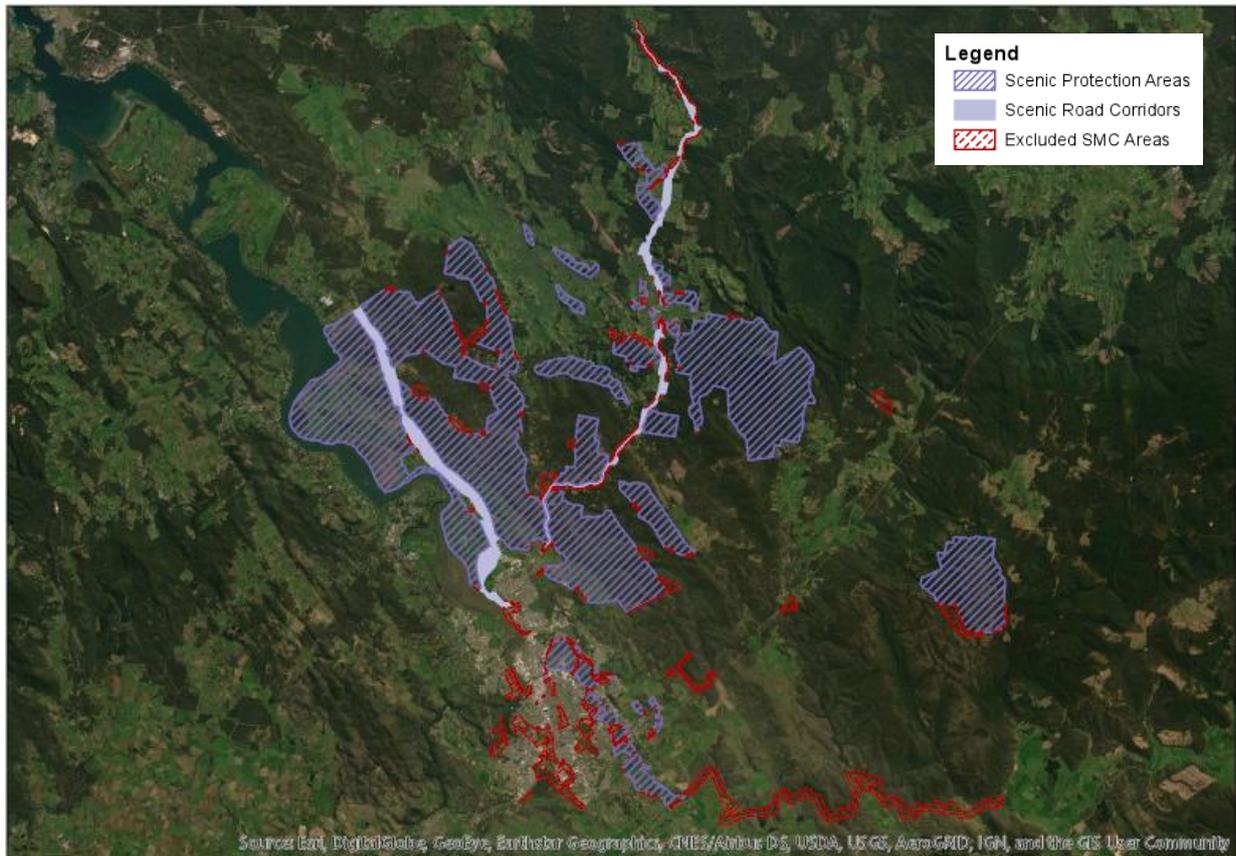


Figure 15: Map of proposed Scenic Protection Areas and Scenic Road Corridors.

Approximately 10,800ha of land recommended for the SPC has been added that was not previously covered by the SMC. Primarily this is due to the provision of permitted pathways and additional exemptions in the code. Previously, development in the SMC precincts that did not meet the code exemptions was automatically discretionary. However under the SPC, work in a scenic protection area that is not near the skyline or greater than 500m² in area is permitted. The additional exemptions cover the majority of works for agricultural uses, as well as several instances of vegetative clearing and minor extensions to existing buildings.

This allows for some scenic management areas to be combined to reduce spot overlays and provide consistency, particularly in the Tamar River and Rural Hills scenic protection areas. Additionally, scenic road corridors have now been mapped, including along the East Tamar Highway. Previously the highway was only sporadically covered by the Rural Hills, despite being classified as the Tamar Valley Tourist Route. This has now been corrected.

4.1 Proposed Scenic Protection Areas

4.1.1 Tamar River Protection Area

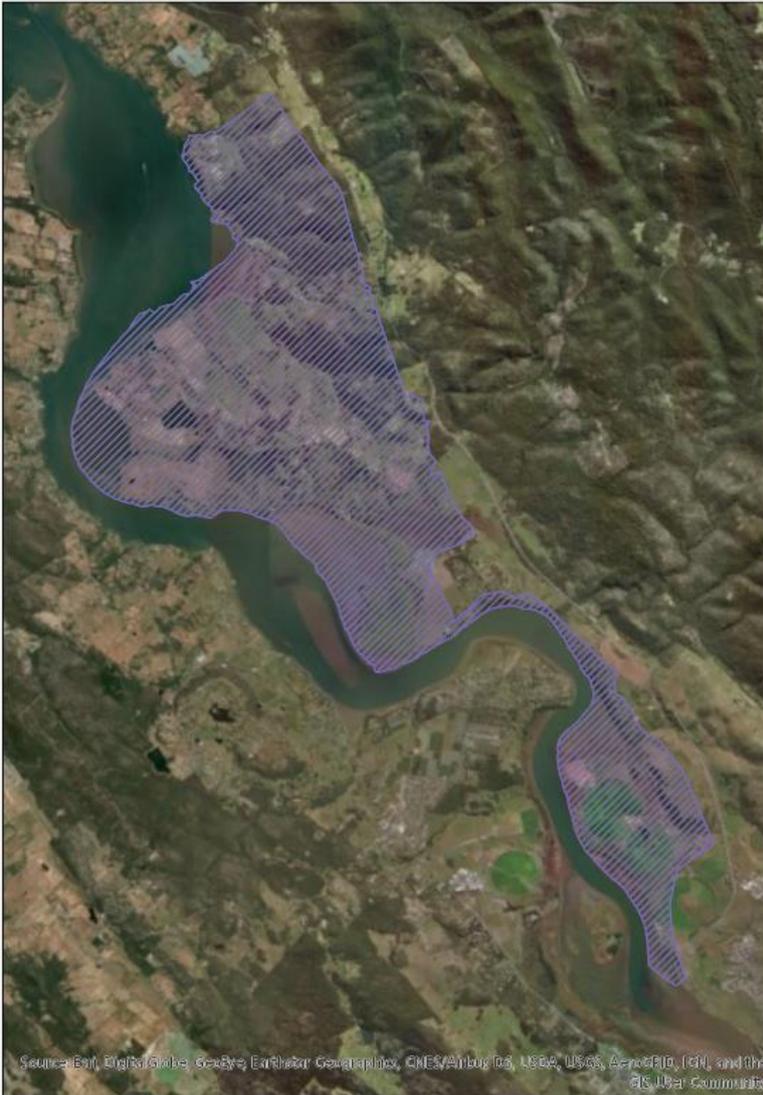


Figure 16: Map of proposed Tamar River Scenic Protection Area.

Description:

The Tamar River Scenic Protection Area encompasses low lying land to the north of the city limits that adjoins the Tamar Estuary (see Fig. 16). Covering approximately 6,900ha, the area extends 22km from north to south and includes Dilston, Windermere and Swan Bay.

The area is predominately viewed by boat from the Tamar River (see Fig. 17). Locals use the area for commercial and recreational activities, and there are several tourist cruises daily. The foreground includes the river itself and the shoreline. The riparian vegetation is largely low-lying native species such as the great bindweed, sea club rush and common rush (see Fig. 18). This provides nursery habitat for several species of fish, as well as significant habitat for waterfowl, migratory wading species and land birds. Along the banks of the river, the vegetated cover shifts from large sections of mature trees, to smaller pockets of scattered native and exotic trees. Occasionally there are groups of small dwellings that cluster around the river's edge (see Fig. 19).



Figure 17: View of the Tamar River.



Figure 18: View of Waverley from the river.

The middle ground when visible is largely composed of undulating plains used for small farming activities such as grazing, orchards and forestry. The background is composed of sparsely vegetated hillsides like Gaunts Hill and Landfall Hill. In the distance, the heavily vegetated hills of the Rural Hills Scenic Protection Area are visible (see Fig. 20).



Figure 19: View of the riparian vegetation.



Figure 20: View of the rural hills in the distance.

The Tamar River is also clearly visible from the East and West Tamar Highways, as well as surrounding rural and residential hillsides. In these instances the river becomes a visually dominant feature in the background, contrasting against its vegetated surrounds.

Scenic Value:

The Scenic Protection Area is composed of a series of natural and manmade elements. Together these create a distinct landscape with clearly defined foreground, middle ground and background sections. The Tamar River is a key landscape feature of regional significance, visible from scenic road corridors and supporting a number of tourism ventures. It contributes to the landscape character of the broader Tamar Valley. The area has a high visual presence of waterfowl and native birds all year round, including ducks, swans, egrets, pelicans and the occasional white-bellied sea eagle.

Key scenic points include the Windermere Church and the Native Point Nature Reserve. The church is a major landmark that brings pride to the village of Windermere. Its location at the river edge provides visual prominence. Surrounding dwellings reflect the local and historic rural character.

Management Objectives:

The management objectives for the Tamar River Scenic Protection Area are:

- a) that development is designed to be consistent with the existing character of the precinct as defined in the area description;
- b) to avoid intrusive development or landscape alterations that would adversely impact on the high scenic quality of the landscape character;
- c) to limit destruction of vegetation which would adversely impact on the scenic integrity of the landscape character;
- d) to maintain views of the Tamar River from public roads and places; and
- e) to avoid development that will negatively impact on the nursery and feeding grounds of native fauna.

4.1.2 North Esk Protection Area

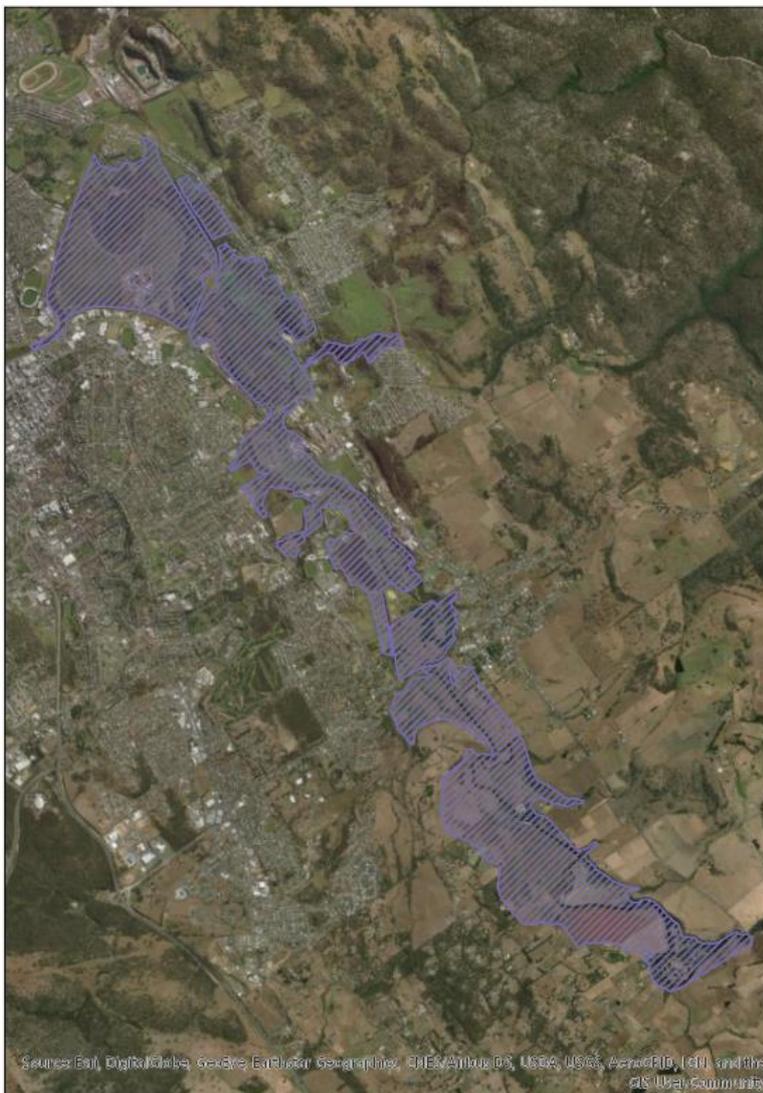


Figure 21: Map of proposed North Esk Scenic Protection Area.

Description:

The North Esk Scenic Protection Area covers approximately 1,700ha. Beginning at the southern side of Victoria Bridge, the area follows the North Esk River's flood plain southwards for approximately 25km (see Fig. 21).

The river itself is used for many recreational activities, such as fishing, rowing and swimming. Patches of wet sclerophyll, dry sclerophyll and riverine vegetation cluster in the foreground around the river edge (see Fig. 22). The middle ground when visible is largely composed of low lying pastures used for grazing or farming, or public facilities such as the QVMAG, UTAS Stadium, Launceston Show Grounds, Northern Suburbs Athletics Centre and St Leonards Park. In the northern section, the background is composed of distant views to the residential hills and city.



Figure 22: View from the North Esk River.



Figure 23: View of the North Esk Flood Plains.

The flood plains also form a major part of the vistas from the outer eastern suburbs such as Ravenswood, Waverley and St Leonards. To a lesser extent it can be seen from inner city suburbs such as Newstead and East Launceston. In these instances, the land slopes down to the flood plains, with the river and low lying pastures creating a clear visual divide between the city centre and the eastern suburbs (see Fig. 23).



Figure 24: View from the St Leonards Park.



Figure 25: View along the North Esk River.

Scenic Value:

The Scenic Protection Area is natural, with limited visual impact resulting from manmade interventions (see Fig. 24). The North Esk River supports a number of recreational activities both in the water and along the banks. The flood plains are clearly visible from the surrounding residential areas. It provides a clear point of separation between the inner suburbs of the city and the outer eastern suburbs, preventing urban sprawl and allowing for distinct areas to emerge.

The area has a high visual presence of native birds all year round, including swans, ducks and herons (see Fig. 25). Farm animals such as cattle and horses are regular

features in the landscape. The flood plains provide a scenic backdrop to the eastern suburbs, with key vistas from Vermont Road, Henry Street and High Street. It also incorporates local historic sites such as Northcote and Corra Lynn set within the rural landscape.

Management Objectives:

The management objectives for the North Esk Scenic Protection Area are:

- a) that development is designed to be consistent with the existing character of the precinct as defined in the area description;
- b) to maintain the cleared rural character;
- c) to maintain views of the North Esk Flood Plains from public roads and places;
- d) to protect views from the North Esk River from intrusive development; and
- e) to discourage the removal of native vegetation, unless it is unavoidable and is replaced with a mix of species that can support native wildlife.

4.1.3 Rural Hills Protection Area

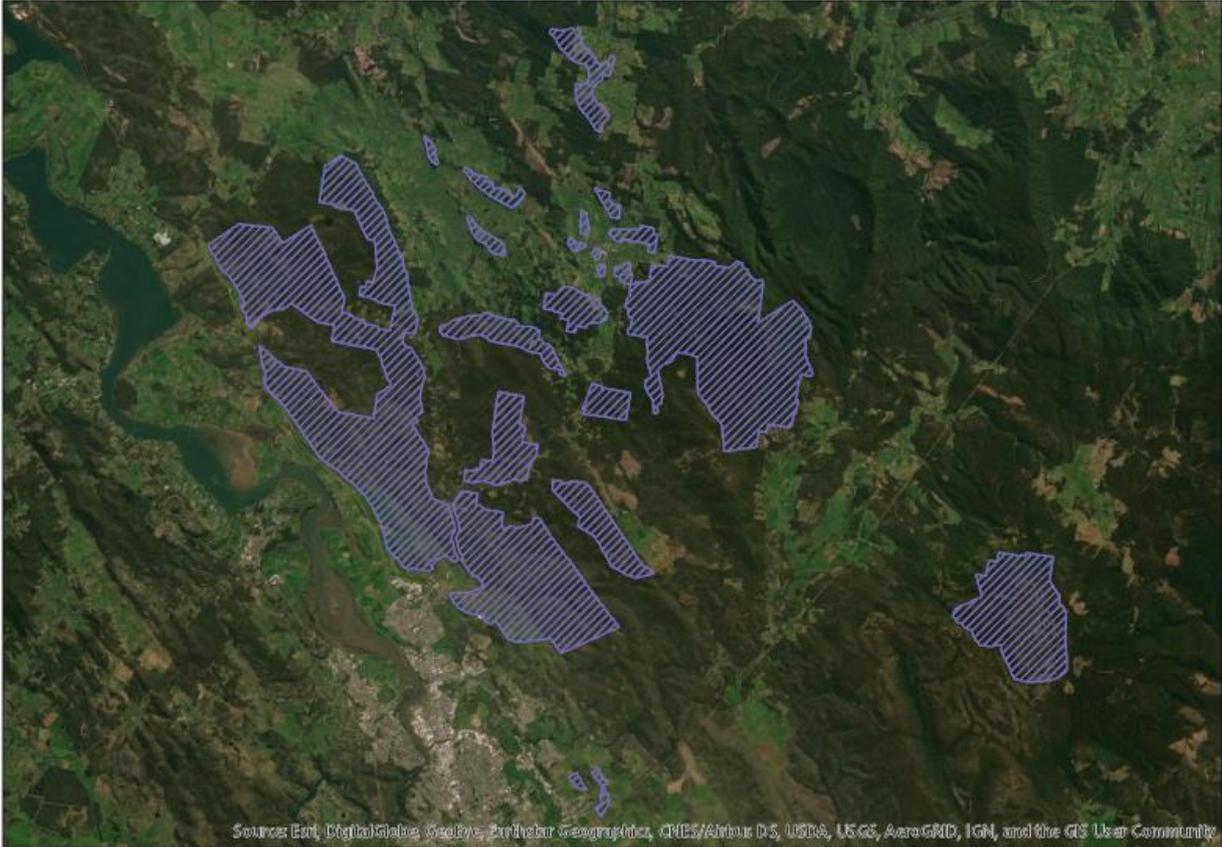


Figure 26: Map of proposed Rural Hills Scenic Protection Area.

Description:

The Rural Hills Scenic Protection Area covers approximately 28,600ha. It is composed of key hillsides and ridgelines that frame the northern approaches into Launceston and rural townships in the municipality (see Fig. 26).

The area covers a number of forest reserves, and provides opportunities for hiking and mountain bike riding. The area is primarily viewed from the Tamar Valley Tourist Route and the North East Tourist Route, which are regularly used by locals and tourists. The

hillsides are also largely visible from major rural roads and the northern outer suburbs. The area provides a backdrop, with Mt Arthur, Mt Barrow, and Mt Direction dominating the landscape. Mt Barrow in particular is composed of steep cliff sides and rock faces, creating a visually distinct form against the surrounding vegetated hills (see Fig. 27). The Dismal Range, Fingerpost Hills and Boomer Hills are less dominating, comprised of undulating hills of heavily vegetated native forest interspersed with areas of cleared pasture (see Fig. 28). Lilydale Falls, Hollybank Reserve, Nunamara Intake Dam, and Scamps Reserve make up the middle ground and are heavily vegetated.



Figure 27: View of Mt Barrow.



Figure 28: View of the Dismal Range

Scenic Value:

The Scenic Protection Area is natural, with no significant impact resulting from manmade interventions. Mt Arthur, Mt Barrow, and Mt Direction are all well-defined and visually distinct landforms that are elevated above their surrounds (see Fig. 29). The remaining hillsides and ridgelines are less prominent, but are visually evident in the landscape.



Figure 29: View of the Mt Arthur.



Figure 30: View of the Mt Dismal.

The hillsides are composed of heavily vegetated areas of public and private land that is both historically and ecologically significant. They are visible from major tourist routes and provide a scenic backdrop to the rural surrounds and inner residential areas to the north and east of the city (see Fig. 30). It is important to protect the vegetated character of the hillsides and prevent the development of dominant structures that can be seen from a distance.

Management Objectives:

The management objectives for the Rural Hills Scenic Protection Area are:

- a) that development is designed to be consistent with the existing character of the precinct as defined in the area description;
- b) to maintain the cleared rural character on the lower slopes and plains;
- c) to limit destruction of existing vegetation cover, and enhance native forest coverage in hilltop locations;
- d) to minimise the visual impact of development on the hillsides, particularly when viewed from public roads and places; and
- e) to encourage significant community infrastructure to co-locate in existing areas, or be designed to minimise their visual intrusion in the landscape.

4.2 Proposed Scenic Road Corridors

4.2.1 Tamar Valley Road Corridor



Figure 31: Map of proposed Tamar Valley Scenic Road Corridor.

Description:

The Scenic Road Corridor follows the East Tamar Highway approximately 20km from the intersection with University Way to the municipality boundary (see Fig. 31). The corridor varies from 200m wide to 1.5km wide, and covers approximately 2,000ha. The East Tamar Highway is one of two major entryways from the north into Launceston city

and is classified as the Tamar Valley Tourist Route. It provides links to Windermere, Swan Bay, Mount Direction and Boomer Hills.



Figure 32: View towards the Mowbray Link.



Figure 30: Mature vegetative screening.

The southern section of the precinct is largely undeveloped, providing the opportunity for long distance views to the Tamar River (see Fig. 32). Further north, the foreground alternates between large swaths of cleared agricultural land and steep slopes that are heavily vegetated with native flora. Development is largely shielded from view by mature vegetation (see Fig. 33). When visible, the middle ground to the east provides a sloping transition from the open pastures in the foreground to the vegetated hillsides covered by the Rural Hills Scenic Protection Area. To the west, the middle ground is composed of residential development covered by the Tamar River Scenic Protection Area. Where the undulating hills dip into valleys, the Tamar River and West Tamar can be viewed in the background.



Figure 34: View of the rural foreground.



Figure 30: View extending to the background.

Scenic Value:

The Scenic Road Corridor is composed of a series of natural and manmade elements (see Fig. 34). It focuses on the foreground and middle ground surrounding the Tamar Valley Tourist Route. Together with the Tamar River and Rural Hills Scenic Protection Areas, the corridor provides a distinct landscape with clearly defined foreground, middle ground and background sections. Classified as a state highway, the route is heavily trafficked by locals and tourists.

Limited development in the foreground of the corridor has protected views to the Tamar River and surrounding hillsides. Together with the undulating hillsides, the highway has a series of key vistas, where the land falls away and the middle ground and background

are visible (see Fig. 35). This landscape character contributes to the arrival experience into and from Launceston to the north. It is important to maintain the scenic character of the highway. To do this, the foreground needs to remain clear of large structures or bold additions.

Management Objectives:

The management objectives for the Scenic Road Corridor are:

- a) that development is designed to be consistent with the existing character of the area as defined in the corridor description;
- b) to avoid intrusive development or landscape alterations that would adversely impact on the high scenic quality of the landscape character;
- c) to limit destruction of vegetation which would adversely impact on the scenic integrity of the landscape character;
- d) to prevent development from obstructing long range views from the highway of the Tamar River, West Tamar municipality and surrounding hillsides;
- e) to maintain the scenic qualities associated with the arrival experience into and from Launceston City.

4.2.2 North East Road Corridor



Figure 36: Map of proposed Tamar River Scenic Protection Area.

Description:

The Scenic Road Corridor covers 35km of the North East Trail Tourist Route (see Fig. 36). The first section starts along Lilydale Road, just past the intersection with Russell Plains Road. It continues until it reaches the urban edges of Lilydale. The second section starts along Golconda Road at the edge of Lilydale. After the intersection between Golconda Road and Pipers Brook Road, the corridor continues on Pipers Brook Road to the edge of the municipality. The corridor varies from 150m wide to 700m wide, and covers approximately 1,600ha.

The route is one of two major entryways from the north into the city. Lilydale Road is often used by tourists to visit attractions and activities such as Hollybank Forest Reserve, Lilydale Falls, Mt Arthur, mountain bike trails and vineyards. The route also provides entry into Launceston from the Dorset municipality. As such, for a rural highway it is heavily trafficked by both locals and tourists.



Figure 37 and 38: View of mature trees providing screening for existing development and uses.

The majority of the precinct consists of mature trees that provide vegetative screening to agricultural and industrial uses (see Fig. 37 and 38). When visible, the middle ground provides a sloping transition from the rural farmland and dwellings in the foreground to the vegetated hillsides covered by the Rural Hills Scenic Protection Area (see Fig. 39).



Figure 39: View from leaving Lilydale.



Figure 40: View revealing the background.

Scenic Value:

The Scenic Road Corridor is composed of a series of natural and manmade elements. It focuses on the foreground and middle ground surrounding the North East Trail Tourist Route. The vegetated hillsides of the Rural Hills Scenic Protection Area provides the

backdrop to the corridor. The route is regularly trafficked by tourists to visit attractions, and is also advertised as a wine route.

Development has largely been hidden from view by mature trees in the foreground. This has also provided the opportunity for key vistas, where the land falls away and the middle ground and background are visible (see Fig. 40). It is important to maintain the scenic character of the highway. In particular, the vegetative screening along the road side is important to allow for agricultural and industrial uses to continue without negatively affecting tourist ventures.

Management Objectives:

The management objectives for the Scenic Road Corridor are:

- a) that development is designed to be consistent with the existing character of the area as defined in the corridor description;
- b) to avoid intrusive development or landscape alterations that would adversely impact on views from the North East Trail Tourist Route;
- c) to discourage the removal of vegetative screening, unless it is unavoidable and is replaced with a mix of species that can support native wildlife; and
- d) to maintain the scenic qualities associated with the North East Trail Tourist Route.

5 Conclusion

The consideration for the Scenic Protection Areas in the draft LPS has been undertaken in accordance with Guideline No 1, issued by the Tasmanian Planning Commission, considering the existing character, land constraints, existing and desired density and provision of services within the area. The spatial distribution of the areas has been applied across the City of Launceston based on the analysis within this report.

The inclusion of a Scenic Protection Area overlay in the draft LPS is not a mandatory requirement, however its inclusion is informed by local policy and history in the Launceston context.

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DRAFT

APPENDIX 16: ATTENUATION AREAS & BUFFERS PROJECT REPORT

Author	Reviewer	Date
Duncan Payton, Town Planner	Claire Fawdry, Senior Town Planner	June 2019

Contents

- 1.0 INTRODUCTION2**
- 1.1 Project Scope2
- 1.2 Tasmanian Planning Scheme.....3
- 2.0 ATTENUATION CODE.....3**
- 2.1 Comparison of Codes.....4
- 2.1.1 Sensitive Use5
- 2.1.2 Subdivision for Sensitive Use.....5
- 2.1.3 Activities Listed in the Tables.....6
- 2.1.4 Exemptions6
- 2.1.5 The Tables.....7
- 3.0 OVERLAY MAPS7**
- 4.0 CONCLUSION11**

1.0 INTRODUCTION

The State Planning Provisions (SPP's) provide an Attenuation Code (the Code) that is relatively similar to the Attenuation Code currently within the Launceston Interim Planning Scheme 2015 (interim scheme). Essentially, the Code seeks to minimise the opportunity for conflict between sensitive uses and uses that may emit smoke, noise, dust, odours and the like (emitting activities).

The Code provides an extensive list of activities that may cause such emissions and prescribes an attenuation distance. With some exemptions (i.e. level 2 activities and limited extension to an existing sensitive use), where a sensitive use seeks to locate within the prescribed attenuation distance or alternatively, an emitting activity seeks to locate where there are existing sensitive uses within that prescribed distance, the Code will apply to ensure the potential for conflict is appropriately considered.

Given the scope of the list of potentially emitting activities and the range of attenuation areas that may apply, it is necessary to consider how these areas will be identified to ensure their consideration at the time of application for planning approval.

Currently, the interim scheme contains an overlay map that identifies only wastewater treatment sites, some mineral extraction sites and the foundries at Franklin village. Clearly this is not intended to be comprehensive. The existing Environmental Impacts and Attenuation Code in the interim scheme applies to sensitive uses located within the buffer areas shown on the overlay map and to the uses shown in the table to that code and any sensitive uses located within the prescribed distances.

An inclusive solution is required to offer a level of certainty that the application of the Code is identified early in the process.

This report seeks to identify a comprehensive list of premises to be considered as potentially emitting activities and provide a resource that can be utilised to ensure potential conflict between such activities and sensitive uses is appropriately considered in the future. Additionally, such a resource must be capable of being kept current in an efficient and effective manner as potentially emitting activities come and go over time

1.1 Project Scope

The report seeks to:

- Review current uses in Launceston against Table C9.1 and C9.2 in the Code;
- Review the existing overlay map of the interim scheme;
- Create an appropriate overlay map;
- Identify existing uses listed in the code; and

- Address an efficient and effective means of their identification during the application process.

1.2 Tasmanian Planning Scheme

It is the Tasmanian government's policy for a single planning scheme for Tasmania, known as the Tasmanian Planning Scheme, to provide consistent state-wide provisions. The Tasmanian Planning Scheme consists of SPP's, which were endorsed by the Minister of Planning and Local Government on 22 February 2017, Local councils are required to prepare their Local Provision Schedules (LPSs) in accordance with Guideline No.1 Local Provisions Schedule (LPS): zone and code application.

2.0 ATTENUATION CODE

The purpose of the Attenuation Code is:

- C9.1.1 *To minimise adverse impacts on the health, safety and amenity of sensitive use from activities which have the potential to cause emissions; and*
- C9.1.2 *To minimise the likelihood for sensitive use to conflict with, interfere with, or constrain, activities which have the potential to cause emissions.*

Some realistic limitations are placed on the application of the Code and it will not apply to:

- Areas between emitting activities within the Light and General Industrial zones, the Port and Marine zone and the Utilities zone;
- Sensitive uses occurring within these four zones; and
- Any plant nursery or controlled environment agriculture within the Rural or Agricultural zones.

Relevantly, the Code provides the following definitions:

Attenuation area: *means land that is:*

(a) *within the boundary of an attenuation area shown on an overlay map in the relevant Local Provision Schedule; or*

(b) *within the relevant attenuation distance from an activity listed in Table C9.1 or C9.2, which is an existing activity or an activity for which a planning permit is in force.*

If an inconsistency exists between the relevant attenuation distance in Tables C9.1 or C9.2, and an attenuation area shown on an overlay map in the relevant Local Provisions Schedule, the distance shown on the overlay map applies.

Attenuation distance: *means the distance listed in Tables C9.1 and C9.2 for the relevant activity measured as the shortest distance from the boundary of the site on which the activity is located.*

The Code provides standards dealing with:

- Activities with potential to cause emissions - to be located not to cause an unreasonable impact on an existing sensitive use;
- Sensitive use within an attenuation area - not to interfere with or constrain the operation of an existing potentially emitting activity. There is no acceptable solution for this standard; and
- Subdivision lot design - to avoid and not conflict with, interfere or constrain an existing potentially emitting activity.

2.1 Comparison of Codes

Both codes have purpose statements which seek to protect both uses that are sensitive and uses that have the potential to cause environmental harm (e.g. noise, smoke, dust, vibration or the like) from causing conflict with or harm to, each other.

The current code applies to:

- i. a comprehensive list of activities deemed to have the potential to cause environmental harm;
- ii. sensitive uses located within the attenuation distance prescribed in that list; and
- iii. sensitive uses within a buffer area shown on the scheme overlay maps.

Whilst it is considered that the intent was for points (ii) and (iii), above, to be mutually exclusive (e.g. the buffer area around the foundry at Franklin Village is shown on the scheme overlay significantly reduced as a result of a past planning scheme amendment providing for the establishment of the Glenara retirement village), the current drafting of the code is not succinct.

This intent is clarified in the SPP where, in the definition of 'attenuation area' it specifically states:

If an inconsistency exists between the relevant attenuation distance in Tables C9.1 or C9.2, and an attenuation area shown on an overlay map in the relevant Local Provisions Schedule, the distance on the overlay map applies.

Therefore, using the example above, the reduced buffer area surrounding the foundry, as shown on the overlay map, overrides and limits the otherwise 1000 metre radius of the attenuation area.

The SPP Code is both broader and more limiting in its application. It applies to an expanded list of activities; to subdivision that creates lots with the potential to be used for sensitive uses within an attenuation area; and to sensitive uses.

Whilst it could be argued that the intent was to limit the application of the code to sensitive uses within an attenuation area, as it does with subdivision, this is not how the clause is drafted. Rather, it is broadly applied to all sensitive uses and thus seeks to ensure that consideration is given to the potential existence of attenuation areas that may affect a given site.

This approach is considered appropriate as most of the activities listed in the Tables are not currently shown on an overlay map and similarly, will not be shown in the overlay maps to the new scheme. Given that the standard dealing with sensitive uses is itself limited to those within an attenuation area, this precautionary application of the Code will act as a safeguard without placing any additional burden or requirement upon sensitive uses not within such an attenuation area.

Both Codes have standards addressing sensitive uses, subdivision for sensitive use, and uses listed in the Tables.

2.1.1 Sensitive Use

Both codes provide only performance criteria for sensitive uses within an attenuation area. Thus, all such applications are discretionary. Both Codes require consideration of essentially the same matters (e.g. the nature of the prescribed activity, its potential to emit pollutants, the degree of encroachment, mitigating measures, advice from the EPA, advice from the Director of Mines [SPP only], and advice from the owner or operator [current Code only]). The only significant difference between the two is that the current code requires an environmental Impact Assessment carried out by a suitably qualified person, whereas the SPP Code is potentially satisfied by the proponents own assessment.

Clearly, the extent to which an applicant will be required to address these matters will be determined on a case by case basis during the assessment process.

2.1.2 Subdivision for Sensitive Use

The current Code provides only performance criteria for subdivision for sensitive uses within an attenuation area and requires the provision of a site specific study prepared by a suitably qualified person.

The SPP Code provides acceptable solutions allowing a permitted pathway where the proposed lots are:

- *For existing buildings;*
- *Where building for sensitive use can be entirely outside the attenuation area; or*
- *Not intended for sensitive uses.*

Performance criteria provide the opportunity to demonstrate that, having regard to the nature of the activity and the intended use of the lot, sensitive uses will not be impacted by emissions.

2.1.3 Activities Listed in the Tables

Both Codes provide a permitted pathway with acceptable solutions, providing that:

- There is not an existing sensitive use within the attenuation area that would apply;
- That there is not a planning permit for a sensitive use within that area (SPP only);
- The attenuation area does not include land within a residential zone, the village zone or the urban mixed zone. The current Code also includes the business, commercial and major tourism zones.

Both Codes provide performance criteria addressing matters such as the nature of the activity; its likely emissions; proximity to sensitive uses and mitigating measures. Again, the current Code, requires the higher standard of evidence through the provision of an Environmental Impact Assessment.

2.1.4 Exemptions

Use or development, assessed as a level 2 activity, is exempted by both Codes. The EPA assessment of such applications is considered to comprehensively address all relevant issues.

The SPP Code provides an exemption for extensions to existing sensitive uses within an attenuation area, provided such extensions do not increase the gross floor area by more than 100m² or 50% from that existing at the effective date (i.e. when the Code comes into effect).

The current Code also exempts non-habitable buildings associated with sensitive uses and extensions to existing sensitive uses within attenuation areas shown on the overlay maps. This exemption does not apply to the majority of attenuation areas as they are not shown on the overlay maps.

2.1.5 The Tables

Both Codes provide tables of attenuation distances which list activities with the potential to create environmental harm or impact upon sensitive uses. The Tables list the required attenuation distance for each activity type. These distances are to be measured from the boundary of the site rather than from any particular point within the site.

The current Code provides a broad list of thirty activities deemed to be of a type likely to cause emissions that may impact adversely upon the amenity of sensitive uses. The SPP Code is significantly more expansive in its list, which sixty-seven such activity types.

Whilst both Codes, with their respective lists, are attached, some of the notable inclusions are:

- Abrasive Blasting;
- Beverage Production (non-alcoholic);
- Brewing or Distillery;
- Cidery;
- Dog Kennels;
- Horse Stables (commercial only);
- Joinery;
- Motor Body works (e.g. panel beating, spray painting); and
- Winery.

The introduction of attenuation areas for wineries, distilleries, breweries and cider production is likely a reflection of the changing times and industries within Tasmania, which has seen rapid growth in these industries. Many boutique breweries and distilleries have established in close proximity to sensitive uses across the State.

Of potentially greater impact within Launceston and no doubt many other major centres, is the introduction of attenuation areas around joineries and motor body works. These have historically established throughout the city without such attenuation areas and in many cases sensitive uses have established (e.g. the student accommodation complex at Newstead College is within the attenuation area of two joineries). Owners of existing properties, who may have an expectation for further residential development, will need to address the relevant performance criteria.

3.0 OVERLAY MAPS

Currently, the scheme overlay map for attenuation shows only:

- Level 2 Mining and quarry sites;
- The refuse disposal site at Remount Road;
- Waste water treatment sites; and

- Youngtown foundries, adjacent to the Glenara retirement village.

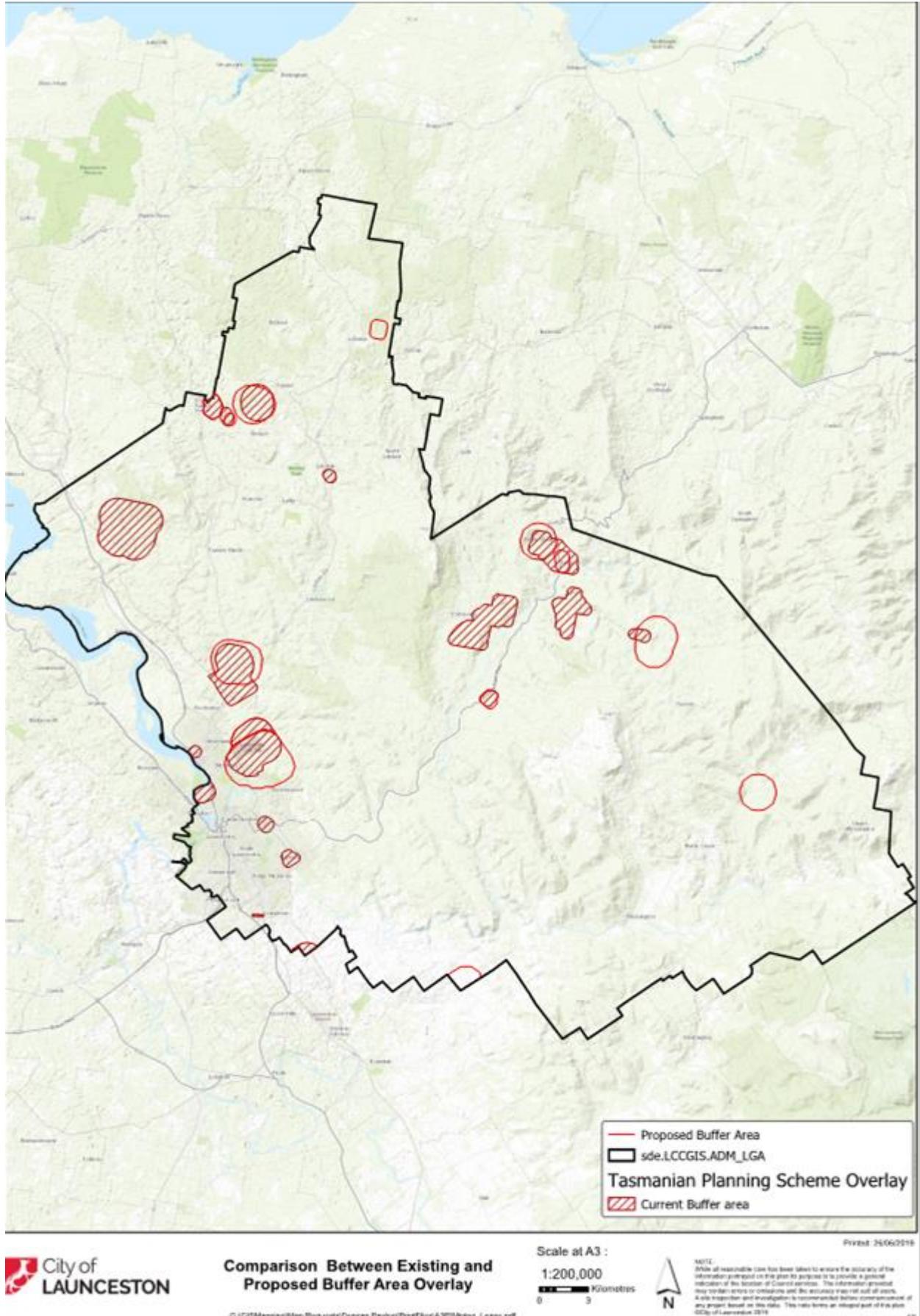
All other activities that are listed in the Tables have the attenuation area as prescribed in the Tables. These activities are deliberately not shown on the overlay maps as the maps form part of the planning scheme and a formal amendment is required to alter them.

In other words, if it were the case that all such activities were to be represented on the overlay maps, it would be necessary to amend the planning scheme every time a new activity proposed to establish or an existing activity closed or relocated. The time and costs involved with scheme amendment could act as a disincentive to prospective new businesses. In the event of closure of an existing activity, the burden of amendment to remove the attenuation area would inevitably fall to council.

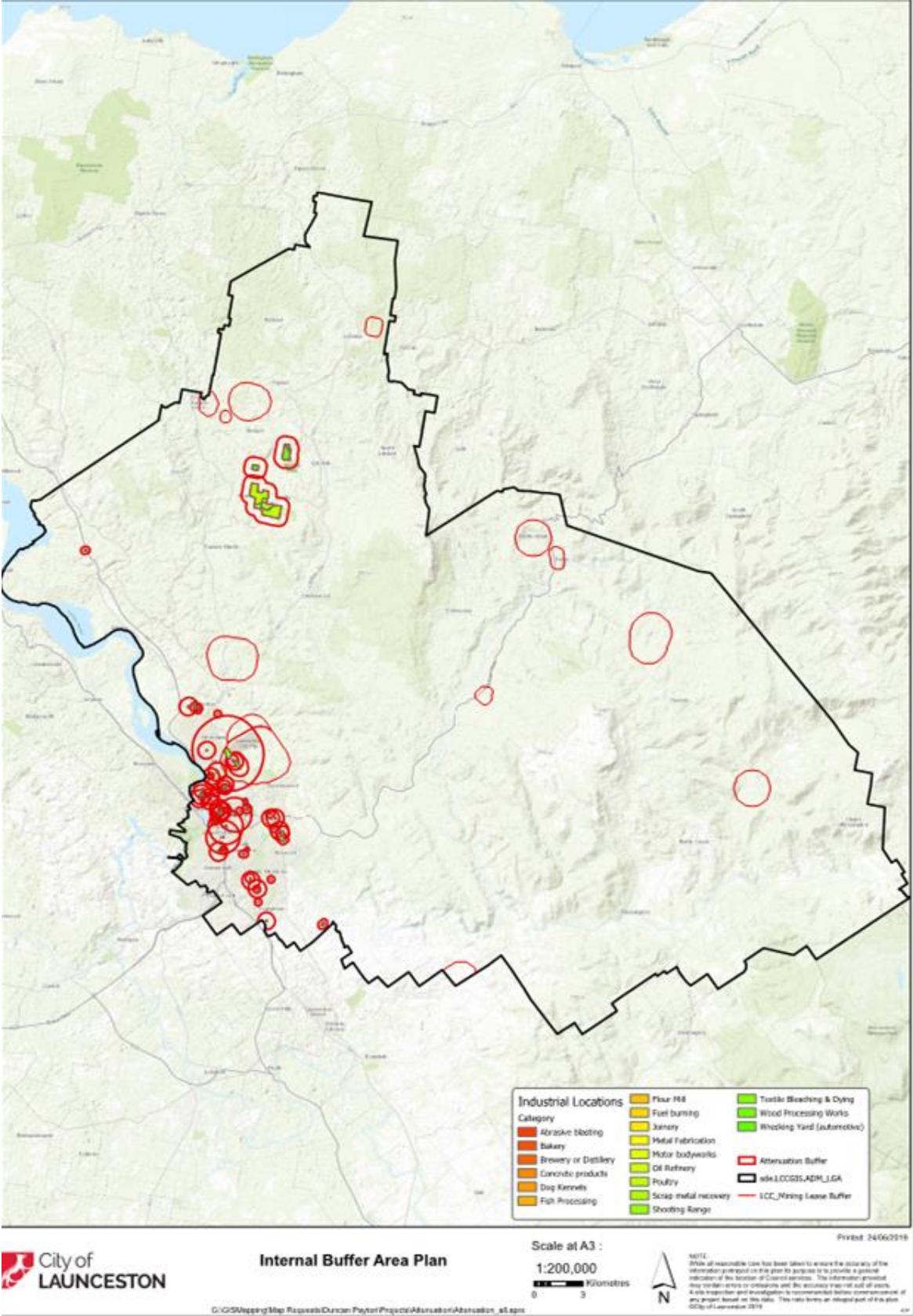
Consequently, it is proposed to continue the current practice of mapping only those activities that have an attenuation area that differs from that prescribed in the Tables:

- TasWater have advised that they do not require their waste water treatment sites to be individually shown on the overlay maps and that they are satisfied with the attenuation areas prescribed by the Tables.
- The foundry sites in Youngtown, adjacent to the Glenara retirement village, will remain as currently mapped.
- The existing quarry and refuse disposal site at Remount Road will remain as currently mapped reflecting the previous site specific study.
- Mineral Resource Tasmania have advised that the current mapping of mining sites is inconsistent with what is required and have provided up to date mapping for inclusion on the overlay map. The attenuation distances for these sites are measured from the boundary of the lease area rather than from the site boundary, which could have resulted in unreasonably large attenuation areas.

The Mineral Resources Tasmania mapping has resulted in the following changes:



Additionally, it is proposed to prepare an internal or informal overlay map that will show the relevant attenuation distances of all listed activities, similar to the current overlay mapping for potentially contaminated sites.



The benefit of such an overlay is that it provides an instant assessment reference to determine if a site is affected by an attenuation area and it can easily be altered to maintain currency in the event of change.

4.0 CONCLUSION

The desire to protect sensitive uses (predominately residential) from conflict with more commercial and industrial activities is one of the underlying objectives of the planning process. Placement of attenuation areas prescribed around activities considered likely to emit pollutants such as noise, dust, odours and the like, has long been used in planning schemes as a measure to mitigate likely conflict.

With the coming introduction of the Tasmanian Planning Scheme, a revised Attenuation Code will be included in the SPP's. As discussed above, the new Code is broader in its application than the existing Code, in that it significantly increases the range of activities to have a prescribed attenuation area. However, it requires a lesser burden of proof when addressing a proposal against the standards, where, unlike the existing Code, the applicant is not required to provide a site specific study or environmental impact assessment prepared by a suitably qualified person.

The SPP Code will result in an overlay map showing fewer sites than currently shown following advice from TasWater that their sites do not need to be mapped. Additionally, it is the catalyst for the preparation of an updated list of all such activities within the municipal area and the preparation of an internal mapping layer to promote accurate and consistent application of the Code.

PLANNING REPORT



Tasmania Fire Service

Launceston LGA Bushfire-Prone Areas Overlay

November 2018



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Table of Contents

Executive Summary	2
1. Introduction	3
1.1 Purpose of this Report.....	3
1.2 Background	3
2. Study Area	5
3. Bushfire-Prone Area Mapping	6
3.1 Purpose of Mapping	6
3.2 Mapping Process.....	6
3.3 Map Refinement.....	8
3.4 Outcomes of Mapping	9
4. Implementation	10
4.1 Launceston Interim Planning Scheme 2015	10
4.2 Tasmanian Planning Scheme.....	10
5. Future Revisions	11
6. Planning Framework	11
6.1 Statutory Requirements.....	11
2. 6.1.1 Requirements for Draft Amendments	11
3. 6.1.2 Requirements for Local Provision Schedules	12
6.2 Strategic Considerations	13
4. 6.2.1 LUPAA Schedule 1 Objectives	13
5. 6.2.2 State Policies	17
6. 6.2.3 Regional Land Use Strategy of Northern Tasmania.....	17
7. 6.2.4 City of Launceston Strategic Plan 2014-2024.....	17
7. Conclusion	19

Appendix A – Bushfire-Prone Areas Overlay

Executive Summary

The Tasmania Fire Service ('TFS') is working with Local Government to prepare and implement bushfire-prone areas mapping for Tasmanian Local Government Areas ('LGA'). Mapping for the Launceston LGA has now been completed following collaborative work between TFS and Launceston City Council officers.

The purpose of the bushfire-prone area mapping is to spatially define land where potential exposure to bushfire hazard is sufficient to warrant a building and/or planning response to achieve a tolerable level of residual risk. The mapping does not imply that there is nil risk to use and development outside of the overlay, rather that residual risk to use and development outside of the overlay is deemed to be tolerable through reliance on other external measures, such as firefighter intervention.

The starting point for the map preparation was the production of a 'modelled overlay' that was generated by applying a 100m buffer to existing vegetation map data. The overlay was then progressively refined based on assessment of local conditions including bushfire behaviour and fuel management regimes. The local knowledge provided by Council officers was critical to this process.

By spatially defining bushfire-prone areas the mapping will provide clarity for permit authorities, landowners, developers, consultants and the broader community with respect to the application of existing statutory requirements for bushfire protection. The process of reviewing local conditions has also allowed for some areas that would currently trigger bushfire requirements to be 'mapped-out', thereby reducing compliance and development costs for the local community.

For the mapping to serve its intended function it needs to be incorporated within the relevant planning instrument established under the *Land Use Planning and Approvals Act 1993* ('LUPAA'). To incorporate the mapping within the Launceston Interim Planning Scheme 2015 it is necessary to amend the Interim Planning Scheme Overlay Map. In this transitional period before the Tasmanian Planning Scheme is enacted, Schedule 6 of LUPAA provides the statutory basis for amending interim planning schemes under the 'former provisions'. It is anticipated that the mapping will ultimately be carried forward into Council's Local Provision Schedules under the Tasmanian Planning Scheme.

Amending the Interim Planning Scheme to incorporate a bushfire-prone areas overlay is considered to be consistent with the Schedule 1 Objectives of the *Land Use Planning and Approvals Act 1993*, the State Policies created under the *State Policies and Projects Act 1993* and the relevant regional land use strategy.

It is accordingly recommended that Council initiates a Draft Amendment of its own motion under s.34(1)(b) of the former provisions of LUPAA.

1. Introduction

1.1 Purpose of this Report

This report has been prepared in support of the bushfire-prone areas mapping for the Launceston LGA and the planning scheme amendment required for its implementation. This report provides the following information:

- The background and context of the mapping;
- Description of the mapping process;
- Details of the required amendment to the *Launceston Interim Planning Scheme 2015* to implement the mapping;
- Consideration of the required planning scheme amendment in the context of the applicable statutory and strategic planning framework.

It is anticipated that Council will initiate a Draft Amendment of its own motion under s.34(1)(b) of the former provisions of the *Land Use Planning and Approvals Act 1993* ('LUPAA'). Schedule 6 of LUPAA provides the statutory basis for amending interim planning schemes under the former provisions.

1.2 Background

The Tasmania Fire Service is working with Local Government to produce and deliver the bushfire-prone area mapping for Tasmania. Once completed for each municipality the mapping is intended to be integrated within the relevant planning instrument to formally identify 'bushfire-prone areas' for the purpose of planning and building control.

Bushfire has been a constant, natural phenomenon in Australia for thousands of years and south-eastern Australia is one of the most bushfire-prone regions in the world. Whilst fire has important ecological functions in the Australian context, its effects on human life, built assets and economic resources can be catastrophic if risk is not adequately managed. Not surprisingly, bushfire is identified in the Tasmanian Emergency Management Plan as Tasmania's most prominent natural hazard due to its prevalence and historical impacts on communities¹. Recent analysis of climate data confirms that this is unlikely to change with fire danger in some parts of Tasmania expected to progressively increase over the course of this century².

Managing bushfire risk to communities requires a multifaceted approach that considers all aspects of the potential emergency (i.e. Prevention, Preparedness, Response and Recovery). Government interventions accordingly include a combination of measures including land use and development control, community education, fuel reduction, firefighter response and emergency management. Regulation of land use and development is a 'preparedness' strategy in this context as it aims to improve the resilience of communities and their built assets when exposed to a bushfire hazard.

¹ Department of Police and Emergency Management 2015, *Tasmanian Emergency Management Plan - Issue 8*, DPEM, Hobart.

² Fox-Hughes P, Harris RMB, Lee G, Jabour J, Grose MR, Remenyi TA & Bindoff NL (2015) *Climate Futures for Tasmania future fire danger: the summary and the technical report*, Antarctic Climate & Ecosystems Cooperative Research Centre, Hobart, Tasmania

Planning and building controls are now recognised in Australia as an important tool that can be used to facilitate more resilient and sustainable communities. Bushfire protection requirements are applied to use and development for the purpose of ensuring a tolerable level of residual risk is achieved. It is essentially a form of market intervention that seeks to achieve a better outcome for society than the market would otherwise deliver. Numerous public enquiries have recognised the importance of planning and building as a means for supporting community fire safety, most notably the 2004 National Enquiry on Bushfire Mitigation and Management and the 2009 Victorian Bushfires Royal Commission.

The Tasmanian Government responded to the 2009 Victorian Bushfires Royal Commission by initiating significant planning and building reforms, including the introduction of Planning Directive No.5 Bushfire-Prone Areas Code within planning schemes in 2012 and state variations to the Building Code of Australia. This provided – for the first time – state-wide consistency in relation to use and development standards for bushfire protection. The importance of these reforms was confirmed by the 2013 Tasmanian Bushfires Inquiry, which recommended that the Tasmanian Government make land use planning and building construction for bushfire a high priority and that it progress improvements in this area³.

The planning and building regulatory system in Tasmania includes bushfire protection requirements to mitigate risk to communities and assets in bushfire-prone areas. The existing framework includes:

- The Bushfire-Prone Areas Code, which applies through local planning schemes under the *Land Use Planning and Approvals Act 1993*; and
- The Director's Determination – Requirements for Building in Bushfire-Prone Areas, which applies through the *Building Regulations 2016* and *Building Act 2016*.

This framework is structured in a way that enables application of bushfire controls through the planning approvals process for proposals involving land subdivision, vulnerable and hazardous uses. Bushfire requirements for other types of use and development are applied through the building approvals process.

For the purposes of both planning and building permit approvals it is necessary to determine whether proposed works are located within a 'bushfire-prone area'. This term is currently defined as follows:

Bushfire-prone area

Means:

(a) Land that is within the boundary of a bushfire-prone area shown on an overlay on a planning scheme map; or

(b) Where there is no overlay on a planning scheme map, land that is within 100m of an area of bushfire-prone vegetation equal to or greater than 1 hectare.

In the absence of mapping, planning authorities, permit authorities, landowners and developers are reliant on interpretation of subclause (b).

Incorporation of the mapping within the relevant local planning scheme overlay map will enable the use of subclause (a) of the abovementioned definition, thereby reducing the amount of assessment required to determine applicability.

³ Department of Premier and Cabinet, 2013 Tasmanian Bushfires Inquiry, DPAC, Hobart.

The 100m rule that forms the basis of the abovementioned definition has historically been accepted as a benchmark for the application of development control for bushfire and is the maximum distance considered in Australian Standard 3959-2009. Post-fire investigations have indicated that 85% of building loss resulting from major bushfires has historically occurred at distances within 100m of the urban interface⁴. Notwithstanding this, bushfire behaviour is not uniform across all situations some circumstances application of a 'blanket' 100m buffer is considered unnecessarily conservative.

2. Study Area

The study area for the purpose of this mapping project is the Launceston Local Government Area ('LGA') as shown in Figure 1. The Launceston LGA is located in Northern Tasmania and adjoins George Town, Dorset, Break O'Day, Northern Midlands, Meander Valley and West Tamar.

The study area includes Tasmania's second largest activity centre – Launceston City – and a number of smaller rural townships. The study area includes extensive tracts of native bushland and grassland.



Figure 1 - Launceston LGA location map

⁴ Ahern, A., and M. Chladil (1999), *How far do bushfires penetrate urban areas?* paper presented at 1999 Australian Disaster Conference, Emergency Manage. of Aust., Canberra, A. C. T.

3. Bushfire-Prone Area Mapping

Bushfire-prone area mapping for the Launceston LGA has been completed following collaborative work between the Tasmania Fire Service and Launceston City Council officers. The draft maps are enclosed as **Appendix A** to this report.

3.1 Purpose of Mapping

The bushfire-prone area mapping primarily relates to use and development control. Its purpose is to spatially define areas where risk is sufficient to require specific bushfire protection measures in order to achieve a tolerable level of residual risk. The mapping will provide a definitive trigger for assessment under the existing planning and building requirements for bushfire protection. Spatially defining bushfire-prone areas is consistent with the approach adopted for other natural hazards within Tasmanian planning schemes (inundation, landslip hazard).

The mapping is not intended to identify all land that may be impacted by bushfire hazard, nor does it imply that there is nil residual risk to use and development outside of the overlay. Rather, residual risk to use and development outside of the mapped areas is deemed to be tolerable through reliance on other external measures, such as firefighter intervention.

By removing the need to evaluate whether vegetation is 'bushfire-prone' before confirming whether a site is within a 'bushfire-prone area', the mapping will remove ambiguity and improve the development assessment process to the benefit of permit authorities, land owners and developers.

The mapping also provides a more sophisticated mechanism than the standard 100m rule trigger that is currently relied upon. Evaluation of local conditions and likely bushfire behaviour has informed the mapping process and has allowed for some reductions to the standard 100m buffer in situations where it has been determined that the risk does not warrant application of planning or building standards to achieve a tolerable level of residual risk. In doing so, the mapping will refine application of bushfire requirements and reduce circumstances whereby a bushfire report is required for low-risk development.

3.2 Mapping Process

The process that has been followed in preparing the bushfire prone areas mapping is summarised conceptually in Figure 2. The mapping has been prepared by the TFS in collaboration with Council's planning and environmental management officers.

The starting point for the mapping was the generation of a 'modelled overlay', which was created by applying a 100m buffer to all TASVEG 3.0 vegetation communities, excluding those types deemed to be 'low threat' and exclusions as specified under AS 3959-2009.

The mapping provided in TASVEG 3.0 provides high-level guidance with respect to vegetation distribution and as such, its accuracy is limited when applying it to individual properties. The modelled overlay was therefore based on imperfect spatial data and it was important to verify the boundaries that were produced and adjust accordingly. An initial desktop assessment was undertaken to identify obvious discrepancies and ascertain key sites and areas that required closer examination.

Verification of the condition of specific sites was completed through physical inspection and/or enquiries into the development status and management regime of particular properties where necessary. As discussed previously, bushfire impact is not uniform across all situations and in some cases, relaxation of the standard 100m buffer has been adopted where site

characteristics will effectively limit fire intensity, spread and subsequent impact on surrounding development. Relevant factors include the total area, type and location of vegetation, fire run potential, effective slope, prevailing wind and the use, development or land management status of the property.

The overlay was then aligned with cadastral title boundaries. This was necessary to ensure that application of the overlay to specific properties and future developments can be easily determined. For urban lots in particular there is little merit in mapping a property as partially bushfire-prone, hence this has been avoided as far as possible. For lots 2,000sqm (or lesser) in area the overlay was aligned to include the entire title if an area of 15% (or greater) was affected. For these lots, it is considered increasingly unlikely that a future development on the site would be able to wholly avoid the overlay and - as vegetation communities are not static - the actual separations from hazardous vegetation should be verified at the time a development is proposed. Where the overlay covered less than 15% of an urban title, the title was generally excluded entirely from the overlay, as it is considered increasingly likely that future development will be 100m or further from the hazard source.

The approach used is consistent with that used for the existing bushfire-prone areas overlays within the Clarence Interim Planning Scheme 2015 and the Hobart Interim Planning Scheme 2015. Furthermore, in preparing the overlay TFS has sought to ensure consistency with Tasmanian Planning Commission's *Practice Note 7: Draft LPS Mapping Technical Advice*.

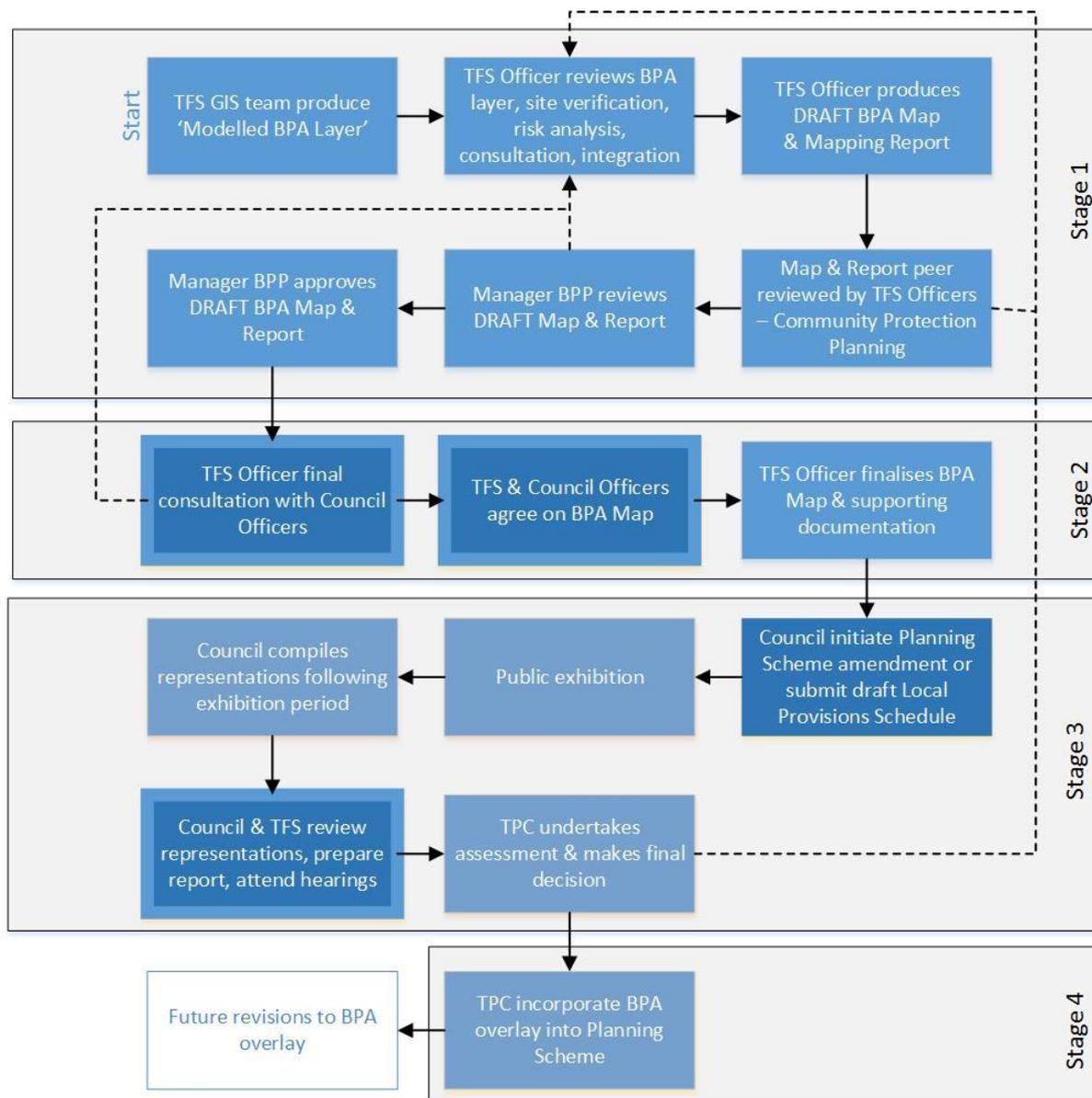


Figure 2 – Overview of mapping preparation and implementation

3.3 Map Refinement

As discussed previously, refinement of the original ‘modelled overlay’ into the final draft overlay has been informed by evaluation of local conditions. The local knowledge provided by Council officers was particularly valuable and has improved the accuracy of the final product.

The Launceston LGA contains significant areas of Grassland bushfire fuels. Where Grassland fuels are clearly predominant the overlay has been limited to include properties within a maximum of 50m (a relaxation from the standard 100m). This relaxation reflects the reduced ember potential associated with Grassland fuels and is consistent with the minimum distance required for a BAL-LOW rating under AS 3959-2009.

Prevailing wind conditions associated with peak bushfire conditions in Launceston have historically been associated with northerly/north-westerly winds. This has implications in terms of potential exposure to head-fires and ember penetration into urban areas. As such, a higher

degree of conservatism has been applied to areas along the northern interface of urban settlement areas.

Launceston City Council owns a significant number of open space and recreational assets within and adjacent to existing settlement areas. These assets provide for a range of recreational uses and range from highly maintained urban parks to tracts of remnant bushland. Council implements a range of risk mitigation measures including fuel reduction burns, maintenance of fuel modified buffer zones ('FMBZ') along urban interfaces and use of hazard abatement notices. Advice on the management of specific reserves and a review of Council's FMBZ GIS data was considered in preparing the overlay.

A number of subdivisions that have been approved and have progressed past substantial commencement were identified and have also been factored into the overlay, on the basis that vegetation within the approved lots will be managed in a minimum fuel state. This has included the following subdivision developments:

- Tenzing Drive, St Leonards (DA0115/2017);
- Audrey Avenue, St Leonards (DA0163/2008);
- 65 Punchbowl Rd, Punchbowl (DA0689/2016);
- Regent St, Waverly (DA0058/2014); and
- Hardwicke Street, Summerhill (DA0562/2015).

3.4 Outcomes of Mapping

It is clear that the majority of the land within the Launceston LGA is designated as bushfire-prone as a result of the mapping process.

Table 1 provides a comparison of the number of lots that intersect with the computer generated modelled overlay versus the final draft overlay. The modelled overlay more closely reflects the number of lots that would currently be subject to bushfire requirements under the current 100m rule that operates in the absence of the overlay, as it is based on a 100m buffer from TASVEG mapping. The statistics show that the overall number of properties affected has been reduced as the overlay has been refined.

Table 1 - Comparison of cadastral parcels affected by modelled overlay versus final draft overlay

Cadastral type	Modelled overlay	Final draft Overlay
Authority Land	1590	1162
Casement	3294	2792
Easement	830	611
Future Potential Production Forest	14	14
Lease	105	75
Licence	174	169
Local Government Reserve	112	89
Private Parcel	13251	8159
Private Reserve	87	87
Public Land Classification	224	220
Water	77	77
Total cadastral titles intersected	19,758	13,455

Of most significance in Table 1 are the statistics for private parcels. The mapping process has enabled TFS to identify approximately 5,092 private properties that will no longer require further bushfire assessment, should they be developed or redeveloped in future. Assuming each of those properties will be developed at some stage in the future the mapping delivers a total community benefit of between approximately \$2.1 and \$4.8M from the avoided cost of bushfire assessment alone. Further economic benefit is derived from the reduced time required for building work to be designed, documented and approved and the avoided constructions costs for some of the excluded properties (if an exemption were not obtained).

The bushfire-prone areas overlay primarily is intended to identify areas where the level of bushfire risk is significant and specific built responses are required. The overlay can also have other uses. It can be used to support community education in support of bushfire safety as people will be able to view the map on multiple sites such as the LIST, I Plan, and the TFS website. Additionally, TFS will use the map as the basis for issuing fire permits and in advising the community about using fire and burning off. TFS will not issue Fire Permits outside bushfire-prone areas and will advise the community to not use fire for fire hazard removal outside bushfire-prone areas. Council staff will be able to use the mapped areas when dealing with hazard complaints and abatement issues.

4. Implementation

4.1 Launceston Interim Planning Scheme 2015

For the mapping to serve its intended statutory function it is necessary to incorporate it within the relevant planning instrument established under the *Land Use Planning and Approvals Act 1993*.

To incorporate the overlay within the *Launceston Interim Planning Scheme 2015*, the following amendments are required:

- Incorporation of the Bushfire-Prone Areas Mapping into the existing Overlay Map; and
- Insertion of Map E1 after clause E1.6.3 (Map E1 will present the bushfire-prone areas map online via a filtered version of the Overlay Map, consistent with other existing Codes).

The only ordinance edit required is an update to the table titled 'Amendment information and page history' that appears on the Overlay Map page.

Schedule 6 of the *Land Use Planning and Approvals Act 1993* provides the statutory mechanisms to amend interim planning schemes under the former provisions. Council may initiate a Draft Amendment of its own motion under s.34(1)(b) of the former provisions.

The abovementioned amendments are consistent with the existing structure of the *Launceston Interim Planning Scheme 2015, Planning Directive 5.1* and the incoming *Tasmanian Planning Scheme* in that it will utilise the existing Overlay Map and will link to the Bushfire-Prone Areas Code through the existing definition of a 'bushfire-prone area'.

4.2 Tasmanian Planning Scheme

All Tasmanian Councils are required to transition into the Tasmanian Planning Scheme ('TPS'). The TPS will be comprised of the State Planning Provisions ('SPP') and Local Planning Schedules ('LPS'), the latter of which is to be prepared by Local Government.

It is anticipated that Launceston City Council will submit its draft LPS to the Tasmanian Planning Commission for assessment towards the end of 2018 or early 2019. Once approved,

the Tasmanian Planning Scheme become active and will supersede the Launceston Interim Planning Scheme 2015.

The Bushfire-Prone Areas Code has been incorporated within the SPP. It is anticipated that the bushfire-prone areas overlay will be included in Council's LPS as a planning scheme overlay.

5. Future Revisions

The Bushfire-Prone Areas Overlay will need to be reviewed and updated periodically to ensure it remains accurate. This will logically form part of Council's review process for their Local Provision Schedules under the Tasmanian Planning Scheme.

In the situation where a scheme amendment is required to facilitate a new development (e.g. a combined rezoning and greenfield subdivision proposal) it is appropriate that the Bushfire-Prone Areas Overlay be reviewed and amended if warranted as part of the amendment process. It is anticipated that TFS will be consulted as part of this process.

6. Planning Framework

6.1 Statutory Requirements

6.1.1 Requirements for Draft Amendments

Section 34(1) of the former provisions of the *Land Use Planning & Approvals Act 1993* allow a planning authority to initiate an amendment of its own motion. Prior to certifying a draft amendment, s.35 of the former provisions requires that the planning authority be satisfied that it meets the requirements of s.32.

S.32 of the former provisions states:

32. Requirements for preparation of amendments

(1) A draft amendment of a planning scheme, and an amendment of a planning scheme, in the opinion of the relevant decision-maker within the meaning of section 20(2A) –

(a) – (d) ...

(e) must, as far as practicable, avoid the potential for land use conflicts with use and development permissible under the planning scheme applying to the adjacent area; and

(ea) must not conflict with the requirements of section 300 ; and

(f) must have regard to the impact that the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.

The introduction of the proposed overlay will clarify the application of existing planning and building requirements – no new requirements will be introduced. Accordingly, a draft amendment that introduces the overlay will not create any new land use conflict issues and is considered to satisfy (e).

With regards to (ea):

- s.30O(1) requires consistency with the relevant regional land use strategy. As is discussed further in this report, the overlay is consistent with the relevant regional land use strategy;
- s.30O(2)-(5) relates to conflict between local and common provisions. No changes to any development standards are proposed.

The draft amendment will therefore satisfy (ea).

Introduction of the overlay will provide a range of social and economic benefits, as discussed previously in this report. As it relates to existing development standards, it will have no significant environmental effects. The draft amendment will therefore satisfy (f).

6.1.2 Requirements for Local Provision Schedules

It is anticipated that the overlay will eventually also be included as part of Council's Local Provision Schedules. At that time, the overlay will need to be considered in the context of s.34(2) of the *Land Use Planning & Approvals Act 1993* (current provisions).

S.34(2) states:

34. LPS criteria

(1) ...

(2) *The LPS criteria to be met by a relevant planning instrument are that the instrument –*

(a) *contains all the provisions that the SPPs specify must be contained in an LPS; and*

(b) *is in accordance with section 32 ; and*

(c) *furtheres the objectives set out in Schedule 1 ; and*

(d) *is consistent with each State policy; and*

(e) *is consistent with the regional land use strategy, if any, for the regional area in which is situated the land to which the relevant planning instrument relates; and*

(f) *is consistent with the strategic plan, prepared under section 66 of the Local Government Act 1993 , that applies in relation to the land to which the relevant planning instrument relates; and*

(g) *as far as practicable, is consistent with and co-ordinated with any LPSs that apply to municipal areas that are adjacent to the municipal area to which the relevant planning instrument relates; and*

(h) *has regard to the safety requirements set out in the standards prescribed under the Gas Pipelines Act 2000 .*

(3) ...

Incorporating the mapping as an overlay is consistent with the relevant provisions of the State Planning Provisions (specifically clause 1.2.3 and the definition of 'bushfire-prone area' in clause C13.3.1). The overlay is therefore consistent with s.34(2)(a).

Relevant to s.32, the map overlay will provide for the spatial application of the State Planning Provisions to particular land and is accordingly consistent with s.34(2)(b).

With respect to the strategic considerations referred to in s.34(2)(c),(d),(e) and (f):

- The Schedule 1 Objectives of the Act are considered in section 6.2.1 of this report;
- The State policies are considered in section 6.2.2 of this report;
- The Regional Land Use Strategy is considered in section 6.2.3 of this report; and
- Council’s Strategic Plan is considered in section 6.2.4 of this report.

The overlay has been designed to integrate with the draft mapping completed for adjoining LGAs. The overlay accordingly satisfies s.34(2)(g).

The overlay will not introduce any new development standards, rather it will support the application of an existing Code. As such, it is not considered to be in conflict with the *Gas Pipelines Act 2000* and therefore satisfies s.34(2)(h).

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6.2 Strategic Considerations

6.2.1 LUPAA Schedule 1 Objectives

Schedule 1 of the *Land Use Planning and Approvals Act 1993* specifies the strategic objectives for the Resource Management and Planning System and for the planning process established by the Act.

The Schedule 1 Objectives are considered in Table 2 and Table 3.

Table 2 - Schedule 1, Part 1 Objectives

Objective	Response
<i>(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and</i>	<p>The proposed scheme amendment will support the application of an existing Code. It will not facilitate any loss of natural values, nor any development of physical resources.</p> <p>The scheme amendment is accordingly considered to be consistent with (a).</p>
<i>(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and</i>	<p>The bushfire-prone areas mapping will improve clarity for the community, for developers and for regulatory authorities responsible for assessing planning and building permit applications.</p> <p>In developing the mapping, the Tasmania Fire Service has excluded some areas that could currently be considered as being within a ‘bushfire-prone area’ but which have been deemed to be suitably low threat. This was based on expert judgement in bushfire behaviour and evaluation of local conditions. By refining the application of the bushfire requirements in this way, the planning scheme amendment will facilitate fairer outcomes for landowners.</p> <p>The scheme amendment is accordingly considered to be consistent with (b).</p>

<p><i>(c) to encourage public involvement in resource management and planning; and</i></p>	<p>In developing the bushfire-prone areas mapping the Tasmania Fire Service has sought and considered input from Council's officers. This dialogue has provided important local knowledge into the project, in relation to land use practices and management of specific sites.</p> <p>Assuming that Council initiates the amendment to the Planning Scheme, the general public will have an opportunity to review the mapping and submit a representation on any aspect they wish the Planning Authority to consider.</p> <p>The scheme amendment is accordingly considered to be consistent with (c).</p>
<p><i>(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and</i></p>	<p>Incorporation of the mapping will improve clarity with respect to whether a site is in a bushfire-prone area which will support property development in the following ways:</p> <ul style="list-style-type: none"> • It will ensure landowners and developers can easily determine whether their site is in a bushfire-prone area early in the development process and therefore factor this into concept design and feasibility assessments; • By removing areas from the mapping that have been deemed to be suitably low threat by the Tasmania Fire Service, the planning scheme amendment will reduce costs and delays from the approvals process for applicants (e.g. costs of engaging a Bushfire Hazard Practitioner to certify an exemption, delays associated with s.54 requests). <p>As stated previously, the scheme amendment will not facilitate any loss of natural values, nor any development of physical resources.</p> <p>The scheme amendment is accordingly considered to be consistent with (d).</p>
<p><i>(e) to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.</i></p>	<p>The Tasmania Fire Service has collaborated with Council officers in preparing the mapping to ensure that it is technically sound and appropriate to local circumstances.</p> <p>By incorporating the mapping within local planning provisions it will support the application of the Bushfire-Prone Areas Code (Planning Directive 5.1) which Local Government is obliged to enforce.</p> <p>The approvals process requires the support of both Council and the Tasmanian Planning Commission for the mapping to become effective.</p> <p>The scheme amendment is accordingly considered to be consistent with (e).</p>

Table 3 - Schedule 1, Part 2 Objectives

Objective	Response
<p><i>(a) to require sound strategic planning and co-ordinated action by State and local government; and</i></p>	<p>The introduction of the Bushfire-Prone Areas Code as a state-wide Planning Directive was a strategic response by the Tasmanian Government to the recommendations produced by the Victorian Bushfires Royal Commission. Incorporating the bushfire-prone areas mapping as part of Council's planning instrument will support the application of the Bushfire-Prone Areas Code.</p> <p>The approach used in developing the mapping is consistent with that used for the Clarence and Hobart interim planning schemes. Tasmania Fire Service seeks to maintain a consistent approach as it progresses mapping for remaining Local Government Areas.</p> <p>As is discussed further in this report, the scheme amendment is consistent with current State Policies and the Regional Land Use Strategy of Northern Tasmania.</p> <p>The scheme amendment is accordingly considered to be consistent with (a).</p>
<p><i>(b) to establish a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land; and</i></p>	<p>As discussed previously in this report, the proposed scheme amendment will support the efficient application of the Bushfire-Prone Areas Code (and building regulations) by clearly identifying which land is subject to the overlay.</p> <p>The scheme amendment is accordingly considered to be consistent with (b).</p>
<p><i>(c) to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land; and</i></p>	<p>The scheme amendment will not facilitate any loss of biodiversity or any other impacts on natural values.</p> <p>The social and economic benefit of the mapping will be to improve clarity with respect to what land is considered bushfire-prone and to avoid application of the planning/building regulations to land that has been deemed to be suitably low threat.</p> <p>The scheme amendment is accordingly considered to be consistent with (c).</p>
<p><i>(d) to require land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels; and</i></p>	<p>As occurs at present, future development in bushfire-prone areas will be required to comply with all other applicable planning and environmental requirements. The scheme amendment is not considered to be in conflict with any environmental, social, economic, conservation or resource management policies.</p> <p>The scheme amendment is accordingly considered to be consistent with (d).</p>
<p><i>(e) to provide for the consolidation of approvals for land use or development and related matters, and to co-</i></p>	<p>At present, bushfire requirements are triggered either at the planning approval or building approval stage depending on the type of development proposed. Under each process the definition of 'bushfire-prone area' refers to planning scheme overlay mapping (where available). The completion of the mapping will</p>

<p><i>ordinate planning approvals with related approvals; and</i></p>	<p>ensure that assessments as to whether a site is bushfire-prone will be consistent throughout the entire process.</p> <p>Single dwellings, visitor accommodation and some other types of buildings are triggered through the building approvals process and not at planning. This can give rise to situations whereby a development may receive planning approval that does not account for the vegetation removal required to comply with the bushfire requirements at the building approvals stage. Inclusion of the mapping will ensure that assessing planning officers and developers consider at the development application stage of any requirement to consider vegetation removal.</p> <p>The scheme amendment is accordingly considered to be consistent with (e).</p>
<p><i>(f) to promote the health and wellbeing of all Tasmanians and visitors to Tasmania by ensuring a pleasant, efficient and safe environment for working, living and recreation; and</i></p>	<p>The mapping will support the application of planning and building requirements for bushfire protection, the key purpose of which are to reduce risk to life and property. The scheme amendment will accordingly support the aim of securing a safe environment for working, living and recreation.</p> <p>The scheme amendment is accordingly considered to be consistent with (f).</p>
<p><i>(g) to conserve those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value; and</i></p>	<p>The scheme amendment is not considered to be in conflict with the conservation of any places identified as holding heritage, aesthetic, architectural or other cultural value.</p> <p>The scheme amendment is accordingly considered to be consistent with (g).</p>
<p><i>(h) to protect public infrastructure and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community; and</i></p>	<p>The scheme amendment will not affect the requirements of the Bushfire-Prone Areas Code – it will simply clarify its application. The scheme amendment is therefore not considered to be in conflict with public infrastructure and will not compromise the orderly provision and co-ordination of public utilities.</p> <p>The scheme amendment is accordingly considered to be consistent with (h).</p>
<p><i>(i) to provide a planning framework which fully considers land capability.</i></p>	<p>Incorporation of the mapping will have no significant effect on agricultural land capability.</p> <p>The scheme amendment is accordingly considered to be consistent with (i).</p>

6.2.2 State Policies

Current State Policies created under the *State Policies and Projects Act 1993* include:

- State Policy on the Protection of Agricultural Land 2009;
- State Coastal Policy 1996; and
- State Policy on Water Quality Management 1997.

The proposed amendment to the Planning Scheme does not introduce any new development standards, rather, it will improve the application of the Bushfire-Prone Areas Code. The amendment will accordingly not facilitate the loss of productive agricultural land, nor the degradation of coastal land or water resources. The scheme amendment is accordingly not considered to be in conflict with any of the existing State Policies.

6.2.3 Regional Land Use Strategy of Northern Tasmania

The key section of RLUS is Section 4.20, which provides ‘Regional Environment’. The relevant policies are considered in Table 4.

Table 4 – RLUS Regional Policies

Regional Policies & Actions	Response
<p><u>Policy:</u> <i>NH-P03 Ensure that future land use and development minimises risk to people and property resulting from bushfire hazard.</i></p> <p><u>Actions:</u> <i>NH-A05 Include controls in planning schemes based on current best practice to minimise risk to persons and property resulting from bushfire hazard.</i> <i>NH-A06 Ensure subdivision design responds to bushfire hazard risks by providing for alternative access, building setbacks and buffer distances based on current best practice.</i></p>	<p>Incorporation of the proposed mapping overlay will mean that bushfire-prone land will be easily identifiable early in the land use and development process. The mapping will signal to developers that there are Code requirements that need to be considered as part of any due-diligence investigations or preliminary design for subdivision or building work.</p> <p>Inclusion of the mapping within the LPS will support existing bushfire regulations by providing a clear mechanism to trigger their application, thereby facilitating consistency in the permit approvals process. The mapping will integrate with the existing format of the Bushfire-Prone Areas Code, which defines bushfire-prone area by reference to the planning scheme overlay map.</p> <p>Incorporation of the overlay is accordingly consistent with NH-P03 and its associated actions.</p>

6.2.4 City of Launceston Strategic Plan 2014-2024

The City of Launceston Strategic Plan 2014-2024 is the relevant strategic plan prepared under s.66 of the *Local Government Act 1993*.

The relevant strategies are considered in Table 5.

Table 5 – Strategic Plan Policies

Goals & Key Directions	Response
<p><u>Goal:</u> <i>2. A city where people choose to live</i></p> <p><u>Key Directions:</u> <i>3. To contribute to enhanced public health and amenity to promote a safe and secure environment.</i></p>	<p>The overlay will support the application of planning and building requirements for bushfire protection, the key purpose of which are to reduce risk to life and property. The scheme amendment will accordingly support the aim of securing a safe environment for working, living and recreation.</p>
<p><u>Goal:</u> <i>5. A city that values its environment</i></p> <p><u>Key Directions:</u> <i>2. To manage the risks of climate-related events, particularly in the area of stormwater management.</i> <i>3. To enhance community awareness and resilience to uncertain weather patterns.</i></p>	<p>Risk associated with bushfire hazard is expected to increase in the coming decades, with an increasing prevalence of high fire danger weather likely.</p> <p>As new development within bushfire-prone areas is completed in accordance with current standards, the resilience of built assets can be expected to be improved.</p> <p>The mapping will also improve awareness of bushfire hazard within affected communities, thereby working to promote individual preparedness.</p> <p>The overlay will also assist Council's natural asset and hazard abatement officers in prioritising areas for maintenance works (for example, in some instances patches of remnant vegetation within urban areas have been mapped out on the basis that they will be managed through hazard abatement processes).</p>

7. Conclusion

The Tasmania Fire Service in collaboration with Council officers have completed the draft bushfire-prone areas overlay for the Launceston municipality.

The overlay identifies land where potential exposure to bushfire hazard is considered sufficient to warrant a planning or building response to reduce risk to life and property. It will greatly improve clarity in relation to the application of existing requirements, thereby improving the efficiency and consistency of planning and building approvals processes.

In the process of developing the overlay, a significant number of properties have been able to be mapped out on the basis of insufficient risk to warrant a built response. Introduction of the overlay presents a significant economic benefit to those landowners.

The overlay will also support community education on community fire safety and will provide a useful resource for the administration of the fire permit system and hazard abatement programs.

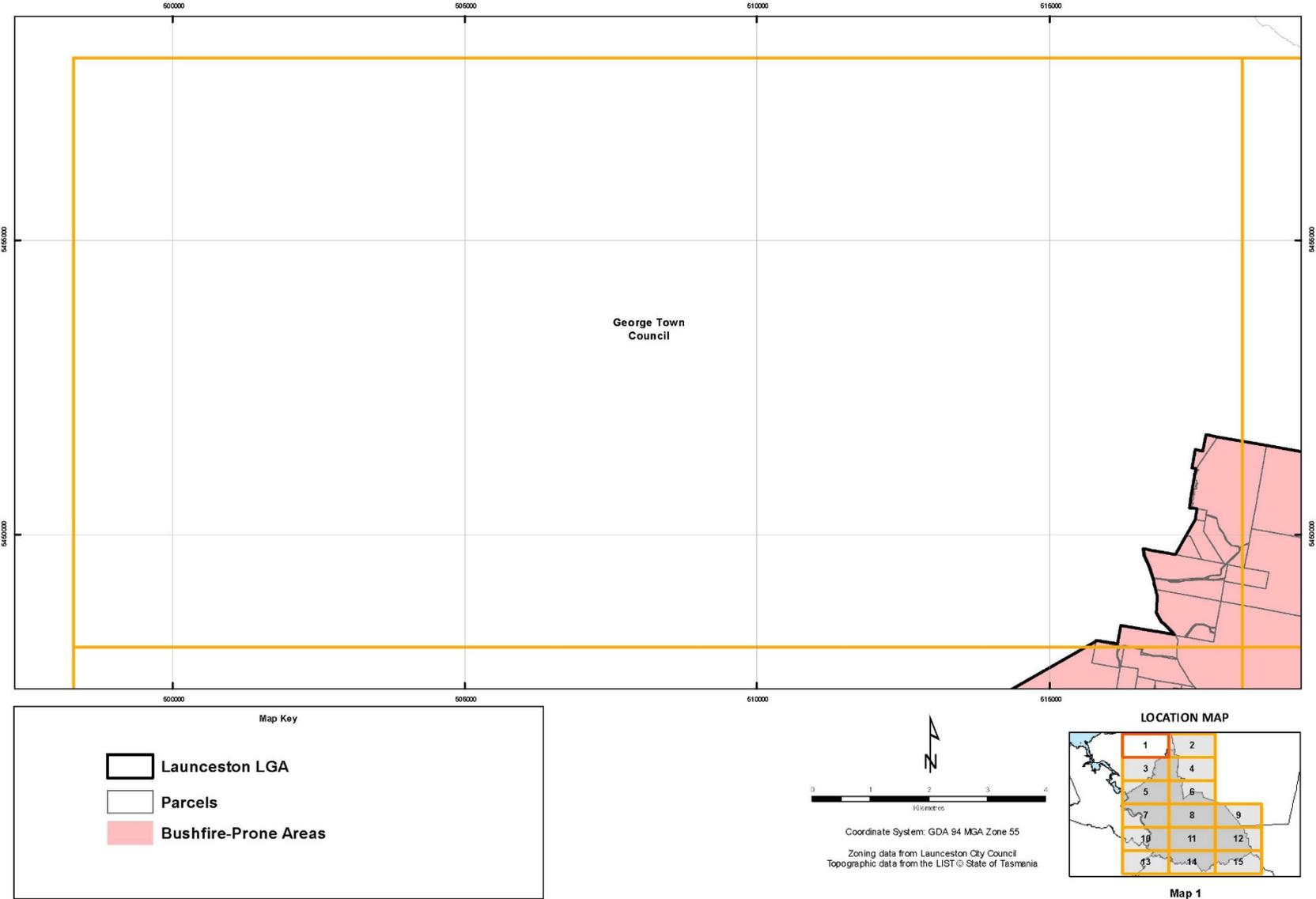
As discussed in this report, incorporating the mapping as an overlay within the Launceston Interim Planning Scheme 2015 (and ultimately within the Tasmanian Planning Scheme) is consistent with all relevant strategic planning considerations.

It is accordingly recommended that Council initiate a Draft Amendment of its own motion under s.34(1)(b) of the former provisions of the *Land Use Planning and Approvals Act 1993*.

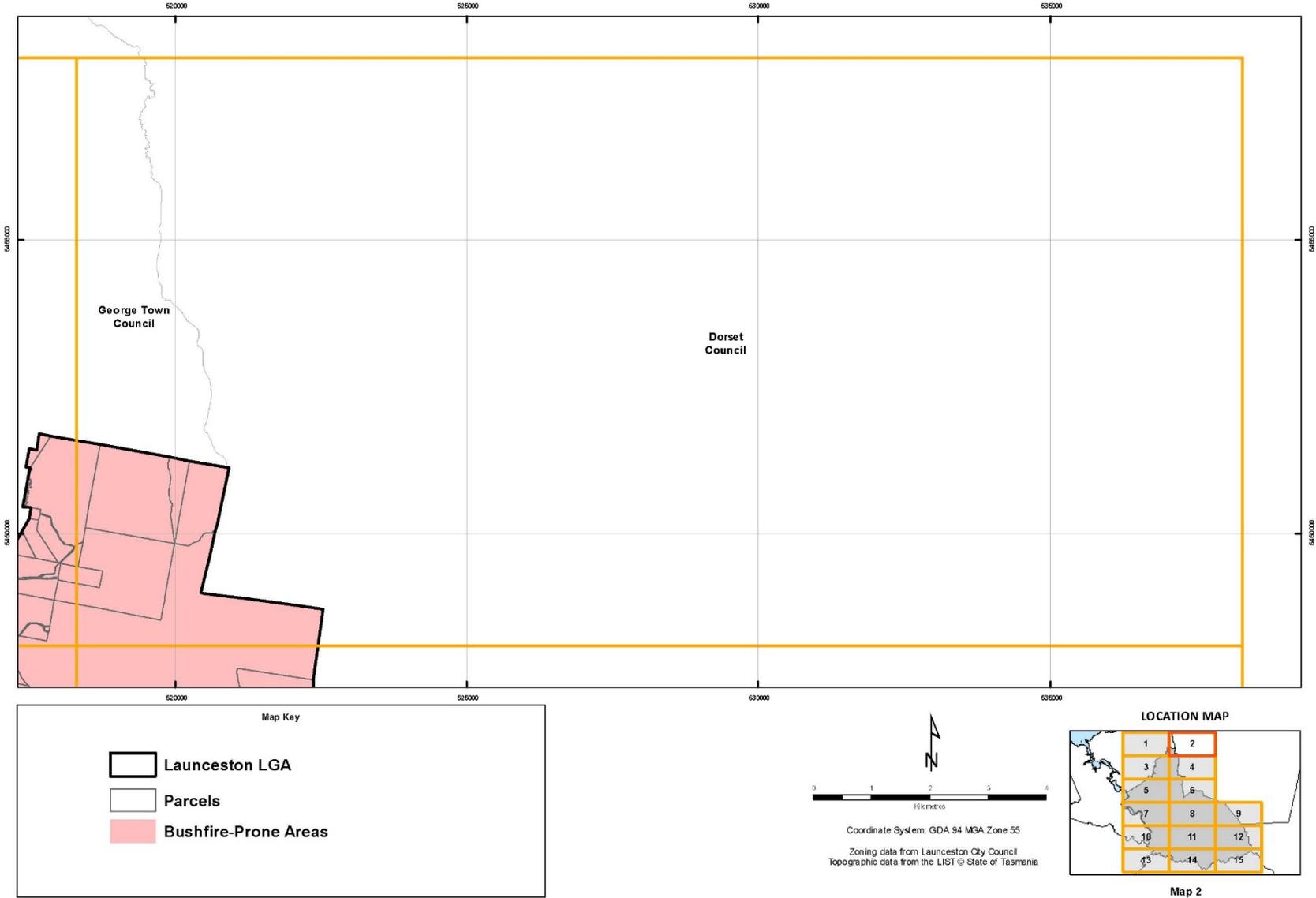
APPENDIX A

Bushfire-Prone Areas Overlay

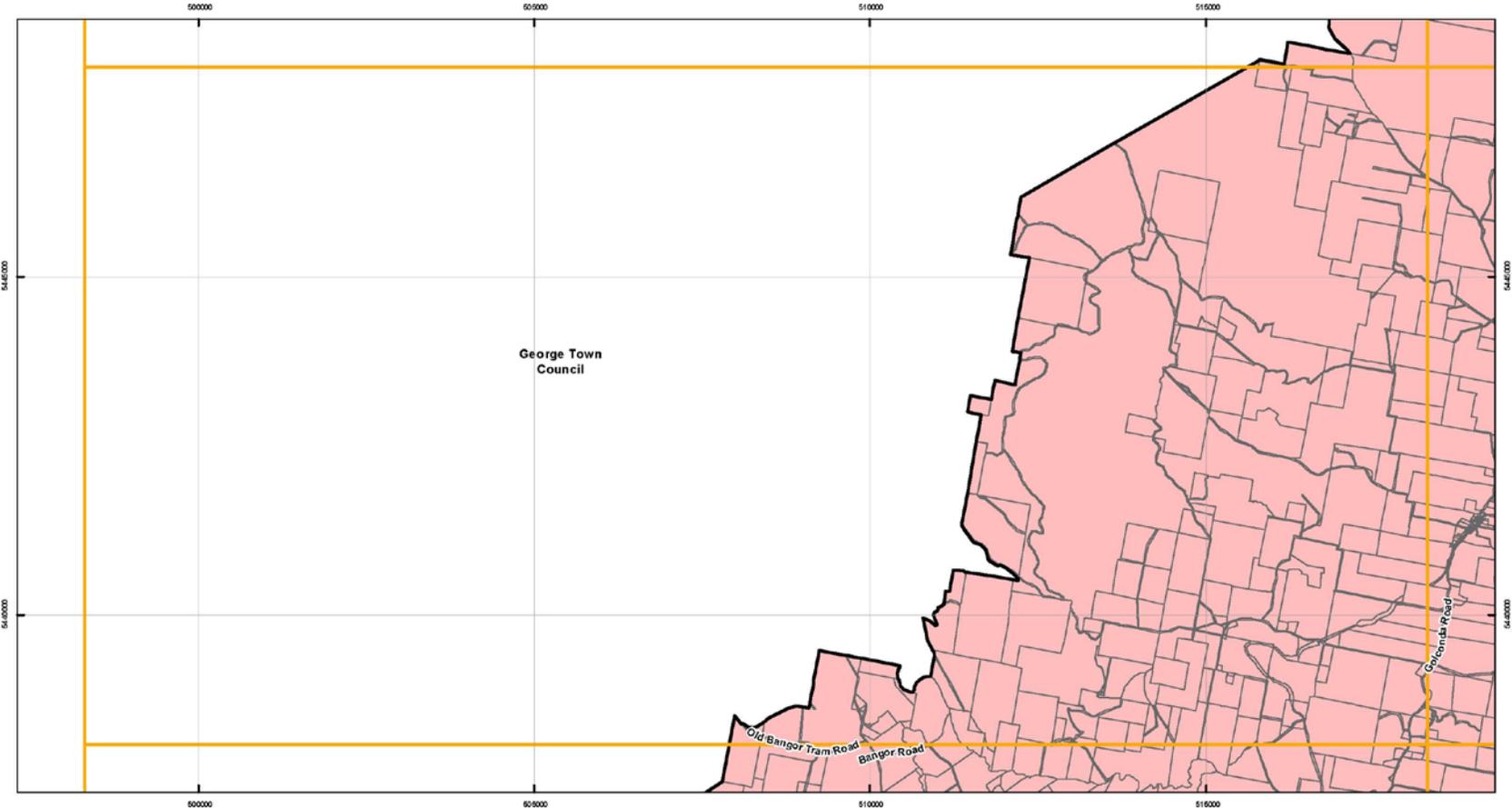
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

- Launceston LGA
- Parcels
- Bushfire-Prone Areas

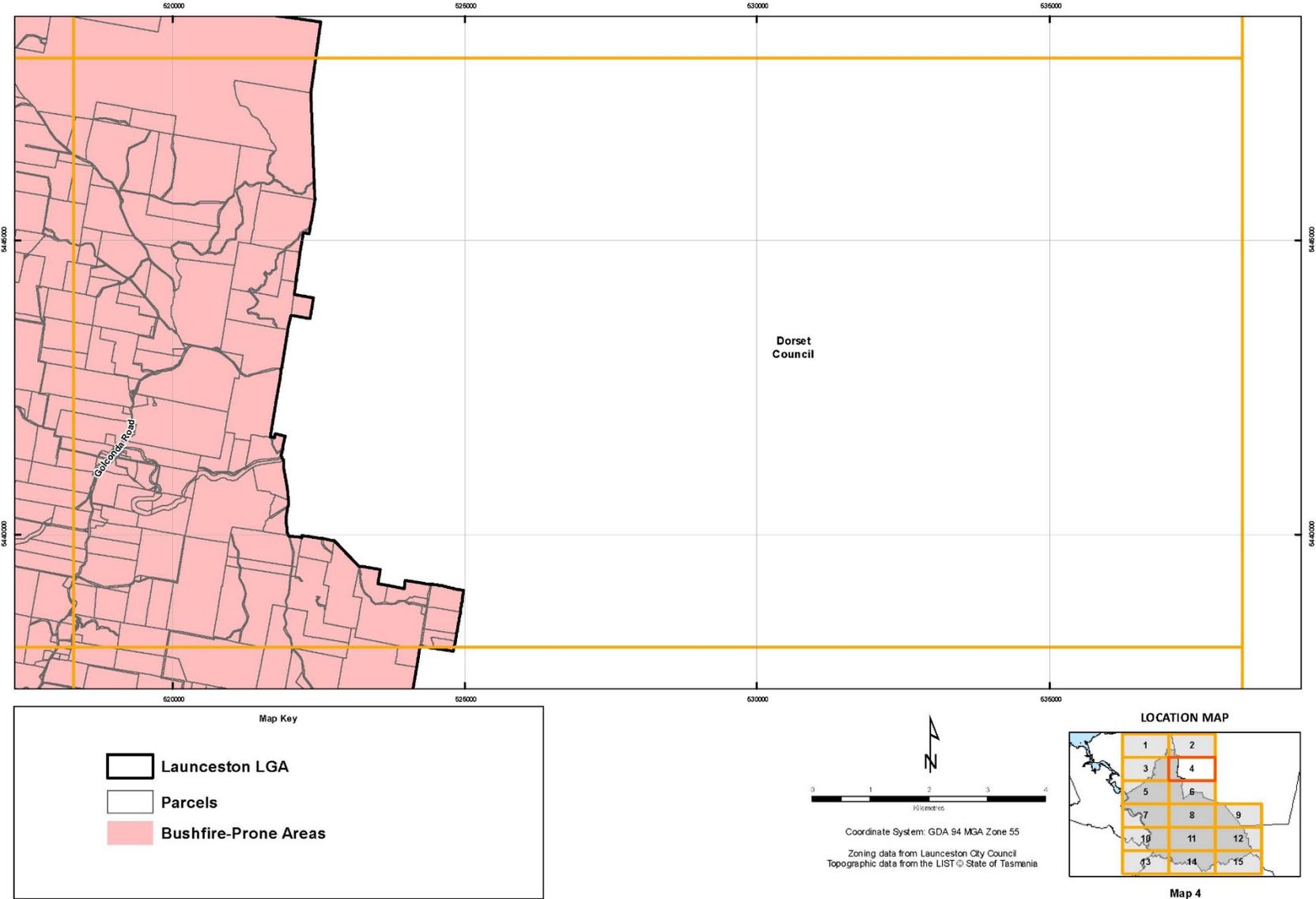
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kilometres

Coordinate System: GDA 94 MGA Zone 55
Zoning data from Launceston City Council
Topographic data from the LIST © State of Tasmania

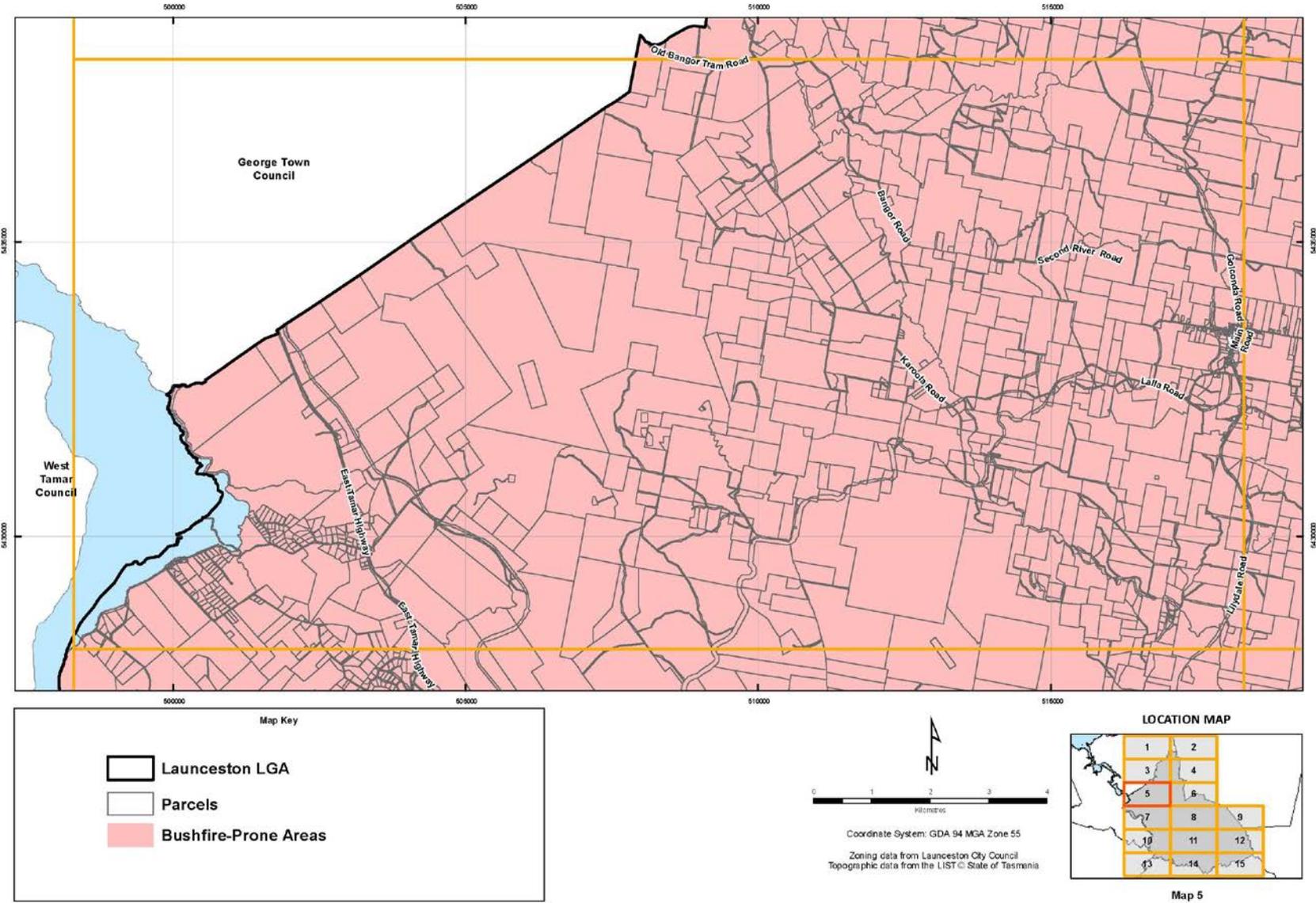


Map 3

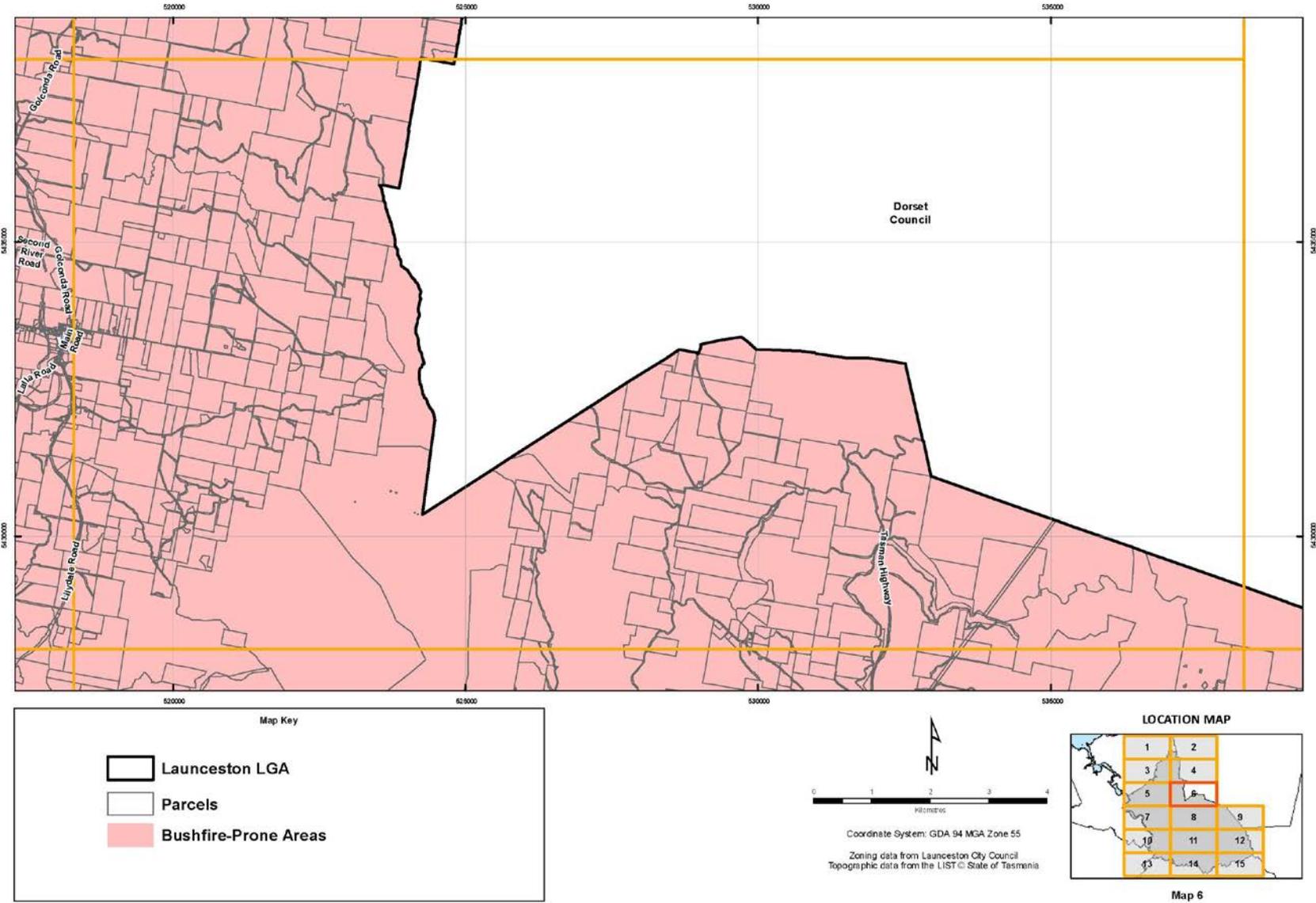
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



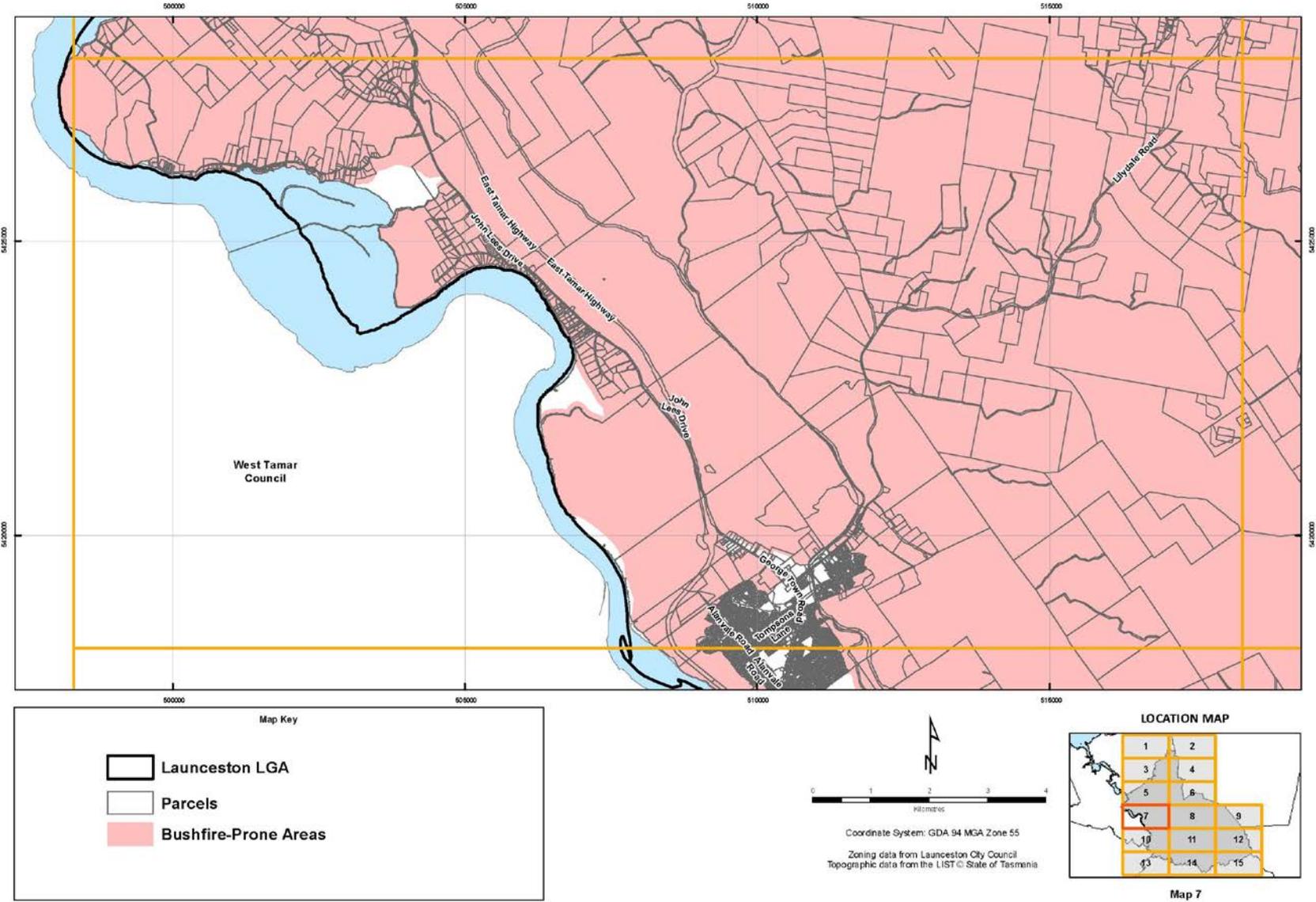
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



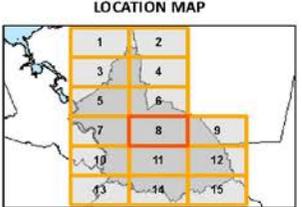
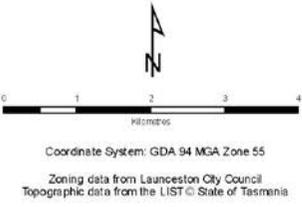
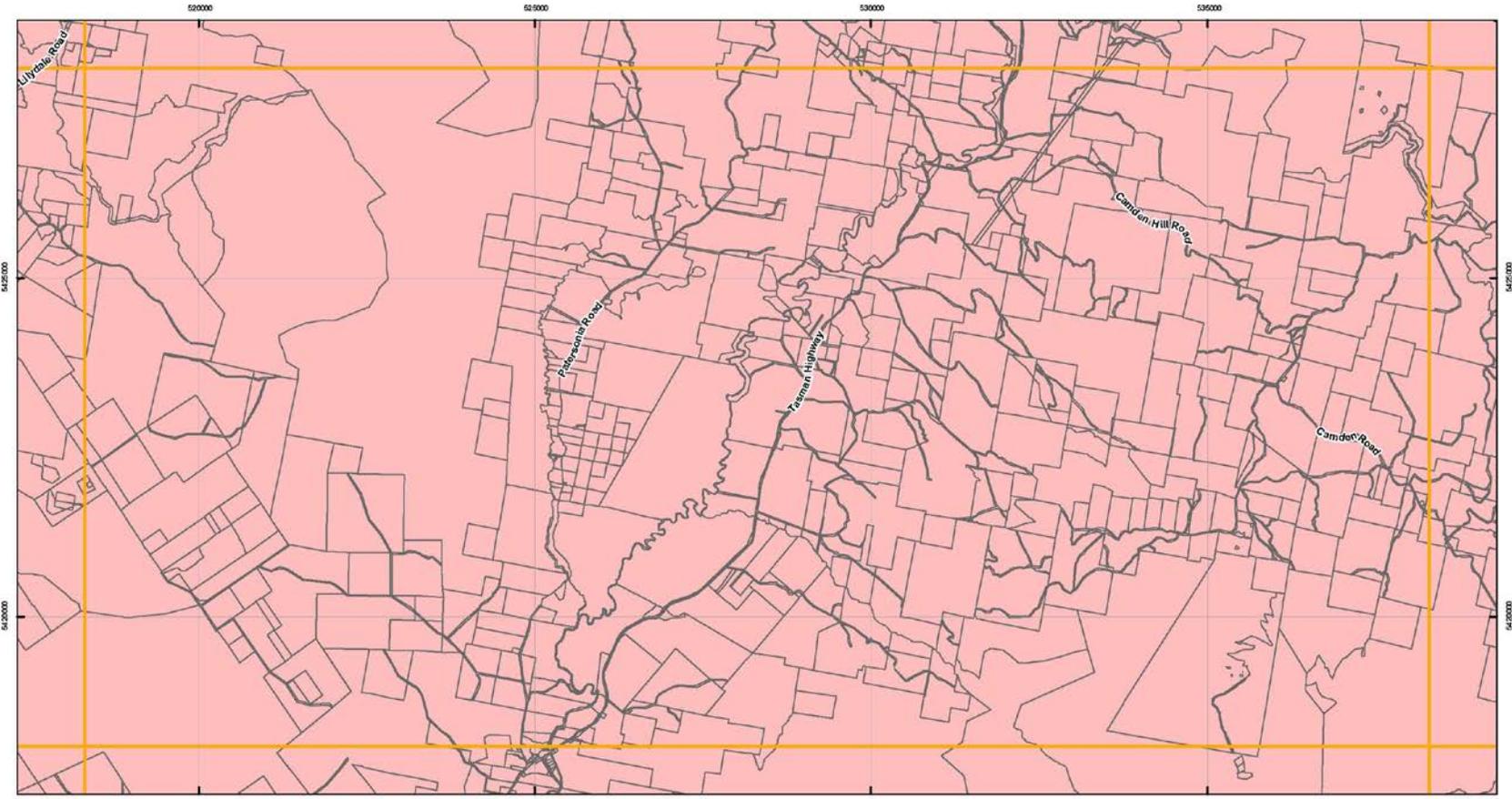
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

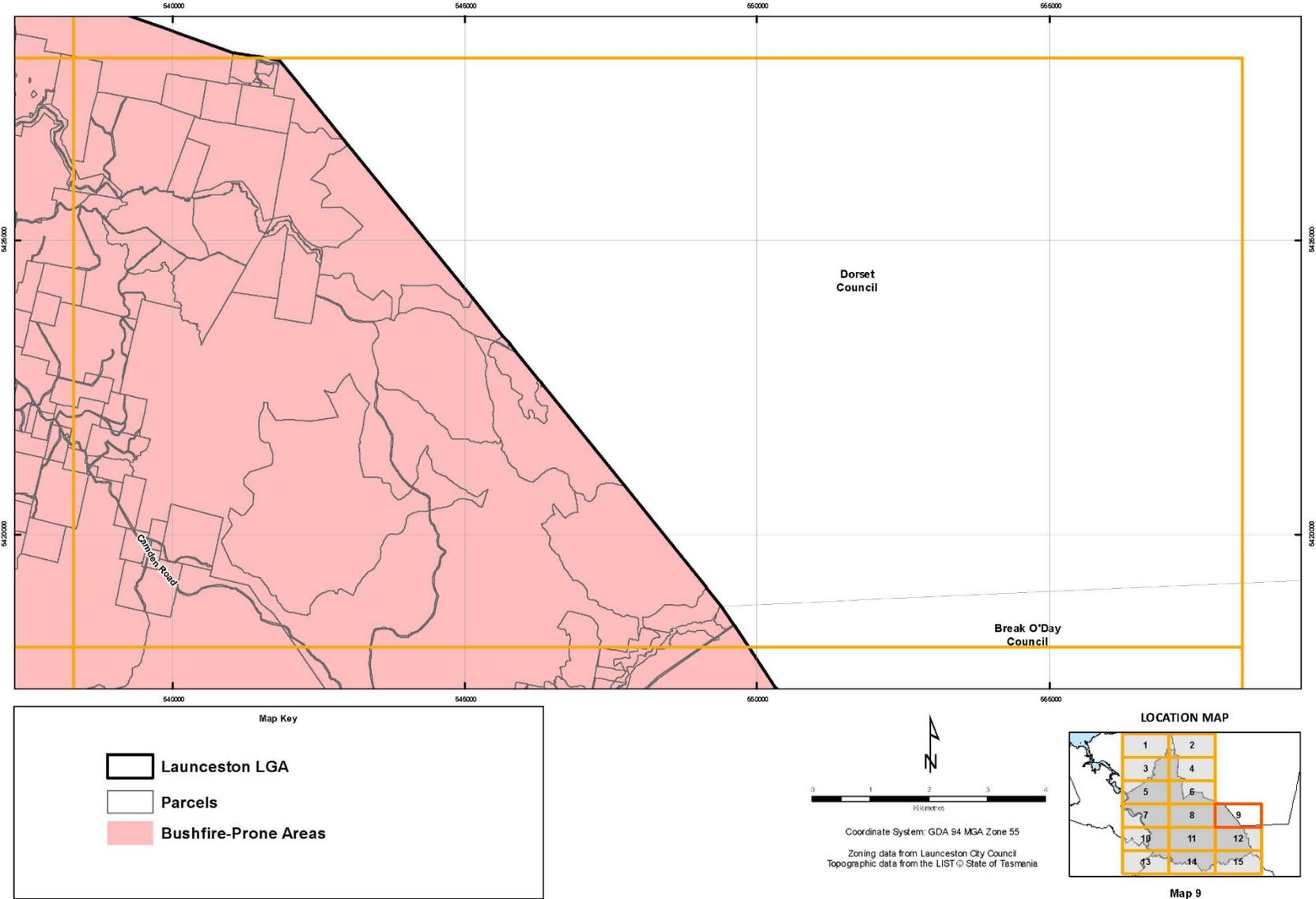


LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

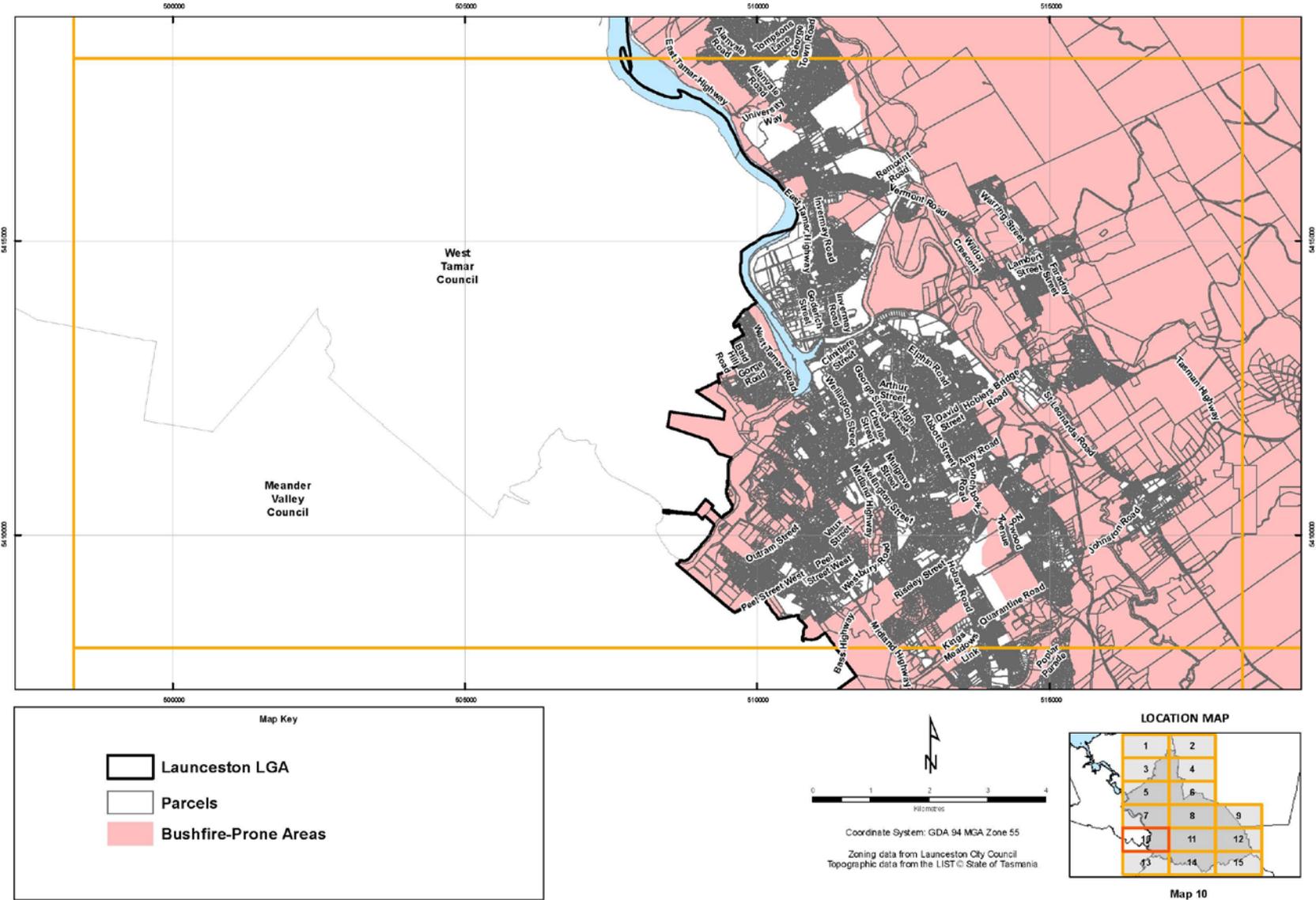


Map 8

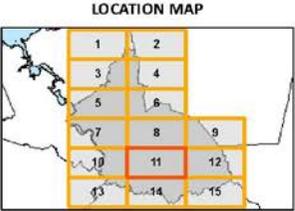
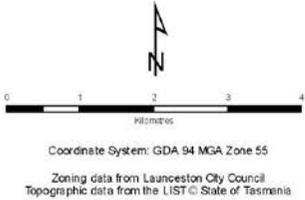
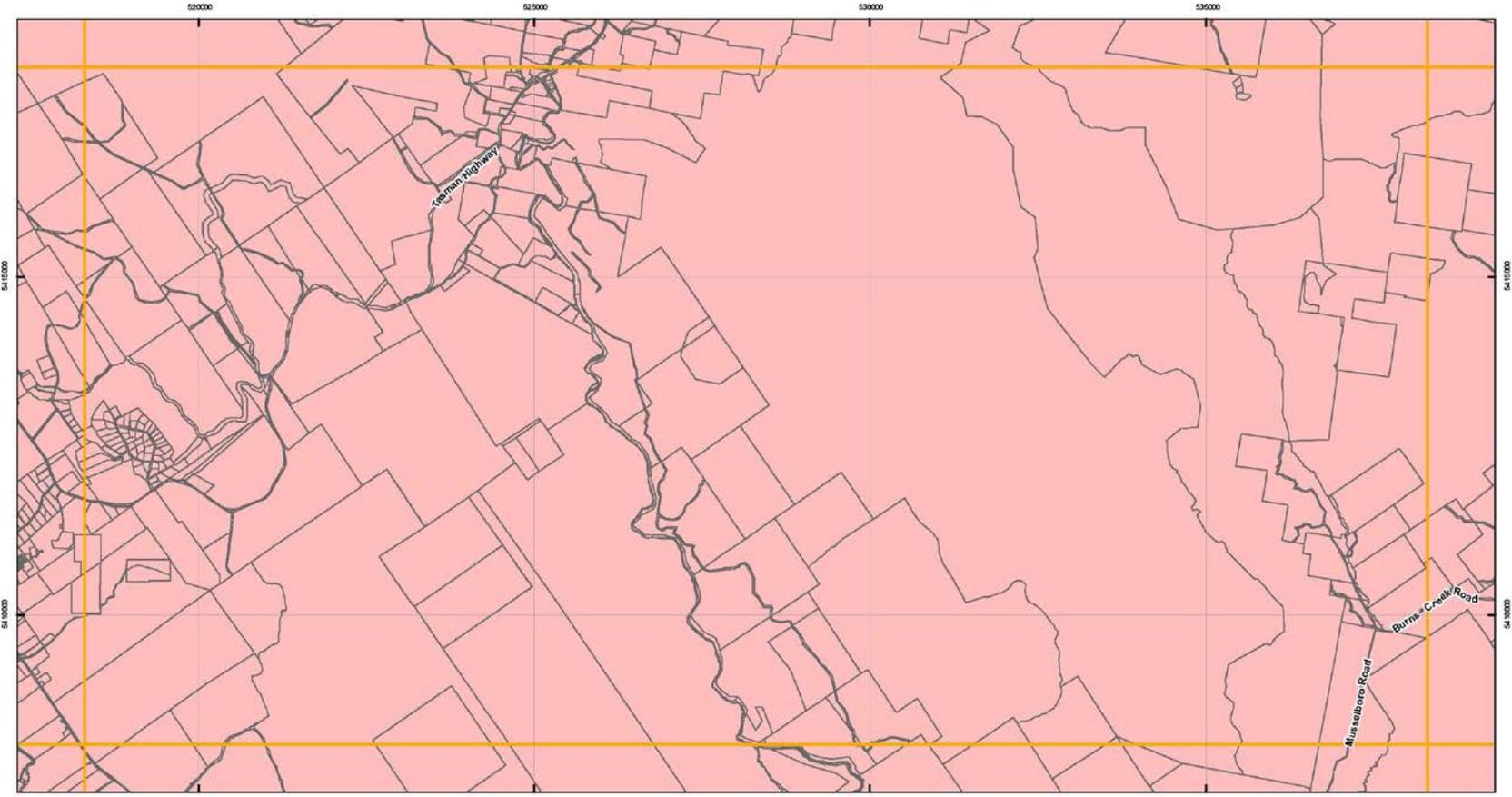
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

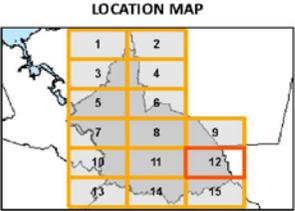
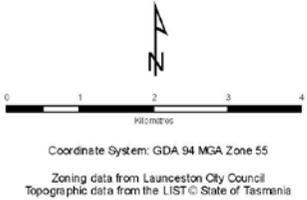
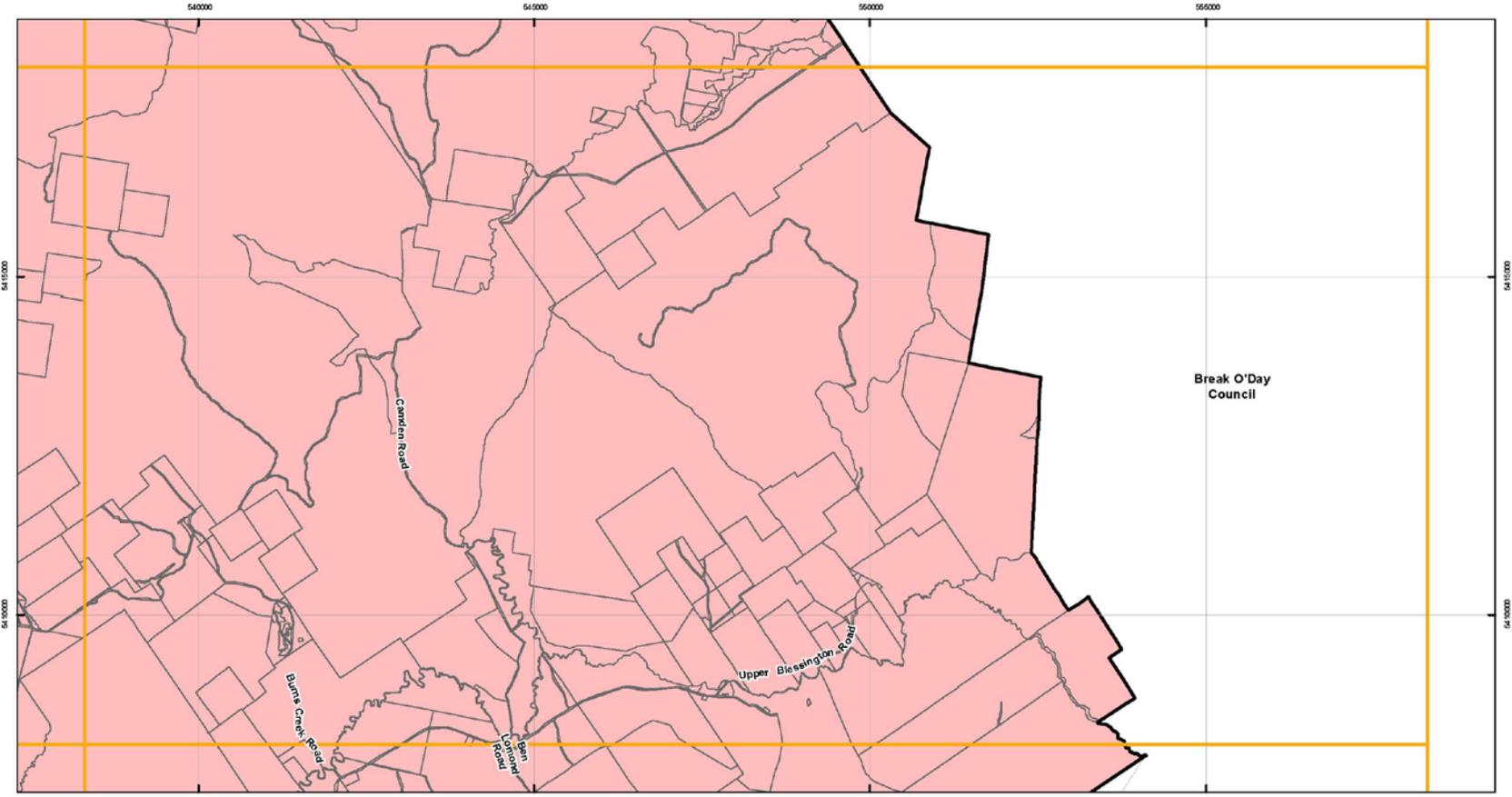


LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



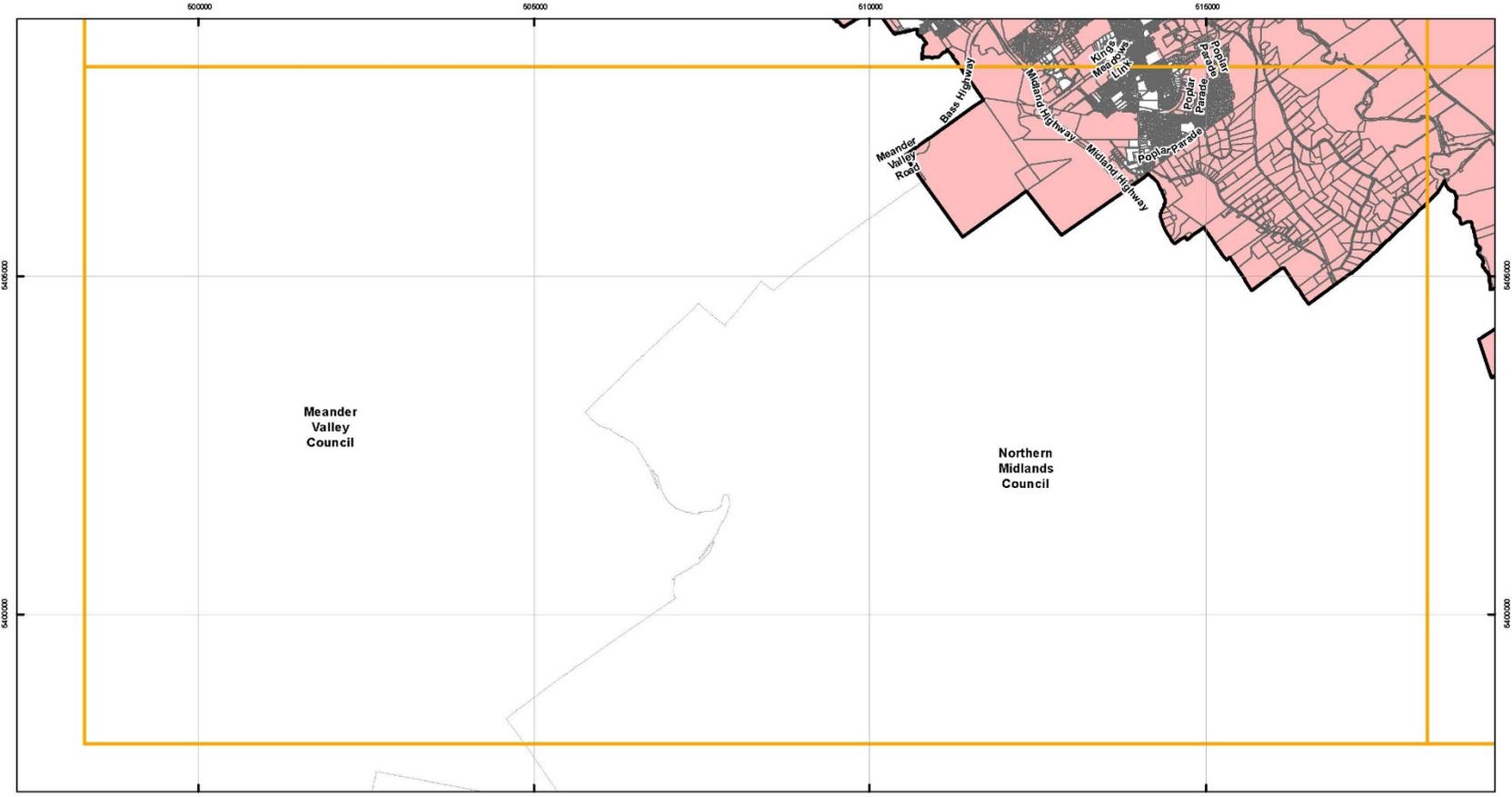
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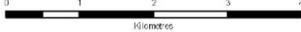
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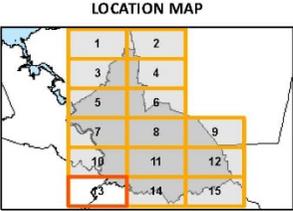
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



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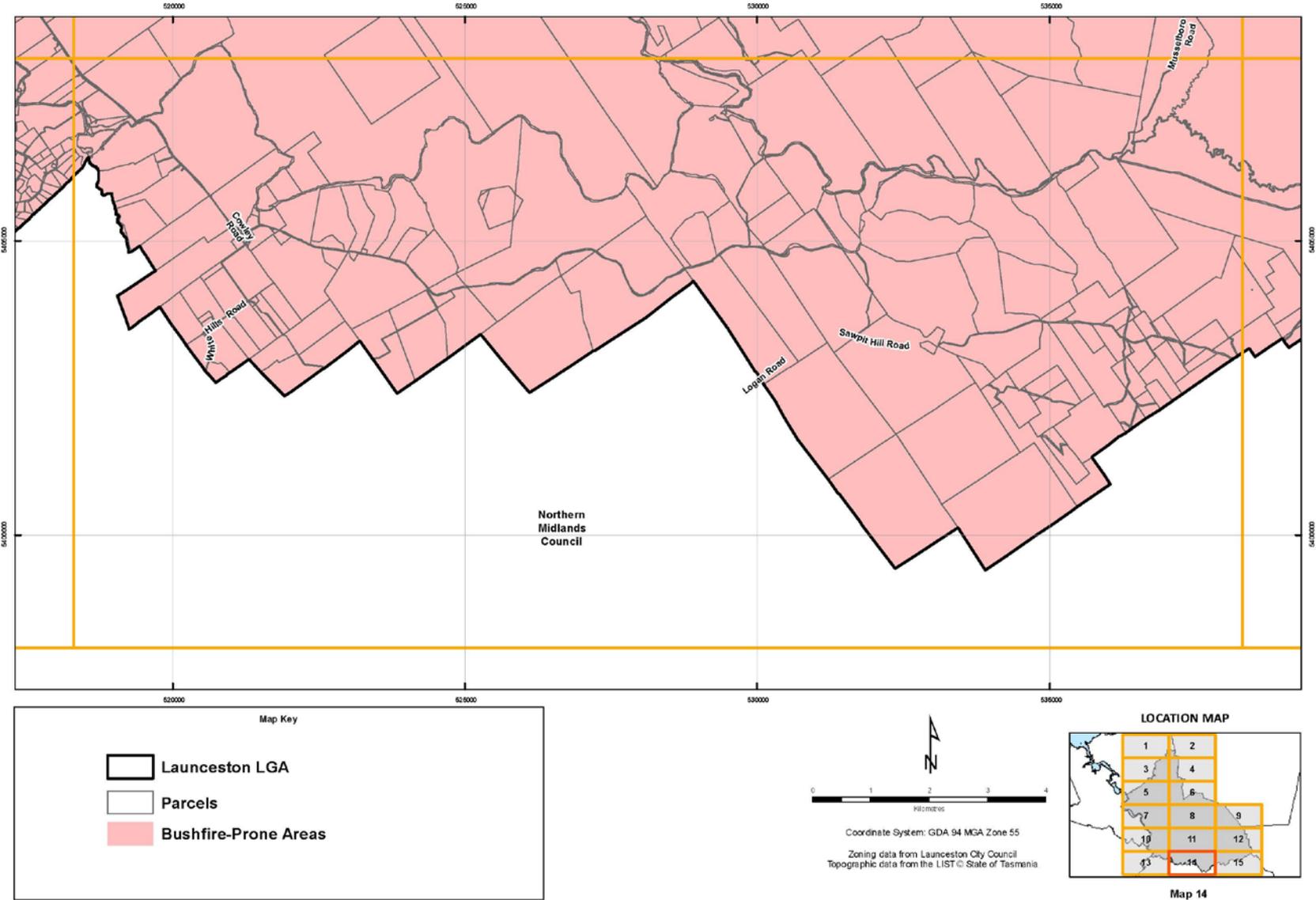
-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



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 Topographic data from the LIST © State of Tasmania

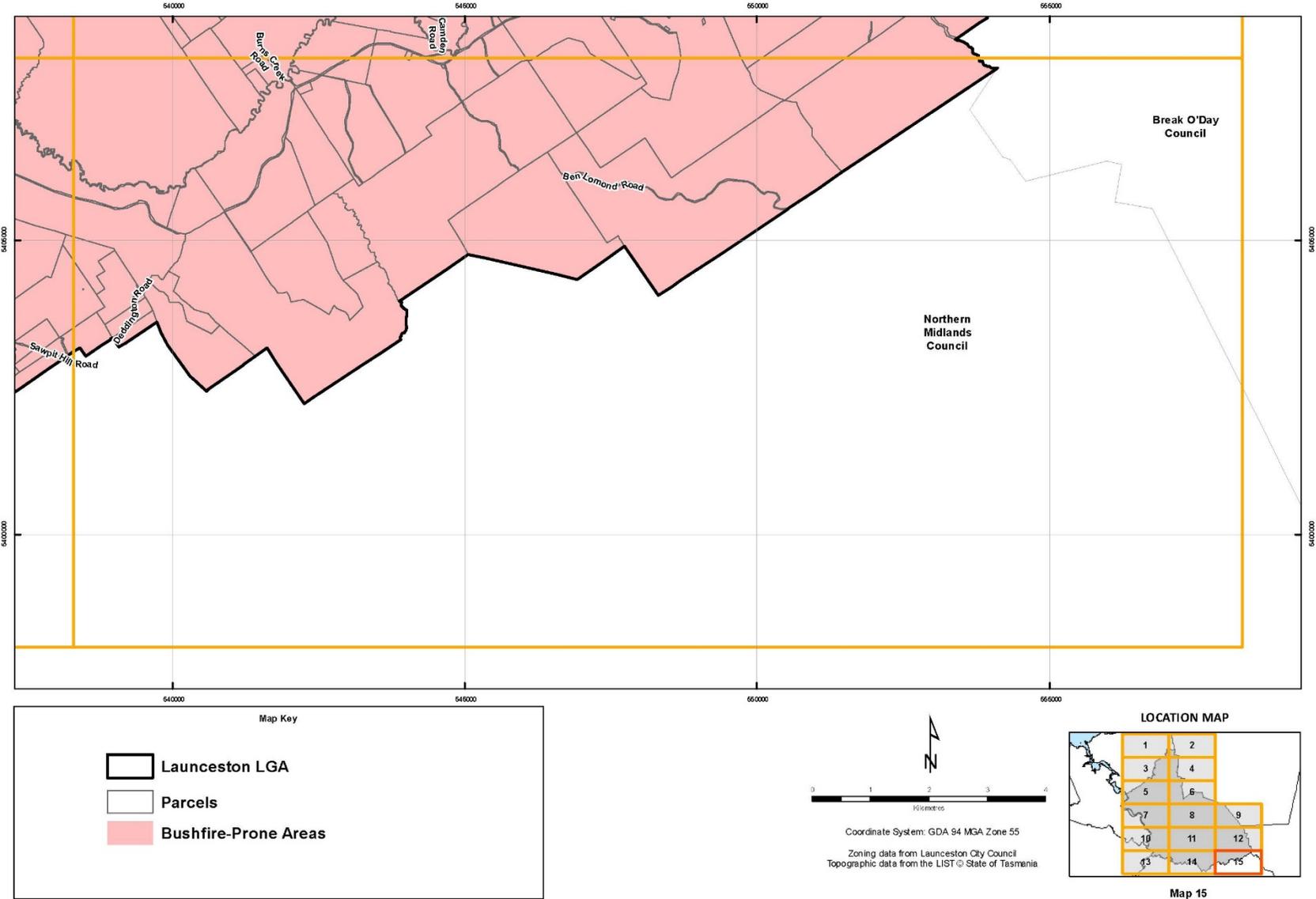


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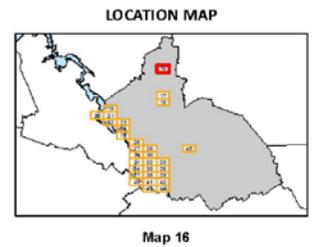
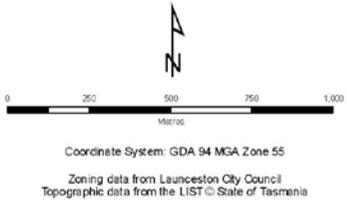
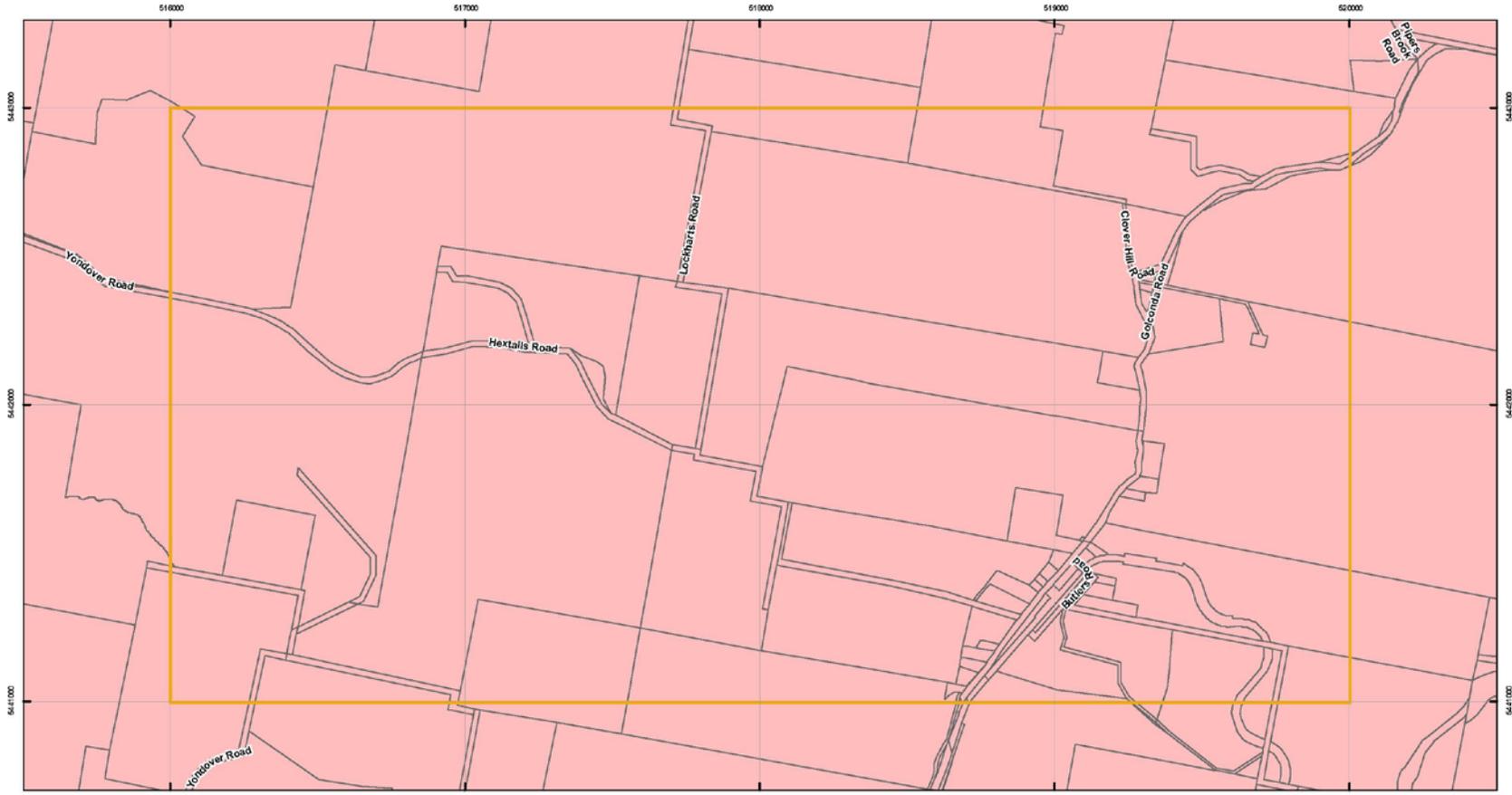
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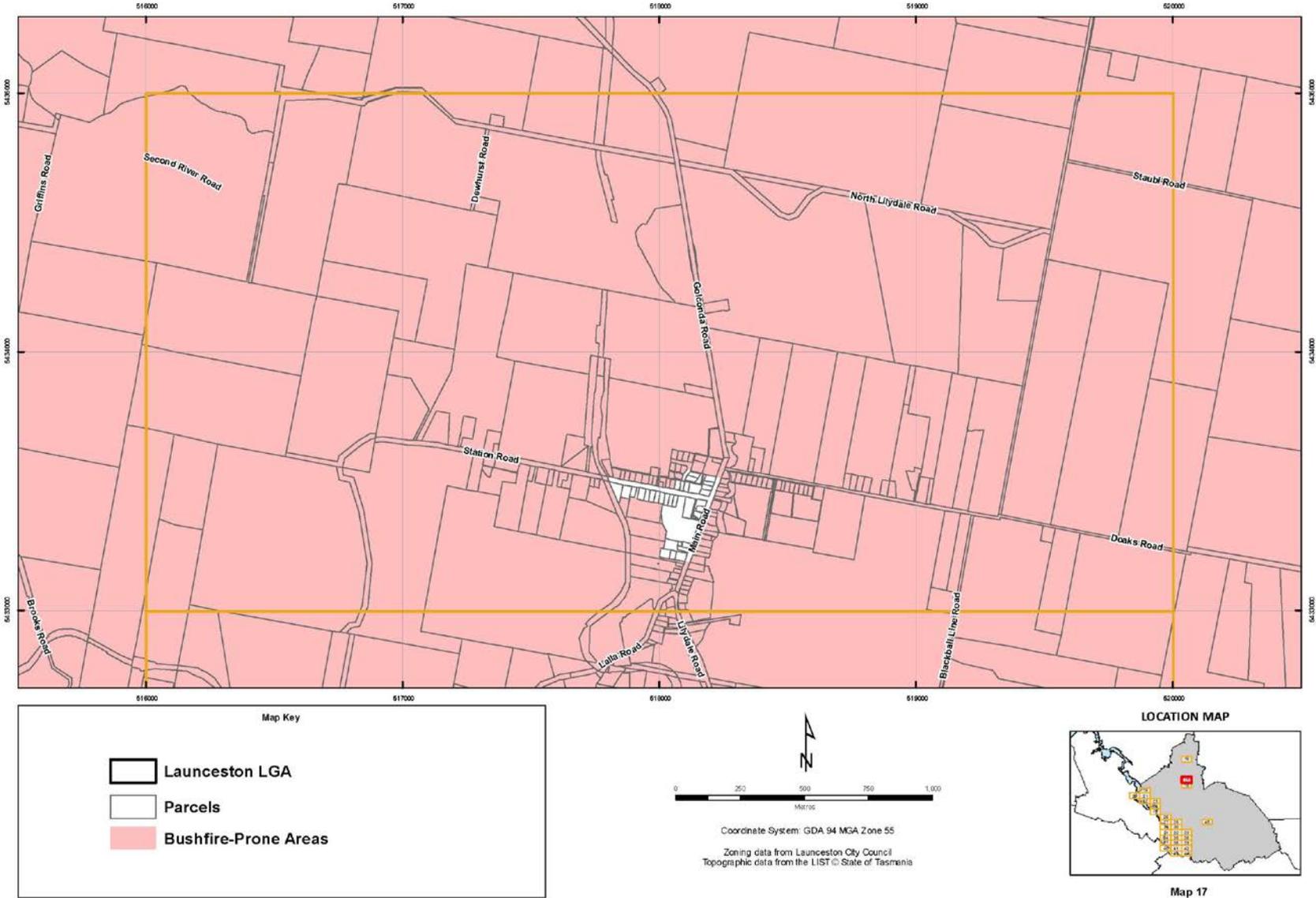
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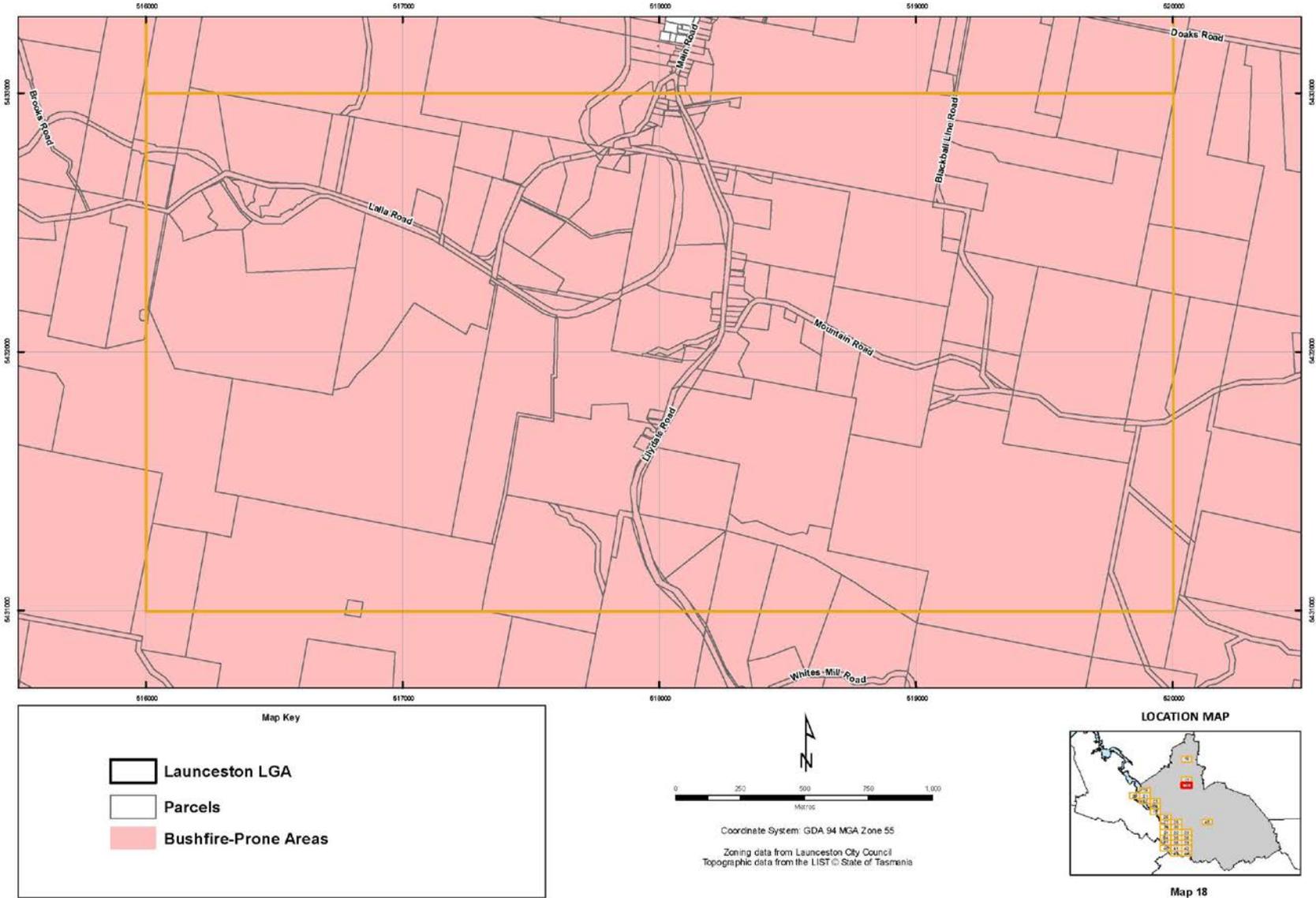
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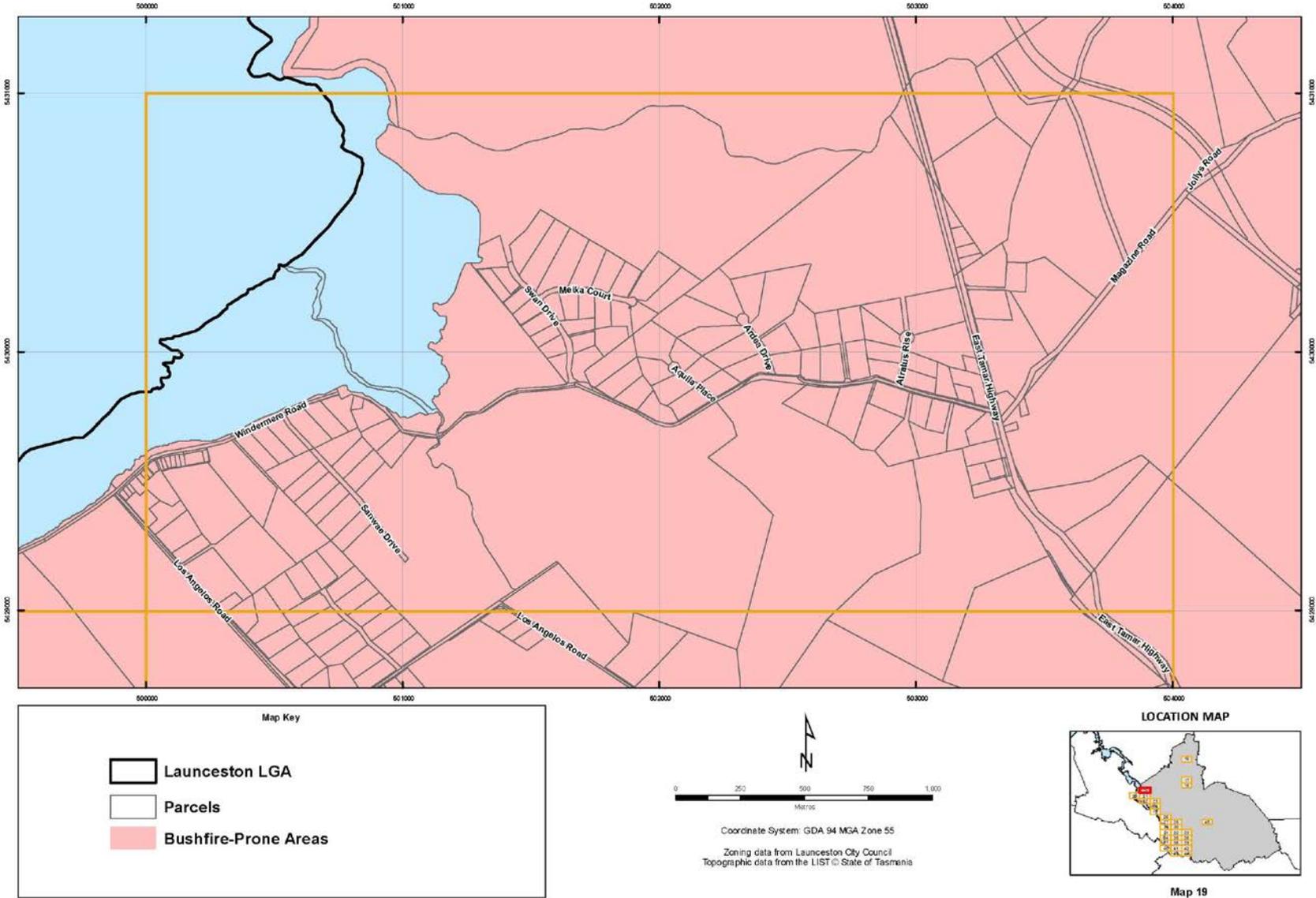
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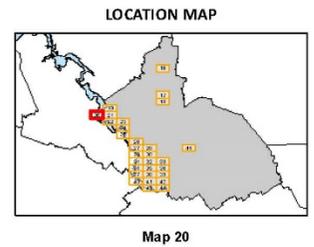
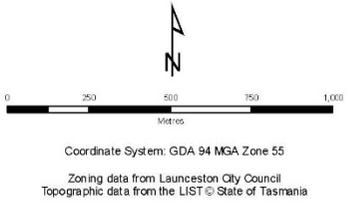
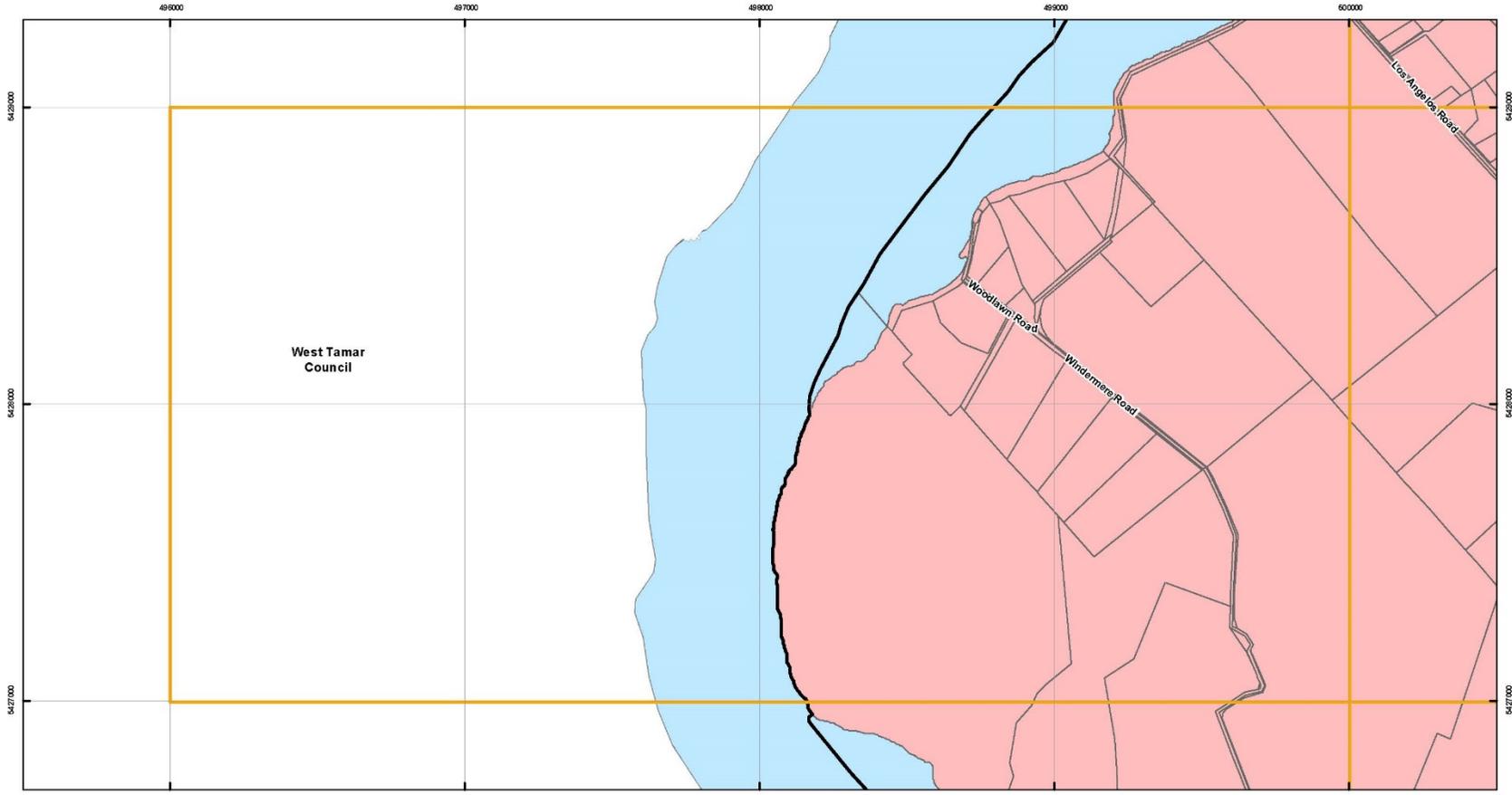
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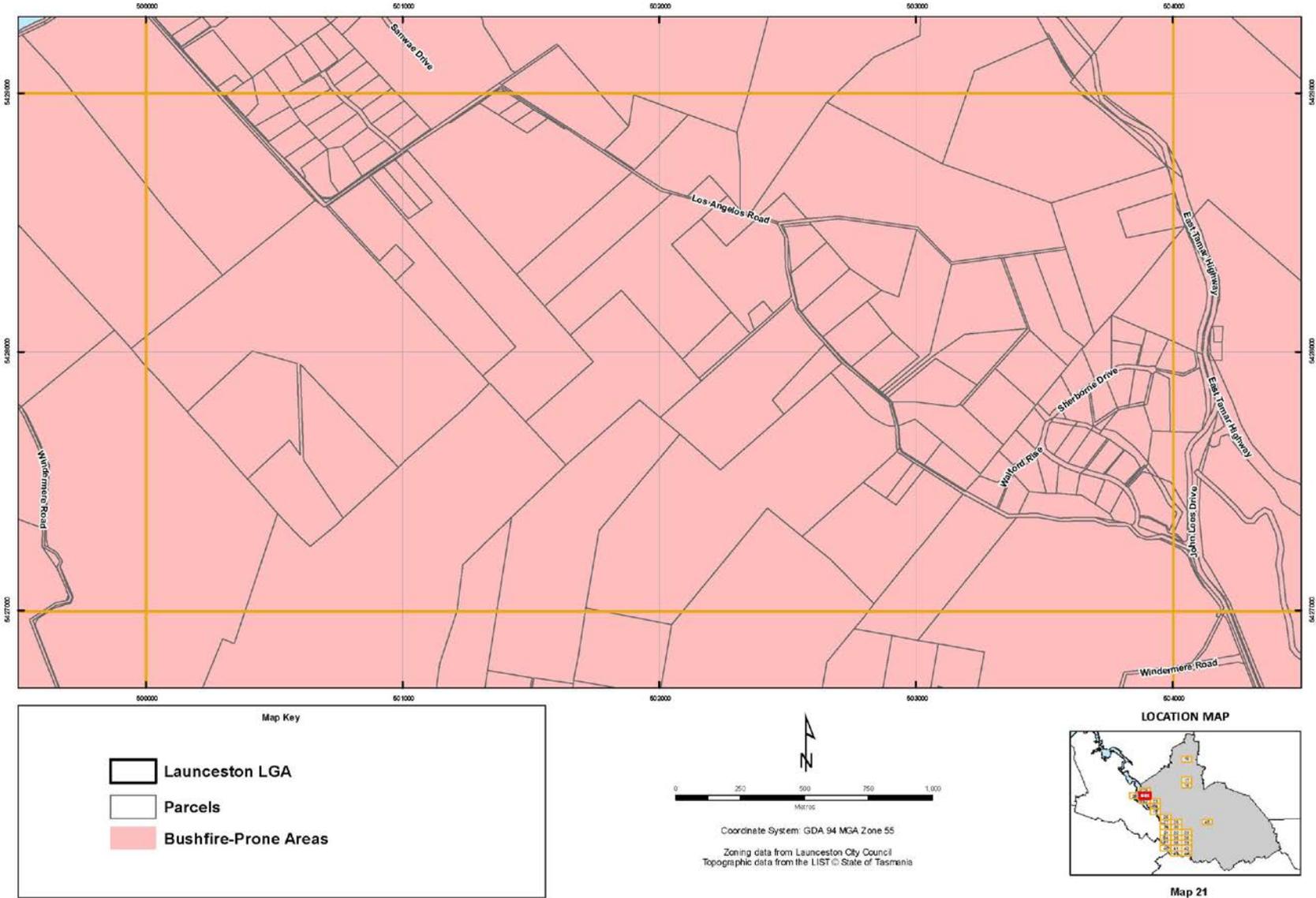
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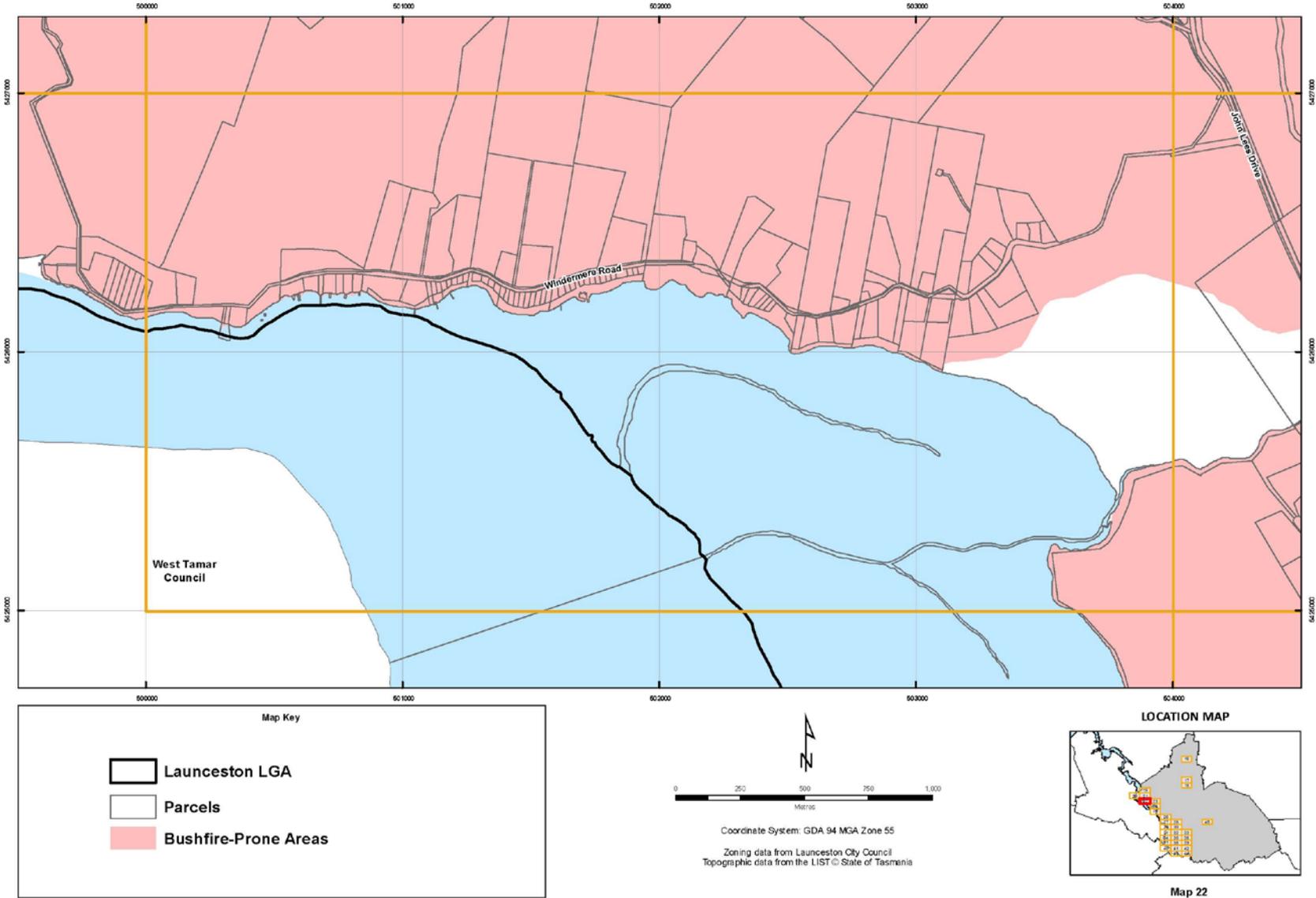
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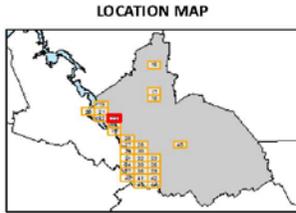
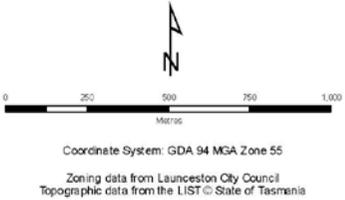
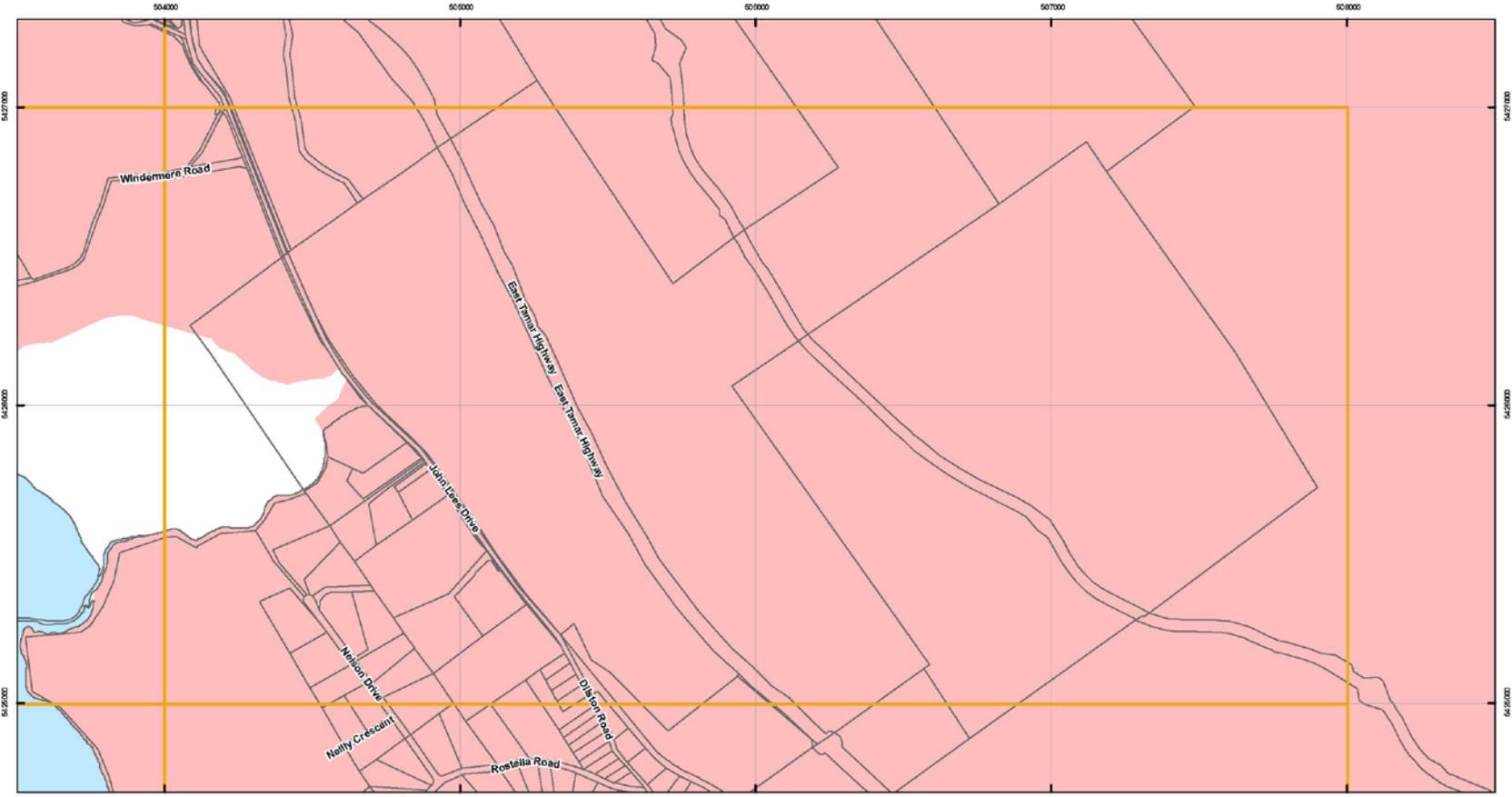
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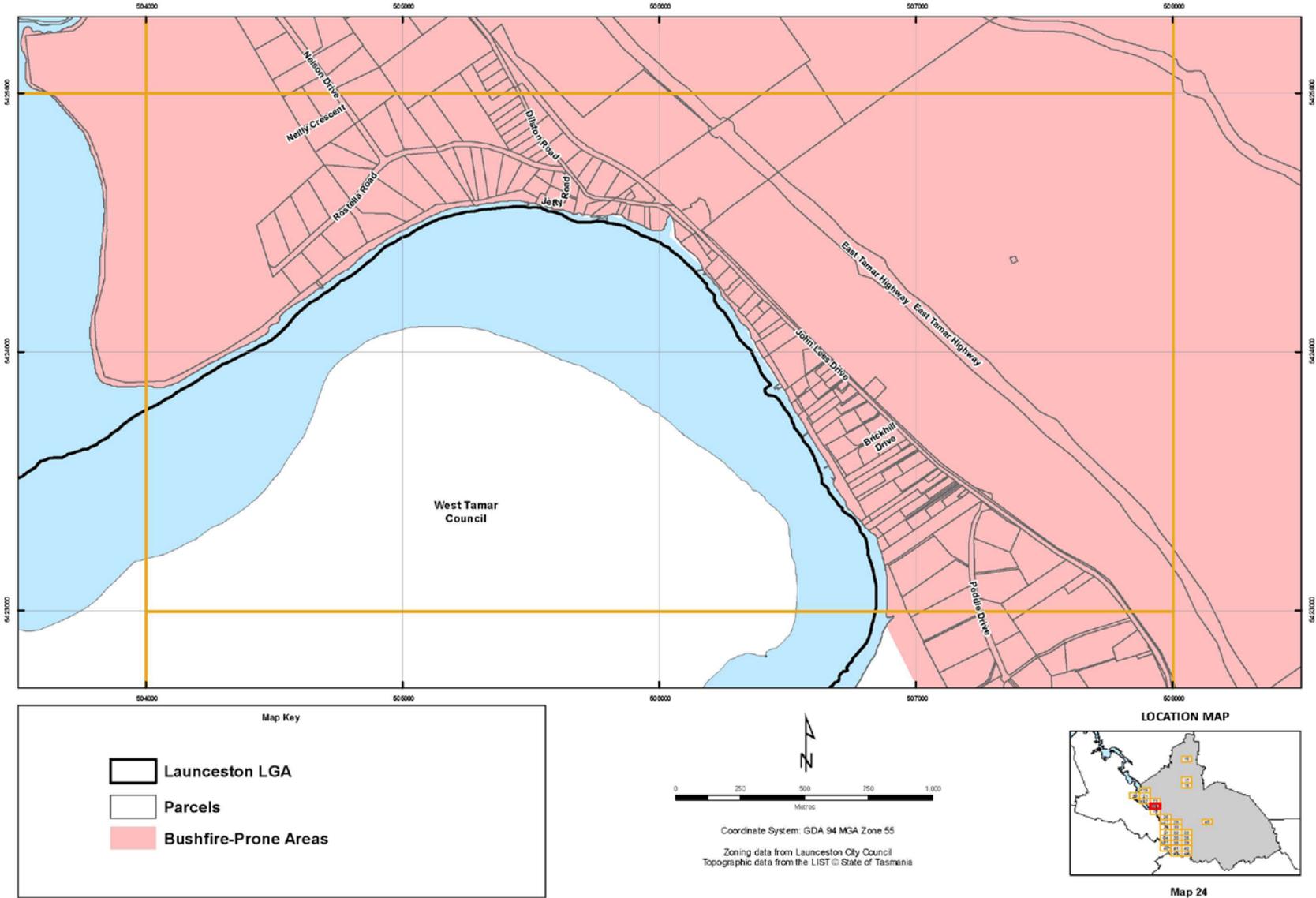


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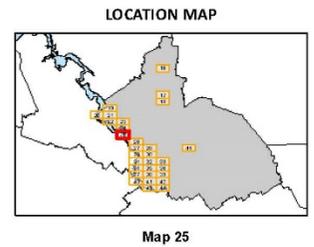
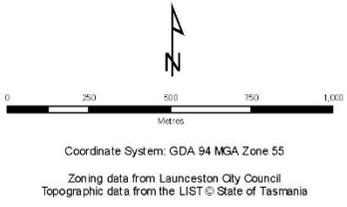
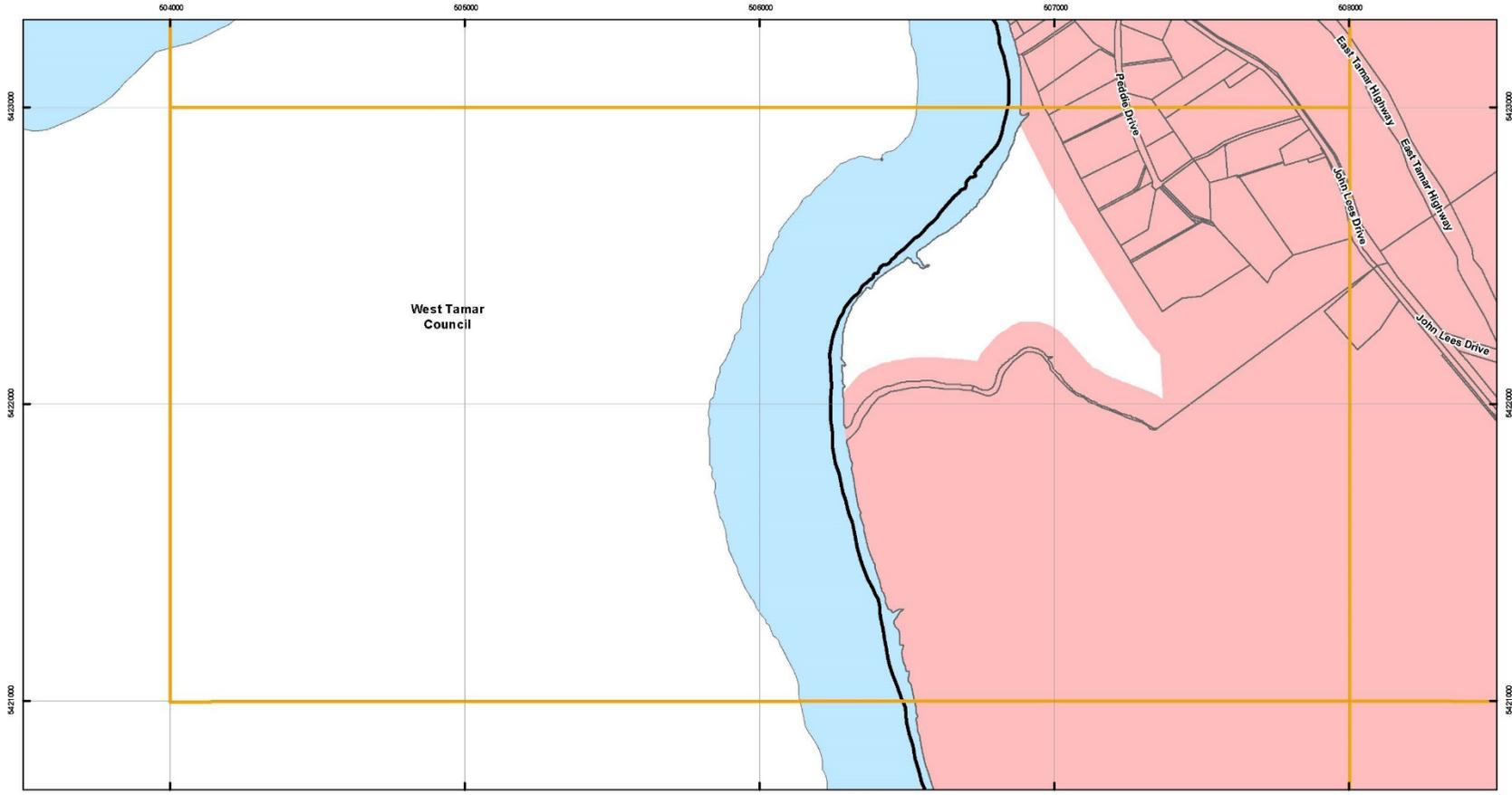


Map 23

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



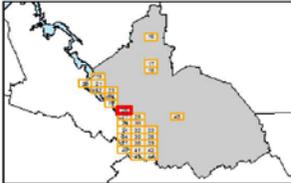
Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



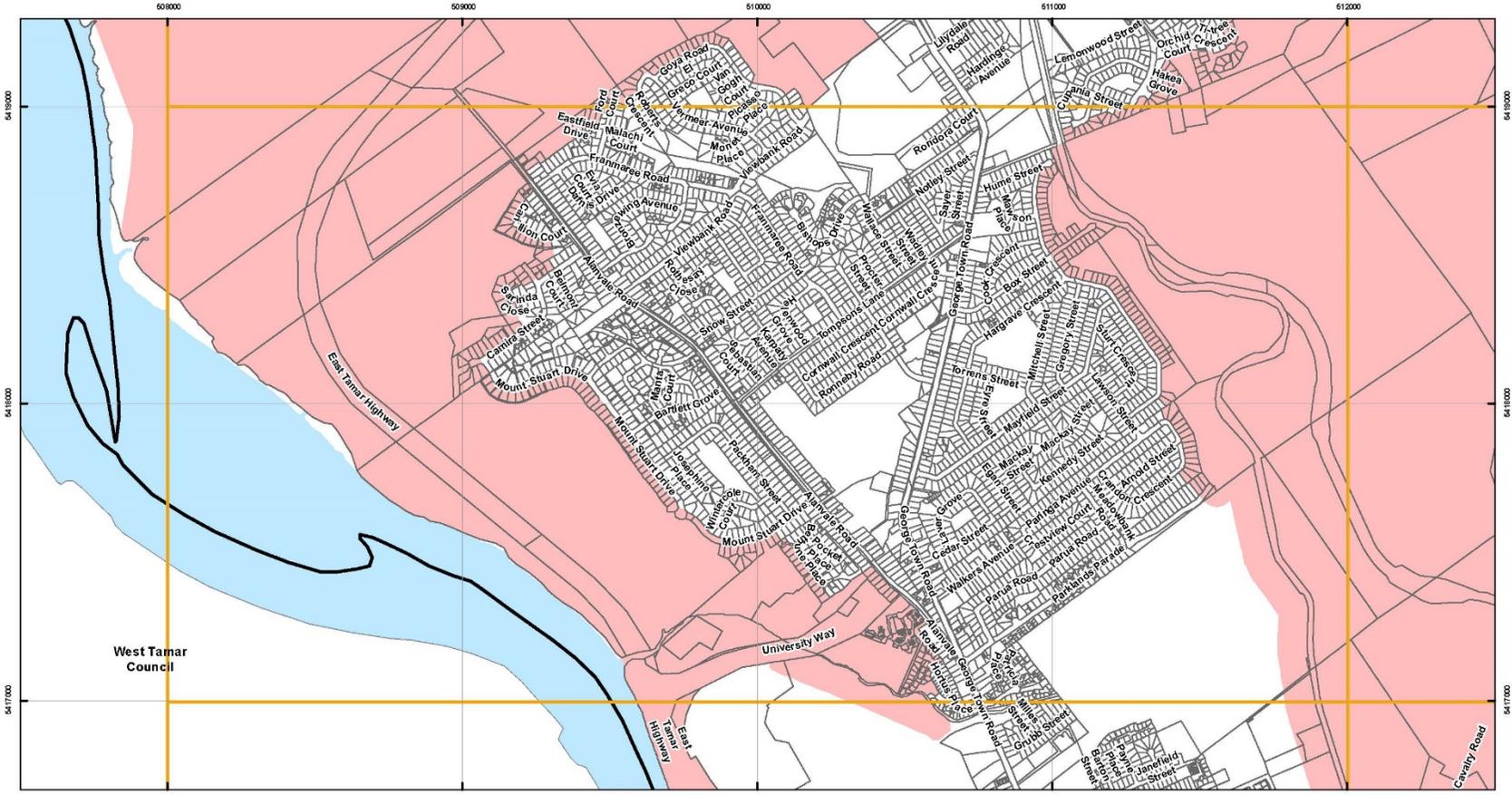
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 Topographic data from the LIST © State of Tasmania

LOCATION MAP



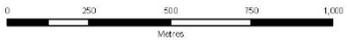
Map 26

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas

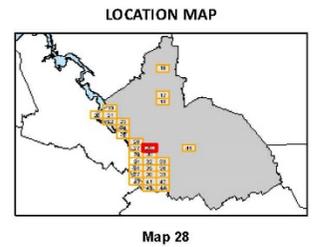
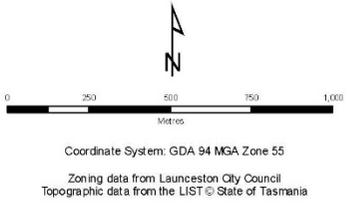


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LOCATION MAP

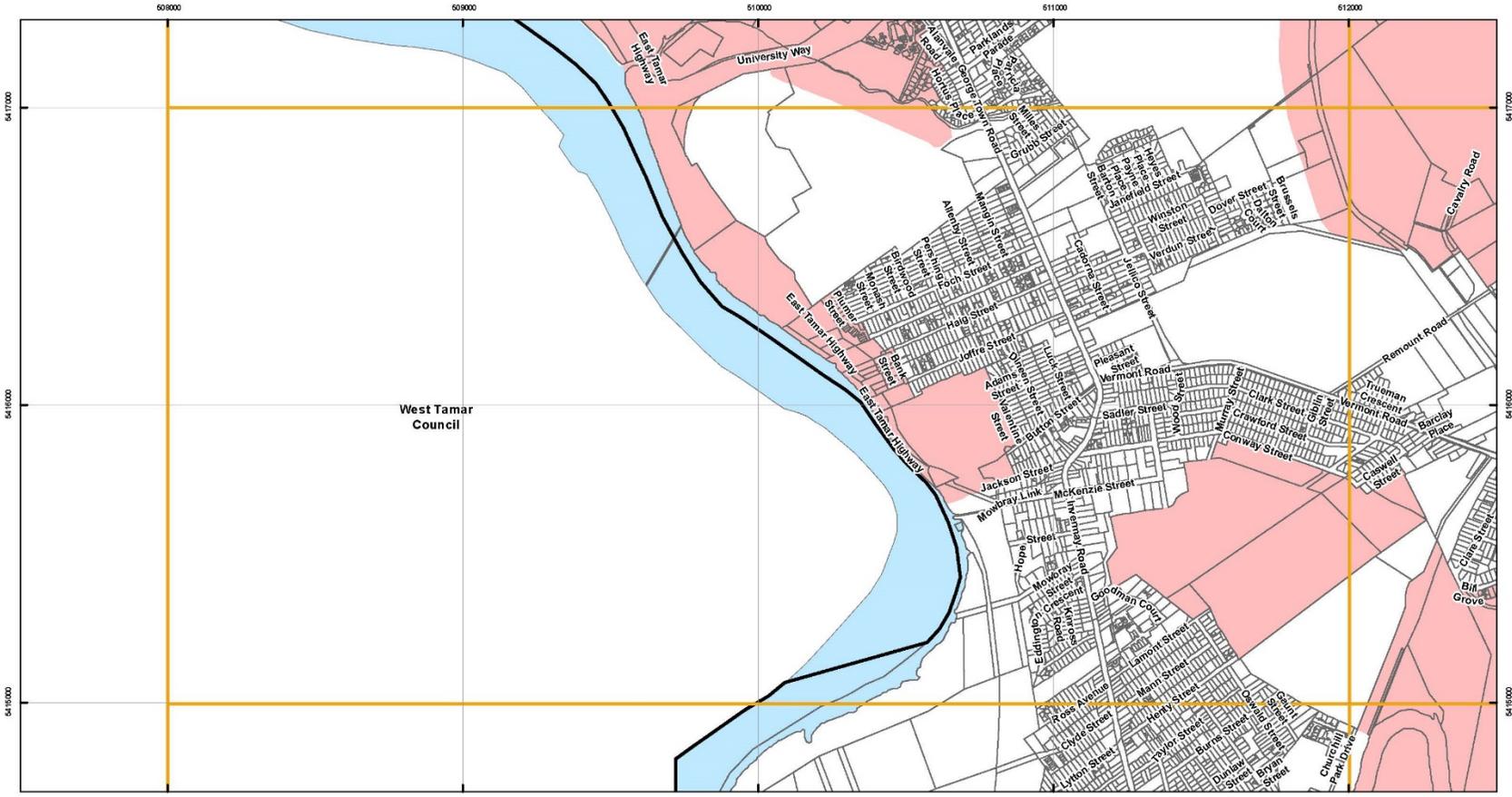


Map 27

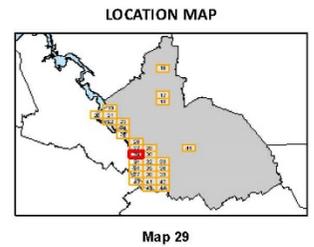
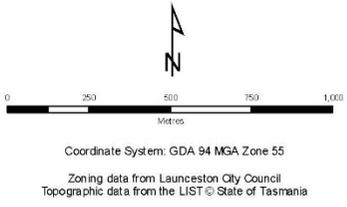
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



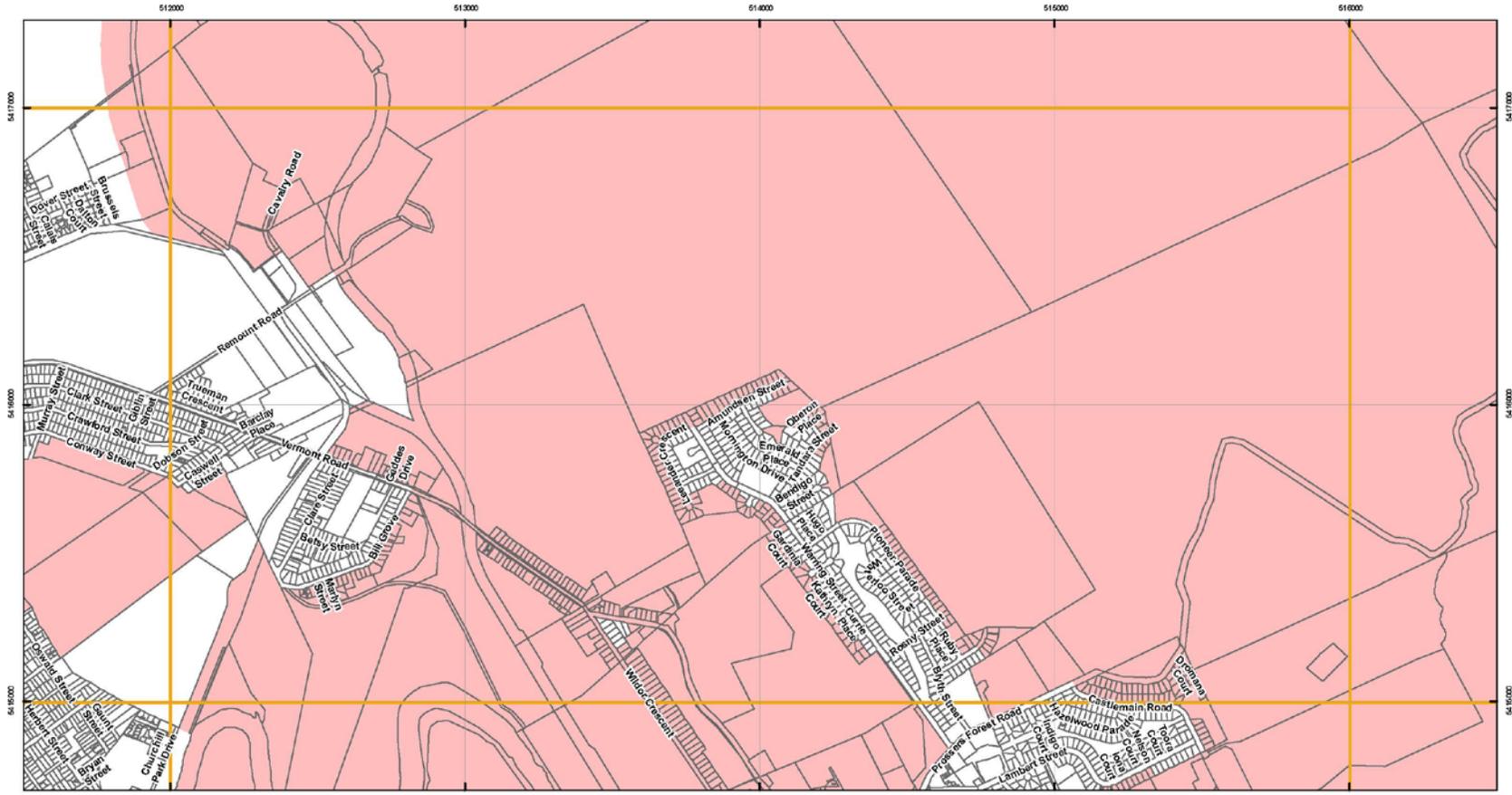
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



West Tamar Council



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



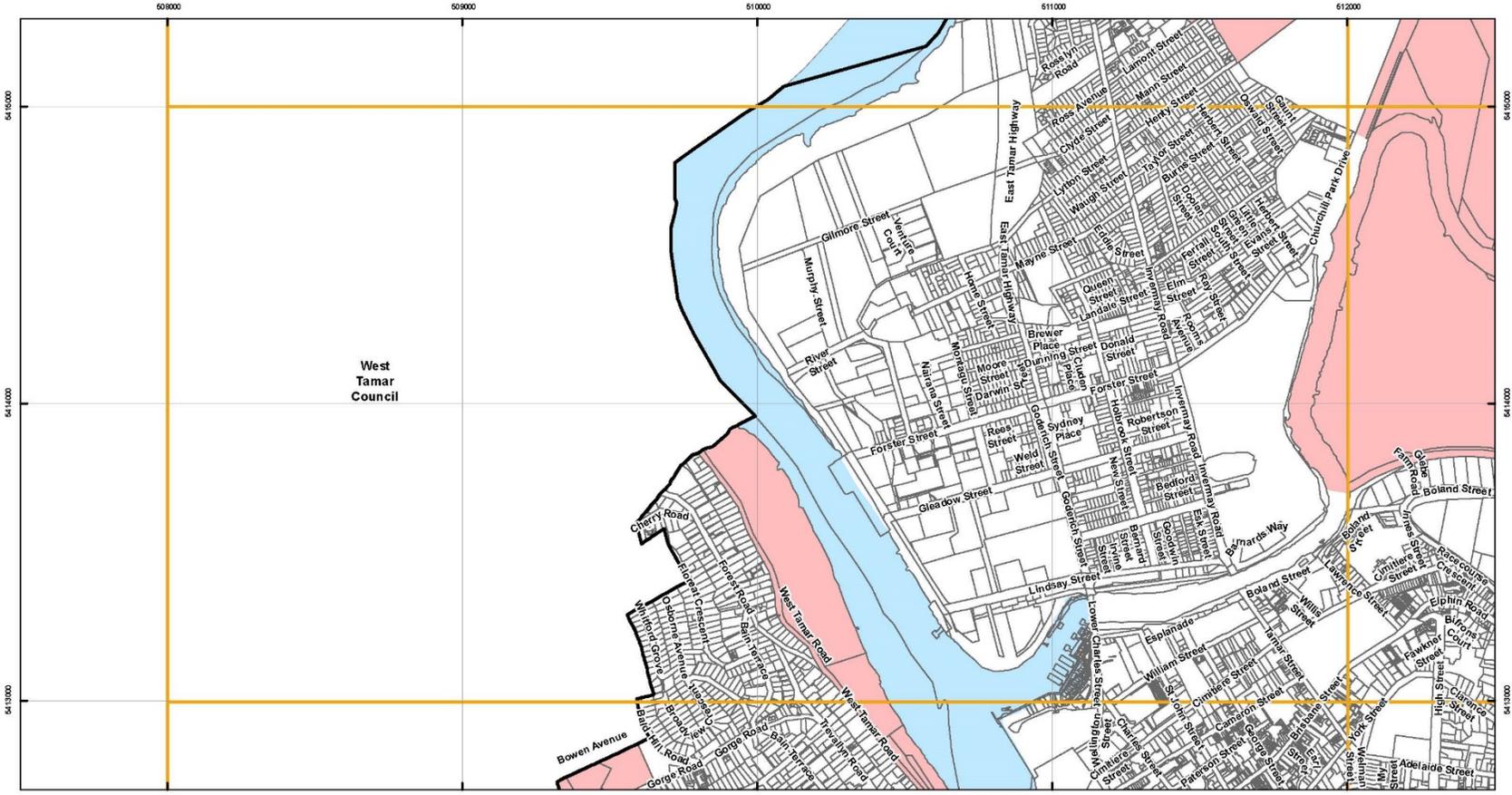
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 Topographic data from the LIST © State of Tasmania

LOCATION MAP



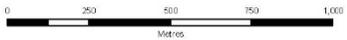
Map 30

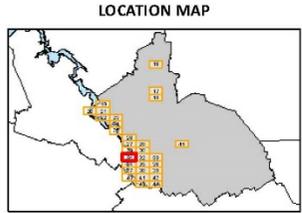
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

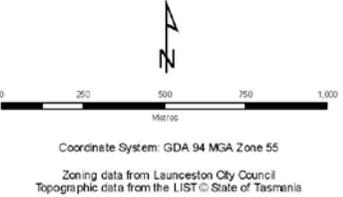
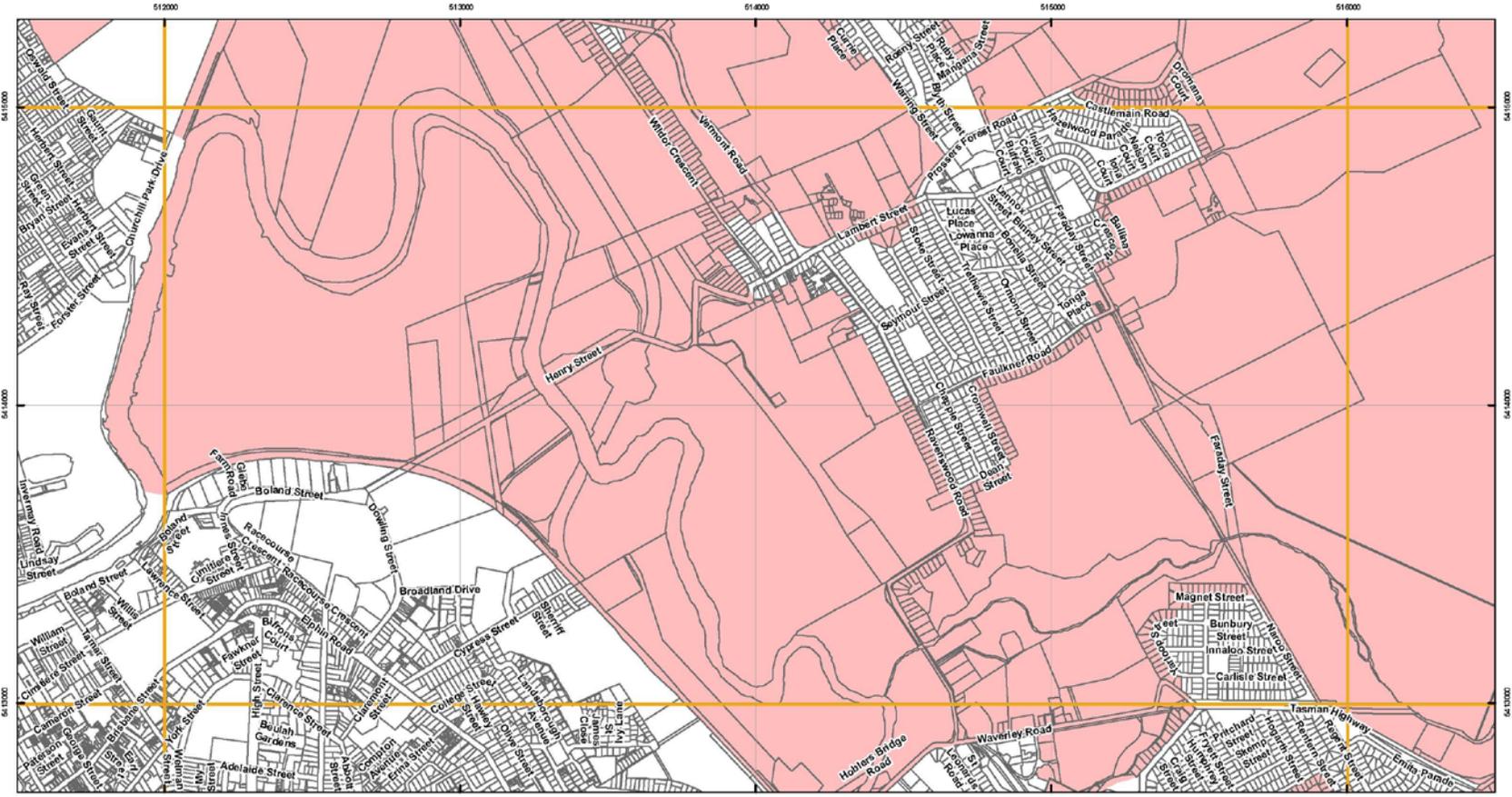
-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



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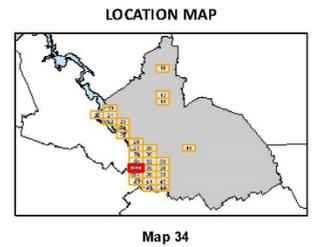
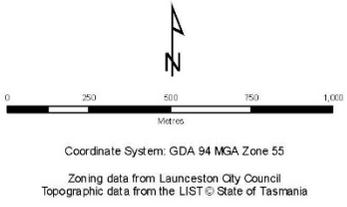
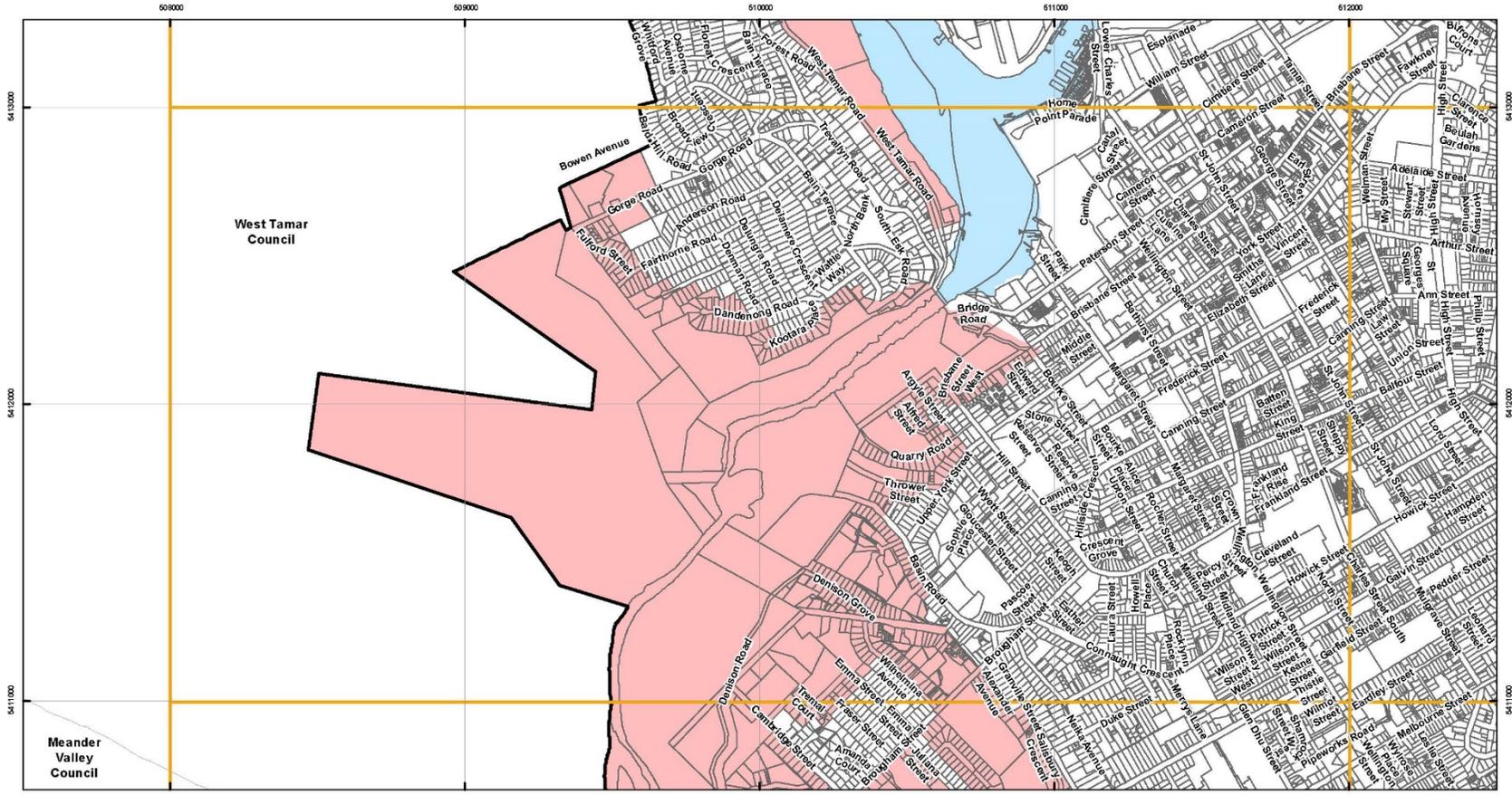
Map 31

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

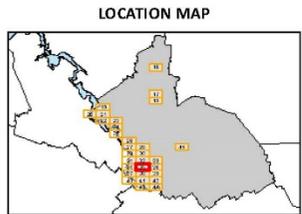
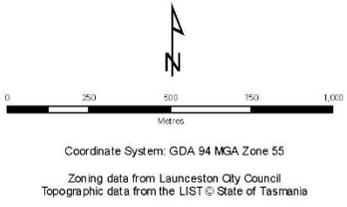
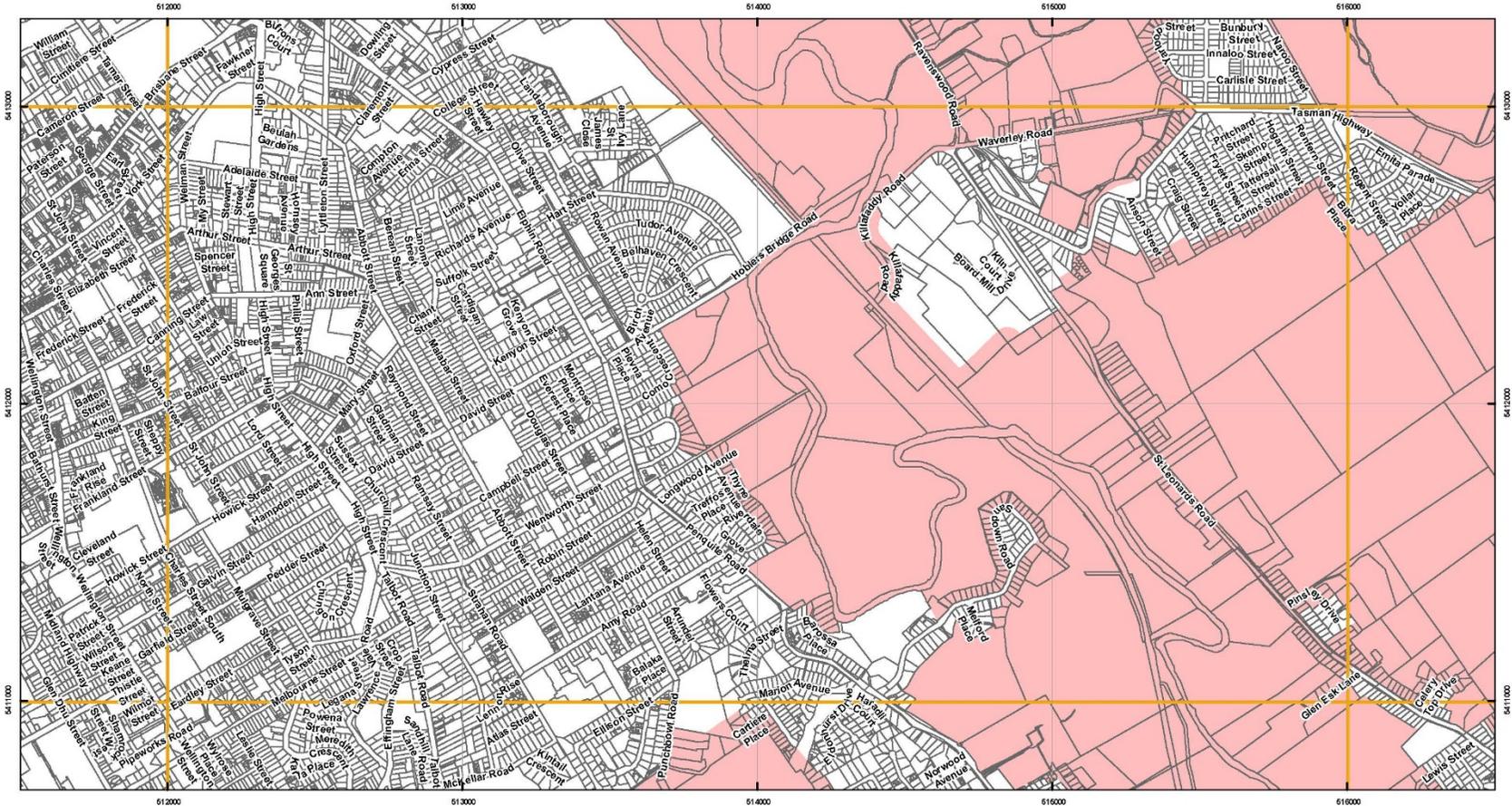


Map 32

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

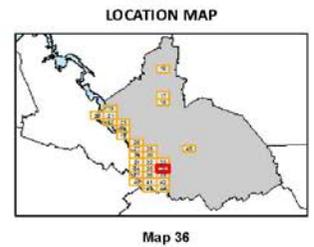
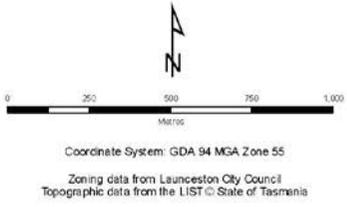
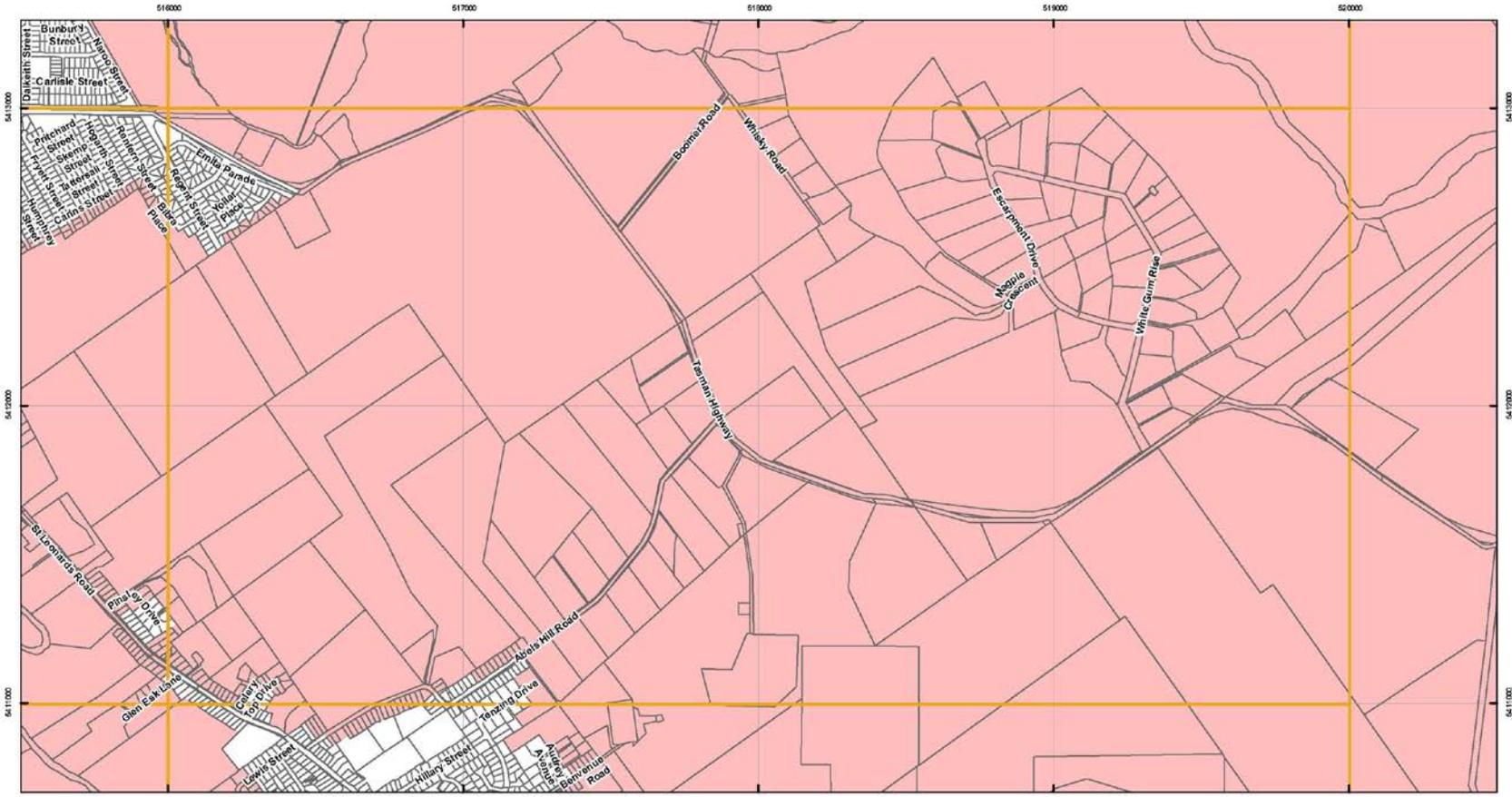


LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

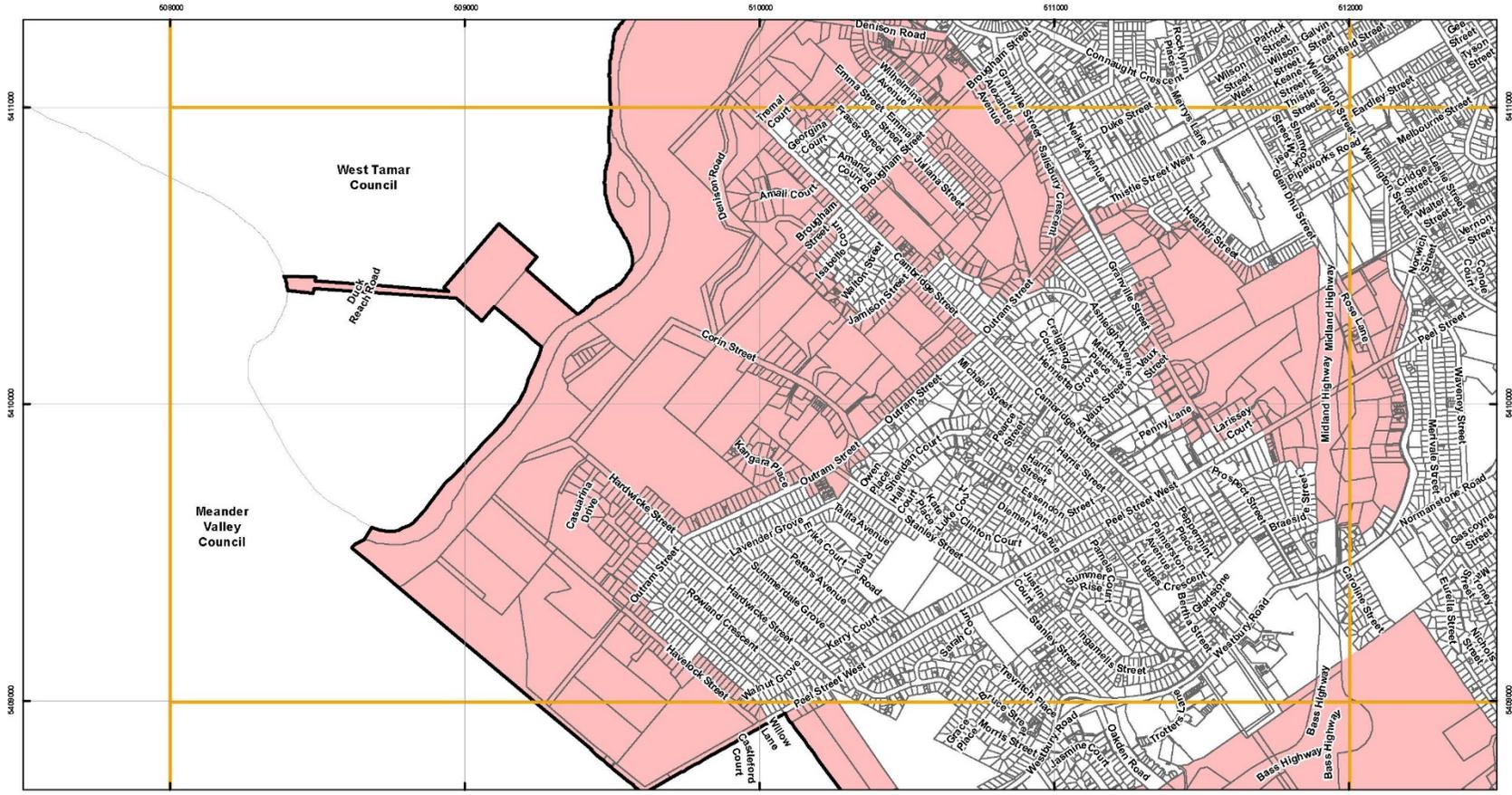


Map 35

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

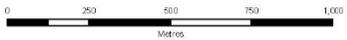


LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas

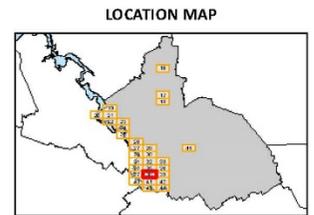
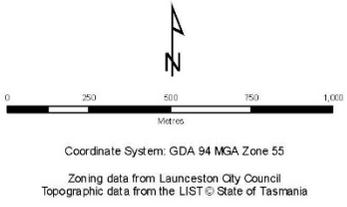
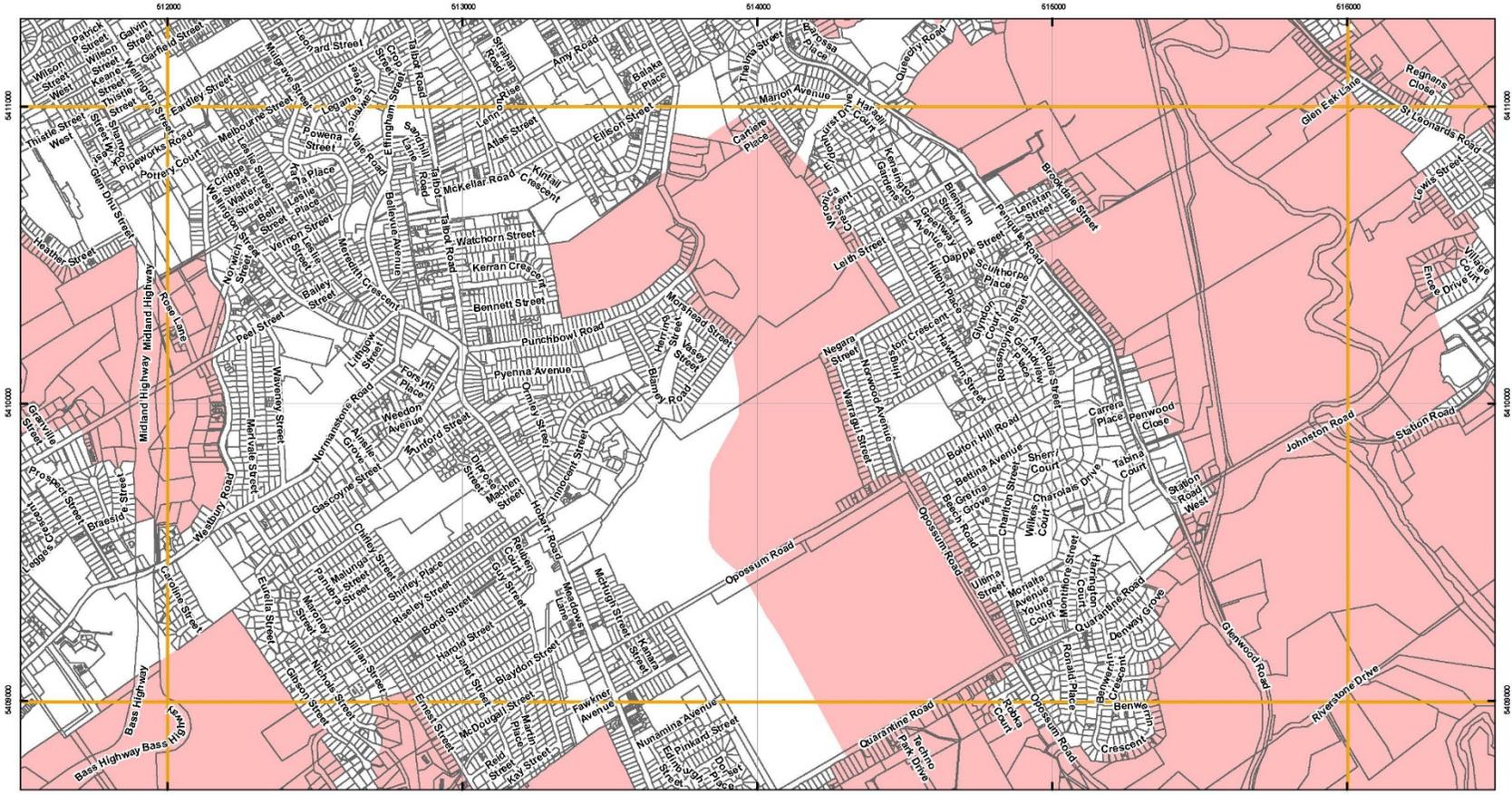


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 Topographic data from the LIST © State of Tasmania

LOCATION MAP



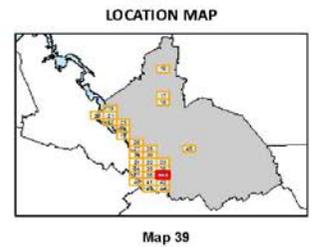
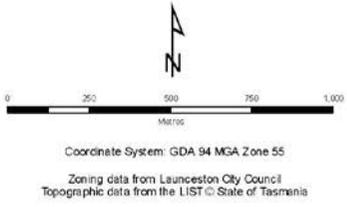
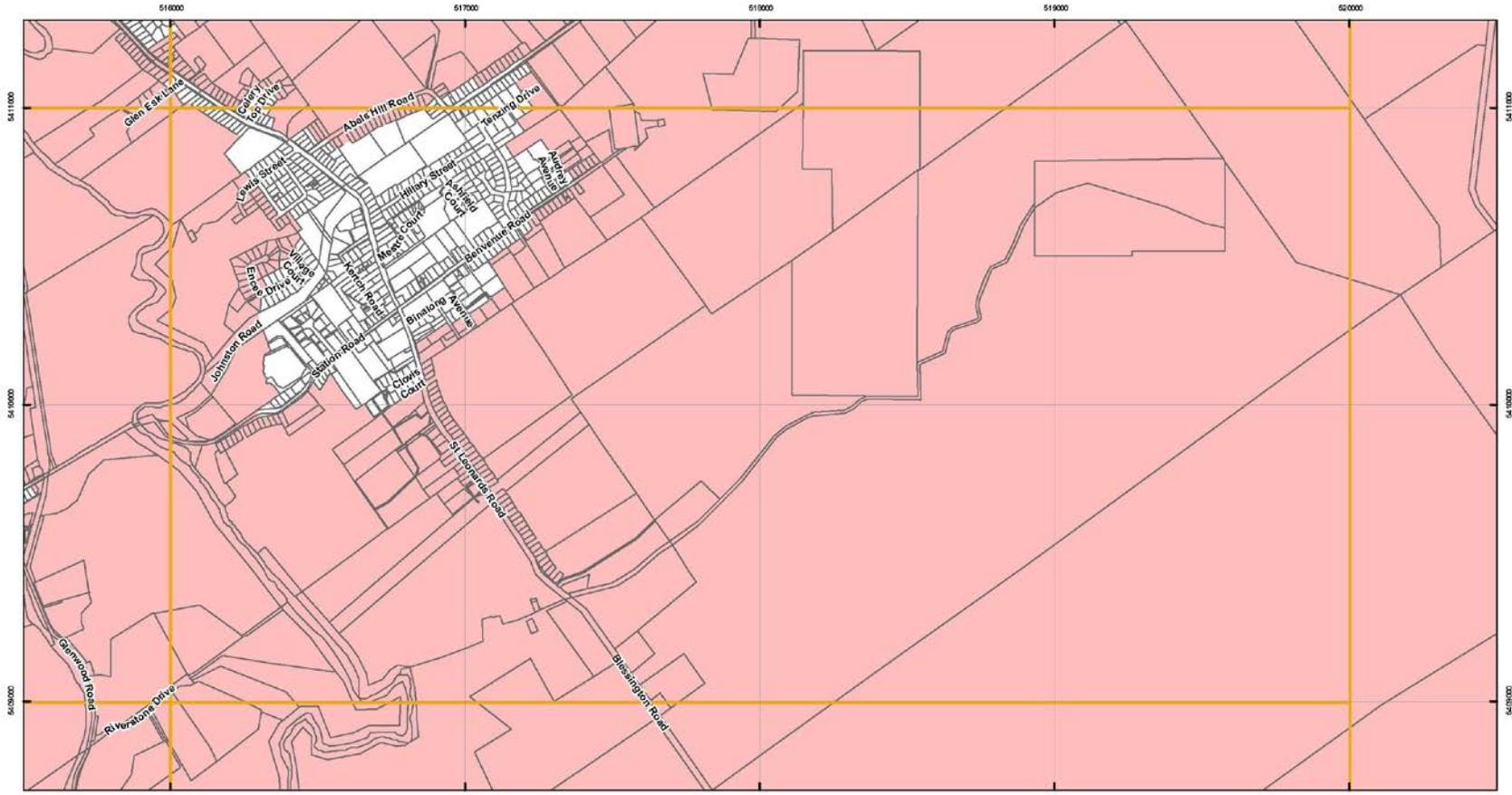
Map 37

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY

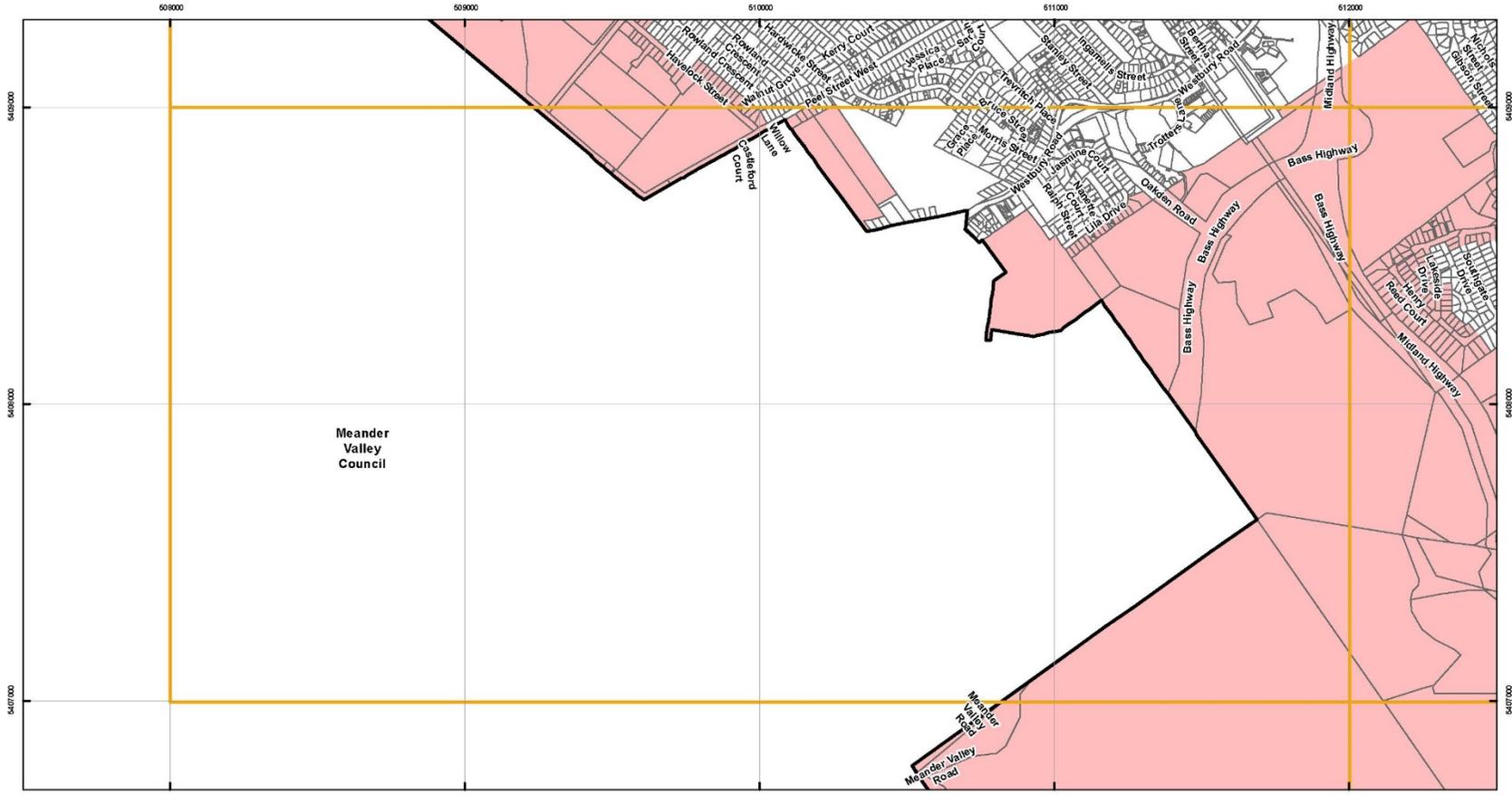


Map 38

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



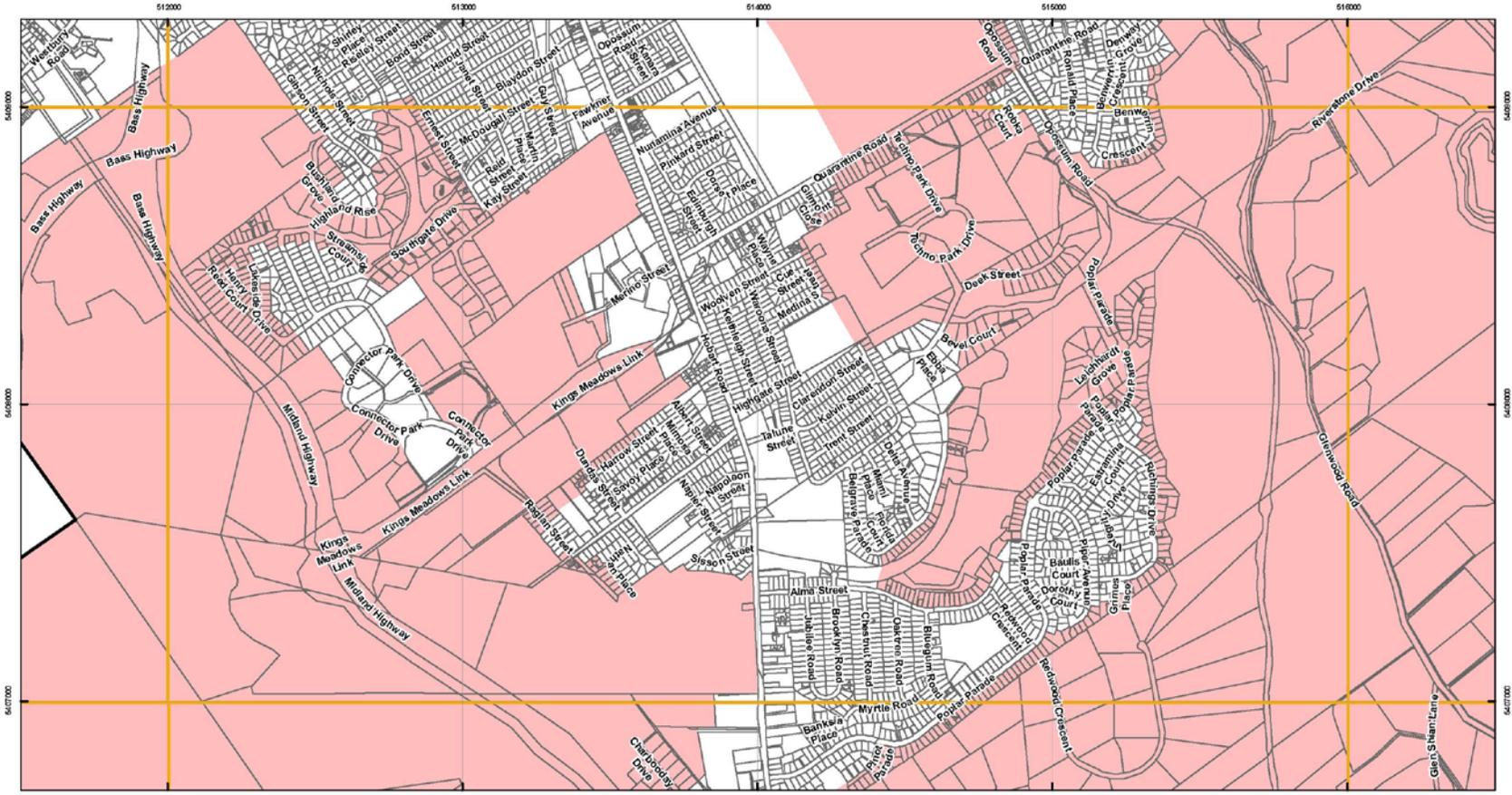
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 Zoning data from Launceston City Council
 Topographic data from the LIST © State of Tasmania

LOCATION MAP



Map 40

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

-  Launceston LGA
-  Parcels
-  Bushfire-Prone Areas



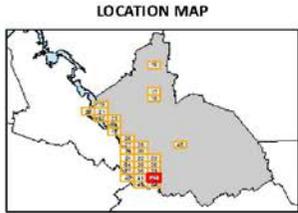
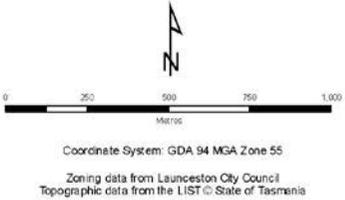
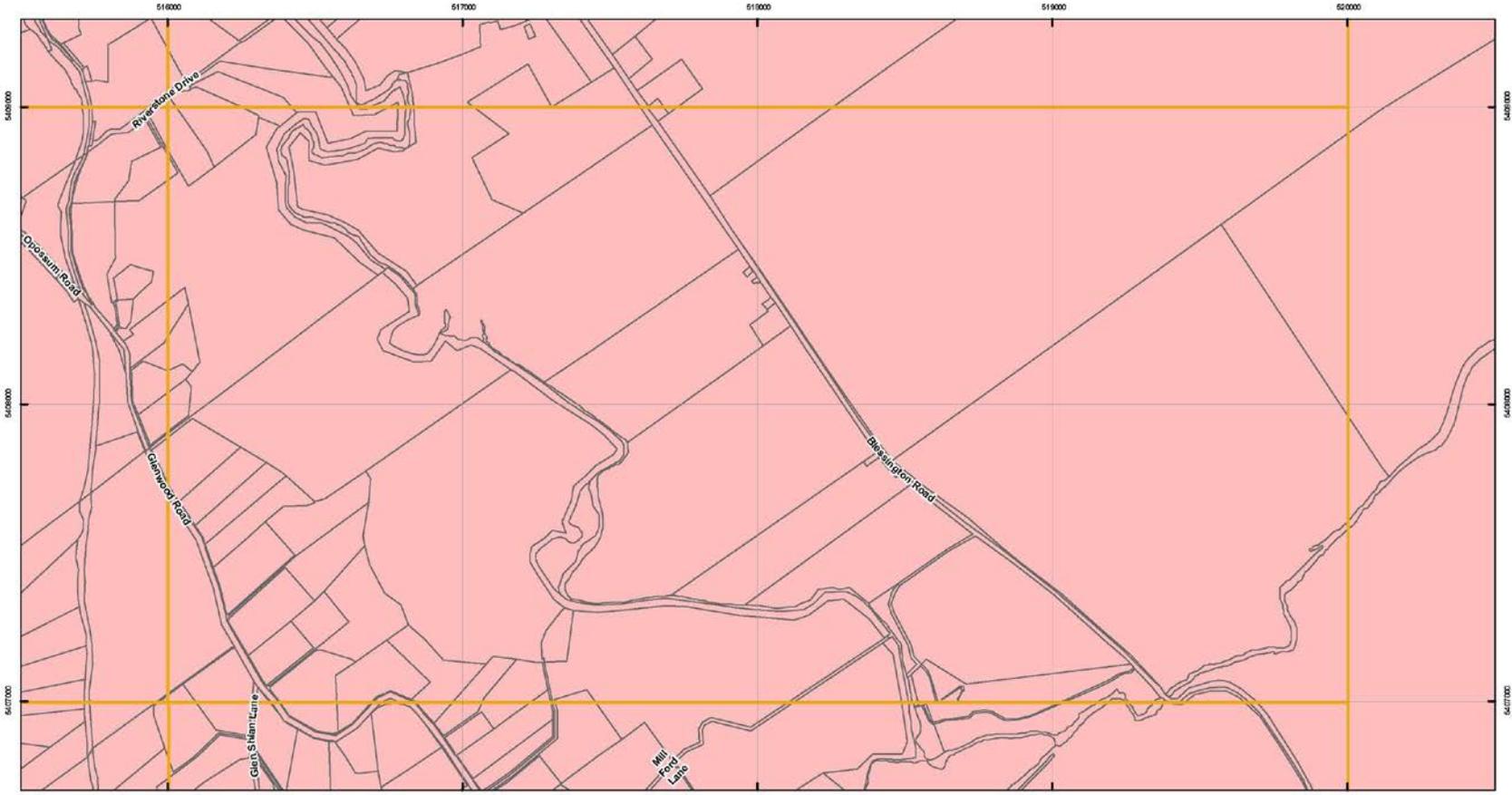
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 Zoning data from Launceston City Council
 Topographic data from the LIST © State of Tasmania

LOCATION MAP

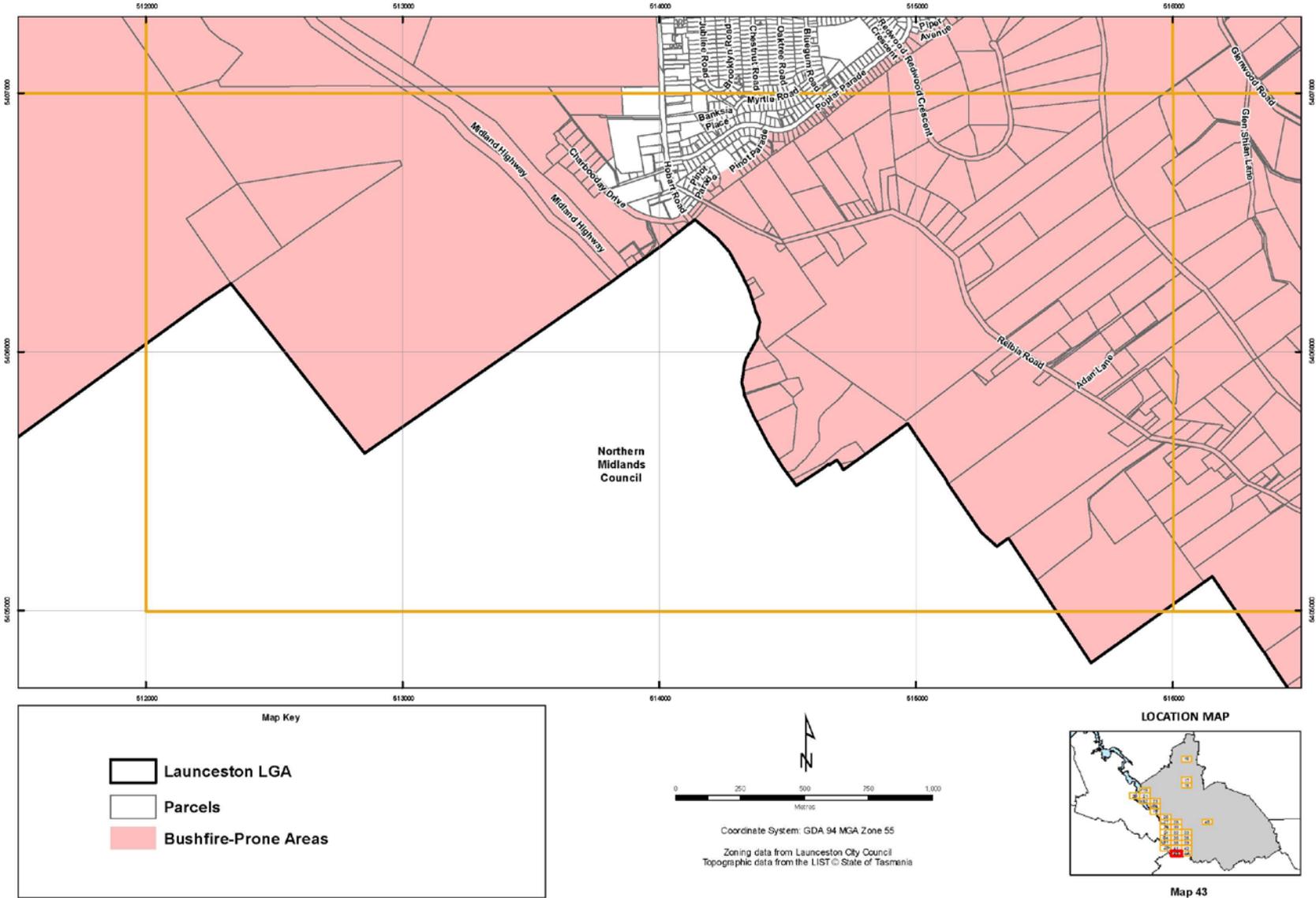


Map 41

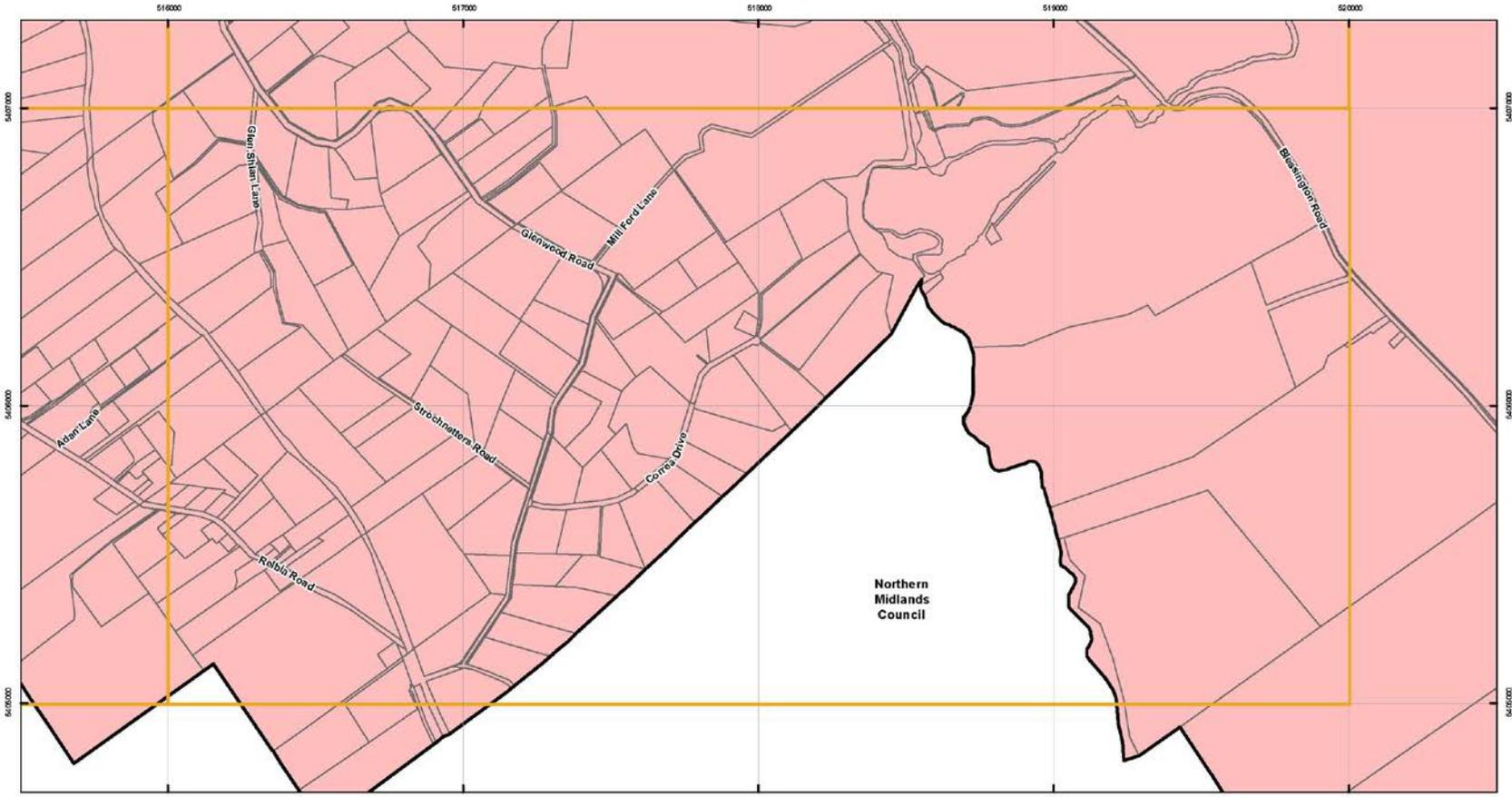
LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

- Launceston LGA
- Parcels
- Bushfire-Prone Areas

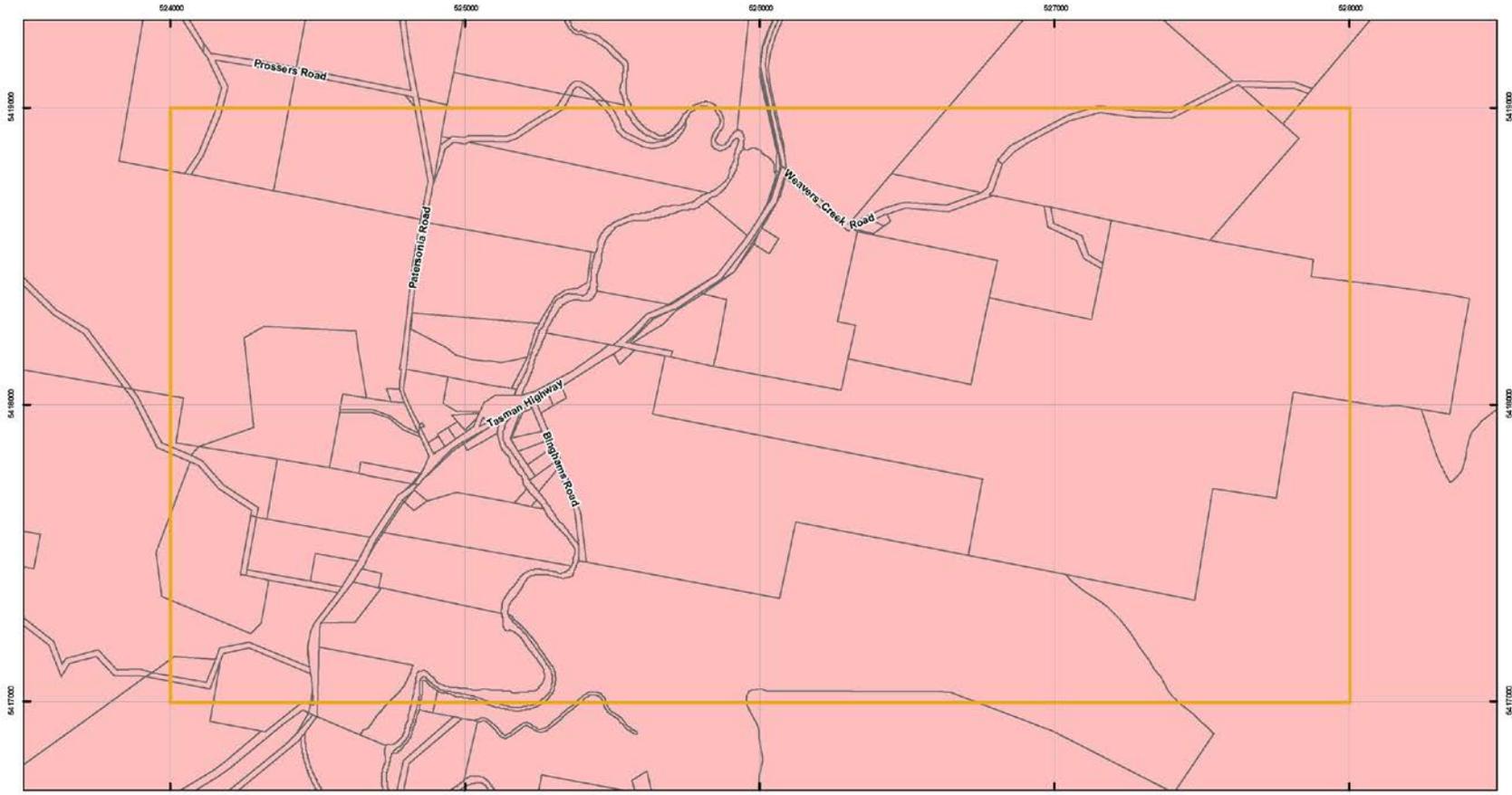
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Coordinate System: GDA 94 MGA Zone 55
Zoning data from Launceston City Council
Topographic data from the LIST © State of Tasmania

LOCATION MAP

Map 44

LAUNCESTON INTERIM PLANNING SCHEME 2015 - BUSHFIRE-PRONE AREAS OVERLAY



Map Key

- Launceston LGA
- Parcels
- Bushfire-Prone Areas

Coordinate System: GDA 94 MGA Zone 55
Zoning data from Launceston City Council
Topographic data from the LIST © State of Tasmania

LOCATION MAP

Map 45

APPENDIX 18

As a result of the requirements of the s.35(5) notice issued by the Tasmanian Planning Commission, these PPZs may have been modified. Refer to the draft LPS Written Document for the final versions.

LAU-P1.0 Particular Purpose Zone – Techno Park

LAU-P1.1 Zone Purpose

The purpose of the Particular Purpose Zone – Techno Park is:

LAU-P1.1.1 To provide for a range of uses and developments for research, development and assembly of high technology goods, information technology and communication services.

LAU-P1.1.2 To provide for complementary uses and developments that support the above purpose.

LAU-P1.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P1.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P1.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Business and Professional Services	If for a call centre
Research and Development	
Utilities	If for minor utilities
Discretionary	
Business and Professional Services	If not listed as Permitted.
Educational and Occasional Care	
Food Services	If not for a restaurant

Manufacturing and Processing	If for electronic technology, information technology or biotechnology
Service Industry	If for electronic technology, information technology or biotechnology
Utilities	If not listed as Permitted.
Prohibited	
All other uses	

LAU-P1.5 Use Standards

LAU-P1.5.2 Emissions impacting residential zones

Objective:	That emissions to air, land and water are not detrimental to the amenity of sensitive uses.	
Acceptable Solutions		Performance Criteria
A1	The use must be separated from the boundary of a General Residential Zone or Low Density Residential Zones a distance of not less than 100m.	P1 The use must not adversely impact on the amenity of nearby sensitive uses, having regard to: <ul style="list-style-type: none"> (a) the nature of the proposed use; (b) the characteristics of the emissions; (c) the proximity and number of sensitive uses in the area; (d) the topography of the site; (e) background emission levels; (f) any mitigation measures proposed; and (g) the character of the surrounding area.

LAU-P1.6 Development Standards for Buildings and Works

LAU-P1.6.1 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the amenity of the area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas, excluding for the display of goods for sale, must not be visible	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located or screened to minimise its impact on views into the site from

<p>from any road or public open space adjoining the site.</p>	<p>any roads or public open space adjoining the site, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) type of goods, materials or waste proposed to be stored; (c) the topography of the site; (d) the landscaping of the site; and (e) any screening proposed.
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LAU-P1.6.2 Building height and setback

Objective:	That building height and setback is compatible with the character of the zone.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Building height must be not more than:</p> <ul style="list-style-type: none"> (a) 10m; or (b) the average of the building heights on the site or adjoining lots, <p>whichever is greater.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site, adjoining lots and adjacent lots; (c) the bulk and form of existing and proposed buildings; (d) the allowable building heights; (e) the apparent height when viewed from roads and public places; and (f) any overshadowing of adjoining lots or public places. 	
<p>A2</p> <p>Buildings must have a setback from a frontage of not less than 15m.</p>	<p>P2</p> <p>Buildings must be sited to be compatible with the streetscape and character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of surrounding buildings; (c) the height, bulk and form of existing and proposed buildings; 	

	<ul style="list-style-type: none"> (d) the appearance when viewed from roads and public places; (e) the existing or proposed landscaping; (f) the safety of road users; (g) the access to the site for deliveries and service vehicles; and (h) the provision for car parking.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries of not less than 15m.</p>	<p>P3</p> <p>Buildings must be sited to be compatible with the character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape, and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings on the site; (f) the character of the surrounding area; (g) the access to the site for deliveries and service vehicles; (h) provision for car parking; and (i) any overshadowing of adjoining lots or public places.

LAU-P1.6.3 Streetscape

Objective:	That development has an acceptable impact on the streetscape.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New buildings or extensions to existing buildings, excluding walls built to the lot boundary, must:</p> <ul style="list-style-type: none"> (a) have external walls constructed with not less than 50% brick, concrete, masonry or glass; (b) have external walls, unless brick or glass, painted or finished with a texture coat; 	<p>P1</p> <p>New buildings or extensions to existing buildings, excluding walls built to the lot boundary, must be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the nature of the use; (c) the visibility of the building from the road; (d) the external treatment and finish of buildings;

<p>(c) have not less than 50% glazing to the external walls of the office components of the buildings;</p> <p>(d) be designed and orientated so that the main pedestrian entrance into the primary building is visible from the road; and</p> <p>(e) incorporate a protected (by kerb, landscaping, bollards or similar device) pedestrian pathway from the road to the main entrance to the building.</p>	<p>(e) the building materials used in the surrounding area;</p> <p>(f) the visibility of the entrance to a building; and</p> <p>(g) safety and access for pedestrians.</p>
<p>A2</p> <p>Car parking must not be located within 15m of the frontage.</p>	<p>P2</p> <p>Car parking must be located to minimise visual impact on the streetscape, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the nature of the use;</p> <p>(c) the number of car spaces;</p> <p>(d) the visibility of the car parking from the road;</p> <p>(e) the use of measures to mitigate impacts including screening and landscaping;</p> <p>(f) the location of car parking on adjoining sites; and</p> <p>(g) the character of the streetscape.</p>

LAU-P1.6.4 Fences

Objective:	To provide for fences that are appropriate to the site and character of the area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution¹</p>	<p>P1</p> <p>Boundary fences must not have an unreasonable impact on the amenity of adjoining sites and the streetscape, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the need for security;</p> <p>(c) the materials and finish of the proposed fence;</p>

¹ An exemption applies for fences in this zone – see Table 4.6

	<ul style="list-style-type: none"> (d) the need and opportunity for passive surveillance, particularly where the fence adjoins a road or reserve; (e) any overshadowing; and (f) the character of the streetscape and surrounding area.
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LAU-P1.6.5 Site landscaping

Objective:	That new development provides acceptable levels of site landscaping.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>New buildings or extensions with a gross floor area greater than 100m² or 50% of the existing gross floor area, whichever is lesser, must:</p> <ul style="list-style-type: none"> (a) landscape an area within the front setback of not less than the 50% of that area; and (b) provide a minimum of 1 tree capable of growing to a height of not less than 10m planted for every 250m² of site area. Trees must be located within a minimum 3m diameter landscaped area. 	<p>P1</p> <p>New buildings or extensions with a gross floor area greater than 100m² or 50% of the existing gross floor area, whichever is lesser, must include landscaping that improves the amenity and appearance of the site and the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the existing vegetation on the site; (c) shade for users of the site and car parking areas; (d) the location, type and growth of the proposed vegetation; (e) the area set aside for landscaping and its suitability; (f) the design, locations and visibility of buildings and other works; (g) the operational needs of the proposed use; and (h) the character of the streetscape and surrounding area. 	

LAU-P1.7 Development Standards for Subdivision

LAU-P1.7.1 Lot size and dimensions

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for the zone; and (b) does not cause an adverse impact on the amenity of adjoining land especially residential zones.
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Acceptable Solutions	Performance Criteria
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 5000m² and be able to contain 50m diameter circle with the centre of the circle not more than 50m from the frontage; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Council or a municipality; (c) be required for the provision of public Utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have new lot boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P1.6.1 A2 and A3.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; (f) the existing pattern of development in the area; and (g) future use or development of the site or adjoining land.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must not be located on the boundary with a General Residential Zone or Low Density Residential Zone.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be designed to minimise the potential for nuisance or loss of amenity for adjacent lots, having regard to:</p> <ul style="list-style-type: none"> (a) the lot layout and design; (b) the existing pattern of development in the area; (c) the ability for buildings to be erected in accordance with the development standards; (d) the proposed use of the lot; (e) the use of the adjoining lots; (f) the topography of the site; (g) the physical separation to surrounding sensitive land uses; (h) compatibility with the existing pattern of development in the area;

	<ul style="list-style-type: none"> (i) the orientation of the lot; (j) access considerations; and (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport.
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LAU-P1.7.2 Frontage and access

Objective:	That lots provide: <ul style="list-style-type: none"> (a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road maintained by a road authority of not less than 20m.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-carriageway, of not less than 3.6m width, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) whether any other land has a right-of-carriageway as its sole or principal means access over the frontage; (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the anticipated nature of the vehicles likely to access the site; (i) the ability to manoeuvre vehicles on the site; (j) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; and (k) the advice of the road authority.
<p>A2</p>	<p>P2</p>

No Acceptable Solution.	<p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; and (e) the advice of the road authority.
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LAU-P1.7.3 Discharge of stormwater

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.</p>	<p>P1</p> <p>All stormwater runoff is to be collected and discharged from the subdivision in a manner that will not cause adverse impacts, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the discharge point (if any); (b) the stormwater flow paths both internal and external to the site; (c) the location of building areas within the site; (d) the topography of the site; (e) the characteristics of the site, including rainfall; (f) the development on the site and adjoining land; (g) the additional runoff from the subdivision development and likely future development of the land; and (h) any onsite storage devices, detention basins or other water sensitive urban design techniques within the subdivision.
A2	P2

<p>The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.</p>	<p>Stormwater discharge flows from each lot, or a lot proposed in a plan of subdivision, are mitigated to a level that the public stormwater system can accommodate, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the discharge point (if any); (b) the stormwater flow paths both internal and external to the site; (c) the topography of the site; (d) the characteristics of the site, including rainfall; (e) the development of the site; (f) the additional runoff from the subdivision development and likely future development of the land; and (g) any onsite storage devices, detention basins or other water sensitive urban design techniques within the subdivision.
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LAU-P1.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P1.8 Tables

This sub-clause is not used in this particular purpose zone.

LAU-P2.0 Particular Purpose Zone – Coats Patons Complex

LAU-P2.1 Zone Purpose

The purpose of the Particular Purpose Zone – Coats Patons Complex is:

- LAU-P2.1.1 To provide for the reuse of the Coats Patons complex primarily for a mix of worship and community activities, providing for the social wellbeing or health of the community, including the carrying out or administration of community based services.
- LAU-P2.1.2 To provide for the continued use of light industrial activities, service industry activities, vehicle parking, hospital services and wood product manufacture, where these uses do not adversely impact on the amenity of the surrounding area.
- LAU-P2.1.3 To provide opportunity for commercial or business activities at a scale where this will not threaten the established activity centre hierarchy.
- LAU-P2.1.4 To provide for residential uses capable of co-existing with the mix of non-residential uses permitted to operate within the zone.

LAU-P2.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P2.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P2.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values management	
Passive Recreation	
Permitted	
Business and Professional Services	If less than 100m ² gross floor area and not directly part of another Business and Professional Services use on the site.
Community Meeting and Entertainment	
Educational and Occasional Care	
Research and Development	

Residential	If not adjoining Manufacturing and Processing.
Sport and Recreation	If not for outdoor recreation
Storage	If for self storage, vehicle, caravan or boat storage
Utilities	If for minor utilities
Discretionary	
Business and Professional Services	If not listed as Permitted.
Food Services	
General Retail and Hire	If for a local shop
Hospital Services	
Manufacturing and Processing	
Residential	
Service Industry	
Sport and Recreation	If not listed as Permitted.
Storage	If not listed as Permitted.
Tourist Operation	
Utilities	If not listed as Permitted.
Visitor Accommodation	
Prohibited	
All other uses	

LAU-P2.5 Use Standards

LAU-P2.5.1 Hours of operation

Objective:	That non-residential uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles for a use class specified in Table LAU-P2.8.1 must only operate between 6.00am and 10.00pm.	P1 Commercial vehicles for a use class specified in Table LAU-P2.8.1 must not cause an unreasonably loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and despatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P2.5.2 Noise levels

Objective:	That noise emissions from uses do not cause an unreasonable loss of amenity to adjoining sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 A use class specified in Table LAU-P2.8.1 that is listed as No Permit Required or Permitted in LAU-P2.4 Use Table.	P1 Noise levels generated by a use class specified in Table LAU-P2.8.1 on the site must not cause an unreasonably loss of amenity to sensitive uses within the site and within the adjoining locality, having regard to: (a) the nature and intensity of the use; (b) the characteristics of the noise emitted; (c) the topography of the site; (d) the separation between the noise emission and the sensitive use; (e) the degree of screening between the noise source and adjoining sensitive uses; and (f) the character of the surrounding area.	

LAU-P2.6 Development Standards for Buildings and Works

LAU-P2.6.1 Building height and setbacks

Objective:	That building height and setback is compatible with the character of the zone.	
Acceptable Solutions	Performance Criteria	
A1 Building height must be not more than 10m.	P1 Building height must be compatible with the streetscape and character of the zone, having regard to: (a) the topography of the site; (b) the height of buildings on the site, adjoining lots and adjacent lots; (c) the bulk and form of existing and proposed buildings; (d) the allowable building heights; (e) the apparent height when viewed from roads and public places; and (f) any overshadowing of adjoining lots or public places.	
A2 Buildings must have a setback from a frontage of not less than 5.5m.	P2 Buildings must be sited to be compatible with the streetscape and character of the zone having regard to: (a) the topography of the site; (b) the setbacks of surrounding buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public places; (e) the existing or proposed landscaping; (f) the safety of road users; (g) the access to the site for deliveries and service vehicles; and (h) provision for car parking.	
A3 Buildings must have a setback from side and rear boundaries of not less than 3m, plus 0.3m for every metre of height over 3.6m up to 6.9m, plus 1m for every metre of height over 6.9m.	P3 Buildings must be sited to be compatible with the character of the zone, having regard to: (a) the topography of the site; (b) the size, shape, and orientation of the site;	

	<ul style="list-style-type: none"> (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the appearance when viewed from roads and public places; (f) the existing buildings on the site; (g) the access to the site for deliveries and service vehicles; (h) provision for car parking; (i) any overshadowing of adjoining lots or public places; and (j) the character of the surrounding area.
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LAU-P2.6.2 Location of car parking

Objective:	That car parking: <ul style="list-style-type: none"> (a) avoids parking and traffic difficulties in the surrounding area; and (b) does not detract from the streetscape.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Car parking must be located:</p> <ul style="list-style-type: none"> (a) within the building structure; or (b) behind the building. 	<p>P1</p> <p>Car parking must be located to minimise its visibility from a road, having regard to:</p> <ul style="list-style-type: none"> (a) the existing streetscape; (b) the location of the car parking; (c) vehicle and pedestrian traffic safety; (d) measures to screen parking; and (e) any landscaping proposed.
<p>A2</p> <p>The total width of the door or doors on a garage facing a frontage must be not more than 6m.</p>	<p>P2</p> <p>Garage doors should not be a visually dominant element in the streetscape and must be designed, having regard to:</p> <ul style="list-style-type: none"> (a) the location of existing buildings on the site; (b) the existing streetscape; and (c) the design and locations of garages in the surrounding area.

LAU-P2.6.3 Daylight to windows for Residential use class and residential components of mixed use development

Objective:	To allow adequate daylight into habitable room windows.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Buildings must have a light court with an area of not less than 3m² and a dimension of not less than 1m clear to the sky if the distance between:</p> <p>(a) a new window in a habitable room of a dwelling and an existing building; or</p> <p>(b) a new building constructed directly opposite an existing habitable room window of a dwelling,</p> <p>is less than 3m.</p>	<p>P1</p> <p>Buildings must provide for adequate levels of daylight to habitable rooms of a dwelling and existing windows within adjoining buildings, having regard to:</p> <p>(a) the level of daylight available to the habitable rooms in the dwelling;</p> <p>(b) any existing vegetation; and</p> <p>(c) the topography of the site.</p>	

LAU-P2.6.4 Private open space for Residential use class and residential components of mixed use development

Objective:	To provide adequate and useable private open space for the needs of residents.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Dwellings must have an area of private open space with direct access from a habitable room other than a bedroom, comprising:</p> <p>(a) on the ground floor, 24m² with a horizontal dimension of not less than 3m; or</p> <p>(b) wholly above ground floor, 8m² with a horizontal dimension of not less than 2m; or</p> <p>(c) a roof-top area, 10m² with a horizontal dimension of not less than 2m.</p>	<p>P1</p> <p>Dwellings must be provided with sufficient private open space to meet the reasonable needs of the residents, having regard to:</p> <p>(a) the size and usability of the private open space;</p> <p>(b) the accessibility of the private open space;</p> <p>(c) the availability of common open space;</p> <p>(d) the availability of and access to public open space;</p> <p>(e) the orientation of the lot to the road; and</p> <p>(f) the ability of the private open space to receive adequate solar access.</p>	
<p>A2</p> <p>Private open space for a dwelling must receive not less than 4 hours of direct sunlight on 21 June to 50% of the designated private open space area.</p>	<p>P2</p> <p>Private open space for a dwelling must receive adequate sunlight having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) site constraints, including any vegetation;</p> <p>(c) the orientation and shape of the site; and</p>	

	(d) the location and size of buildings on the site and adjoining lots.
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LAU-P2.6.5 Overshadowing of private open space for Residential use class and residential components of mixed use development

Objective:	That new buildings do not unreasonably overshadow existing private open space.	
Acceptable Solutions	Performance Criteria	
<p>A1.1</p> <p>If new buildings reduce sunlight to the private open space of an existing dwelling, not less than 75% of the private open space must receive not less than 4 hours of sunlight on 21 June; and</p> <p>A1.2</p> <p>If less than 75% of the existing private open space receives 4 hours of sunlight on 21 June, new buildings must not further reduce the amount of sunlight.</p>	<p>P1</p> <p>New buildings must not unreasonably overshadow existing private open space, having regard to:</p> <p>(a) the impact on the amenity of existing dwellings;</p> <p>(b) sunlight penetration to the private open space of the existing dwelling;</p> <p>(c) the time of day and the duration that sunlight is available to the private open space of the existing dwelling; and</p> <p>(d) the effect of a reduction in sunlight on the existing use of the private open space.</p>	

LAU-P2.6.6 Storage for Residential use class and residential components of mixed use development

Objective:	To provide adequate storage facilities for each dwelling.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each dwelling must have access to not less than 6m³ of dedicated, secure storage space not located between the primary frontage and the building line of a dwelling.</p>	<p>P1</p> <p>Each dwelling must provide adequate storage for the reasonable needs of residents, having regard to:</p> <p>(a) the size and type of dwelling proposed;</p> <p>(b) the location, type, and size of storage proposed;</p> <p>(c) the availability, accessibility and convenience of the storage proposed;</p> <p>(d) any common or other types of storage on the site; and</p> <p>(e) the existing streetscape.</p>	

LAU-P2.6.7 Common property for Residential use class and residential components of mixed use development

Objective:	That common areas are easily identified.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Site drawings for a dwelling must clearly delineate private and common areas, including:</p> <ul style="list-style-type: none"> (a) driveways; (b) parking spaces, including visitor parking spaces; (c) landscaping and gardens; (d) mailboxes; and (e) storage for waste and recycling bins. 	<p>P1</p> <p>No Performance Criterion.</p>	

LAU-P2.7 Development Standards for Subdivision

LAU-P2.7.1 Lot size and dimensions

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions that are appropriate for the zone; and (b) does not cause an adverse impact on the amenity of adjoining land, especially residential zones, . 	
Acceptable Solutions	Performance Criteria	
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 1000m²; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; (c) be required for the provision of public Utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; 	

<p>Each lot, or a lot proposed in a plan of subdivision, must have new boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P2.6.1 A2 and A3.</p>	<p>(f) the existing pattern of development in an area; and (g) the future use or development of the site or adjoining land.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must not be located on the boundary with a General Residential Zone or Inner Residential Zone.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be designed to minimise the potential for nuisance or loss of amenity for adjacent lots, having regard to:</p> <p>(a) the lot layout and design; (b) the existing pattern of development in the area; (c) the ability for buildings to be erected in accordance with the development standards; (d) the proposed use of the lot; (e) the use of the adjoining lots; (f) the topography of the site; (g) the physical separation to surrounding sensitive land uses; (h) compatibility with the existing pattern of development in an area; (i) the orientation of the lot; (j) access considerations; and (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport.</p>

LAU-P2.7.2 Frontage and access

<p>Objective:</p>	<p>That lots provide:</p> <p>(a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-</p>

<p>maintained by a road authority of not less than 6m.</p>	<p>carriageway, of not less than 3.6m width, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) whether any other land has a right-of-carriageway as its sole or principal means of access over the frontage; (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the anticipated nature of the vehicles likely to access the site; (i) the ability to manoeuvre vehicles on the site; (j) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; and (k) the advice of the road authority.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; and (e) the advice of the road authority.

LAU-P2.7.3 Discharge of stormwater

<p>Objective:</p>	<p>That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.</p>
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P2.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P2.8 Tables

Table LAU-P2.8.1 Use Classes subject to clauses LAU-P2.5.1 and LAU-P2.5.2

Use Class	Qualification
Community Meeting and Entertainment	
Food Services	
Hospital Service	
Manufacturing and Processing	
Research and Development	
Service Industry	
Sports and Recreation	

Storage	
Tourist Operation	
Utilities	If not for minor utilities.
Visitor Accommodation	

LAU-P3.0 Particular Purpose Zone – Seaport

LAU-P3.1 Zone Purpose

The purpose of the Particular Purpose Zone – Seaport is:

- LAU-P3.1.1 To provide for the re-development of the North Esk River edge and adjacent land, whilst providing for greater public access and use of the North Esk and Tamar River frontages.
- LAU-P3.1.2 To provide for a range of tourist, recreational and residential uses and developments.
- LAU-P3.1.3 To provide for a range of commercial and retail uses in support of the tourism, recreational and residential uses.

LAU-P3.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P3.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P3.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Community Meeting and Entertainment	
Food Services	
Residential	
Sports and Recreation	
Tourist Operation	
Utilities	If for minor utilities
Visitor Accommodation	
Discretionary	

Business and Professional Services	
General Retail and Hire	If for a gross floor area of not more than 250m ²
Hotel Industry	
Pleasure Boat Facility	
Utilities	If not listed as Permitted.
Prohibited	
All other uses	

LAU-P3.5 Use Standards

LAU-P3.5.1 Hours of operation

Objective:	That non-residential uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles for a use class specified in Table LAU-P3.8.1 must only operate between 6.00am and 10.00pm	P1 Commercial vehicles for a use class specified in Table LAU-P3.8.1 must not unreasonably impact on the amenity of adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and despatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P3.5.2 Mechanical plant and equipment

Objective:	That the use of mechanical plant and equipment does not cause an unreasonable loss of amenity to sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Air conditioning, air extraction, heating or refrigeration systems or compressors for a use class specified in Table LAU-P3.8.1 must be designed, located, baffled or insulated to prevent noise, odours, fumes or vibration from being received by adjoining or immediately opposite sensitive uses.	P1 Noise, odours, fumes or vibration generated by air conditioning, air extraction, heating or refrigeration systems or compressors for a use class specified in Table LAU-P3.8.1 must not cause unreasonable loss of amenity to adjoining or immediately opposite sensitive uses, having regard to: (a) the characteristics and frequency of any emissions generated; (b) the nature of the proposed use; (c) the topography of the site; (d) the landscaping of the site; and (e) any mitigation measures proposed.	

LAU-P3.5.3 Noise levels

Objective:	That noise emissions from uses do not cause an unreasonable loss of amenity to nearby sensitive uses.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Noise generated by a use class specified in Table LAU-P3.8.1 on the site must:</p> <p>(a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or</p> <p>(b) be in accordance with any permit conditions required by the Environment Protection Authority or an environment protection notice issued by the Director of the Environment Protection Authority.</p>	<p>P1</p> <p>Noise levels from use class specified in Table LAU-P3.8.1 on the site must cause not unreasonably loss of amenity to adjacent sensitive uses having regard to:</p> <p>(a) the nature and intensity of the use;</p> <p>(b) the characteristics of the noise emitted;</p> <p>(c) the topography of the site;</p> <p>(d) the separation between the noise emission and the sensitive use;</p> <p>(e) the degree of screening between the noise source and adjoining sensitive uses; and</p> <p>(f) the character of the surrounding area.</p>

LAU-P3.6 Development Standards for Buildings and Works

LAU-P3.6.1 Site coverage

Objective:	<p>That site coverage:</p> <p>(a) is compatible with the character of the zone; and</p> <p>(b) provides sufficient area for private open space and landscaping.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A building must have a site coverage of not more than 40%.</p>	<p>P1</p> <p>Site coverage of a building must have regard to:</p> <p>(a) the size and shape of the site;</p> <p>(b) existing buildings and any constraints imposed by existing development;</p> <p>(c) provision for landscaping and private open space;</p> <p>(d) the site coverage of adjacent lots; and</p> <p>(e) the character of the zone.</p>

LAU-P3.6.2 Building height, setback and siting

Objective:	<p>That building height setback and siting is compatible with the character of the zone.</p>
Acceptable Solutions	Performance Criteria

<p>A1</p> <p>Building height must be not more than:</p> <p>(a) 10m; or</p> <p>(b) 1m greater than the average of the building heights on the site or immediately adjoining lots,</p> <p>whichever is the greater.</p>	<p>P1</p> <p>Building height must be compatible with the character of the zone, having regard to:</p> <p>(a) the height of buildings on the site, adjoining lots and adjacent lots;</p> <p>(b) the bulk and form of existing and proposed buildings;</p> <p>(c) the allowable building heights;</p> <p>(d) the apparent height when viewed from roads and public places; and</p> <p>(e) any overshadowing of adjoining lots or public places.</p>
<p>A2</p> <p>Buildings, excluding protrusions such as eaves, steps, porches, and awnings extending horizontally beyond the building envelope not more than 0.6m, must be contained within a building envelope determined by a:</p> <p>(a) separation distance of 8m from the North Esk boardwalk;</p> <p>(b) separation distance of 10m from a road; and</p> <p>(c) setback of 1.5m from side boundaries.</p>	<p>P2</p> <p>Buildings must be sited to be compatible with the character of the zone, having regard to:</p> <p>(a) the setback of surrounding buildings;</p> <p>(b) the height, bulk and form of existing and proposed buildings;</p> <p>(c) the appearance when viewed from a road or public land;</p> <p>(d) reduction in sunlight to a habitable room of a dwelling;</p> <p>(e) overshadowing of the private open space of a dwelling;</p> <p>(f) any overshadowing of adjoining lots or public places; and</p> <p>(g) the character of the surrounding area.</p>

LAU-P3.6.3 Location of car parking

<p>Objective:</p>	<p>That car parking:</p> <p>(a) does not detract from the streetscape; and</p> <p>(b) provides for vehicle and pedestrian safety.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1.1</p> <p>Car parking for residential development must be located:</p>	<p>P1</p> <p>Car parking must be located to minimise its visibility from a road, having regard to:</p>

<p>(a) within the building structure; or</p> <p>(b) between the building line and the frontage to Home Point Parade or Seaport Boulevard.</p> <p>A1.2</p> <p>Garages and carports must be setback not less than 3m from a road frontage.</p> <p>A1.3</p> <p>Vehicular access must only be provided to or from a road.</p>	<p>(a) the existing streetscape;</p> <p>(b) the location of the car parking;</p> <p>(c) vehicle and pedestrian traffic safety;</p> <p>(d) measures to screen parking; and</p> <p>(e) any landscaping proposed.</p>
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LAU-P3.6.4 Active ground floors

Objective:	That building facades promote and maintain high levels of pedestrian interaction and amenity.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>New buildings with non-residential uses on ground floors must:</p> <p>(a) have clear glazing, display windows or glass doorways for not less than 80% of all ground floor facades to, roads, malls, laneways or arcades;</p> <p>(b) not have security grilles or screens that obscure the ground floor facades to roads, malls, laneways or arcades;</p> <p>(c) not have mechanical plant or equipment, such as air conditioning units or heat pumps located on the facade; and</p> <p>(d) not have blank walls, signage panels or blocked out windows, wider than 2m on ground floor facades to roads, malls, laneways or arcades.</p>		<p>P1</p> <p>New buildings must be designed to maximise interaction between the use of the building and pedestrians, having regard to:</p> <p>(a) an adequate level of glazing, openness and transparency on the ground floor facades to roads, malls, laneways or arcades;</p> <p>(b) the potential for security grilles or screens to reduce the amenity of the building or reduce levels of interaction with the public;</p> <p>(c) screening or obscuring all mechanical plant or equipment such as air conditioning units or heat pumps so they are not recognisable or visible from ground level public view points; and</p> <p>(d) minimising the area of all blank walls, signage panels or blocked out windows on ground floor facades to roads, malls, laneways or arcades.</p>
<p>A2</p> <p>Alterations to ground floor facades of non-residential buildings must not:</p>		<p>P2</p> <p>Alterations to ground floor facades of non-residential buildings must be designed to maximise interaction between the use of the building and pedestrians, having regard to:</p>

<ul style="list-style-type: none"> (a) reduce the level of glazing on a facade to a road, mall, laneway or arcade that is present prior to alterations; (b) have security grilles or screens that obscure the ground floor facade; (c) introduce new or additional mechanical plant or equipment such as air-conditioning units or heat pumps located on the façade; and (d) increase blank walls, signage panels or blocked out windows, wider than 2m on ground floor facades to roads, malls, laneways or arcades. 	<ul style="list-style-type: none"> (a) the level of glazing, openness and transparency on the ground floor facades to roads, malls, laneways or arcades; (b) the potential for security grilles or screens to reduce the amenity of the building or reduce levels of interaction with the public; (c) screen or obscure all mechanical plant or equipment such as air conditioning units or heat pumps so as they are not recognisable or visible from ground level public view points; and (d) minimise the area of all blank walls, signage panels or blocked out windows on ground floor facades to roads, malls, laneways or arcades.
<p>A3</p> <p>The total width of the door or doors on a garage facing a frontage must be not more than 6m.</p>	<p>P3</p> <p>Garage doors must not be a visually dominant element in the streetscape and must be designed, having regard to:</p> <ul style="list-style-type: none"> (a) the location of existing buildings on the site; (b) the existing streetscape; and (c) the design and locations of garages in the surrounding area;

LAU-P3.6.5 Daylight to windows for the Residential use class and residential components of mixed use development

Objective:	To allow adequate daylight into habitable room windows.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings must have a light court with an area of not less than 3m² and a dimension of not less than 1m clear to the sky if the distance between:</p> <ul style="list-style-type: none"> (a) a new window in a habitable room of a dwelling and an existing building; or (b) a new building constructed directly opposite an existing habitable room window of a dwelling, <p>is less than 3m.</p>	<p>P1</p> <p>Buildings must provide for adequate levels of daylight to habitable rooms of a dwelling and existing windows within adjoining buildings, having regard to:</p> <ul style="list-style-type: none"> (a) the level of daylight available to the habitable rooms of the dwelling; (b) any existing vegetation; and (c) the topography of the site.

LAU-P3.6.6 Private open space for the Residential use class and residential components of mixed use development

Objective:	To provide adequate and useable private open space for the needs of residents.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Dwellings must have an area of private open space with direct access from a habitable room other than a bedroom, comprising:</p> <p>(a) on the ground floor, 24m² with a horizontal dimension of not less than 3m; or</p> <p>(b) wholly above ground floor, 8m² with a horizontal dimension of not less than 2m; or</p> <p>(c) a roof-top area, 10m² with a horizontal dimension of not less than 2m.</p>	<p>P1</p> <p>Dwellings must be provided with sufficient private open space to meet the reasonable needs of the residents having regard to:</p> <p>(a) the size and useability of the private open space;</p> <p>(b) the accessibility of the private open space;</p> <p>(c) the availability of common open space;</p> <p>(d) the availability of and access to public open space;</p> <p>(e) the orientation of the lot to the road; and</p> <p>(f) the ability of the private open space to receive adequate solar access.</p>	
<p>A2</p> <p>Private open space for a dwelling must receive not less than 4 hours of direct sunlight on 21 June to 50% of the designated private open space area.</p>	<p>P2</p> <p>Private open space for a dwelling must receive adequate sunlight having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) site constraints, including any vegetation;</p> <p>(c) the orientation and shape of the site; and</p> <p>(d) the location and size of buildings on the site and adjoining lots.</p>	

LAU-P3.6.7 Overshadowing for private open space for the Residential use class and residential components of mixed use development

Objective:	That new buildings do not unreasonably overshadow existing private open space.	
Acceptable Solutions	Performance Criteria	
<p>A1.1</p> <p>If new buildings reduce sunlight to the private open space of an existing dwelling, not less than 75% of the private open space must receive not less than 4 hours of sunlight on 21 June; and</p> <p>A1.2</p>	<p>P1</p> <p>New buildings must not unreasonably overshadow existing private open space, having regard to:</p> <p>(a) the impact on the amenity of existing dwellings;</p>	

<p>If less than 75% of the existing private open space receives 4 hours of sunlight on 21 June, new buildings must not further reduce the amount of sunlight.</p>	<ul style="list-style-type: none"> (b) sunlight penetration to the private open space of the existing dwelling; (c) the time of day and the duration that sunlight is available to the private open space of the existing dwelling; and (d) the effect of a reduction in sunlight on the existing use of the private open space.
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LAU-P3.6.8 Storage for the Residential use class and residential components of mixed use development

Objective:	To provide adequate storage facilities for each dwelling.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each dwelling must have access to not less than 6m³ of dedicated, secure storage space not located between the primary frontage and the facade of a dwelling.</p>	<p>P1</p> <p>Each dwelling must provide adequate storage for the reasonable needs of residents, having regard to:</p> <ul style="list-style-type: none"> (a) the size and type of dwelling proposed; (b) the location, type, and size of storage proposed; (c) the availability, accessibility and convenience of the storage proposed; (d) any common or other types of storage on the site; and (e) the existing streetscape. 	

LAU-P3.6.9 Common property for the Residential use class and residential components of mixed use development

Objective:	That common areas are easily identified.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Site drawings for a dwelling must clearly delineate private and common areas, including:</p> <ul style="list-style-type: none"> (a) driveways; (b) parking spaces, including visitor parking spaces; (c) landscaping and gardens; (d) mailboxes; and 	<p>P1</p> <p>No Performance Criterion.</p>	

(e) storage for waste and recycling bins.	
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LAU-P3.7 Development Standards for Subdivision

LAU-P3.7.1 Lot size and dimensions

Objective:	That each lot has an area and dimensions appropriate for the zone.	
Acceptable Solutions	Performance Criteria	
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 500m²; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Council or a municipality; (c) be required for the provision of public utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have new boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P3.6.2 A2.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; (f) the existing pattern of development in an area; and (g) the future use or development of the site or adjoining land. 	

LAU-P3.7.2 Frontage and access

Objective:	That lots provide:	
	<ul style="list-style-type: none"> (a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot. 	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-</p>	

<p>maintained by a road authority of not less than 6m.</p>	<p>carriageway, of not less than 3.6m width, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) whether any other land has a right-of-carriageway as its sole or principal means of access over the frontage; (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the functionality and usability of the frontage; (i) the anticipated nature of the vehicles likely to access the site; (j) the ability to manoeuvre vehicles on the site; (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; and (l) the advice of the road authority.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; and (e) the advice of the road authority.

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.	P1 No Performance Criterion.	
A2 The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.	P2 No Performance Criterion.	

LAU-P3.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.	P1 No Performance Criterion.	
A2 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.	P2 No Performance Criterion.	

LAU-P3.8 Tables

Table LAU-P3.8.1 Use Classes subject to clauses LAU-P3.5.1, LAU-P3.5.2 and LAU-P3.5.3

Use Class	Qualification
Community Meeting and Entertainment	
Food Services	
Hotel Industry	
Pleasure Boat Facility	
Sports and Recreation	
Tourist Operation	

Utilities	If not for minor utilities.
Visitor Accommodation	

LAU-P4.0 Particular Purpose Zone – Inveresk Site

LAU-P4.1 Zone Purpose

The purpose of the Particular Purpose Zone – Inveresk Site is:

- LAU-P4.1.1 To provide for re-use and redevelopment of the zone for a range of cultural, educational, recreational and public purpose uses.
- LAU-P4.1.2 To provide for residential uses and developments associated with and supporting educational uses within the zone.
- LAU-P4.1.3 To locate use and development appropriately within the precincts of the zone.

LAU-P4.2 Local Area Objectives

Reference Number	Area Description	Local Area Objectives
LAU-P4.2.1	Open Space Precinct, shown in Figure LAU-P4.2 and on an overlay map as LAU-P4.2.1.	<p>The local area objectives for the Open Space Precinct are:</p> <ul style="list-style-type: none"> (a) to provide an open space and recreational use area linking the existing York Park and Invermay Park to the North Esk River; and (b) to require the area is to be retained as an area for public use and for events ranging from an Agricultural Show, outdoor exhibitions and displays, open air markets and general recreational activities.
LAU-P4.2.2	Cultural and Public Purpose Precinct, shown in Figure LAU-P4.2 and on an overlay map as LAU-P4.2.2.	<p>The local area objectives for the Cultural and Public Purpose Precinct are:</p> <ul style="list-style-type: none"> (a) to provide re-use of existing buildings for a range of cultural, educational and recreational activities. Principal users may be the University of Tasmania, the Queen Victoria Museum and Art Gallery; and (b) to require buildings to be retained and redeveloped in accordance with their heritage values and status as outlined in the Launceston Railways Workshop Conservation Plan.

LAU-P4.2.3	Recreational and Leisure Precinct, shown in Figure LAU-P4.2 and on an overlay map as LAU-P4.2.3.	<p>The local area objectives for the Recreational and Leisure Precinct are:</p> <p>(a) to provide a range of sporting and recreational facilities including Aurora stadium and Invermay Park.</p>
LAU-P4.2.4	Residential and Commercial Precinct, shown in Figure LAU-P4.2 and on an overlay map as LAU-P4.2.4.	<p>The local area objectives for the Residential and Commercial Precinct are:</p> <p>(a) to provide opportunities for commercial developments on the southern and central portion of the site to complement the redevelopment within the other precincts; and</p> <p>(b) to provide for the development of residential uses associated with and supporting the educational activities within the zone.</p>

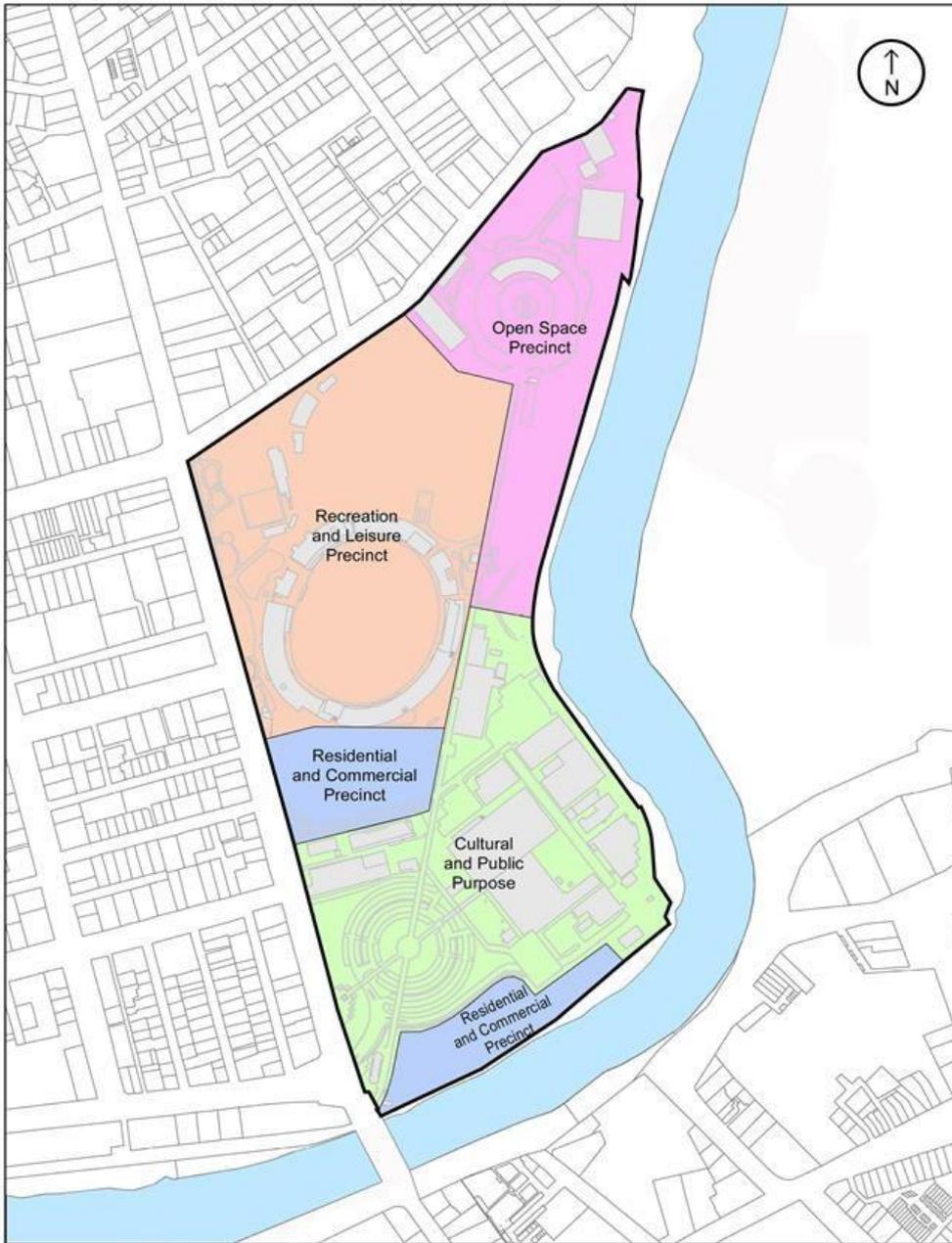


Figure LAU-P4.2 - Precinct Map LAU-

P4.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P4.4 Use Table

Use Class	Qualification
No Permit Required	

Natural and Cultural Values management	
Passive recreation	
Permitted	
Business and Professional Services	If in the Residential and Commercial Precinct or the Cultural and Public Purpose Precinct.
Community Meeting and Entertainment	If in the Residential and Commercial Precinct or the Cultural and Public Purpose Precinct.
Food Services	If in the Residential and Commercial Precinct or the Cultural and Public Purpose Precinct.
Research and Development	
Residential	If in association with educational uses in the Residential and Commercial Precinct or the Cultural and Public Purpose Precinct.
Sports and Recreation	
Utilities	If for minor utilities
Vehicle Parking	
Discretionary	
Community Meeting and Entertainment	If in an Open Space Precinct
Educational and Occasional Care	
General Retail and Hire	If for: (a) a market; or (b) local shop
Utilities	If not listed as Permitted.
Visitor Accommodation	If in the Residential or Commercial Precinct
Prohibited	
All other uses	

LAU-P4.5 Use Standards

LAU-P4.5.1 Hours of operation

Objective:	That non-residential uses do not cause an unreasonable loss of amenity to nearby sensitive uses	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles for a use class specified in Table LAU-P4.8.1 must only operate between 6.00am and 10.00pm.	P1 Commercial vehicles for a use class specified in Table LAU-P4.8.1 must not cause an unreasonably loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and dispatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P4.5.2 Noise levels

Objective:	That noise emissions from uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Noise generated by a use class specified in Table LAU-P4.8.1 on the site must: (a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or (b) be in accordance with any permit conditions required by the Environment Protection Authority or an environment protection notice issued by the Director of the Environment Protection Authority.	P1 Noise levels from a use class specified in Table LAU-P4.8.1 on the site must not cause an unreasonably loss of amenity to adjacent sensitive uses having regard to: (a) the nature and intensity of the use; (b) the characteristics of the noise emitted; (c) the topography of the site; (d) the separation between the noise emission and the sensitive use; (e) the degree of screening between the noise source and adjoining sensitive uses; and (f) the characteristics of the surrounding area.	

LAU-P4.6 Development Standards for Buildings and Works

LAU-P4.6.1 Building height

Objective:	That development on the site is compatible with the character of the local area precinct.	
Acceptable Solutions	Performance Criteria	
A1 No Acceptable Solution.	P1 Building height must be compatible with surrounding development, having regard to: <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site, adjoining lots and adjacent lots; (c) the bulk and form of existing and proposed buildings; (d) the apparent height when viewed from roads and public places; (e) any overshadowing of adjoining lots or public places; and (f) the local area objectives. 	

LAU-P4.6.2 Location of car parking

Objective:	That car parking is compatible with the character of the local area precinct.	
Acceptable Solutions	Performance Criteria	
A1 Car parking must be located within the building structure.	P1 Car parking must be located to minimise its visibility, having regard to: <ul style="list-style-type: none"> (a) the character of the local area precinct; (b) the location of the car parking; (c) vehicle and pedestrian traffic safety; (d) any measures to screen parking; (e) any landscaping proposed; and (f) the local area objectives. 	

LAU-P4.6.3 Active ground floors

Objective:	That building facades promote and maintain high levels of pedestrian interaction and amenity	
Acceptable Solutions	Performance Criteria	
A1	P1	

<p>New buildings with non-residential uses on ground floors must:</p> <ul style="list-style-type: none"> (a) have clear glazing, display windows or glass doorways for not less than 80% of all ground floor facades to, roads, malls, laneways or arcades; (b) not have security grilles or screens that obscure the ground floor facades to roads, malls, laneways or arcades; (c) not have mechanical plant or equipment, such as air conditioning units or heat pumps located on the facade; and (d) not have blank walls, signage panels or blocked out windows, wider than 2m on ground floor facades to roads, malls, laneways or arcades. 	<p>New buildings must be designed to maximise interaction between the use of the building and pedestrians, having regard to:</p> <ul style="list-style-type: none"> (a) an adequate level of glazing, openness and transparency on the ground floor facades to roads, malls, laneways or arcades; (b) the potential for security grilles or screens to reduce the amenity of the building or reduce levels of interaction with the public; (c) screening or obscuring all mechanical plant or equipment such as air conditioning units or heat pumps so as they are not recognisable or visible from ground level public view points; (d) minimising the area of all blank walls, signage panels or blocked out windows on ground floor facades to roads, malls, laneways or arcades; and (e) the local area objectives.
<p>A2</p> <p>Alterations to ground floor facades of non-residential buildings must not:</p> <ul style="list-style-type: none"> (a) reduce the level of glazing on a facade to a road, mall, laneway or arcade that is present prior to alterations; (b) have security grilles or screens that obscure the ground floor facade; (c) introduce new or additional mechanical plant or equipment such as air-conditioning units or heat pumps located on the façade; and (d) increase blank walls, signage panels or blocked out windows, wider than 2m on ground floor facades to roads, malls, laneways or arcades. 	<p>P2</p> <p>Alterations to ground floor facades of non-residential buildings must be designed to maximise interaction between the use of the building and pedestrians, having regard to:</p> <ul style="list-style-type: none"> (a) the level of glazing, openness and transparency on the ground floor facades to roads, malls, laneways or arcades; (b) the potential for security grilles or screens to reduce the amenity of the building or reduce levels of interaction with the public; (c) screening or obscuring all mechanical plant or equipment such as air conditioning units or heat pumps so as they are not recognisable or visible from ground level public view points; (d) minimising the area of all blank walls, signage panels or blocked out windows on ground floor facades to roads, malls, laneways or arcades; and (e) the local area objectives.

LAU-P4.7 Development Standards for Subdivision

LAU-P4.7.1 Lot size and dimensions

Objective:	That each lot has an area and dimensions appropriate for the zone.	
Acceptable Solutions	Performance Criteria	
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area of not less than 500m² and be able to contain a 15m diameter circle with the centre of the circle not more 15m from the frontage;</p> <p>(b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality;</p> <p>(c) be required for the provision of public utilities; or</p> <p>(d) be for the consolidation of a lot with another lot, provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant acceptable solutions for development of buildings on the lots;</p> <p>(b) the likely location of buildings on the lots;</p> <p>(c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport;</p> <p>(d) the topography of the site;</p> <p>(e) the presence of any natural hazards;</p> <p>(f) the existing pattern of development in an area;</p> <p>(g) the future use or development of the site or adjoining land; and</p> <p>(h) the local area objectives.</p>	

LAU-P4.7.2 Frontage and access

Objective:	<p>That lots provide:</p> <p>(a) appropriate frontage to a road; and</p> <p>(b) safe appropriate access suitable for the intended use of the new lot.</p>	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road maintained by a road authority of not less than 6m.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-carriageway, of not less than 3.6m width, having regard to:</p> <p>(a) the width of frontage proposed, if any;</p> <p>(b) whether any other land has a right-of-carriageway as its sole or principal means of access over the frontage;</p>	

	<ul style="list-style-type: none"> (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the functionality and usability of the frontage; (i) the anticipated nature of the vehicles likely to access the site; (j) the ability to manoeuvre vehicles on the site; (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (l) the advice of the road authority; and (m) the local area objectives.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; (e) the advice of the road authority; and (f) the local area objectives.

LAU-P4.7.3 Discharge of Stormwater

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.
Acceptable Solutions	Performance Criteria

<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P4.7.4 Water and Sewerage Services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P4.8 Tables

Table LAU-P4.8.1 Use Classes subject to clauses LAU-P4.5.1 and LAU-P4.5.2

Use Class	Qualification
Community Meeting and Entertainment	
Educational and Occasional Care	
Food Services	
Research and Development	
Sports and Recreation	
Visitor Accommodation	

LAU-P5.0 Particular Purpose Zone – University of Tasmania, Newnham Campus

LAU-P5.1 Zone Purpose

The purpose of the Particular Purpose Zone – University of Tasmania, Newnham Campus is:

LAU-P5.1.1 To provide for a range of uses and developments to facilitate tertiary education and research.

LAU-P5.1.2 To provide for accommodation for students, visitors and staff.

LAU-P5.1.3 To provide for complementary uses that facilitate the primary purposes of the zone.

LAU-P5.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P5.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P5.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Business and Professional Services	
Community Meeting and Entertainment	
General Retail and Hire	If for: (a) the sale of books, stationery, educational equipment; or (b) a local shop
Research and Development	
Sports and Recreation	
Utilities	If for minor utilities
Discretionary	

Food Services	
General Retail and Hire	If not listed as Permitted.
Hotel Industry	
Manufacturing and Processing	
Residential	If for student or university staff accommodation
Utilities	If not listed as Permitted.
Visitor Accommodation	
Prohibited	
All other uses	

LAU-P5.5 Use Standards

LAU-P5.5.1 Hours of operation

Objective:	That non-residential uses do not cause an unreasonable loss of amenity to nearby sensitive uses	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles for a use class specified in Table LAU-P5.8.1 must only operate between 6.00am and 10.00pm.	P1 Commercial vehicles for a use class specified in Table LAU-P5.8.1 must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and despatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P5.5.2 Noise levels

Objective:	That noise emissions from uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Noise generated by a use class specified in Table LAU-P5.8.1 on the site must: (a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or (b) be in accordance with any permit conditions required by the Environment Protection Authority or an environment protection notice issued by the Director of the Environment Protection Authority.	P1 Noise levels from use class specified in Table LAU-P5.8.1 on the site must not cause an unreasonable loss of amenity to adjacent sensitive uses having regard to: (a) the nature and intensity of the use; (b) the characteristics of the noise emitted; (c) the topography of the site; (d) the separation between the noise emission and the sensitive use; (e) the degree of screening between the noise source and adjoining sensitive uses; and (f) the character of the surrounding area.	

LAU-P5.6 Development Standards for Buildings and Works

LAU-P5.6.1 Outdoor storage areas

Objective:	That external storage of goods, materials and waste does not detract from the amenity of the area.	
Acceptable Solutions	Performance Criteria	
Outdoor storage areas, excluding for the display of goods for sale, for a use class specified in Table LAU-P5.8.1 must not be visible from any road or public open space adjoining the site	<p>Outdoor storage areas, excluding for the display of goods sale, for a use class specified in Table LAU-P5.8.1 must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) the type of goods, materials or waste proposed to be stored; (c) the topography of the site; (d) the landscaping of the site; and (e) any screening proposed. 	

LAU-P5.6.2 Building height and setback

Objective:	That building height and setback is compatible with the character of the zone.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Building height must be not more than 14m.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site, adjoining lots and adjacent lots; (c) the bulk and form of existing and proposed buildings; (d) the allowable building heights; (e) the apparent height when viewed from roads and public places; and (f) any overshadowing of adjoining lots or public places. 	
<p>A2</p> <p>Buildings must have a setback from a frontage of not less 15m.</p>	<p>P2</p> <p>Buildings must be sited to be compatible with the streetscape and character of the zone, having regard to:</p>	

	<ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of surrounding buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public places; (e) the existing or proposed landscaping; (f) the safety of road users; (g) the access to the site for deliveries and service vehicles; and (h) the provision for car parking.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries of not less than 15m.</p>	<p>P3</p> <p>Buildings must be sited to be compatible with the character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape, and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings on the site; (f) the character of the surrounding area; (g) the access to the site for deliveries and service vehicles; (h) the provision for car parking; and (i) any overshadowing of adjoining lots or public places.

LAU-P5.7 Development Standards for Subdivision

LAU-P5.7.1 Lot size and dimensions

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for the zone; and (b) does not cause an adverse impact on the amenity of adjoining land, especially residential zones.
Acceptable Solutions	Performance Criteria
A1.1	P1

<p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 1000m² and be able to contain a 25m diameter circle with the centre of the circle not more than 30m from the frontage; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; (c) be required for the provision of public utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have new boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P5.6.1 A2 and A3.</p>	<p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; (f) the existing pattern of development in an area; and (g) the future use or development of the site or adjoining land.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must not be located on the boundary with an Inner Residential Zone.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be designed to minimise the potential for nuisance or loss of amenity for adjacent lots, having regard to:</p> <ul style="list-style-type: none"> (a) the lot layout and design; (b) the existing pattern of development in the area; (c) the ability for buildings to be erected in accordance with the development standards; (d) the proposed use of the lot; (e) the use of the adjoining lots; (f) the topography of the site; (g) the physical separation to surrounding sensitive land uses; (h) the existing pattern of development in an area; (i) the orientation of the lot; (j) access considerations; and

	(k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport.
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LAU-P5.7.2 Frontage and access

Objective:	That lots provide: (a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road maintained by a road authority of not less than 6m.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-carriageway, of not less than 3.6m width, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, (if any); (b) whether any other land has a right-of-carriageway as its sole or principal means access over the frontage; (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the functionality and usability of the frontage; (i) the anticipated nature of the vehicles likely to access the site; (j) the ability to manoeuvre vehicles on the site; (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; and (l) the advice of the road authority.
<p>A2</p>	<p>P2</p>

No Acceptable Solution.	<p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; and (e) the advice of the road authority.
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LAU-P5.7.3 Discharge of stormwater

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.	P1 No Performance Criterion.	
A2 The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.	P2 No Performance Criterion.	

LAU-P5.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.	P1 No Performance Criterion.	
A2	P2	

Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.	No Performance Criterion.
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LAU-P5.8 Tables

Table LAU-P5.8.1 Use Classes subject to clauses LAU-P5.5.1 and LAU-P5.5.2

Use Class	Qualification
Community Meeting and Entertainment	
Educational and Occasional Care	
Food Services	
Hotel Industry	
Manufacturing and Processing	
Research and Development	
Sports and Recreation	
Utilities	If not for minor utilities
Visitor Accommodation	

LAU-P6.0 Particular Purpose Zone – Prospect Business Precinct

LAU-P6.1 Zone Purpose

The purpose of the Particular Purpose Zone – Prospect Business Precinct is:

LAU-P6.1.1 To provide for a range of uses and developments that support business, government operations, education and research.

LAU-P6.1.2 To provide for complementary uses that support, supply or facilitate the primary purpose.

LAU-P6.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P6.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P6.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Business and Professional Services	
Community Meeting and Entertainment	
Educational and Occasional Care	
Research and Development	
Sports and Recreation	
Storage	If for self storage.
Utilities	If for minor utilities.
Discretionary	

Manufacturing and Processing	
Storage	If not listed as Permitted.
Utilities	If not listed as Permitted.
Prohibited	
All other uses	

LAU-P6.5 Use Standards

LAU-P6.5.1 Hours of operation

Objective:	That non-residential uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles must only operate between 6.00am and 10.00pm.	P1 Commercial vehicles must not cause an unreasonably loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and despatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P6.5.3 Noise levels

Objective:	That noise emissions from uses do not cause an unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Noise generated by a use on the site must: (a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or (b) be in accordance with any permit conditions required by the Environment Protection Authority or an environment protection notice issued by the Director of the Environment Protection Authority.	P1 Noise levels from use on the site must not unreasonably impact on the amenity of adjacent sensitive uses having regard to: (a) the nature and intensity of the use; (b) the characteristics of the noise emitted; (c) the topography of the site; (d) the separation between the noise emission and the sensitive use; (e) the degree of screening between the noise source and adjoining sensitive uses; and (f) the character of the surrounding area.	

LAU-P6.6 Development Standards for Buildings and Works

LAU-P6.6.1 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the amenity of the area.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.</p>	<p>P1</p> <p>Outdoor storage areas, excluding the display of goods for sale must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) the type of goods, materials or waste proposed to be stored; (c) the topography of the site; (d) the landscaping of the site; and (e) any screening proposed.

LAU-P6.6.2 Building height and setback

Objective:	That building height and setback is compatible with the character of the zone.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and character of the zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site, adjoining lots and adjacent lots; (c) the bulk and form of existing and proposed buildings; (d) the allowable building heights; (e) the apparent height when viewed from roads and public places; and (f) any overshadowing of adjoining lots or public places. 	
<p>A2</p> <p>Buildings must have a setback from a frontage of not less than 15m.</p>	<p>P2</p> <p>Buildings must be sited to be compatible with the streetscape and character of the zone having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of surrounding buildings; 	

	<ul style="list-style-type: none"> (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public places; (e) the existing or proposed landscaping; (f) the safety of road users; (g) the access to the site for deliveries and service vehicles; and (h) the provision for car parking.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries of not less than:</p> <ul style="list-style-type: none"> (a) 1.5m; or (b) 15m if the boundary is adjoining a General Residential Zone or Low Density Residential Zone. 	<p>P3</p> <p>Buildings must be sited to be compatible with the character of the zone and not unreasonably impact on the amenity of adjoining sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape, and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings on the site; (f) the character of the surrounding area; (g) the access to the site for deliveries and service vehicles; (h) provision for car parking; (i) any overshadowing or overlooking of adjoining sensitive uses; and (j) existing or proposed landscaping.

LAU-P6.6.3 Streetscape

Objective:	That development has an acceptable impact on the streetscape.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>New buildings or extensions to existing buildings visible from Westbury Road, excluding walls built to the lot boundary, must:</p>	<p>P1</p> <p>New buildings or extensions to existing buildings visible from Westbury Road, excluding walls built to the lot boundary, must be compatible the Westbury Road streetscape, having regard to:</p>	

<p>(a) have external walls constructed of not less than 50% brick, concrete, masonry or glass;</p> <p>(b) have external walls, unless brick or glass, painted or finished with a texture coat; and</p> <p>(c) have not less than 50% glazing to the external walls of the office component of the buildings.</p>	<p>(a) the topography of the site;</p> <p>(b) the nature of the use;</p> <p>(c) the visibility of the building from the road;</p> <p>(d) the external treatment and finish of buildings; and</p> <p>(e) the building materials used in the surrounding area.</p>
<p>A2</p> <p>Car parking must not be located within 15m of a frontage.</p>	<p>P2</p> <p>Car parking must be located to minimise visual impact in the streetscape, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the nature of the use;</p> <p>(c) the number of car spaces;</p> <p>(d) the visibility of the car parking from the road;</p> <p>(e) the use of measures to mitigate impacts including screening and landscaping;</p> <p>(f) the location of car parking on adjoining sites; and</p> <p>(g) the character of the streetscape.</p>

LAU-P6.6.3 Fences

Objective:	To provide for fences that are appropriate to the site and character of the area.
Acceptable Solutions	Performance Criteria
<p>A1.1</p> <p>No Acceptable Solution².</p>	<p>P1</p> <p>Boundary fences must not have an unreasonable impact on the amenity of adjoining sites and the streetscape, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the need for security;</p> <p>(c) the materials and finish of the proposed fence;</p>

² An exemption applies for fences in this zone – see Table 4.6

	<ul style="list-style-type: none"> (d) the need and opportunity for passive surveillance, particularly where the fence adjoins a road or reserve; (e) any overshadowing; (f) the character of the streetscape and surrounding area; and (g) the character of the surrounding area.
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LAU-P6.6.4 Site landscaping

Objective:	That new development provides acceptable levels of site landscaping.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>New buildings or extensions with a gross floor area of not more than 100m² or 50% of the existing gross floor area, whichever is lesser, must:</p> <ul style="list-style-type: none"> (a) landscape an area within the front setback of not less than the 50% of that area; and (b) provide a minimum of 1 tree capable of growing to a height of not less than 10m planted for every 250m² of site area. Trees must be located within a minimum 3m diameter landscaped area. 	<p>P1</p> <p>New buildings or extensions with a gross floor area of not more than 100m² or 50% of the existing gross floor area, whichever is lesser, must include landscaping that improves the amenity and appearance of the site and the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) existing vegetation on the site; (c) shade for users of the site and car parking areas; (d) the location, type and growth of the proposed vegetation; (e) the area set aside for landscaping and its suitability; (f) the design, locations and visibility of buildings and other works; (g) the operational needs of the proposed use; (h) the character of the streetscape; and (i) the character of the surrounding area. 	

LAU-P6.7 Development Standards for Subdivision

LAU-P6.7.1 Lot size and dimensions

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for the zone; and (b) does not cause adverse impacts on adjoining land, especially residential zones.
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Acceptable Solutions	Performance Criteria
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 1000m² and be able to contain a 25m diameter circle with the centre of the circle not more than 30m from the frontage; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; (c) be required for the provision of public utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have new boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P6.6.1 A2 and A3.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; (f) the existing pattern of development in an area; and (g) the future use or development of the site or adjoining land.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must not be located on the boundary with a General Residential Zone or Low Density Residential Zone.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be designed to minimise the potential for nuisance or loss of amenity for adjacent lots, having regard to:</p> <ul style="list-style-type: none"> (a) the lot layout and design; (b) the existing pattern of development in the area; (c) the ability for buildings to be erected in accordance with the development standards; (d) the proposed use of the lot; (e) the use of the adjoining lots; (f) the topography of the site; (g) the physical separation to surrounding sensitive land uses; (h) the existing pattern of development in an area;

	<ul style="list-style-type: none"> (i) the orientation of the lot; (j) access considerations; and (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport.
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LAU-P6.7.2 Frontage and access

Objective:	That lots provide: <ul style="list-style-type: none"> (a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road maintained by a road authority of not less than 6m.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right-of-carriageway, of not less than 3.6m width, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) whether any other land has a right-of-carriageway as its sole or principal means of access over the frontage; (c) the number of immediately adjacent rights-of-carriageway; (d) the topography of the site; (e) the proposed use of the lot; (f) the construction and maintenance of the road; (g) the existing pattern of development in the surrounding area; (h) the functionality and usability of the frontage; (i) the anticipated nature of the vehicles likely to access the site; (j) the ability to manoeuvre vehicles on the site; (k) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; and (l) the advice of the road authority.

<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; (d) the character of the area; and (e) the advice of the road authority.
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LAU-P6.7.3 Discharge of stormwater

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.
Acceptable Solutions	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P6.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.
Acceptable Solutions	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.</p>	<p>P1</p> <p>No Performance Criterion.</p>

A2 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.	P2 No Performance Criterion.
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LAU-P6.8 Tables

This sub-clause is not used in this particular purpose zone.

LAU-P7.0 Particular Purpose Zone – Boags Brewery

LAU-P7.1 Zone Purpose

The purpose of the Particular Purpose Zone – Boags Brewery is:

LAU-P7.1.1 To provide for the continued operation of the Boags Brewery.

LAU-P7.1.2 To provide for complementary uses and developments that support, supply or facilitate the operation of the brewery, including hospitality and tourism related use or development.

LAU-P7.2 Local Area Objectives

Reference Number	Area Description	Local Area Objectives
LAU-P7.2.1	<p>The North Site, shown in Figure LAU-P7.2.1 and on an overlay map as LAU-P7.2.1.</p> <p>The relationship between differing industrial activities has developed continuously since Launceston's settlement. Building forms are solid, with generous, large vehicular openings. It is the combination of many utilitarian, robust building forms of differing scales, as well as the form of the hard edged urban block that identifies the site.</p>	<p>The local area objectives for the North Site are:</p> <ul style="list-style-type: none"> (a) to maintain its function as a significant commercial brewery with operations including manufacturing, bottling, storage and administration; (b) that future development on the site will maintain the incremental pattern of development through continuation of the built street frontage and an emphasis on the horizontal profile of two or three storey building heights on the street edge; (c) that the open corners of Shields Street and the Esplanade, and the Esplanade and Tamar Street provide opportunities for infill development; (d) that a higher building height than that existing may be accommodated at a greater setback from the street edge towards the centre of the block and a further maximum height will be accommodated for auxiliary elements such as pipes, silos and masts; (e) that taller elements associated with industrial processing will broaden Boags identity within the streetscape; and (f) that the historical importance of scale and form at street level will be respected.

<p>LAU-P7.2.2</p>	<p>The South Site shown in Figure LAU-P7.2.1 and on an overlay map as LAU-P7.2.2.</p> <p>The South Site is predominantly commercial in nature with a more domestic scale and character in comparison to the north site.</p> <p>Remnants of the nineteenth century street pattern are evident by the inn (now known as the City Park Grand Hotel) on the corner of William and Tamar Streets and the old Tamar Hotel.</p>	<p>The local area objectives for the South Site are:</p> <ul style="list-style-type: none"> (a) to provide for expansion and support of complementary activities to the brewery operations on the North Site and to provide for uses, including warehousing, storage, distribution, administration, tourism, hospitality, retail, museum, offices or other associated facilities; (b) that buildings fronting the street have legible entries and regular window patterns and that each building is freestanding and right; (c) that future development along William Street: <ul style="list-style-type: none"> (i) respects the existing building forms and settings by maintaining the spaces and laneways surrounding the buildings; and (ii) continues the arrangement of the domestic scale at the street frontage, and the preservation of the spaces and laneways between the buildings. (d) that laneways will accommodate visitor interpretation and engagement experiences as well as entry points to future developments located in the centre of the block; and (e) that there is greater capacity for development on the South Site due to much of the internal space being used as service yards and warehousing.
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Figure LAU-P7.2.1 - Location of North Site and South Site



Figure LAU-P7.2.2 - North Site



Figure LAU-P7.2.3 - South Site

LAU-P7.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P7.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and cultural values management	
Passive recreation	
Permitted	
Manufacturing and processing	If for a brewery
Resource processing	If for a brewery
Tourist operation	
Utilities	If for minor utilities

Discretionary	
Community meeting and entertainment	
Hotel industry	
Utilities	If not listed as Permitted.
Prohibited	
All other uses	

LAU-P7.5 Use Standards

LAU-P7.5.1 Noise levels

Objective:	That noise levels from uses do not unreasonably impact on the amenity of nearby uses.	
Acceptable Solutions		Performance Criteria
A1	<p>Noise generated by a use on the site must:</p> <p>(a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or</p> <p>(b) be in accordance with any permit conditions required by the Environment Protection Authority or an environment protection notice issued by the Director of the Environment Protection Authority.</p>	<p>P1</p> <p>Noise levels generated by a use on the site must not unreasonably impact on the amenity of adjacent sensitive uses, having regard to:</p> <p>(a) the nature and intensity of the use;</p> <p>(b) the characteristics of the noise emitted;</p> <p>(c) background noise levels;</p> <p>(d) any mitigation measures proposed;</p> <p>(e) the topography of the site; and</p> <p>(f) the character of the surrounding area.</p>

LAU-P7.6 Development Standards for Buildings and Works

LAU-P7.6.1 Outdoor storage areas

Objective:	That external storage of goods, materials and waste does not detract from the amenity of the area.	
Acceptable Solutions		Performance Criteria
A1	<p>Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.</p>	<p>P1</p> <p>Outdoor storage areas, excluding the display of goods for sale, must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <p>(a) the nature of the use;</p> <p>(b) the type of goods, materials or waste proposed to be stored;</p> <p>(c) the topography of the site;</p> <p>(d) the landscaping of the site; and</p> <p>(e) any screening proposed.</p>

<p>Objective:</p>	<p>To:</p> <ul style="list-style-type: none"> (a) maintain the built edge around the perimeter of the site by building to the property boundaries at the front and sides; (b) retain the former laneway in Shields Street to acknowledge the settlement pattern and enhance the heritage value of the 1835 Granary; and (c) facilitate future development by allowing greater building heights towards the centre of the Site.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Building height must be not more than:</p> <ul style="list-style-type: none"> (a) the limits shown in Figure LAU-P7.2.2; or (b) the average height of adjoining buildings, <p>whichever is greater.</p>	<p>P1</p> <p>Building height of structures such as tanks, silos, chimneys, masts, pipes and gantries may exceed the limits shown in Figure LAU-P7.2.2, having regard to:</p> <ul style="list-style-type: none"> (a) the bulk and massing of buildings; (b) the impact on the streetscape; (c) the extent of shading on roads and public places; and (d) the local area objectives.
<p>A2</p> <p>Buildings must be built to all frontages, excluding the restricted area shown in green in Figure LAU-P7.2.2.</p>	<p>P2</p> <p>Buildings must have a setbacks from frontages that facilitate increased public interaction or public related activities, having regard to:</p> <ul style="list-style-type: none"> (a) the need for the proposed use in this location; (b) the operational requirements of the proposed use; (c) the impact on the streetscape; and (d) the local area objectives.
<p>A3</p> <p>Buildings can be built up to all side and rear boundaries.</p>	<p>P3</p> <p>No Performance Criterion.</p>
<p>A4</p> <p>All buildings must have the main façade and primary entrance facing a road, excluding development that is not visible from a road.</p>	<p>P4</p> <p>The main façade and primary entrance to a building must be designed to maximise visibility from roads and must provide a safe and accessible access for vehicles from the road to the main entrance of the building, having regard to:</p>

	<ul style="list-style-type: none"> (a) the location of the entrance relative to public areas and car parking on the site; (b) whether the building is located on the street front; and (c) the local area objectives.
<p>A5</p> <p>Buildings and other permanent structures must not be located within the restricted area shown in green in Figure LAU-P7.2.2.</p>	<p>A5</p> <p>No Performance Criterion.</p>

LAU-P7.6.2 Building height, setback and siting - South Site

Objective:	To: <ul style="list-style-type: none"> (a) maintain the domestic scale and character at the street edge; (b) retain the laneways and spaces between existing buildings at the street frontage; and (c) facilitate future development by allowing greater building heights towards the centre of the site.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than:</p> <ul style="list-style-type: none"> (a) the limits shown in Figure LAU-P7.2.3; or (b) the average height of adjoining buildings, whichever is greater. 	<p>P1</p> <p>Building heights of structures, such as tanks, silos, chimneys, masts, pipes and gantries, may exceed the limits shown in Figure LAU-P7.2.3, having regard to:</p> <ul style="list-style-type: none"> (a) the bulk and massing of buildings; (b) the impact on the streetscape; (c) the extent of shading on roads and public places; and (d) the local area objectives.
<p>A2</p> <p>Buildings must be built to all frontages, excluding the restricted area shown in green in Figure LAU-P7.2.3.</p>	<p>P2</p> <p>Buildings must have a setbacks from frontages that facilitate increased public interaction or public related activities, having regard to:</p> <ul style="list-style-type: none"> (a) the need for the proposed use in this location; (b) the operational requirements of the proposed use; (c) the setting of existing buildings; (d) the impact on the streetscape; and

	(e) the local area objectives.
<p>A3</p> <p>Buildings can be built up to all side and rear boundaries, excluding the restricted area shown in green in Figure LAU-P7.2.3.</p>	<p>P3</p> <p>No Performance Criterion.</p>
<p>A4</p> <p>All buildings must have the main façade and primary entrance facing a road, excluding development not visible from a road.</p>	<p>P4</p> <p>The main façade and primary entrance to a building must be designed to maximise visibility from roads and must provide a safe and accessible access for vehicles and pedestrians from the road to the main entrance to the building, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the entrance relative to public areas and car parking on the site; (b) whether the building is located on the street front; and (c) the local area objectives.
<p>A5</p> <p>Buildings and other permanent structures must not be located within the restricted area shown in green in Figure LAU-P7.2.3.</p>	<p>P5</p> <p>Buildings and other permanent structures must be sited to retain as far as possible the open spaces within and the setting of the buildings facing on to the restricted areas shown in green in Figure LAU-P7.2.3, having regard to:</p> <ul style="list-style-type: none"> (a) the need for minor or temporary development associated with use of the spaces for public activity; (b) the need to facilitate the redevelopment of existing heritage buildings within the restricted area, such as by membrane roofs and lifts; (c) retaining or enhancing the views into and out of the restricted areas; and (d) the local area objectives.

LAU-P7.7 Development Standards for Subdivision

LAU-P7.7.1 Lot size and dimensions

Objective:	Each lot has an area and dimensions appropriate for the zone.
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Acceptable Solutions	Performance Criteria
<p>A1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 1000m²; (b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; (c) be required for the provision of public utilities; or (d) be for the consolidation of a lot with another lot, provided each lot is within the same zone; and <p>A1.2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have new boundaries aligned from buildings that satisfy the setbacks required by clause LAU-P7.6.1 A2 and A3 and clause LAU-P7.6.2 A2 and A3.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the accessibility for vehicles providing for supplies, waste removal, emergency services and public transport; (d) the topography of the site; (e) the presence of any natural hazards; (f) the existing pattern of development in an area; (g) the future use or development of the site or adjoining land; (h) the operational needs of the brewery; and (i) the local area objectives.

LAU-P7.7.2 Frontage and access

Objective:	That lots provide: <ul style="list-style-type: none"> (a) appropriate frontage to a road; and (b) safe appropriate access suitable for the intended use of the new lot.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage to a road maintained by a road authority of not less than 6m.</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must provide a reinforced concrete driveway with a width of not less than 6m.</p>	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P7.7.3 Discharge of stormwater

Objective:	That the subdivision layout, including roads, provides that stormwater is satisfactorily drained and discharged.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, including roads, must be capable of connecting to a public stormwater system.	P1 No Performance Criterion.	
A2 The Council's General Manager has provided advice that the public stormwater system has the capacity to accommodate the stormwater discharge from each lot, or a lot proposed in a plan of subdivision.	P2 No Performance Criterion.	

LAU-P7.7.4 Water and sewerage services

Objective:	That each lot provides for appropriate water supply and wastewater disposal.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated water supply.	P1 No Performance Criterion.	
A2 Each lot, or a lot proposed in a plan of subdivision, must be connected to a reticulated sewerage system.	P2 No Performance Criterion.	

LAU-P7.8 Tables

This sub-clause is not used in this particular purpose zone.

LAU-P8.0 Particular Purpose Zone – Franklin Village

LAU-P8.1 Zone Purpose

The purpose of the Particular Purpose Zone – Franklin Village is:

- LAU-P8.1.1 To manage Franklin Village so that future use and development is compatible with the heritage values of the zone.
- LAU-P8.1.2 To provide for complementary uses and developments that support the operation of Franklin Village, including tourism, events, education and religious practice.

LAU-P8.2 Local Area Objectives

Reference Number	Area Description	Local Area Objectives
LAU-P8.2.1	<p>East Side, as shown in Figure LAU-P8.2.1 and on an overlay map as LAU-P8.2.1.</p> <p>The East Side contains Franklin House and grounds. The position of Franklin House and its garden setting, in relation to St James Church directly opposite, has strong historical and visual links, which have existed since the buildings were established.</p>	<p>The local area objectives for East Side are:</p> <ul style="list-style-type: none"> (a) to continue the operation of the historic house as the primary tourist destination in the village, and to provide for the expansion and support of complementary uses that enhance the visitor experience and provide for the long term viability of the property; (b) that the site, including Franklin House and grounds, will be maintained to conserve its important heritage features; (c) that significant future development will only be considered in the development area shown in Figure LAU-P8.2.2, which is to the rear of the house and gardens; and (d) that any buildings in the development area shown in Figure LAU-P8.2.2 will be single storey and the layout of buildings and works will be designed to be sympathetic to the existing setting of the house and garden.
LAU-P8.2.2	<p>West Side, as shown in Figure LAU-P8.2.1 and on an overlay map as LAU-P8.2.2.</p>	<p>The local area objectives for West Side are:</p> <ul style="list-style-type: none"> (a) to maintain its function as a church and burial ground and to limit development to only that necessary

	<p>St James Church is located centrally to the rear of the site. To the rear of the church building is a graveyard. The frontage is sparsely landscaped and is used for informal car parking. The front entrance to St James Church is positioned directly opposite the front entrance of Franklin House, providing a strong visual connection between the two buildings. The view to each remains unbroken by development and vegetation.</p>	<p>for the ongoing use of the site for these purposes;</p> <p>(b) that the character of the West Site will remain substantially unchanged with future development restricted to only that necessary for the continued operation of the church; and</p> <p>(c) that any development will be designed to respect the important visual link between Franklin House and St James Church.</p>
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Figure LAU-P8.2.1 - Location of East Site and West Site



Figure LAU-P8.2.2 - Zone Development Control

LAU-P8.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P8.4 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Community Meeting and Entertainment	
Food Services	If for a café or restaurant
Resource Development	If for a market garden
Tourist Operation	
Discretionary	
Business and Professional Services	If associated with the management of heritage properties
Crematoria and Cemeteries	If for a cemetery on West Site
General Retail and Hire	If for a gift shop or market
Sports and Recreation	
Visitor Accommodation	
Prohibited	
All other uses	

LAU-P8.5 Use Standards

LAU-P8.5.1 Hours of operation

Objective:	That non-residential uses do not cause unreasonable loss of amenity to nearby sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Commercial vehicles for a use class specified in Table LAU-P8.8.1 must only operate between 7.00am and 7.00pm Monday to Friday and 8.00am to 6.00pm Saturday and Sunday.	P1 Commercial vehicles for a use class specified in Table LAU-P8.8.1 must not cause an unreasonably loss of amenity to adjacent sensitive uses, having regard to: (a) the extent and timing of traffic generation; (b) the hours of delivery and dispatch of goods and materials; and (c) the existing levels of amenity.	

LAU-P8.5.2 Mechanical plant and equipment

Objective:	That the use of mechanical plant and equipment does not cause an unreasonable loss of amenity to sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Air conditioning, air extraction, heating or refrigeration systems or compressors for a use class specified in Table LAU-P8.8.1 must be designed, located, baffled or insulated to prevent noise, odours, fumes or vibration from being received by adjoining or immediately opposite sensitive uses.	P1 Noise, odours, fumes or vibration generated by air conditioning, air extraction, heating or refrigeration systems or compressors for a use class specified in Table LAU-P8.8.1 must not cause unreasonable loss of amenity to adjoining or immediately opposite sensitive uses, having regard to: (a) the characteristics and frequency of any emissions generated; (b) the nature of the proposed use; (c) the topography of the site; (d) the landscaping of the site; and (e) any mitigation measures proposed.	

LAU-P8.5.3 Light spill and illumination

Objective:	That light spill and level of illumination from external lighting does not cause unreasonable loss of amenity to sensitive uses.
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Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A use class specified in Table LAU-P8.8.1 must:</p> <ul style="list-style-type: none"> (a) not include permanent, fixed floodlighting where it adjoins the boundary of a General Residential Zone; and (b) contain direct light from external light sources within the boundaries of the site. 	<p>P1</p> <p>Floodlighting or other external lighting used on the site for a use class specified in Table LAU-P8.8.1 must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the number of light sources and their intensity; (b) the proximity of the proposed light sources to nearby sensitive uses; (c) the topography of the site; (d) the landscaping of the site; (e) the degree of screening between the light source and the sensitive uses; and (f) existing light sources nearby.

LAU-P8.5.4 Noise Levels

Objective:	That noise levels from uses do not cause an unreasonable loss of amenity to adjacent sensitive uses.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Noise generated by a use class specified in Table LAU-P8.8.1 on the site must:</p> <ul style="list-style-type: none"> (a) not exceed a time average A-weighted sound pressure level (LAeq) of 5 dB(A) above background during operating hours when measured at the boundary of an existing sensitive use adjoining or immediately opposite the site; or (b) be in accordance with any permit conditions required by the Environment Protection Authority or an environmental protection notice issued by the Director of the Environment Protection Authority. 	<p>P1</p> <p>Noise levels generated by a use class specified in Table LAU-P8.8.1 on the site must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the nature and intensity of the use; (b) the characteristics of the noise emitted; (c) the background noise levels; (d) any mitigation measures proposed; (e) the topography of the site; and (f) the character of the surrounding area.

LAU-P8.6 Development Standards for Buildings and Works

LAU-P8.6.1 Outdoor storage areas

Objective:	That external storage of goods, materials and waste does not detract from the amenity of the area.	
Acceptable Solutions	Performance Criteria	
A1 Outdoor storage areas for a use class specified in Table LAU-P8.8.1, excluding the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas for a use class specified in Table LAU-P8.8.1, excluding the display of goods for sale, must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to: (a) the nature of the use; (b) the type of goods, materials or waste proposed to be stored; (c) the topography of the site; (d) the landscaping of the site; and (e) any screening proposed.	

LAU-P8.6.1 Building height, setback and siting - East Site

Objective:	To: (a) maintain the visual and historical link between the front setting of Franklin House and St James Church; and (b) provide that the design and siting of development protects the heritage values and amenity of existing uses on the site and surrounding uses.	
Acceptable Solutions	Performance Criteria	
A1 Building height within the development area shown in yellow in Figure LAU-P8.2.2 must be not more than 5.5m.	P1 Building height must: (a) respond to the site context and the local area objectives, for the provision of tourist uses and development; and (b) protect the amenity of adjoining sensitive uses from the impacts of unreasonable overshadowing and overlooking by providing separation that is appropriate to the uses, having regard to: (i) the form of the building; (ii) the existing screening or the ability to implement or establish screening; and (iii) the Local Area Objectives for the East Site.	

<p>A2</p> <p>Buildings within the development area shown in yellow in Figure LAU-P8.2.2 must have a setback from the side and rear boundaries of not less than 10m.</p>	<p>P2</p> <p>Buildings must be sited to protect the amenity of adjoining sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the form of the building; (b) the existing screening or the ability to implement or establish screening; (c) the impacts of overshadowing and overlooking; and (d) the Local Area Objectives for the East Site.
<p>A3</p> <p>No development is to occur within the restricted area shown in green in Figure LAU-P8.2.2 for the East Site.</p>	<p>P3</p> <p>Development in the restricted area shown in green in Figure LAU-P8.2.2 for the East Site must be for non-habitable buildings, or works associated with the house and garden, or for ancillary structures such as lights, fences and signage, having regard to:</p> <ul style="list-style-type: none"> (a) the visual impact of the location; (b) the appropriateness of materials; (c) the appropriateness of the size and bulk of the new development; and (d) the Local Area Objectives for the East Site.

LAU-P8.6.2 Building height, setback and siting - West Site

<p>Objective:</p>	<p>To:</p> <ul style="list-style-type: none"> (a) maintain the visual and historical link between the setting of Franklin House and St James Church; and (b) provide that the design and siting of development protects the amenity of existing uses on the site and surrounding lots.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Development in the restricted area shown in green in Figure LAU-P8.2.2 for the West Site must be for non-habitable buildings or works associated with the operations or maintenance of the church, or for ancillary structures such as lights, fences and signage, having regard to:</p> <ul style="list-style-type: none"> (a) the visual impact of the location; (b) the appropriateness of materials;

	<p>(c) the appropriateness of the size and bulk of the new development; and</p> <p>(d) the Local Area Objectives for the West Site.</p>
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LAU-P8.7 Development Standards for Subdivision

LAU-P8.7.1 Lot size and density

Objective:	That: <ul style="list-style-type: none"> (a) subdivision and development density is consistent with the zone purpose; and (b) the area and dimensions of new lots are capable of accommodating their intended use.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use having regard to:</p> <ul style="list-style-type: none"> (a) the relevant acceptable solutions for development of buildings on the lots; (b) the likely location of buildings on the lots; (c) the likely provision of on-site parking and manoeuvrability for vehicles; and (d) the Local Area Objectives for the West Site.

LAU-P8.7.2 Stormwater, water and wastewater

Objective:	That each lot provides for appropriate stormwater management, water supply and wastewater disposal.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be connected to a:</p> <ul style="list-style-type: none"> (a) public reticulated stormwater system; (b) reticulated water supply; and (c) reticulated sewerage system. 	<p>P1</p> <p>No Performance Criterion.</p>

LAU-P8.8 Tables

Table LAU-P8.8.1 Use Classes subject to clauses LAU-P8.5.1 to LAU-P8.5.5

Use Class	Qualification
Community Meeting and Entertainment	
Food Services	
Sports and Recreation	
Tourist Operation	

LAU-P9.0 Particular Purpose Zone – North Bank Silos

LAU-P9.1 Zone Purpose

The purpose of the Particular Purpose Zone – North Bank Silos is:

- LAU-P9.1.1 To provide for redevelopment and adaptive reuse of the existing silos for Visitor Accommodation, Hotel Industry, Food Services, Community Meeting and Entertainment and other supporting uses.
- LAU-P9.1.2 To provide for development of the land that contributes positively to the river edge location and respects the form and scale of the existing structures.
- LAU-P9.1.3 To provide for redevelopment of the land that promotes interaction between Lindsay Street and the adjoining public parkland.
- LAU-P9.1.4 To provide for the existing silos to be retained and allow for extensions to the silo structure or new buildings provided:
- (a) the original form and function of the silos can be understood; and
 - (b) they are designed to reflect the former industrial and port character of the land and adjacent land.

LAU-P9.2 Local Area Objectives

This sub-clause is not used in this particular purpose zone.

LAU-P9.3 Definition of Terms

This sub-clause is not used in this particular purpose zone.

LAU-P9.4 Use Table

Use Class	Qualification
No Permit Required	
None	
Permitted	
Community Meeting and Entertainment	
Food Services	
Hotel Industry	
Visitor Accommodation	
Discretionary	

Business and Professional Services	
Prohibited	
All other uses	

LAU-P9.5 Use Standards

LAU-P9.5.1 Mechanical plant and equipment

Objective:	That mechanical plant and equipment do not cause an unreasonable loss of amenity to user of the site or adjoining public land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Air conditioning, air extraction, heating or refrigeration systems or compressors for non-sensitive uses must be designed, suitably located, baffled or insulated to prevent noise, odours, fumes or vibration from being received by users of the surrounding public land.</p>	<p>P1</p> <p>Noise, odours, fumes and vibration generated by air conditioning, air extraction, heating or refrigeration systems or compressors for non-sensitive uses must not cause an unreasonable loss of amenity to users of the surrounding public land, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of any emissions generated; (b) the proximity and number of sensitive uses in the area; (c) the capacity of the surrounding area to accommodate emissions; and (d) the nature of the proposed use and mitigation measures proposed.

LAU-P9.5.2 Light spill

Objective:	That light spill and levels of illumination from external lighting does not cause an unreasonable loss of amenity to the surrounding area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Direct light sources from a building above the height of 10 metres must not be emitted outside the land.</p>	<p>P1</p> <p>External lighting on the land must not cause an unreasonable loss of amenity to the area having regard to:</p> <ul style="list-style-type: none"> (a) the number of light sources and their intensity; (b) the proximity of the proposed light sources to adjoining sensitive uses; (c) the topography of the land; (d) the landscape character of the land; and (e) the degree of screening between the light source and adjoining sensitive uses.

LAU-P9.6 Development Standards for Buildings and Works

LAU-P9.6.1 Outdoor storage areas

Objective:	That adequate provision is made for storage of goods and waste.	
Acceptable Solutions	Performance Criteria	
A1 Outdoor storage areas, excluding the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding the display of goods for sale, must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to: (a) the nature of the use; (b) the type of goods, materials or waste proposed to be stored; (c) the topography and landscape characteristics of the land; (d) the proximity and location of public views into the land; and (e) the degree of screening proposed.	

LAU-P9.6.2 Building height, siting and design

Objective:	To: (a) provide for re-development of the land and reuse of the silos and that the visual impacts of any development are managed and the form of development respects the original silo structures; and (b) provide that the re-development and re-use of the silos allows for the efficient use of the land.	
Acceptable Solutions	Performance Criteria	
A1 Building height must be not more: (a) 10.0m; or (b) 42.0m, provided the building is contained in an envelope as shown in Figure LAU-P9.6.1 and formed by: (i) a line 16m to the north or, and parallel to, the northern façade of the existing silos; (ii) a line 2.0m to the south of, and parallel to, the southern façade of the existing silos; and	P1 Building height must be complementary to the existing silos structure, having regard to: (a) the scale, forms, and design of the buildings proposed; (b) the level of articulation of the proposed new development; (c) the visual impacts of the development when viewed from adjoining land and other parts of the city; (d) the relationship of proposed buildings with the existing silo structures; and	

<p>(iii) lines projecting at 90 degrees to the line of the northern and southern facades of the existing silos, drawn at the eastern and western extremities of the building.</p>	<p>(e) the level of shading to the road, public places or adjoining land.</p>
<p>A2.1 Buildings must have a setback from a frontage of not less than 5.5m.</p> <p>A2.2 Buildings can be built to the side and rear boundaries.</p>	<p>P2 Buildings must be sited to not cause a significant loss of amenity to adjacent land, having regard to:</p> <ul style="list-style-type: none"> (a) proximity to adjoining uses; (b) size and bulk of proposed buildings; (c) the degree of overshadowing and overlooking to adjoining land; and (d) the visual amenity impacts on the streetscape.
<p>A3 A building must have a site coverage of not more than 55%.</p>	<p>P3 The site coverage of a building must be appropriate to the efficient use of the land, having regard to the impacts on adjoining land.</p>
<p>A4 A wall of a building for a habitable floor higher than 10m with an area of more than 40m² and a minimum dimension of 3.0m must be broken by:</p> <ul style="list-style-type: none"> (a) a window with a dimension of not less than 500mm; or (b) a balcony; or (c) a change in the vertical plane of more than 500mm. 	<p>P4 Any extension to the silos structure must be articulated, having regard to:</p> <ul style="list-style-type: none"> (a) the use of the architectural forms proposed; (b) the use of window, balconies, materials and finishes to create architectural interest; and (c) the need to break up the perceived visual bulk of structures.
<p>A5 The southern external wall of the existing silos structure higher than 10m must not have mechanical plant and equipment, such as air conditioning units or heat pumps, visible from public view points or from publicly accessible areas on the land.</p>	<p>P5 The installation of mechanical plant and equipment on the southern wall of the existing silos structure must respect the original form and character of the silos, having regard to:</p> <ul style="list-style-type: none"> (a) visibility from ground level public view points; and

(b) the ability to recognise such plant and equipment from ground level public viewpoints.

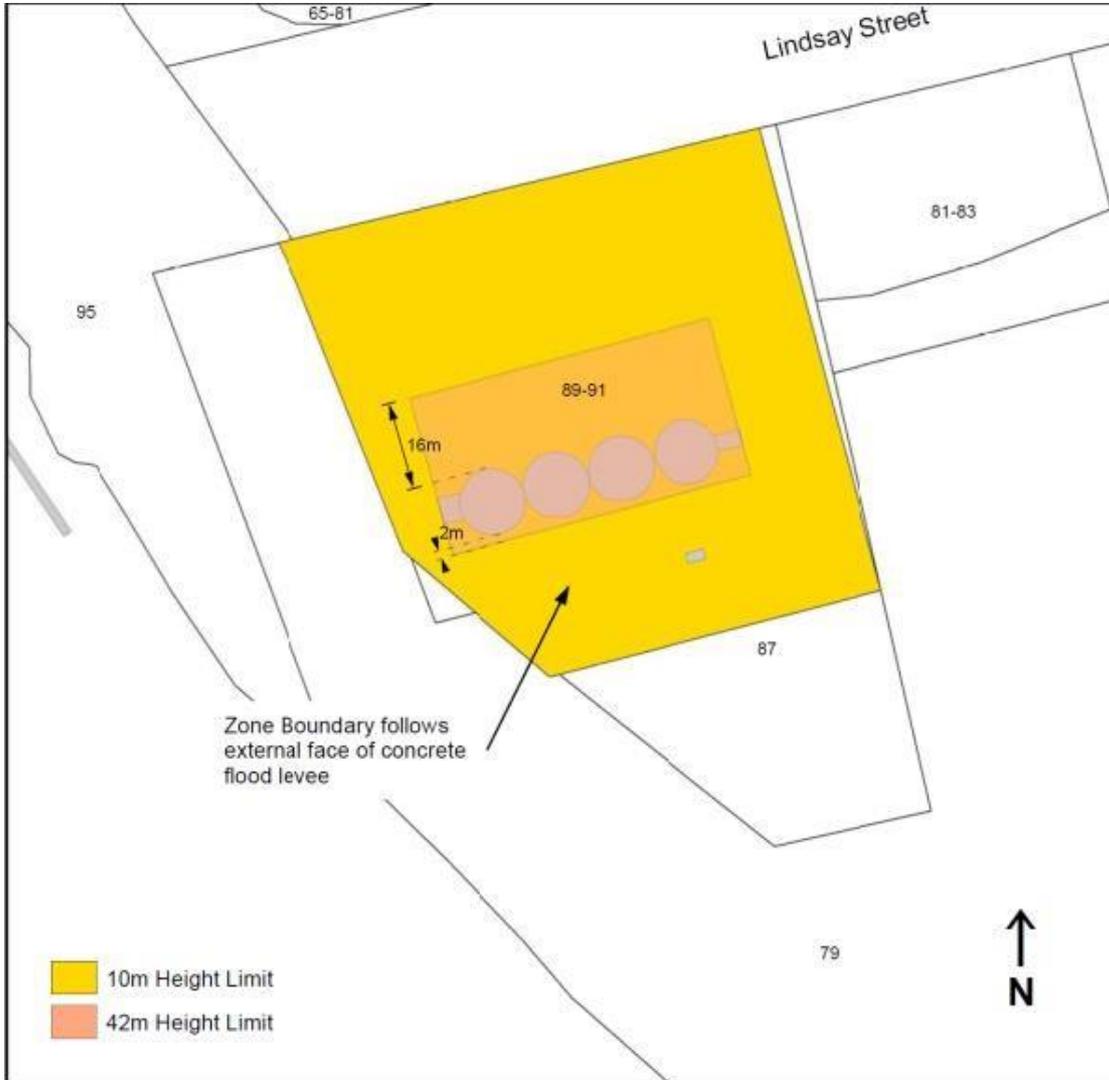


Figure LAU-P9.6.1 - Building Heights

LAU-P9.6.3 Active ground floors

Objective:	That building facades at ground floor level promote and maintain high levels of pedestrian interaction and amenity.	
Acceptable Solutions	Performance Criteria	
A1.1 Ground floors of new buildings must: (a) have clear glazing display windows or glass doorways for not less than a total of 50% of all ground floor facades; and	P1.1 New buildings must be designed to maximise interaction between the use of the building and pedestrians and other users of the road, having regard to:	

<p>(b) screen mechanical plant or equipment.</p> <p>A1.2</p> <p>New buildings must provide at least one accessible entry point to connect the buildings to the levee walkway to the south of the land.</p>	<p>(a) maximising the level of glazing, openness and transparency on all ground floor facades to the frontage and public open space;</p> <p>(b) minimising the potential for intrusive security devices to reduce the amenity of the building or reduce levels of interaction with the public; and</p> <p>(c) screening or obscuring all mechanical plant or equipment such as air conditioning units or heat pumps, so they are not recognisable or visible from ground level public viewpoints.</p> <p>P1.2</p> <p>New buildings or extensions to the existing silos building must provide adequate opportunities for public access and interaction from adjoining public open space.</p>
<p>A2</p> <p>Alterations on ground floors must:</p> <p>(a) have clear glazing, display windows or glass doorways for not less than a total of 50% of all ground floor facades; and</p> <p>(b) screen mechanical plant or equipment.</p>	<p>P2</p> <p>Alterations on ground floors must be designed to maximise interaction between the use of the building and pedestrians and other users of the road, having regard to:</p> <p>(a) maximising the level of glazing, openness and transparency on all ground floor facades to the frontage and public open space;</p> <p>(b) minimising the potential for intrusive security devices to reduce the amenity of the building or reduce levels of interaction with the public; and</p> <p>(c) screening or obscuring all mechanical plant or equipment such as air conditioning units or heat pumps, so they are not recognisable or visible from ground level public viewpoints.</p>

LAU-P9.6.4 Landscaping

Objective:	That new development provides acceptable levels of landscaping.
Acceptable Solutions	Performance Criteria
A1.1	P1

<p>A minimum of 5% of any uncovered car park is to be landscaped.</p> <p>A1.2</p> <p>A minimum of 1 tree (capable of growing to a height of not less 5.0m) per 250m² of the land must be provided.</p>	<p>Landscaping must be provided at a level that enhances the appearance of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the need to soften and screen the buildings and the car park; (b) providing shade for occupants of the land; and (c) providing shade to car parking areas.
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LAU-P9.7 Development Standards for Subdivision

LAU-P9.7.1 Subdivision

Objective:	<ul style="list-style-type: none"> (a) To achieve subdivision that aligns with the purpose of the zone and the use and development standards; and (b) That each lot has appropriate water supply, wastewater and stormwater disposal.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be for:</p> <ul style="list-style-type: none"> (a) re-alignment of the boundaries of existing lots; (b) consolidation of titles in relation to the land; (c) creation of lots for the maintenance of the flood protection levee; or (d) boundary adjustment. 	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding a lot created for the maintenance of the flood protection levee, must be connected to a reticulated:</p> <ul style="list-style-type: none"> (a) water supply; (b) sewerage system; (c) stormwater system. 	<p>P2</p> <p>No Performance Criterion.</p>

LAU-P9.8 Tables

This sub-clause is not used in this particular purpose zone.