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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY - OPEN SPACE STRATEGY .....</b>	<b>I</b>
<b>LIST OF RECOMMENDATIONS .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>10</b>
CLASSIFICATION OF OPEN SPACE AND THE OPEN SPACE INVENTORY .....	12
<b>SECTION 1: NEED FOR OPEN SPACE .....</b>	<b>17</b>
POPULATION CHARACTERISTICS .....	17
COMMUNITY NEEDS AND EXPECTATIONS .....	22
CONSERVATION VALUES .....	24
CULTURAL HERITAGE .....	26
<b>SECTION 2: STRATEGIC DIRECTIONS FOR THE OPEN SPACE NETWORK .....</b>	<b>28</b>
VISION .....	28
GUIDING PRINCIPLES .....	29
THE OPEN SPACE NETWORK .....	30
URBAN OPEN SPACE SYSTEM .....	32
SUMMARY OF EXISTING OPEN SPACES .....	32
FEATURES AND OPPORTUNITIES: URBAN OPEN SPACE SYSTEM .....	1
RURAL OPEN SPACE SYSTEM .....	1
FEATURES AND OPPORTUNITIES: RURAL OPEN SPACE SYSTEM .....	60
<b>SECTION 3: IMPLEMENTATION, PLANNING AND MANAGEMENT .....</b>	<b>1</b>
FUNDING FOR OPEN SPACE .....	81
OPEN SPACE AND SUBDIVISION .....	83
ADJACENT LAND USES AND OPEN SPACE .....	92
APPRAISAL OF EXISTING OPEN SPACE TO MEET COUNCIL'S OPEN SPACE OBJECTIVES .....	93
ACQUISITION OF LAND TO ACHIEVE IDENTIFIED OPEN SPACE NEEDS .....	97
MANAGEMENT OF OPEN SPACE .....	97
<b>REFERENCES .....</b>	<b>103</b>

<b>APPENDIX 1:</b>	<b>Relevant state and local policies and strategy documents which influence open space planning</b>
<b>APPENDIX 2:</b>	<b>Community surveys and responses regarding public open space</b>
<b>APPENDIX 3:</b>	<b>Native Fauna species occurring within the Shire of Nillumbik</b>
<b>APPENDIX 4:</b>	<b>Native Flora species occurring within the Shire of Nillumbik</b>
<b>APPENDIX 5:</b>	<b>Open Space proximity maps by suburb</b>

## **Executive Summary - Open Space Strategy**

The Open Space Strategy, governed by the *Council Plan 2004-2008*, defines Council's vision and strategic direction for the development and management of open space. Through its recommendations, the Strategy aims to coordinate actions arising from State, regional and local policies that impact on Council's open space.

The Open Space Strategy's primary focus is on open space used for passive recreation and conservation purposes rather than organised sports.

### **Classification and the Open Space Inventory**

The Open Space Strategy identifies and categorises open space according to significance, use and ownership. The significance of open space is determined by the population catchment utilising each reserve. Reserves are defined as regional, district, local and neighbourhood. Two additional categories are potential future use which is undeveloped land having potential open space value and unclassified which represents land that on a preliminary assessment has no identified existing or future open space function.

The following terms define the use of open space:

- **Passive Recreation-** includes non organised land uses including informal play, walking, sitting, bird watching etc.
- **Organised Sport-** generally includes land used for organised events such as football, cricket, soccer, swimming or equestrian uses.
- **Conservation-** reserves where there is an identified conservation function such as habitat areas, wetlands, waterways and land with remnant vegetation.
- **Connectivity-** land identified with a connectivity function (provides habitat) generally including shared pathways and linear links. (Power line easements may be included.)
- **Heritage-** reserves with identified heritage features.

Generally, open space land is in the ownership of Council, Government agencies such as Melbourne Water or is Crown Land managed by Parks Victoria. A detailed breakdown of open space is provided in the Open Space Inventory.

### **Need for Open Space**

Population characteristics and trends show that there is a need to cater for a range of open space types including active and passive facilities. While the Shire will experience only modest growth, there is a high expectation that this growth will occur in the established areas.

Community surveys indicate that walking, bike riding and dog walking were the main leisure activities residents participated in. Other concerns were accessibility and distance to open space.

Open space in Nillumbik makes a significant contribution to the landscape with such features as the foothills of Kinglake National Park, the Plenty Gorge Parklands and the Yarra River. At the local level, open space provides a sense of place and can play a major role in improving the general ambiance of residential and commercial areas.

The Shire of Nillumbik is very fortunate to have retained large areas of native vegetation occurring on both private and public land which protects the biodiversity of the Shire. The open space network, especially along waterways, plays a key role in protecting rare and threatened flora, fauna and vegetation communities.

Numerous sites of archaeological and European influence have left their mark on the Shire. There is a need to protect these sites where they occur within open space as well as an opportunity to develop signage and education trails for the community to assist in their appreciation of heritage values.

#### Strategic Directions for the Open Space Network

##### **Vision**

- Nillumbik will provide a diversity of open space with a range of high quality regional, district and neighbourhood parks linked by a network of trails.
- Nillumbik's open space network will be easily accessible and provide all residents and visitors with a range of passive and active recreation opportunities.
- Nillumbik will ensure its open space is developed and managed on a sustainable basis to meet the needs of the community and protect environmental values for present and future generations.

The Open Space Vision will be supported by five Guiding Principles. The Guiding Principles establish a framework for how decisions will be made in relation to public open space. They are as follows:

##### **Diversity**

Maintain and enhance the open space network to cater for the community's wide range of recreation and leisure activities.

##### **Quality**

Ensure the open space network is of a high quality that caters for local residents and visitors to the Shire.

##### **Access**

Ensure open space is equitably distributed across the Shire and linked through a comprehensive network of trails.

#### **Sustainability**

Protect areas of significant environmental value including remnant vegetation, habitat, waterways, cultural heritage and areas of landscape significance.

#### **Partnerships**

Work in partnership with government agencies and the local community in the planning and management of open space, trails and recreation facilities.

### The Open Space Network

The open space network is made up of three fundamental elements; reserves, nodes and trails. Reserves are considered to be land accessible to the public for recreation activities. Nodes are popular destinations with special features such as the miniature railway at Eltham Lower Park or the Kangaroo Ground War Memorial Tower. Trails link the reserves and nodes together and provide access to open space outside the Shire.

The Open Space Strategy looks at both urban and rural areas. At a general level in urban areas the open space system needs to be easily accessible and provide opportunities for large numbers of people to enjoy wide ranging recreational facilities. In the rural areas the emphasis should be towards developing key regional and district recreational areas, enhancing and developing open space within townships and settlements, protecting native flora and fauna as well as developing a comprehensive regional based trail network.

#### **Urban Open Space System**

A wide range of local / neighbourhood open space areas, trails and connecting open space have been identified in each suburb with most areas easily accessing a local, neighbourhood or larger park to provide for passive recreational opportunities. Regional open space within the urban areas is mainly concentrated along the waterways with these areas also constituting primary conservation areas.

There are five main Recreation Nodes within the urban open space system including: Eltham Lower Park/ Lennister Farm, Alistair Knox Park, Edendale Farm Community Environment Centre / Eltham North Adventure Park, Diamond Creek Reserve / Nillumbik Park and Yarrambat Park.

While the basic open space network is largely in place, it is essential to look ahead and identify opportunities for enhancing the network to meet the demands of a growing and changing population as well as improving access for people with disabilities. The Open Space Strategy outlines numerous actions for improving and enhancing the urban open space system.

## Rural Open Space System

The rural areas provide an ideal setting for establishing a diversity of recreational and tourist opportunities that protect the natural environment, cultural heritage and landscapes. The rural areas are home to several significant conservation areas including Sugarloaf Reservoir, Kinglake National Park and One Tree Hill Reserve. Regional and District features include Kangaroo Ground War Memorial Tower, Yarrambat Park and St Andrews Reserve home to the popular St Andrews Market.

Several opportunities exist to develop the Regional and District open space system. The major opportunities include the proposed expansion of the Kinglake National Park at Christmas Hills and the creation of the Warrandyte to Kinglake conservation link. Opportunities for further development in the western portion of the Shire as well as improving public access to the Yarra River should be investigated.

The Open Space Strategy provides actions for improving the regional and district nodes including development of a reserve at the Kangaroo Ground Waste Disposal Site. Other opportunities include development of nodes at Fergusons Paddock and at the Wattle Glen War Memorial Park.

There are currently very few existing formal rural trails although the road network is widely used for walking, running, cycling and horse riding particularly on the weekends. The rural open space system will benefit immensely by improving the regional trail network. Of particular note the decommissioned Maroondah Aqueduct is identified to be developed into a regional trail linking Research to Christmas Hills and beyond. Other shorter term initiatives include continuing a shared pathway from Diamond Creek to Hurstbridge, which will provide excellent opportunities to encourage combining bicycling with the train network which stops at Wattle Glen and Hurstbridge. Council will also continue to liaise with VicRoads to create dedicated bike lanes along major roads such as Yan Yean, Kangaroo Ground-St Andrews, Heidelberg Kinglake Road and Eltham-Yarra Glen Roads.

## Implementation, Planning and Management

Council has a number of interrelated implementation mechanisms that are available in achieving the open space vision, objectives and actions identified in this Strategy. These include the following:

- Funding projects and improvements through Council's capital works program;
- Seeking external funding for the development of open space and developing partnerships with State Government agencies and the local community;
- Mechanisms available through the planning scheme to acquire new open space and open space contributions from new developments;

- Appraisal of existing open space to meet Council's open space objectives;
- Acquisition of land to achieve identified open space needs; and
- Management and development of open space.

Implementation of the Open Space Strategy is documented in the Open Space Strategy Implementation Plan. Each year a report to Council will be prepared that details the progress on each action.

## List of Recommendations

### Urban Open Space System

1. Review the existing *Public Acquisition Overlay (PAO4) - Diamond Creek Linear Park Open Space Link* to achieve a continual link along the Diamond Creek from central Eltham to Wattletree Road.
2. Consider public acquisition of land to expand Murrays Wetlands, north to Allendale Road, Eltham North.
3. Advocate to the State Government to continue to expand the provision of open space along the Yarra River and the Plenty River in particular land identified in the Public Acquisition Overlay.
4. Continue to implement key improvement projects including the Barak Bushlands (Falkiner Street Reserve) and Urban Forest Project, Challenger Street Wetlands and prepare plans for enhancement of other reserves including Meruka Park and Ryans Reserve which address recreational and conservation opportunities.
5. Prepare promotional and educational material for Council's significant urban conservation reserves
6. Continue to develop appropriate signage within the urban open space network that recognises Aboriginal tribal and clan territories.
7. Analyse in detail the current network of open space and prepare a strategy for establishing a complete network of well maintained open space that ensures all residences in the urban open space system can access at least a neighbourhood park that is within 500m walking distance. Key improvements can be made by investigating the following
  - North Warrandyte
    - Expanding the reserve at 4 Weerona Way,
    - Investigate developing the existing Crown land reserve at Summers Road
    - Provide a neighbourhood park at the North Warrandyte Community Centre
  - North Research
    - Develop the larger areas of the existing Maroondah Aqueduct into a neighbourhood park at the rear of Cameron Court.
  - Eltham
    - Further develop the connectivity reserves behind Christine Avenue



- Develop the open space associated with the electricity easement around Valonia Drive.
- 8. Having regard to the outcomes of the North East Integrated Transport Strategy, advocate to the State Government for a partnership to prepare a concept plan for the development of a new linear park from the Nillumbik Shire Offices in Civic Drive to the Diamond Creek at the Challenger Street Wetlands along land currently reserved for an extension of the Greensborough Bypass.
- 9. Work with VicRoad on extending the Metropolitan Ring Road Trail by ensuring the proposed widening of the Greensborough bypass Bridge also includes a bicycle/pedestrian lane that connects to the existing Metropolitan Ring Road Bicycle path and to the Plenty River shared path. *(Note: Since the preparation of this report an off-road shared pedestrian and cycle path for the full length of the Greensborough Bypass, including a crossing at the Plenty River is underway. The 1.9 km path will link the existing path that currently terminates at Kempston Street with Diamond Creek Road and forms part of the Principle Bicycle Network.)*
- 10. Advocate to the State Government for Parks Victoria to continue acquisition of land along the Yarra River and Plenty River that has been identified under the *Public Acquisition Overlay (PAO 3) Plenty Gorge Parklands, Yarra Valley Parklands*. (Council has supported Parks Vic in their review of this land.)
- 11. Continue to prepare and implement master plans for key regional open space parklands including Eltham Lower Park, Alistair Knox Park, Plenty Park, Eltham North Reserve and the Diamond Creek Reserve/Nillumbik Park.
- 12. Undertake conservation management plans for the Chase Reserve and Professors Hill Reserve in North Warrandyte.
- 13. Continue to work in partnership with community groups in improving Council's open space system and continue to provide support to Friends and Landcare Groups involved in revegetation and restoration projects on public open space.
- 14. Prepare concept plans and development frameworks for new recreational nodes at the Nillumbik Shire Council Offices precinct.
- 15. Identify areas within the open space system that can be developed to provide access for people of all abilities. The areas selected should provide a cross section of open space types and settings. Issues to address include parking, environmental impacts, facilities, gradients, paths and trails. These issues should be addressed as part of the master

planning process for regional open spaces. Current areas to investigate in the short term include Challenger Street Wetlands and Barak Bushlands.

16. Improve the existing Diamond Creek Trail by improving the overall signage and condition of the trail. Key areas include:
  - northward from Eltham Station to Edendale Farm Community Environment Centre
  - upgrade the trail connection across Main Road Diamond Creek. This can be incorporated as part of signalling the Elizabeth Street and Main Road intersection.
17. Extend the Diamond Creek Trail to Hurstbridge.
18. Connect the Maroondah Aqueduct Trail to Diamond Creek Trail at Allendale Road along the old Maroondah Aqueduct.
19. Investigate the practicalities of utilising the decommissioned Maroondah Aqueduct Siphon Bridge across the Plenty River to connect into new paths within the City of Whittlesea.
20. Investigate a walking path along the Stony Creek from the Maroondah Aqueduct to the Yarra River in North Warrandyte and Kangaroo Ground that includes providing better public access to Chase Reserve in North Warrandyte.
21. Undertake the construction of local shared pathways in new residential areas of Diamond Creek and Plenty in accordance with the approved Development Plans and Development Contribution Plans for Area B Diamond Creek and the Plenty Low Density Residential Area.
22. In liaison with Parks Victoria extend the trail network along the Yarra River by creating links along the entire length of the Yarra River.
23. In liaison with Parks Victoria investigate the feasibility of constructing a pedestrian bridge across the Yarra River at Glynn's Road parkland to Pound Bend, Warrandyte State Park.
24. In liaison with Parks Victoria encourage the extension of the trail network along the Plenty River from Greensborough to Yarrambat Park, through the Plenty Gorge Parklands.
25. As part of Recommendation 8 investigate the extension of the Metropolitan Ring Road Trail by utilising the existing VicRoads land from the Nillumbik Shire Office precinct to the Challenger Street Wetlands Reserve.
26. In liaison with Melbourne Water investigate using the existing Melbourne Water Pipe Tracks for shared paths. Key shared paths could occur from the Plenty River in Greensborough to

the St Helena Shopping Centre and to the Diamond Creek at Allendale Road and utilising the pipe track to improve access and entrances to the Maroondah Aqueduct Trail.

27. Investigate ways of providing a link from the Maroondah Aqueduct Trail in Research to the former Kangaroo Ground Waste Disposal Site.

## **Rural Open Space System**

28. Investigate improving the open space system in the western portion of the Shire by examining the potential role and function of existing reserves at
  - 240 Haleys Gully Road, Hurstbridge
  - Boyds Road, Hurstbridge
  - Ryders Flat Reserve, Arthurs Creek
29. Advocate to the State Government to implement the Warrandyte to Kinglake nature conservation link and extension to Kinglake National Park.
30. Investigate opportunities to expand the network of open space along the Yarra River within the rural areas of the Shire. Current opportunities include:
  - creating better access to 120 Bouchier Road;
  - Investigating open space opportunities at Melbourne Water land at the Bend of Islands.
31. Develop and implement conservation management plans for key conservation reserves including:
  - Panton Hill Bushland Reserve System;
  - Temple Ridge Reserve, Wattle Glen.
  - 85 Mine Road, Nutfield.
32. Develop consistent signage for all rural regional and district reserves which recognises Aboriginal tribal and clan territories.
33. Prepare promotional and educational material for Council's significant regional and district conservation reserves.
34. Identify areas within the rural open space system that can be developed to provide access for people of all abilities. The areas selected should focus on providing a cross section of the open space types and settings. Issues to address include parking, facilities, gradients, paths and trails. These issues should be addressed as part of the master planning process for regional open spaces. Initial areas to investigate include Yirrip Reserve in Panton Hill and the Kangaroo Ground War Memorial Park.
35. Investigate opportunities for creating additional conservation open space within the Arthurs/Running/Deep Creek catchments.

36. Prepare concept plans for enhancement of the recreational Nodes at:
- Hurstbridge,
  - Panton Hill, and
  - St Andrews.
37. Investigate the feasibility of developing a new regional node at the former Kangaroo Ground Waste Disposal Site.
38. Identify opportunities to increase the provision of open space in areas of Hurstbridge where residents are further than 500m from open space.
39. Continue to enhance recreational open space within the settlements of Panton Hill and St Andrews to provide for shared pathways and social gatherings.
40. Identify opportunities to further develop community open space related focal points at Christmas Hills, Smiths Gully, Cottlesbridge and Watsons Creek.
41. Continue to improve the existing recreational open space at Strathewen and Arthurs Creek.

## **Implementation Planning and Management**

42. Evaluate land identified as unclassified to assess its current and future open space function.
43. Continue to develop trails identified by the Recreational Trails Advisory Committee and the Recreational Trails Strategy.
44. Investigate the existing network of unopened roads to enhance the rural trail network.
45. Liaise with the State Government and Melbourne Water to facilitate development of the Regional trails along
- Maroondah Aqueduct from Research to Sugarloaf Reservoir.
  - Within the proposed Warrandyte to Kinglake nature conservation link.
46. Liaise with VicRoads to create dedicated bicycle lanes on the following main rural roads
- Yan Yean Road
  - Kangaroo Ground - St Andrews Road,
  - Heidelberg Kinglake Road
  - Eltham - Yarra Glen Road.
47. Investigate and develop a series of well signed rural routes along quiet roads initially including:

- a north west loop from Hurstbridge incorporating local reserves on Haleys Gully Road, Boyds Road, and Mine Road.
  - a loop combining Panton Hill, Ironbark Hill Reserve, Boomers Reserve and Long Gully Road/Reserve.
48. The process for prioritising open space capital works projects should be consistent with the priorities identified in the Open Space Strategy.
49. Any pavement upgrades should also consider opportunities for expanding the trail network.
50. Provision of open space infrastructure needs to consider Council's Community Inclusion Policy for People with a Disability 2004-2008 and associated Action Plan.
51. Work in partnership with the State Government to prioritise resources and seek grants and other funding opportunities for the following major regional open space trail projects within the Shire.
- extending the Diamond Creek Trail to Hurstbridge
  - investigating opportunities to extend a trail along the Metropolitan Ring Road reservation to Challenger Street Wetlands.
  - extensions of trails along the Yarra River and Plenty River
  - ensuring the creation of the Warrandyte to Kinglake nature conservation link and extension to Kinglake National Park.
  - extending the Maroondah Aqueduct Trail from Research to Sugarloaf reservoir and beyond.
52. Advocate to the State Government to review the Subdivision Act 1988 to increase the maximum amount of Public Open Space contribution to at least 10 per cent.
53. Open space contributions for large greenfield or redevelopment sites shall be determined by a detailed development plan or similar planning mechanism and the required open space shall then be provided in land or cash or a combination of the two via clause 52.01 of the Planning Scheme.
54. In assessing the need for additional public open space through the subdivision process the Criteria for Public Open Space Acquisition should be applied.

55. Under the current arrangement of the Subdivision Act 1988, Council should require subdividers in rural areas to provide developer contributions up to 5 percent of the site value towards:

- addressing improvements needed to nearby regional/district and local open spaces.
- further development of and improvements to the rural open space trail system.

The following percentage contribution should apply:

- For the creation of 6 or more lots a 5 per cent contribution should apply.
- For the creation of 3 - 5 lots a contribution of 2 per cent should apply.
- For the creation of less than 3 lots no contribution should apply.

56. Until such time there has been a review of the Subdivision Act, in relation to medium density housing development, the following open space contributions should be made under the *Subdivision Act 1988*.

- For the creation of 3 dwellings, a 2 per cent cash contribution should apply.
- For the creation of 4 dwellings, a 3 per cent cash contribution should apply.
- For the creation of 5 dwellings, a 4 per cent cash contribution should apply.
- For the creation of 6 or more dwellings, a 5 per cent cash contribution should apply.

57. Build on the Open Space Inventory to ensure it is regularly updated to identify open space needs and improvements.

58. Include open space improvements within Development Contributions Plans for any new greenfield or redevelopment site.

59. Advocate to the State Government for the need to improve the statutory mechanisms to obtain development contributions for public open space for dispersed in fill residential development. This would involve reviewing the existing planning mechanisms (including the Subdivision Act 1988) that are available to Councils.

60. As part of a Shire wide initiative, investigate the feasibility of preparing a broader Development Contributions Plan that incorporates identified public open space projects. The investigation should assess the performance of the existing DCPs for the three Development Plan areas DPO1, 2 and 4.

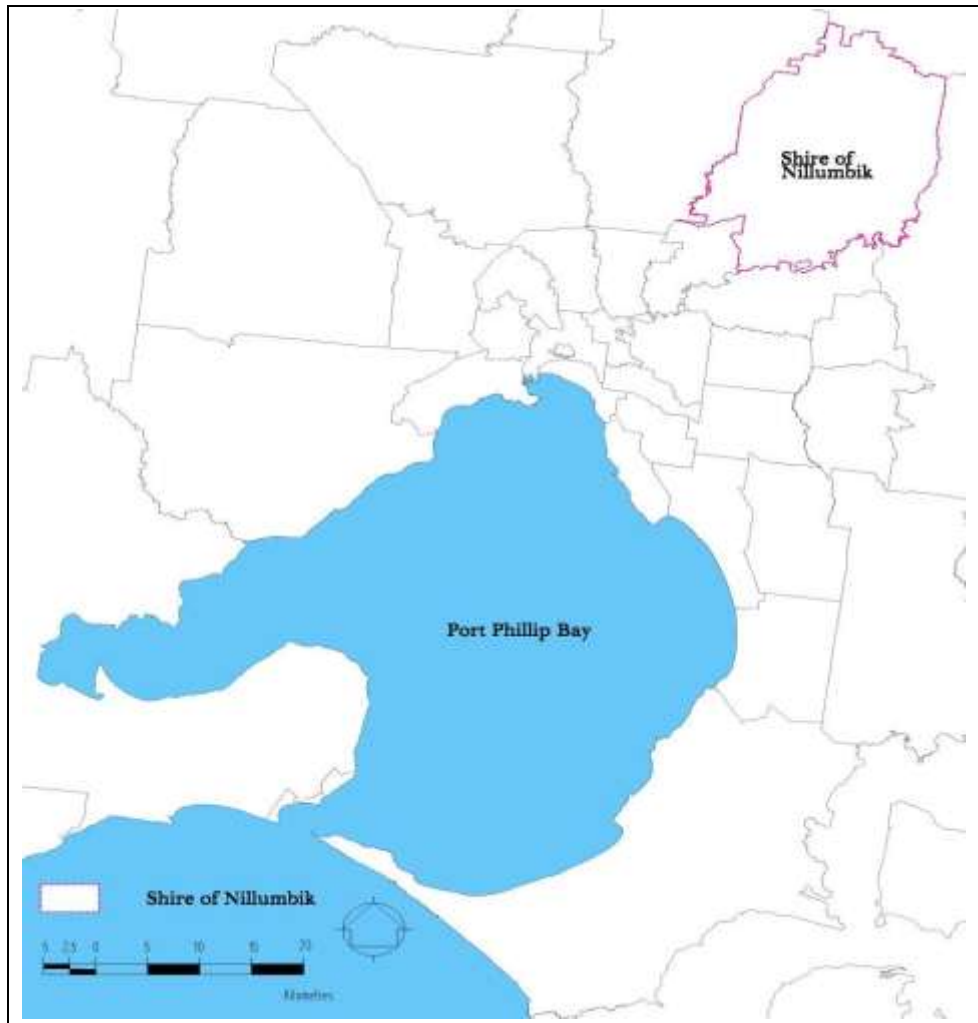
61. Through the planning process ensure new uses adjoining public open space do not detrimentally impact on the adjoining public open space.
62. Ensure the issuing of additional pet registrations pursuant to Council's Local Law consider the location of conservation reserves.
63. Encourage the use of Trust for Nature Conservation Covenants or similar mechanisms to develop an appropriate bush interface with significant conservation reserves.
64. Target Council's environmental incentive programs to landowners adjoining significant conservation reserves.
65. Continue to foster good relationships with land owners adjacent to public open space through education programs, regular contact, and ensuring all reserves are well maintained.
66. All land considered as potentially surplus to open space requirements and considered for disposal will be required to be assessed against the Open Space Strategy Assessment of Potentially Surplus Land Criteria.
67. As funds become available the following sites should be investigated for acquisition into the open space system.
  - Land along the Diamond Creek to extend and continue regional open space along the Diamond Creek from Diamond Creek to Hurstbridge and to accommodate the Diamond Creek to Hurstbridge Trail.
  - Land linking the Diamond Creek Trail to Maroondah Aqueduct at Allendale Road.
  - Land connecting Crest Hill Road in Research to the future regional reserve on the former Kangaroo Ground Waste Disposal Site.
  - Land along key waterways of the Yarra River, Plenty River and Diamond Creek.
68. If additional land is considered for public open space it should be assessed against the Criteria for Acquisition of Public Open Space.
69. Undertake a review of existing public open space zoning to ensure all reserves are appropriately zoned to reflect their main purpose and function. Priority should be given to correcting planning scheme anomalies to regional and district open space.
70. Open Space should be managed generally in accordance with the Management Objectives outlined for each open space type in the Open Space Strategy

71. Continue to liaise with State Government agencies which manage public open space so that the open space is managed in accordance with the Management Objectives outlined in the Open Space Strategy.
72. Undertake a review of existing Committee of Management arrangements. The review should identify all parcels of land where Council is Committee of Management, consider the merits of being Committee of Management and identify parcels where it could be beneficial to become Committee of Management.



# Introduction

## The Setting



Located on Melbourne's north eastern fringe, less than 25km from the city, the Shire of Nillumbik, covers an area of some 433 square kilometres and is bounded by the Yarra River to the south and east, Plenty River to the west and Kinglake Ranges to the north.

Recognised as a Green Wedge Shire, the Shire of Nillumbik is predominately rural with significant areas of bushland and farmland, small settlements and townships. The majority of the Shire's 61,000 residents live in the suburbs of Eltham, Diamond Creek and Greensborough and low density areas of Plenty, Yarrambat and North Warrandyte. Since the time of its creation, the Shire has always had the Green Wedge as its strategic focus.

The open space network of formal and informal parks and reserves, sporting fields, conservation areas, waterways and trails is an integral component of why people choose to live in or visit the Shire of Nillumbik. Open space plays a major role in the sustainability of the Shire by protecting the environment and improving the overall quality of life for residents. It provides opportunities for people to relax, exercise, socialise and enjoy nature and it also assists in promoting the Shire as a tourist destination.

With over 7000 hectares of public open space occurring in Nillumbik the amount of public open space per head of population is around 1200 square metres. This figure is comparatively high in comparison to other metropolitan local government areas and reflects the considerable area associated with the larger State managed reserves such as Kinglake National Park that occur within the municipality. Excluding Crown land and open space owned by State Government utilities such as Melbourne Water, the amount of open space per head of population is around 138 square metres, which is comparable to many middle and outer local government areas within metropolitan Melbourne, (Australian Institute of Urban Studies 2000). While there is significant public open space within the Shire, it is important to consider the function, location and quality of open space that is provided so that the needs of the present and future community can be met.



The Open Space Strategy, governed by the *Council Plan 2004-2008*, defines Council's vision and strategic direction for the development and management of open space. In developing its recommendations, the Strategy aims to coordinate actions arising from State, regional and local policies that impact on Council's open space, in particular

State Government strategies *Melbourne 2030*, Parks Victoria's *Linking People Linking Spaces*, and Council's *Recreation Strategy 2000*, *Recreational Trails Strategy 2002*, *Nillumbik Environment Strategy 2001* and Council's planning objectives identified in the *Municipal Strategic Statement*. Specific details and implications for each of these strategies is provided in Appendix 1.

The Open Space Strategy's main focus is on open space used for passive recreation and conservation purposes rather than organised sports. While facilities such as sporting fields play a role in passive recreation, the provision and management of sports fields and sporting facilities is covered by the *Recreation Strategy 2000*. Council's Recreational Trails Advisory Committee has also identified and prioritised proposed trails throughout the municipality, which have been identified in the Open Space Strategy.

Similarly, the Open Space Strategy does not consider commercially orientated spaces such as plazas or town squares. These types of public spaces are considered in the various township strategies and activity centre structure plans.

The Open Space Strategy has three major parts, which are detailed below.

- **Part 1** is the main strategic document and is divided into three sections.
  - **Section 1** identifies the open space needs of the Shire that are based on population characteristics, community preferences and expectations and the need to protect environmental values including native flora and fauna, landscapes and cultural heritage.
  - **Section 2** describes the Open Space Vision, Open Space Principles and provides the strategic framework for improving the urban and rural open space systems.
  - **Section 3** sets out the implementation and management issues that includes how open space will be funded, guidance in relation to acquiring new open space, and disposal of surplus land. A description of management objectives for each open space type is also discussed.
- **Part 2** provides a detailed inventory of open space.
- **Part 3** sets out the Open Space Implementation Plan that prioritises the Open Space Strategy actions and identifies indicative costings and the sections of Council involved in implementing the actions.

## **Classification of open space and the Open Space Inventory**

The Open Space Strategy identifies and categorises open space according to the following characteristics, which include:

- Significance
- Use
- Ownership

These categories are described below.

#### **Open Space Significance**

<b>Term</b>	<b>Description</b>
Regional	Large reserves with a catchment generally of multiple Local Government Areas. Reserves are generally greater than 5 hectares and have a range of uses and commonly occur along the major waterways of the Shire. A number of Regional Reserves include significant State conservation parks.
District	Reserves with a catchment of generally more than one suburb which are generally between 2-4 hectares.
Local	Reserves that serve one or two neighbourhoods that are generally less than 2 hectares, but larger than 0.5 hectares. These reserve generally provide passive recreation opportunities. Neighbourhoods are considered to be areas that are within walking distance (approximately 500m) from the reserve.
Neighbourhood	Small reserves generally less than 0.5 hectare that provide passive recreation opportunities to a neighbourhood
Potential future use	Land identified as having potential open space value
Unclassified	Land that on a preliminary basis has no identified existing or future open space function.

#### **Open Space Uses**

<b>Term</b>	<b>Description</b>
Passive Recreation	Generally includes non organised uses eg informal play, walking, sitting, bird watching, etc.
Organised Sport	Generally includes land used for organised events eg football, cricket, soccer, swimming, equestrian facilities etc.
Conservation	Reserves where there is an identified conservation function. Commonly includes waterways, wetlands, land with remnant vegetation.
Connectivity	Land identified with a connectivity function. Generally includes shared pathways and linear links. May include power line easements.
Heritage	Reserve with identified heritage features

## Open Space Ownership

Generally key ownership relate to the following

Ownership	Includes
Council	Open space owned by Nillumbik Shire Council
Crown land	Generally land managed by Parks Victoria, Crown land reserves and unreserved Crown land. Can include land managed by Council as or through a Committee of Management.
Government agencies	Commonly agencies such as Melbourne Water.

## Nillumbik's Open Space: A summary

A more detailed breakdown of open space is provided in the Open Space Inventory. The following information provides a shire wide summary of existing public open space.

### Ownership of Open Space occurring within the Shire of Nillumbik

Ownership	Area (Hectares)	Percentage of open space
Council	839	11.4
Crown land	6280	85.2
Government utilities	256	3.4
Total	7375	100

### Level of Significance of Open Space across the Shire of Nillumbik

Significance	Area (Hectares)	Percentage of Open Space
Regional	6575	89.2
District	176	2.4
Local	307	4.2
Neighbourhood	34	0.4
Potential future use	283	3.8
Total	7375	100

**Amount of open space across the Shire of Nillumbik based on the main use**

<b>Use</b>	<b>Area (Hectares)</b>	<b>Percentage of Open Space</b>
Passive Recreation	60	0.8
Organised Sport	20	0.3
Conservation	6501	88.1
Connectivity	257	3.5
Heritage	1	0
Multiple Use (Passive Recreation/ Organised Sport)	23	0.3
Multiple Use (Passive Recreation/Conservation)	81	1.0
Multiple Use (Passive Recreation/Heritage/Conservation)	28	0.4
Multiple Use (Passive Recreation/Organised Sport/Conservation)	397	5.4
Multiple Use (Passive Recreation/Organised Sport/Conservation/Heritage)	6	0.1
Multiple Use Heritage/Conservation	1	0
	<b>7375</b>	<b>100.00</b>

## Section 1: Need for Open Space



There are a range of issues which Council needs to consider in developing the open space network. These include:

- Population characteristics including population size, trends and age profiles
- Community needs and expectations
- Environment considerations including protection of:
  - native flora and fauna
  - landscape
  - cultural heritage.

### Population Characteristics

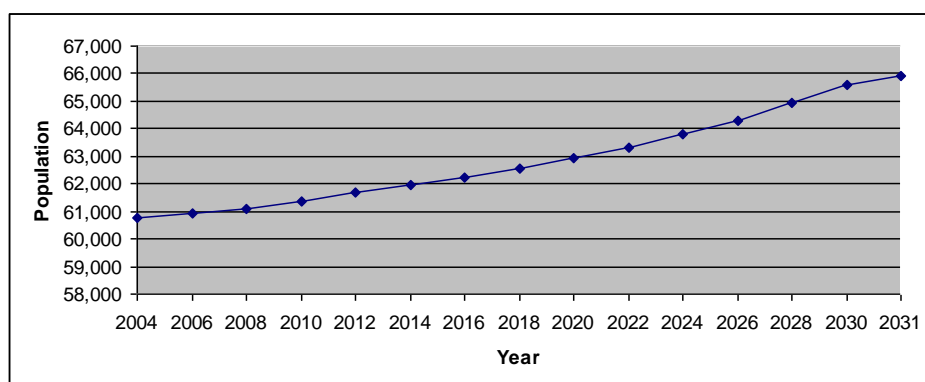
Characteristics such as population size, population trends and age profile influence community needs for open space. The current population of Nillumbik is just over 61,000 and is expected to grow to almost 66,000 in 2031 (DSE 2004), refer to Figure 1. With the introduction of *Melbourne 2030*, which in the context of Nillumbik, introduces an Urban Growth Boundary and directs population growth to established areas, there is an expectation that the bulk of the population increase and higher density developments will occur in and around identified activity centres of Greensborough, Eltham and Diamond Creek.



Table 1 and Figures 2 and 3 below provide a breakdown of the age structure of Nillumbik and the Melbourne Statistical Division, (which comprises of a geographical area of metropolitan Melbourne devised by the Australian Bureau of Statistics, (ABS)). As can be seen from the data by comparison with the metropolitan average, Nillumbik is a comparatively young community where the proportion of people aged below 18 years is approximately 30 per cent (approx 23,000 people) and by 2021 this figure is expected to decrease to 23 per cent, (approx 14,500 people). People aged between 18 and 49 represent approximately 48 per cent of the population (approx 28,000 people) and this figure expected to decrease to around 43 per cent (approx 27,000 people) by 2021. The most significant population change is expected to be the number of people over the age of 50 which is currently approximately 22 per cent of the population (approx 13,000 people) and this is expected to increase to 34 per cent (approx 21,000 people) by 2021.

The population in some established urban areas, township communities and rural areas is generally older, while many of the newer residential areas such as Eltham North, parts of Diamond Creek and Wattle Glen have generally younger populations. Greensborough, Eltham and Research predominantly have maturing family age structures with teenage children, (Department of Infrastructure,(DoI) 2000 Victoria in Future).

**Figure 1: Population projections for Nillumbik 2004 to 2031**



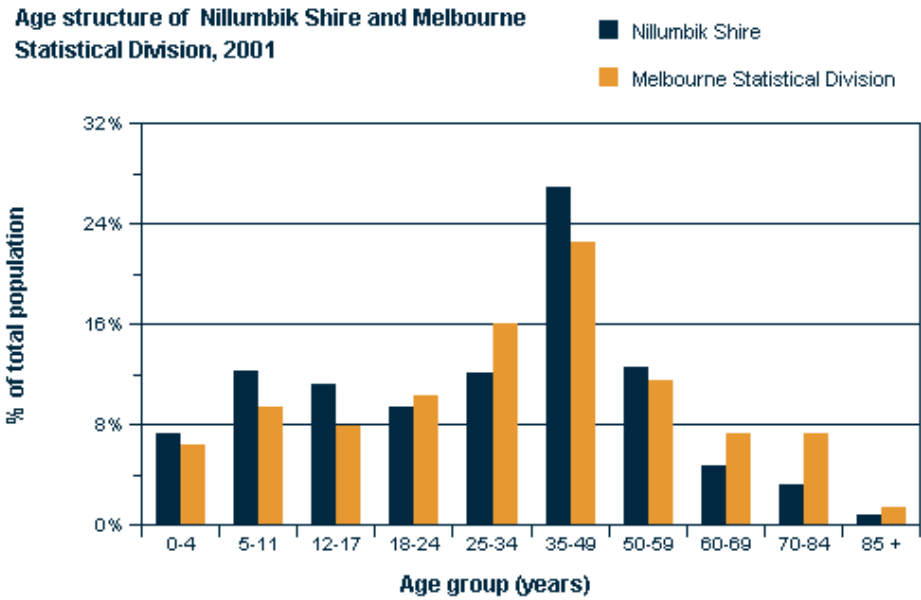
Source: Department of Sustainability and Environment, Victoria in Future (website Know your Area [www.dse.vic.gov.au](http://www.dse.vic.gov.au)).

**Table 1: Age Structure of Nillumbik Shire and Melbourne Statistical Division for 1996 and 2001**

Age structure	2001			1996		
age group (years)	number	%	Melbourne Statistical Division %	number	%	Melbourne Statistical Division %
0-4	4,175	7.2	6.4	4,138	7.6	6.9
5-11	7,042	12.2	9.4	7,265	13.4	9.5
12-17	6,467	11.2	7.9	6,030	11.1	8.0
18-24	5,470	9.4	10.2	5,181	9.5	11.1
25-34	7,011	12.1	16.0	7,316	13.5	16.7
35-49	15,501	26.8	22.5	15,310	28.2	22.5
50-59	7,311	12.6	11.5	5,173	9.5	10.0
60-69	2,709	4.7	7.3	2,039	3.8	7.3
70-84	1,844	3.2	7.3	1,522	2.8	6.8
85 and over	401	0.7	1.4	302	0.6	1.2
Total	57,931	100.0	100.0	54,276	100.0	100.0

Source: Derived from the Australian Bureau of Statistics, Census of Population and Housing, 2001, 1996 and 1991.

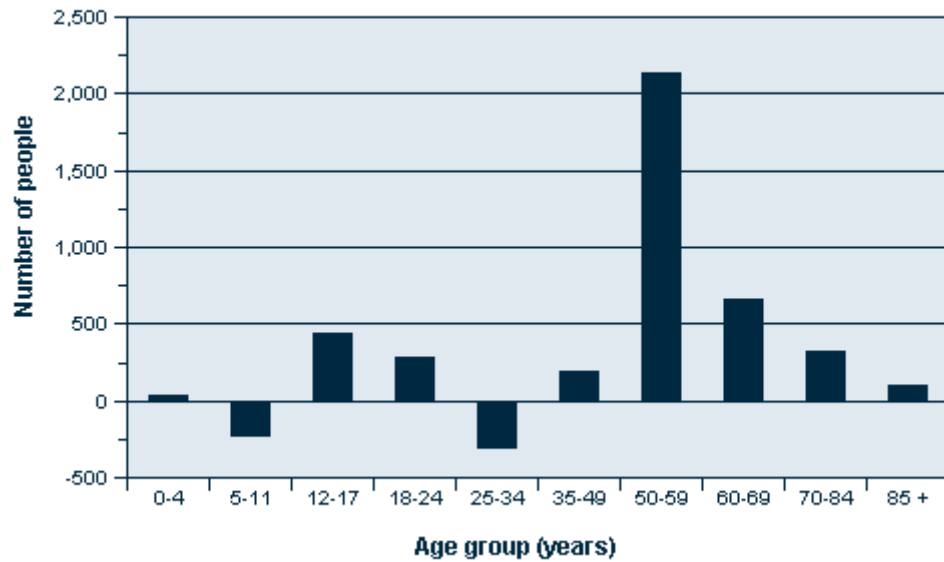
**Figure 2**



Source: Derived from the Australian Bureau of Statistics, Census of Population and Housing, 2001, 1996 and 1991.

**Figure 3**

**Change in age structure of Nillumbik Shire, 1996 to 2001**



Source: Derived from the Australian Bureau of Statistics, Census of Population and Housing, 2001, 1996 and 1991.

## **Issues**

- The population characteristics and trends show that there is a need to cater for a range of open space types including active and passive facilities. While the Shire will experience only modest growth, there is a high expectation for that growth to occur within established areas particularly Greensborough, Diamond Creek and Eltham. The population trends indicate there is a need to consider the comparatively large population of younger people within the Shire but also acknowledge in the longer term the population will age significantly.
- In the short to medium term there will be a need to cater for families with young children, particularly in the newer areas of the Shire. Facilities include such things as local parks, playgrounds and providing a range sporting opportunities.
- There will be a continuing need to develop open space trails and links that provide for well maintained shared pathways, catering for a wide range of users.
- The high proportion of younger residents requires specific recreational needs including such things as sporting activities, parkland activities and provision of trails including cycling, walking and horse riding.
- Given an ageing population open space will need to cater for recreational needs of older people.
- With the increase in expectation for higher density developments in established areas, there is a need to further develop and improve existing open spaces including linking trails and providing for open space that can be easily walked to.

## Community Needs and Expectations



Council has undertaken a range of community surveys and workshops during the preparation of the Open Space Strategy, Recreation Strategy (2000) and the Recreational Trails Strategy (2001).

Survey results during the development of the Recreation Strategy showed that more than two-thirds of residents walk for pleasure. Half are involved in picnics/barbecues and one third cycle and/or participate in bushwalking and bird watching. Walking and cycling trails are the most visited open space facilities in the Shire with two thirds of residents using them in the last 12 months. Other popular facilities include local parks and playgrounds, National/State parks and wetland and bushland reserves.

Key outcomes arising from a community survey undertaken in 2000 regarding open space found that walking, bike riding and dog walking were identified as the main leisure activities residents participated in. Other key outcomes included accessibility and distance to open space, the importance of natural areas and the popularity of district parks such as Eltham Lower Park. Local neighbourhood parks also featured highly. A key outcome was the need to improve the maintenance of parks including such things as protection of remnant vegetation, weed control, revegetation and the need to provide more information about Nillumbik's open space. Appendix 2 provides more detailed community responses regarding open space.

## **Issues**

- Higher numbers of residents are involved in casual recreational activities than participate in organised sport.
- There is widespread demand for more shared paths including equestrian trails, bicycle and walking paths and there is a need for these paths to be linked.
- There is a need to improve the quality of existing paths and provide for improved amenities such as signage, weed control, provision of seats/shelters, drinking taps and available information.
- Walking and cycling paths and local parks/playgrounds are the most popular facilities in the Shire.
- There is a need to develop the larger regional parks around the Shire which are popular destinations.
- Open space plays a major role in the protection and enhancement of the natural environment.
- There is a need to cater for people who walk dogs within Council's open space system, and to provide bridal trails in rural parts of the shire.

## Conservation Values

### Landscape

Open space provides an important function in influencing local as well as broad landscapes. The mountains and foothills of Kinglake National Park provides a magnificent backdrop to the Shire particularly when traveling along Arthurs Creek Road or on vantage points in Christmas Hills. Other key open space landscape features include the Plenty Gorge Parklands which provides a steep treed bushland terrain that extends well into the residential areas of Greensborough. The Yarra River also provides many panoramic vistas from peaceful bushland settings such as Griffith Park and Eltham Lower Park to the steep gorges that occur around North Warrandyte, Kangaroo Ground and the Bend of Islands. Probably the most well known landmark open space in the Shire is the Kangaroo Ground Memorial Tower which is located on a prominent hilltop of 237 metres which can be seen for many kilometres in all directions.

At a more local level open space also provides important landscape settings for urban areas. Properly planned and well maintained local parkland is important in creating a sense of place and can play a major role in improving the general ambiance of residential and commercial areas. Well vegetated open space provides attractive backdrops and also contributes to the local ecology of the area.

### Issues

- Open space in Nillumbik makes a significant contribution to the landscape from broad landscapes to smaller residential and commercial settings.
- There is a need to recognize key landscapes and accessible vantage points across the Shire, and identify the role open space can play in protecting these areas.

### Native Flora and Fauna

The Shire of Nillumbik is recognised for its high conservation values. Key regional environmental reserves include Kinglake National Park on the northern boundary, Warrandyte State Park and Yarra Valley Parklands along the Yarra River and Plenty Gorge Parklands along the Plenty River. The proposed Warrandyte to Kinglake nature conservation link within the Watsons Creek catchment will also be a highly significant component of the conservation open space network. Council also manages a number of important environmental reserves including the Panton Hill Bushland Reserve system, Professors Hill and Chase Reserve in North Warrandyte, reserves in Eltham containing the endangered Eltham Copper Butterfly, (*Paralucia pyrodiscus lucida*), the Kalbar Road Spider Orchid Reserve and a system of linear parkland

along the Diamond Creek that includes the significant Challenger Street Wetlands.

The Shire of Nillumbik is very fortunate to have retained large areas of native vegetation that occurs on both private and public land. Map 1 identifies the extent of remaining remnant vegetation by its Ecological Vegetation Class. This map shows that key conservation open space plays an important role in protecting biodiversity including specific vegetation communities. The map also shows that significant remnant vegetation occurs on privately owned land. In circumstances where high environmental values occur on private land there is a need to ensure appropriate planning controls apply including the use of Environmental Significance Overlays and where possible encourage land stewardship programs such as Trust For Nature Conservation Covenants.

Of the 346 native faunal species recorded in Nillumbik, 44 species are listed as rare or threatened in Victoria and 7 of these species are listed as Nationally threatened, (Department of Sustainability and Environment 2003). Appendix 3 provides a summary list of faunal species occurring in Nillumbik and their conservation status. In relation to native flora, 723 species have been recorded of which 44 species are listed as rare or threatened in Victoria and there are 14 species listed as Nationally threatened, (Department of Sustainability and Environment 2003b). Appendix 4 provides a summary list of flora species occurring in Nillumbik and their conservation status.

The Shire's waterways and corridors are an integral component of Nillumbik's open space system and also provide key habitat links for native flora and fauna and offer unique landscape settings. Well-managed open space areas can play a large part in protecting the health of creeks, rivers and wetlands and can be natural corridors for wildlife. Open spaces along our waterways are also ideal places for low-impact activities such as cycling and walking, however, these activities can have adverse effects if not well-managed, potentially causing degradation through such things as bank erosion, habitat disturbance and weed invasion.

### **Issues**

- Private and public land together plays an important role in protecting biodiversity and the Shire's open space network plays a key function in protecting rare and threatened native flora and fauna and vegetation communities.
- Providing adequate parkland along waterways provides an important function in protecting environmental qualities of the waterways and creating important habitat links.
- Priority should be towards protecting areas with high environmental values.



- Acquiring and rehabilitating land along key waterways should be a priority for future development of Nillumbik's open space network.
- It is important to ensure land use and development does not adversely impact on the environmental values of adjoining the open space.

## Cultural Heritage

Prior to European arrival in the Yarra Valley, the region that is today the Shire of Nillumbik was inhabited by the Wurundjeri-willam, a clan of the Woiwurung language group. Evidence suggests that this region has been populated for 30,000 to 40,000 years and a large number of existing and potential archaeological sites testify to the long-term occupation of the original inhabitants. The most common relics are scar trees, and stone artefacts found on the ground, either in isolation or in scatters. It is possible that there are a number of heritage sites in the Shire which have not yet been found, particularly along waterways, (du Cros 1996). Aboriginal heritage sites are protected by the *Aboriginal and Torres Strait Islander Heritage Protection Act* (1989).

European cultural influences have also left their mark on the Shire's open spaces. Of regional importance is the former Maroondah Aqueduct which bisects the Shire from Christmas Hills through to Greensborough. Melbourne Water is currently undertaking a heritage study of the entire aqueduct which will be useful in determining how the heritage values of the aqueduct can be best protected and at the same time developing it into a regional recreational trail. Council should ensure this study is completed first before there are any decisions made in relation to the future of the aqueduct.

The Heritage Overlay in the Nillumbik Planning Scheme recognises the cultural significance of a number of public open spaces, for example:

- The original plans for Alistair Knox Park in central Eltham were prepared by Alistair Knox, Gordon Ford, Peter Glass and Ivan Stranger, all renowned pioneers of the 'bush landscape' style (Bick et. al. 1992).
- Wingrove Park in Eltham has historic significance as a travellers' stop where people would camp overnight in the early days of the township, and cultural significance as a place for local landscape artists, such as Max Meldrum.
- The Diamond Valley Miniature Railway, built in 1961, is considered to be one of the best examples of its kind in Victoria.
- Significant trees occur at a number of sites including Diamond Creek Reserve and Wingrove Park.
- The Old Police Paddock in St Andrews, adjacent to the market site, functions as a community gathering space on Saturday mornings in association with the St Andrews Market.

- The Kangaroo Ground War Memorial Reserve is a historically significant site and is listed in the Heritage Overlay.
- Parts of the Maroondah Aqueduct are listed in the Heritage Overlay.

#### **Issues**

- There is a need to protect sites of Cultural Heritage that occur within the open space network.
- There are many opportunities to recognise Nillumbik's indigenous heritage within the open space network, through such areas as signage and naming of reserves.
- There is a need to develop information regarding the cultural heritage of open space.
- Providing parkland along waterways may also protect sites of Aboriginal heritage.

## Section 2: Strategic Directions for the Open Space Network

### Vision

- Nillumbik will provide a diversity of open space with a range of high quality regional, district and neighbourhood parks linked by a network of trails.
- Nillumbik's open space network will be easily accessible and provide all residents and visitors with a range of passive and active recreation opportunities.
- Nillumbik will ensure its open space is developed and managed on a sustainable basis to meet the needs of the community and protect environmental values for present and future generations.



The Open Space Vision will be supported by five Guiding Principles. The Guiding Principles establish a framework for how decisions will be made in relation to public open space.

## **Guiding Principles**

### **Diversity**

Maintain and enhance the open space network to cater for the community's wide range of recreation and leisure activities.

### **Quality**

Ensure the open space network is of a high quality that caters for local residents and visitors to the Shire.

### **Access**

Ensure open space is equitably distributed across the Shire and linked through a comprehensive network of trails.

### **Sustainability**

Protect areas of significant environmental value including remnant vegetation, habitat, waterways, cultural heritage and areas of landscape significance.

### **Partnerships**

Work in partnership with government agencies and the local community in the planning and management of open space, trails and recreation facilities.

# The Open Space Network

## Open Space Systems

The Open Space Strategy provides a framework for developing and enhancing the open space network to meet the current and future needs of residents and visitors to Nillumbik. In many ways the opportunities and need for open space and recreation facilities is different between urban and rural areas, and on this basis the Open Space Strategy has identified two distinct yet overlapping systems, urban and rural. It is recognised that this distinction is not always apparent as some urban areas are quite rural in nature and some rural areas are quite residential. This diversity within each open space system has been addressed.

On a general level in **urban areas** the open space system needs to be easily accessible and provide opportunities for large numbers of people to enjoy wide ranging recreational facilities. It also needs to protect local environmental values and provide an extensive network of shared pathways.

On a general level in **rural areas** the emphasis should be towards developing key regional and district recreational areas, enhancing and developing open space within townships and settlements, protecting native flora and fauna and developing a comprehensive regional based trail network. The rural open space system should also provide focal points for the smaller communities of the Shire and cater for local residents as well as encouraging tourism.

## Elements

An interesting and successful open space network is made up of elements, three fundamental elements are reserves, nodes and trails.



**Reserves.** This is the common term for land accessible to the public for recreation activities. Reserves range in size from small neighbourhood parks such as Ryans Reserve in Diamond Creek to large conservation areas such as the Panton Hill Bushland Reserve System.



**Nodes.** Within the urban and rural open space network, there are popular destinations with special features, trail linkages and/or facilities like Eltham Lower Park and the Kangaroo Ground Memorial Tower which attract large numbers of visitors and which are often destination points. These nodes provide the opportunity for enjoying unique landscapes, features and recreation facilities and are the focal points of the open space network.



**Trails** link the reserves and nodes together and provide access to open space outside the Shire. While the trail system is ideally off road, the quiet nature of the Shire also allows opportunities to identify routes linking open spaces that incorporate off road trails and at times minor roads.

## Urban Open Space System

### Objectives

To implement Council's Open Space Vision the urban space system will:

1. Provide a network of regional and district recreation nodes in strategic locations.
2. Provide accessible, functional and diverse open space within walking distance from all homes.
3. Contribute to the protection of environmental, heritage and landscape values.
4. Provide an expansive trail network that is accessible for all users.
5. Inform residents and visitors to the Shire of the environmental and cultural values of the Shire

The Open Space Strategy has identified the following areas within the Urban Open Space System:

- Diamond Creek
- Greensborough (North)
- Eltham
- North Warrandyte
- Plenty
- Yarrambat

These areas are often quite diverse and include a mixture of urban, low density and sometimes rural areas particularly at the urban rural interface. While there are exceptions that have been identified, typically the suburban areas are well served by a network of regional, district and local open spaces.

## Summary of Existing Open Spaces

Below is a summary of the open spaces for each suburb within the Urban Open Space System. More details are available in the Open Space Inventory.

**Table 2: Number of Reserves at a Regional/District and Local/Neighbourhood level**

Suburb	Regional/District		Local/Neighbourhood	
	Passive Recreation/ organised sport	Dedicated Conservation Reserves	Passive Recreation/ organised sport	Dedicated Conservation reserves
Diamond Creek	3	0	33	2
Eltham	5	9	11	2
Eltham North	2	0	13	1
Greensborough (North)	1	0	3	0
North Warrandyte	0	6	2	2
Plenty	1	1	3	0
Research	1	0	1	4
Yarrambat	2	1		0

**Table 3: Area of Reserves based on level of significance and use**

Suburb	Level of Significance (Ha)		Use (Ha)		
	Regional/ District	Local Neighbourhood	Passive Recreation/Organised sport	Conservation	Connection
Diamond Creek	63	22	108	2	36
Eltham	222	36	139	101	21
Eltham North	19	14	29	12	29
Greensborough (North)	7	22	27	3	20
North Warrandyte	150	5	0.2	154	0.5
Plenty	246	1	33	234	9
Research	17	14	8	12	17
Yarrambat	320	5	192	133	0

## Existing Regional and District Open Space

Map 2 identifies the existing Regional and District Open Space across the Shire. Within the urban areas, these are primarily focused on the waterways of the Yarra River, Diamond Creek and the Plenty River.



Much of the open space along the Yarra River and Plenty River are State parklands and include Warrandyte State Park and Yarra Valley Parklands and the Plenty Gorge Parklands which includes the popular Yellow Gum Park that incorporates Blue Lake. At this stage a large portion of the Yarra Valley Parklands for example around Glynns Road remain undeveloped with no provisions for the public. Council owned and managed regional and district reserves primarily occur along the Diamond Creek and include Eltham Lower Park, Alistair Knox Park/Eltham Central Park, Eltham North Reserve/Edendale Farm Community Environment Centre and the Diamond Creek Reserve/Nillumbik Park in Diamond Creek.

## Existing Recreational Nodes

There are five main Recreation Nodes within the urban open space system. These include

- Eltham Lower Park/Lenister Farm.
- Alistair Knox Park, Eltham.
- Edendale Farm Community Environment Centre/Eltham North Adventure Play Park.
- Diamond Creek Reserve/Nillumbik Park, Diamond Creek. and
- Yarrambat Park.

Eltham Lower Park/Lenister Farm Wetland is home to the Diamond Valley Miniature Railway and has attractive pathways, wetlands, a bird hide and viewing platform and a direct link to the Main Yarra Trail over the Yarra River. Alistair Knox Park which is located adjacent to the Greg Burgess designed library and the historic trestle bridge, features public art and Gordon Ford natural style landscaping. Edendale Farm Community Environment Centre located next to Eltham North Adventure Play Park offers a unique learning experience and natural environment for family outings. Diamond Creek Reserve and Nillumbik Park encompass a cluster of sports facilities that includes a skate park, BMX track, a swimming pool, shared pathways and wetlands. Yarrambat Park is located outside the main urban areas has a range of active and passive recreation opportunities including golfing, pistol shooting, archery, model aeroplanes, fly fishing and a trotting track.

## Existing Conservation Open Space

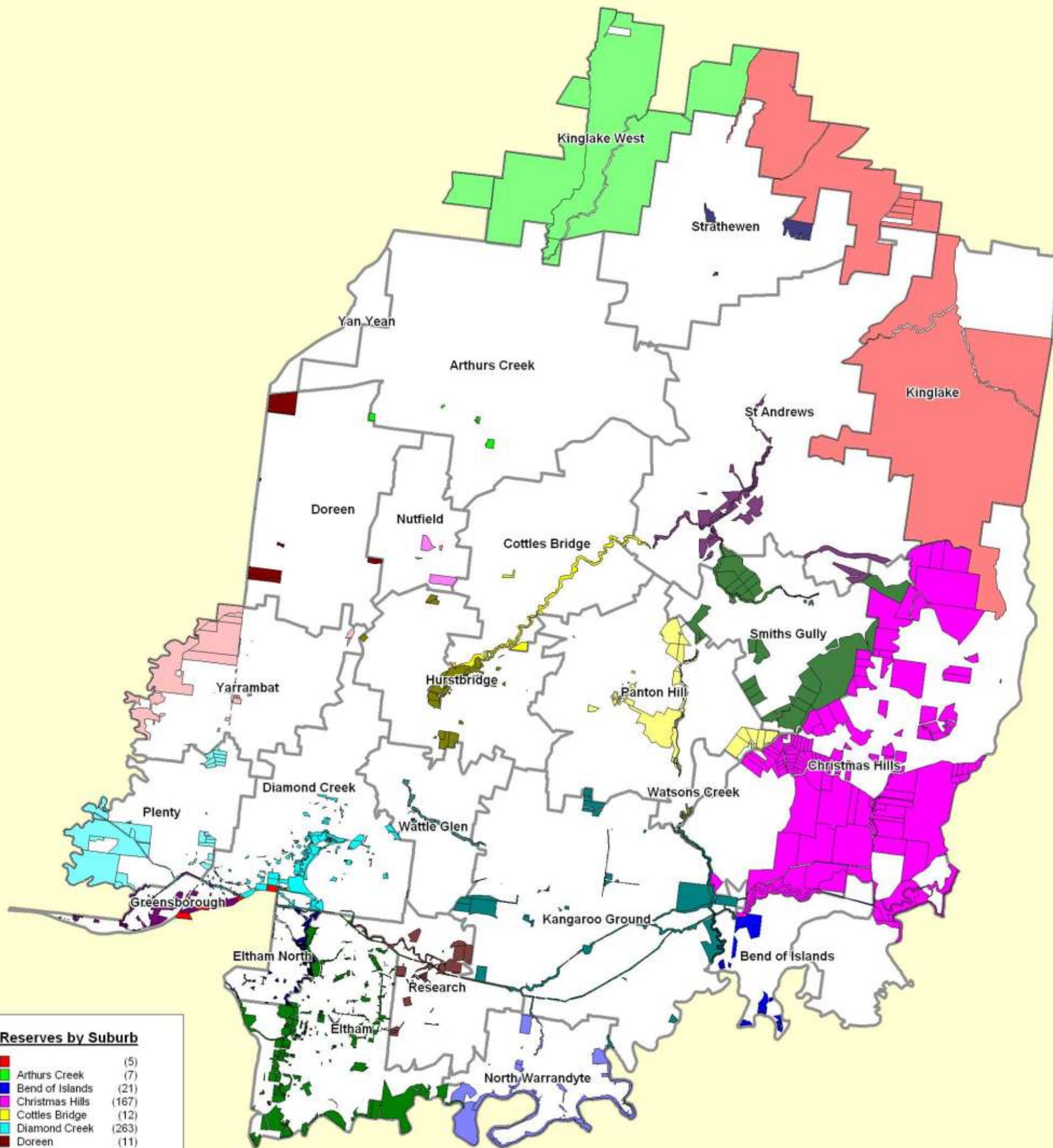
Key conservation open space within the Urban areas are identified on Map 3. These areas occur along the Yarra River, Plenty River and the Diamond Creek. Other specific conservation areas include the Pauline Toner Butterfly Reserve, Diosma Road Reserve and Hohns Hill Reserve which provide important habitat for the endangered Eltham Copper Butterfly (*Paralucia pyrodiscus lucida*). Other significant reserves include Professors Hill Reserve in North Warrandyte and Kalbar Road Spider Orchard Reserve in Eltham. It is also recognised that many recreational reserves also provide important habitat for native flora and fauna.

## **Existing Local and Neighbourhood Open Space**

Map 4A is one of a series of maps which identify the range of recreational open space in each suburb. (Maps of all suburbs have been included as Appendix 5) These maps depict the availability of open space within a 500 metre radius of residential development. It can be seen that most areas can easily access a local, neighbourhood or larger park that provide passive recreational opportunities. This analysis has identified that some areas in North Warrandyte, Eltham South and Eltham/Research do not have easy access to reserves other than specific conservation reserves. This issue will be further discussed in Features and Opportunities Local and Neighbourhood Open Space, page 37.

## **Existing Trails**

Map 5 identifies the existing trail connections and open spaces with a connectivity function. The main existing trail network comprises a shared pathway along the Diamond Creek from Eltham Lower Park to Nillumbik Park in Diamond Creek that connects to the Maroondah Aqueduct Trail and a shared path along Main Road, Eltham. A shared pathway along the Metropolitan Ring Road can also be accessed from areas west of the Plenty River in Greensborough. Shorter trails occur along the Plenty River in Apollo Parkways, which continues into the City of Banyule, a number of trails occur within the Woodridge Linear Reserve and a new trail has been constructed within the Barak Bushlands, Eltham.

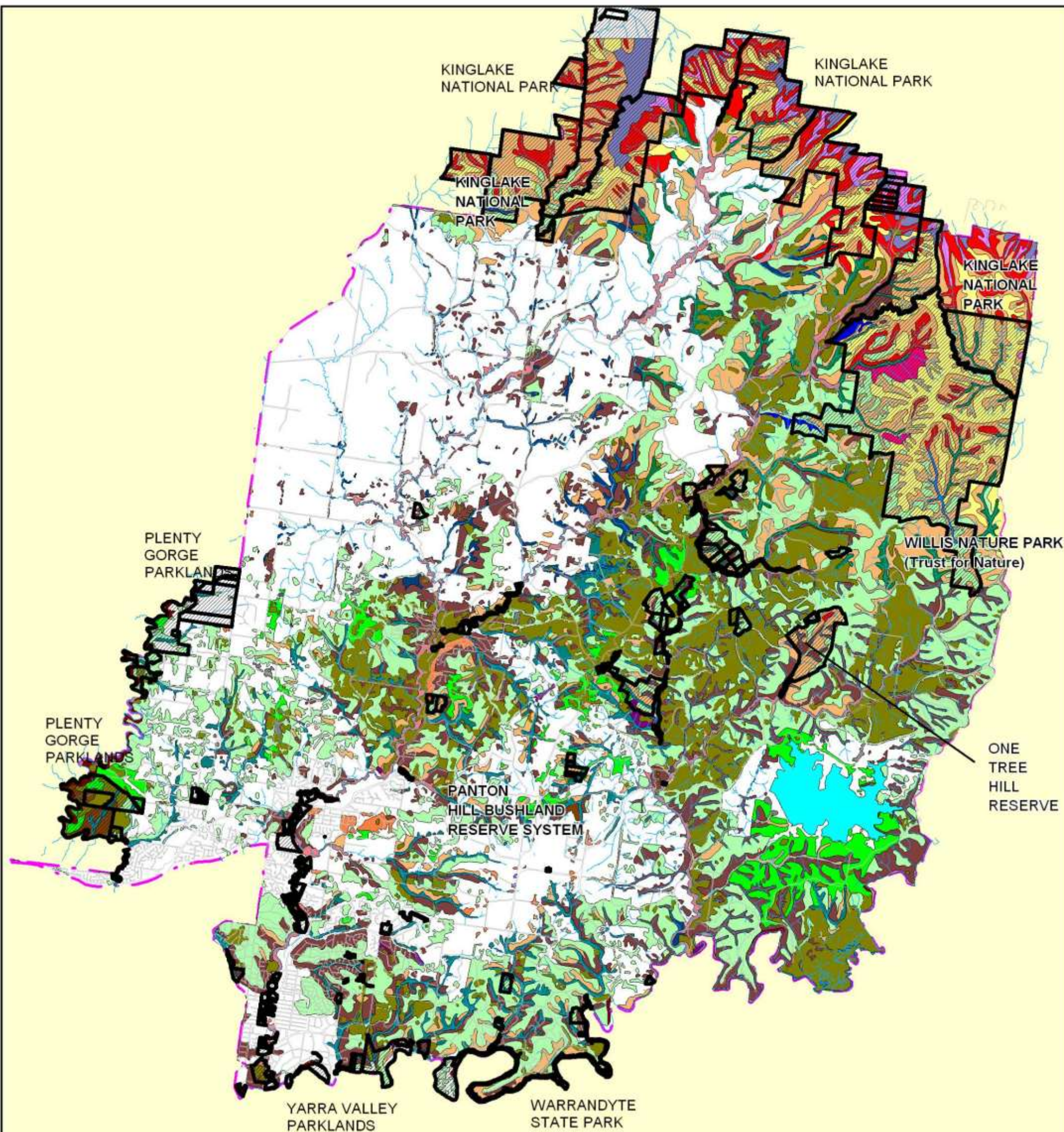


#### Reserves by Suburb

Arthurs Creek	(5)
Bend of Islands	(7)
Christmas Hills	(21)
Cottes Bridge	(12)
Diamond Creek	(263)
Doreen	(11)
Eltham	(341)
Eltham North	(177)
Greensborough	(81)
Hurstbridge	(57)
Kangaroo Ground	(89)
Kinglake	(10)
Kinglake West	(9)
North Warrandyte	(37)
Nutfield	(4)
Panton Hill	(66)
Plenty	(56)
Research	(78)
Smiths Gully	(39)
Strathewen	(4)
St Andrews	(44)
Watsons Creek	(10)
Wattle Glen	(23)
Yarrambat	(47)





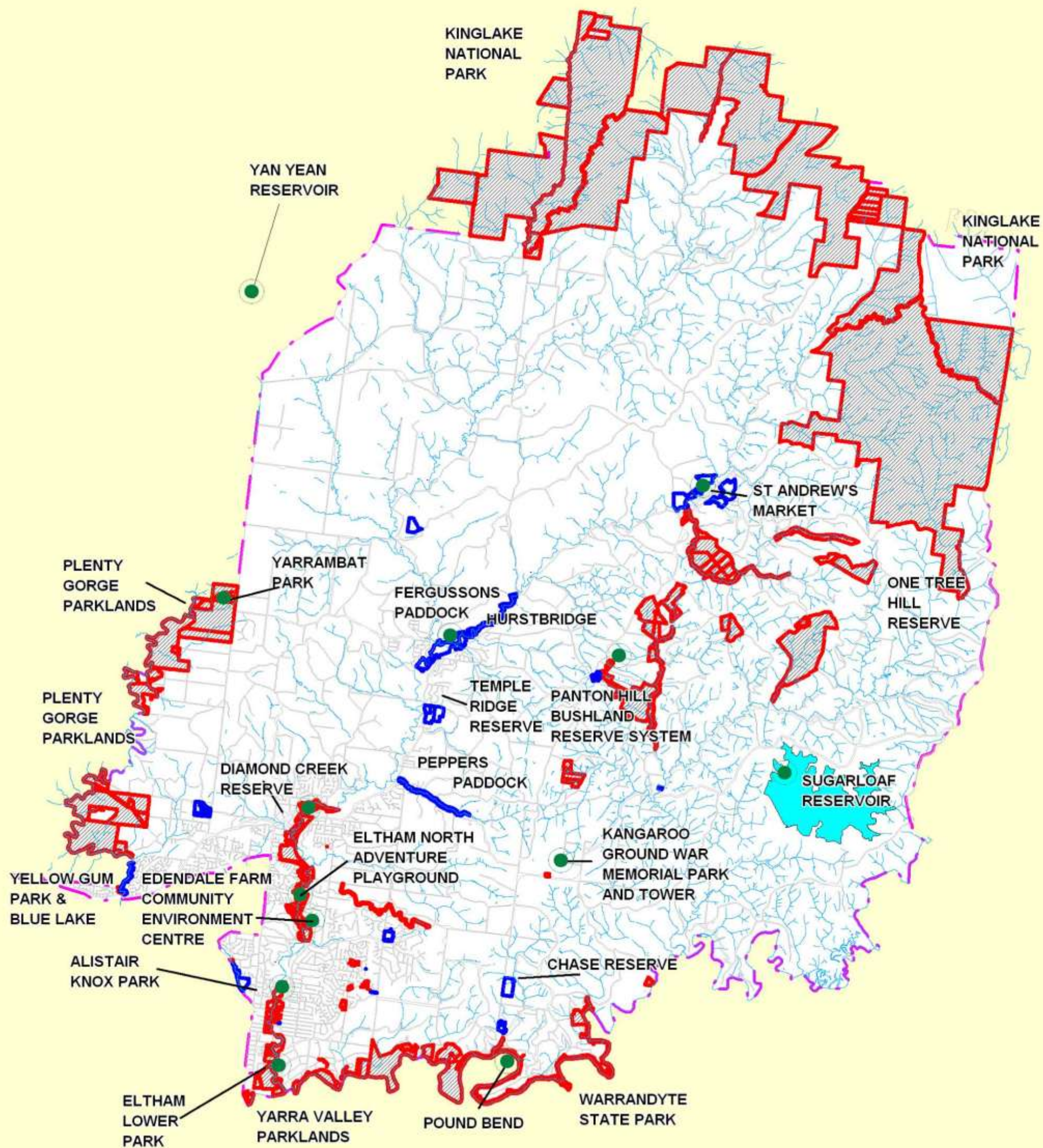


- |                                 |                           |  |  |
|---------------------------------|---------------------------|--|--|
| Regional Open Space             | Riparian Forest           | Plains Grassy Woodland                         | Swampy Woodland                                |
| Creeks / Rivers                 | Heathy Dry Forest         | Box Ironbark Forest                            | Bare Rock/Ground                               |
| Roads                           | Grassy Dry Forest         | Swampy Riparian Woodland                       | Private Land No Tree Cover                     |
| Unknown/Unclassified            | Herb-Rich Foothill Forest | Creekline Herb-rich Woodland                   | Water Body - Natural or man made               |
| Floodplain Riparian Woodland    | Damp Forest               | Grassy Woodland                                | Damp Heathy Woodland/Grassy Dry Forest Complex |
| Swampy Riparian Complex         | Wet Forest                | Damp Heathy Woodland/Grassy Dry Forest Complex | Valley Grassy Forest                           |
| Grassy Forest                   | Cool Temp Forest          | Escarpment Shrubland                           |  |
| Damp Sands Herb - Rich Woodland | Shrubby Foothill Forest   | Gully Woodland                                 |  |





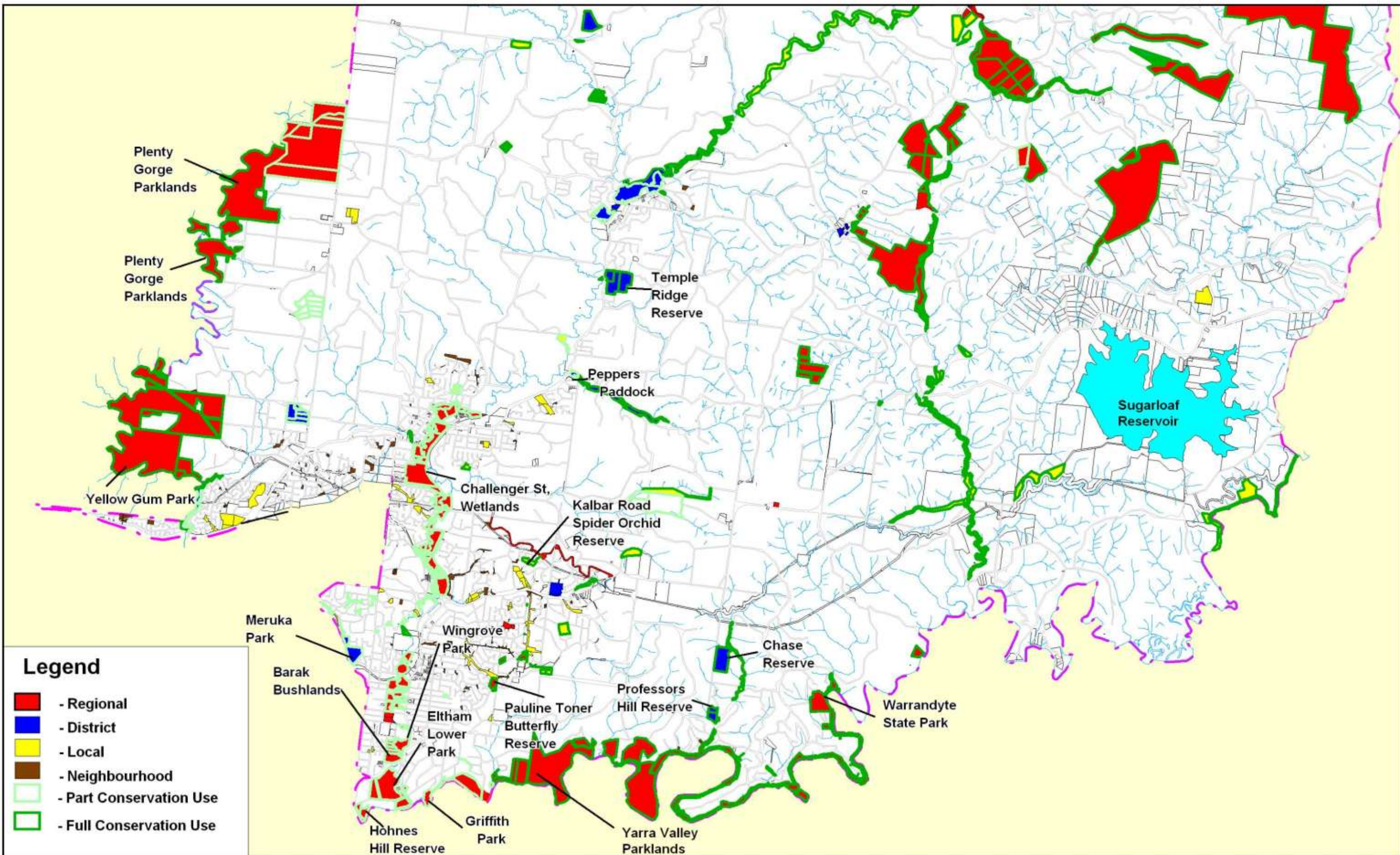








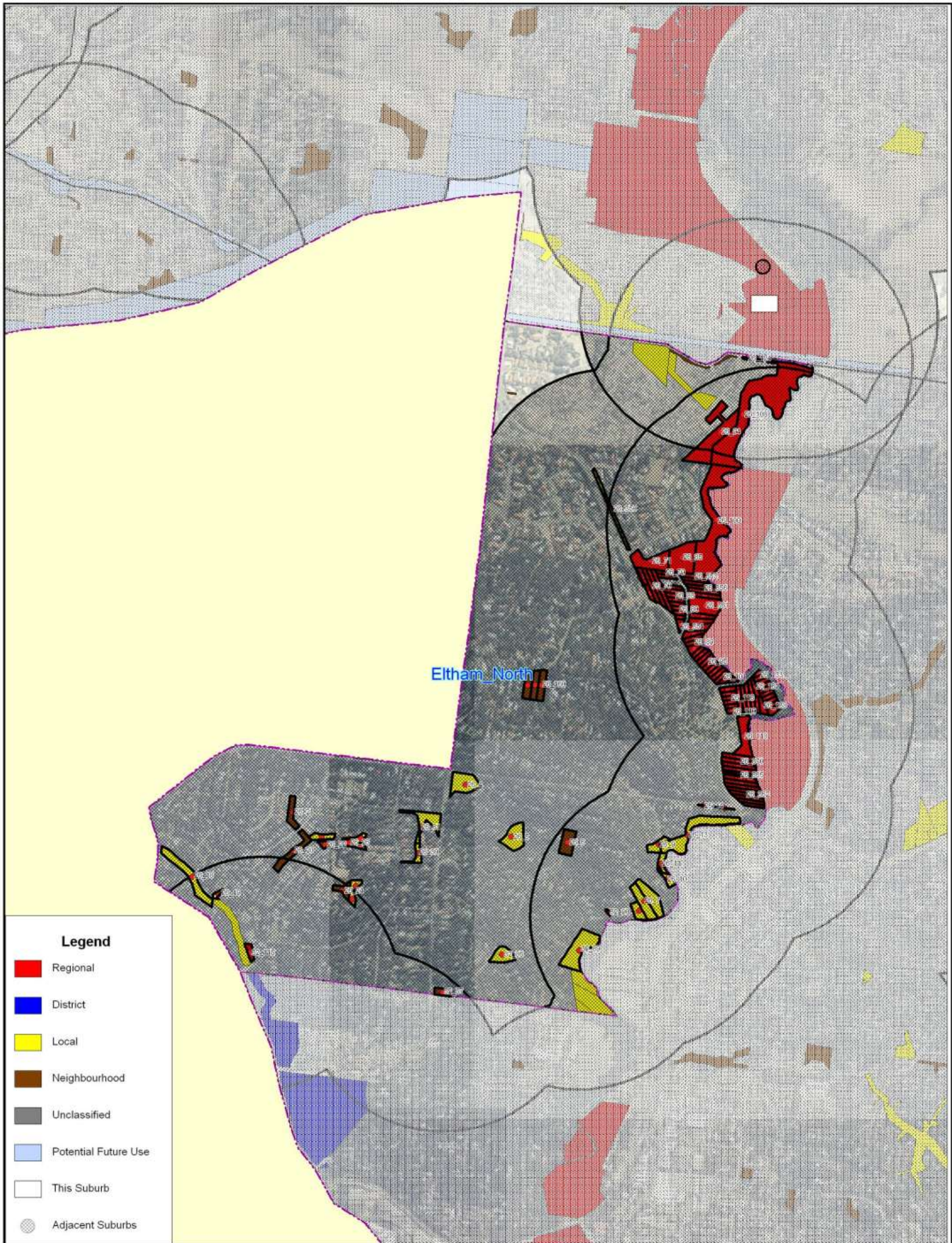








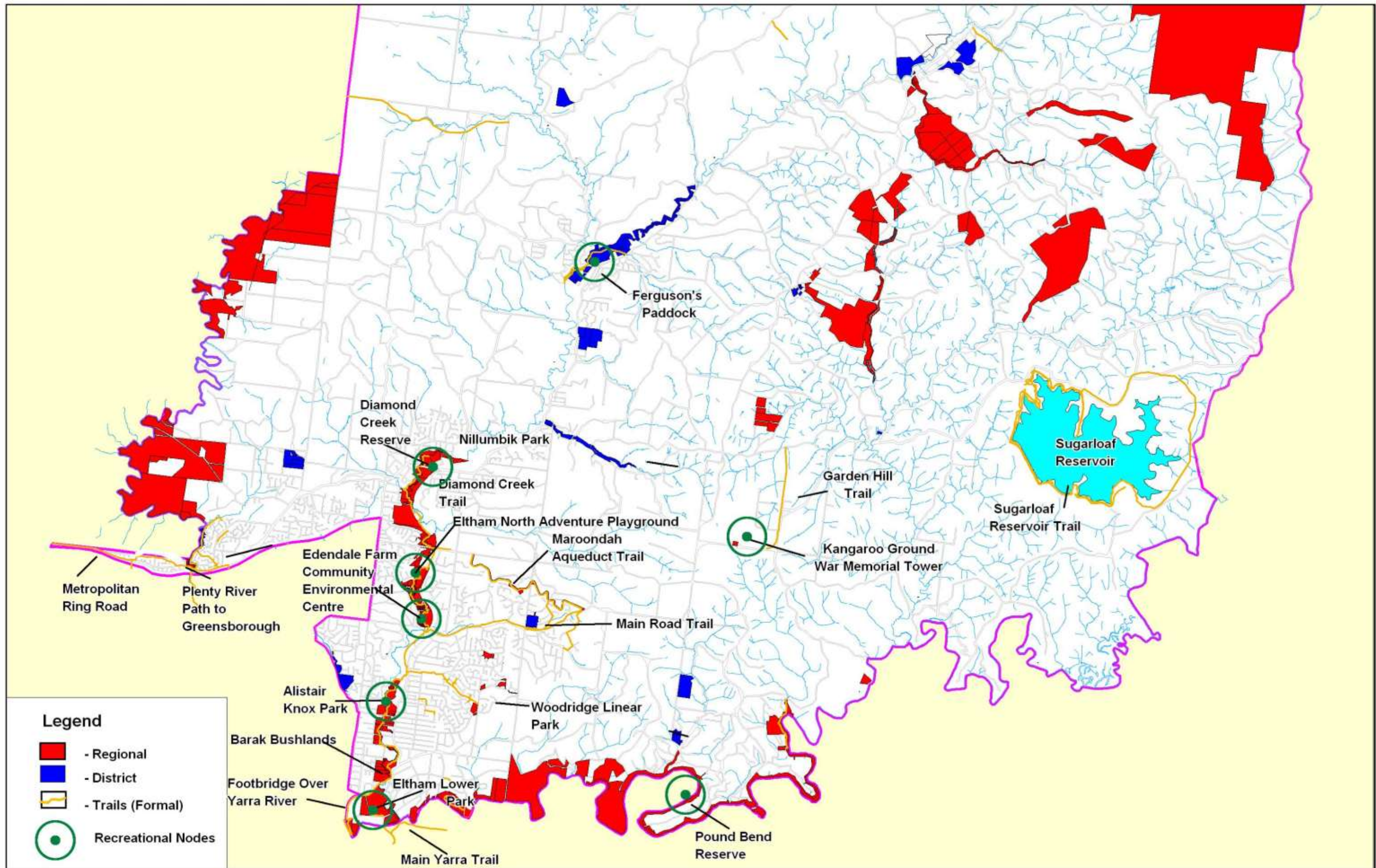












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## Existing Trails & Open Space with a Connectivity Function Urban open space

### Open Space Strategy

0 1 2  
kilometres

MAP 5





## **Features and Opportunities: Urban Open Space System**

While the basic open space network in urban areas is largely in place it is essential to look ahead and identify opportunities for enhancing the network to meet the demands of a growing and changing population. Opportunities for improving access for people with disabilities should be investigated that will provide a range of open space settings and experiences. The proposed open space framework and identified actions provide a long term vision and structure for enhancing the existing network of open space.

## **Regional and District Open Space**

Map 6 identifies the opportunities to develop the regional and district open space system. In summary, the major proposals include the continued expansion and development of open space along the key waterways of the Shire that includes the Yarra River, Plenty River and Diamond Creek. Development of open space along the Plenty River and Yarra River involves Parks Victoria's program of developing the Yarra Valley Parklands and the Plenty Gorge Parklands, where land to be added to these parklands has been identified under the Public Acquisition Overlay 3.

Opportunities to acquire and develop land along the Diamond Creek within Eltham and from Diamond Creek to Hurstbridge should be realised and this will further develop the key regional open space network along the Diamond Creek. At this stage Council has identified land along the Diamond Creek in Eltham under the Public Acquisition Overlay 4 to expand the Diamond Creek Linear Open Space Link. This overlay should be reviewed following acquisition of public open space at 51 Railway Parade, which may influence the overall need to acquire further land along the creek to achieve the best continual link from Wattletree Road to Catholic Ladies College in Eltham. Land acquisition along the Diamond Creek has also been identified in the Development Plan for the new residential area of Area B Diamond Creek North.

Map 19 identifies key areas where Council should consider acquiring further open space and 'fill in the gaps' along the Diamond Creek. Another area that should be investigated for acquisition involves creating a link between the future reserve at the current Kangaroo Ground Waste Disposal Site and the small reserve at the rear of Eltham College on Crest Road, Research.

The other major need in relation to regional and district open space is to improve the existing parklands through such things as seating, improved pathways, car parking facilities, toilets, weed control, revegetation and play equipment. These issues will be dealt with as master plans and management plans are prepared for each major reserve.

## **Recreational Nodes**

The existing recreational nodes within the Shire have developed in a somewhat ad hoc fashion and it is recommended that the current attractions and facilities offered within each node is analysed to see how well they meet community needs and expectations.

The Open Space Strategy identifies the need for the creation of two additional nodes within the urban areas; one at the Nillumbik Shire Council Offices precinct in Greensborough and another at the Challenger Street Wetlands Reserve. The Challenger Street Wetlands Reserve is a unique conservation area along the Diamond Creek floodplain. Given that it is currently undeveloped, opportunities exist here to develop the reserve so that it can provide access for all disabilities. The Civic Drive Nillumbik Shire Council Office precinct offers spectacular views of Melbourne that includes the city centre skyline. The precinct also has a sports complex, the municipal offices and library, a natural amphitheatre, large areas of open land and a trail network to the Plenty River. There is also the possibility of linking this site to the Metropolitan Ring Road Trail. This precinct has been also identified as a “neighbourhood activity centre” by the Nillumbik Activity Centre Review, 2002 and it is proposed that a future structure plan be undertaken for this precinct. Both nodes can support a range of recreation facilities and are easily accessible to residents in Greensborough, Plenty and Diamond Creek.

## **Local and Neighbourhood Open Space**

It is generally accepted from a planning perspective, (for example refer to Clause 56.05 Public Open Space, Victoria Planning Provisions) that urban residents should have access to functional public open space that is within approximately 500m walking distance from peoples homes. This is usually provided by local and neighbourhood reserves. This form of open space provides local recreational opportunities, treed landscapes and most importantly provides places where the local neighbourhood can meet and interact. Map 4 identifies urban areas where residents are required to walk further than 500m to parks that provide for passive recreation. Generally the analysis shows that most people in the urban areas are within easy walking distance to some form of functional open space that can be used for passive recreation. The conservation reserves were deliberately excluded from this analysis as they often do not permit the full range of passive recreation opportunities.

More specifically Map 4 identifies that new residential developments occurring in Diamond Creek and in Plenty will require additional areas of open space (which have been identified in the approved Development Plans for each area). Secondly, there are some parts of Eltham, Eltham South and North Warrandyte, where houses are further than 500m away from recreational open space, although most of these areas do have nearby substantial conservation open space, especially along the Yarra River.



## **Improving local open space to address identified deficiencies**

It is difficult to directly address these specific deficiencies through land acquisitions and actions are directed towards improving existing open space within each neighbourhood.

### North Research

There are opportunities to develop the larger areas of the existing Maroondah Aqueduct into a neighbourhood park at the rear of Cameron Court.

### Eltham

Further develop the connectivity reserves behind Christine Avenue and the open space associated with the electricity easement around Valonia Drive.

### North Warrandyte

The small reserve at 4 Weerona Way is a popular local destination on account of the flat terrain, small bitumen path and seating. Opportunities to increase the size of the park should be investigated. Investigate developing the existing Crown land reserve at Summers Road and the North Warrandyte Community Centre to accommodate passive recreation opportunities.

## **Conservation Open Space**

All areas of the open space system provide conservation values, especially in parklands where there is remnant vegetation or waterways. The Open Space Strategy identifies a number of key recommendations that will further enhance the conservation values of the urban open space system, and these have been shown in Map 7. In summary these include:

- Expanding the public reserve system along the key waterways of the Shire namely Plenty River, Yarra River and the Diamond Creek. Key areas along the Diamond Creek include expanding Murrays Wetlands to Allendale Road and acquiring land from Diamond Creek to Wattle Glen and eventually to Hurstbridge to create continuous linear parkland along the Diamond Creek from Eltham to Hurstbridge.
- Improving the Challenger Street Wetlands in Diamond Creek which contains an important wetland and floodplain system of the Diamond Creek.
- Identify and protecting important areas within Meruka Park, which contains threatened native ground flora including the threatened Clover Glycine (*Glycine latrobeana*).
- Protecting habitat of the threatened Eltham Copper Butterfly (*Paralucia pyrodiscus lucida*).
- Continue to provide support to Friends and Landcare groups involved in bushland protection.

In implementing the State Government's *Native Vegetation Framework A Framework for Action, 2002*, it is recommended that Council manage funds associated with any offset requirements development proposals are required to provide. These funds should be used for specific land acquisition of conservation land, revegetation and/or enhanced management of existing bushland.

## Land Identified as Potential Future Use

Map 8 identifies land that is not currently developed as open space but has a potential future use within the open space system. This land primarily includes land owned by VicRoads that has been set aside for the future expansion of the Greensborough Bypass to Ryans Road. If all of the freeway size road reservation is not necessary for a local road (if any), there is an excellent opportunity to create an east-west connection and linear reserve from the Nillumbik Shire Offices, Greensborough to St Helena Shopping Centre and beyond to the Diamond Creek.

The other key parcels of land include the Melbourne Water pipe track which will be discussed under the Trails section and the Plenty Waste Disposal Site, which at some point in the future will be closed as a landfill site and rehabilitated.

## Unclassified Land

Map 9 and the table below identifies land that on a preliminary basis does not appear to provide a current or future open space function. These parcels of land generally include land that has been acquired in the past for other purposes, or are essentially stand alone urban blocks which provide no open space function. It is proposed that each identified parcel be fully assessed in accordance with the assessment criteria described on pages 68-69 which will establish whether the land should be retained in the open space system or is surplus to requirements.

**Table 4: Land identified as Unclassified within the Urban Open Space System**

Street Address	Suburb
26 Worns Lane	YARRAMBAT
1191 Main Road	ELTHAM
4A Wombat Court	ELTHAM
41 Balmoral Circuit	ELTHAM
8 Drysdale Avenue	ELTHAM
2 Lower Road	ELTHAM NORTH
529 Diamond Creek Road	DIAMOND CREEK
531-535 Diamond Creek Road	DIAMOND CREEK
12 Happy Valley Rise	DIAMOND CREEK
58 Main Street	DIAMOND CREEK

Street Address	Suburb
5 Watkins Street	DIAMOND CREEK
1 Watkins Street	DIAMOND CREEK
9-11 Watkins Street	DIAMOND CREEK
15 Watkins Street	DIAMOND CREEK
74 Main Street	DIAMOND CREEK
31 Watkins Street	DIAMOND CREEK
199-201 Broad Gully Road	DIAMOND CREEK
12 Brooks Crescent	DIAMOND CREEK
1 Jessamner Court	DIAMOND CREEK
620 Main Road	ELTHAM
19 Ely Street	ELTHAM
20A Henry Street	ELTHAM
58 Pitt Street	ELTHAM

## Actions for the Urban Open Space Reserve System

1. Review the existing *Public Acquisition Overlay (PAO4)-Diamond Creek Linear Park Open Space Link* to achieve a continual link along the Diamond Creek from central Eltham to Wattletree Road.
2. Consider public acquisition of land to expand Murrays Wetlands, north to Allendale Road, Eltham North.
3. Advocate to the State Government to continue to expand the provision of open space along the Yarra River and the Plenty River in particular land identified in the Public Acquisition Overlay.
4. Continue to implement key improvement projects including the Barak Bushlands (Falkiner Street Reserve) and Urban Forest Project, Challenger Street Wetlands and prepare plans for enhancement of other reserves including Meruka Park and Ryans Reserve which address recreational and conservation opportunities.
5. Prepare promotional and educational material for Council's significant urban conservation reserves.
6. Continue to develop appropriate signage within the urban open space network that recognises Aboriginal tribal and clan territories.
7. Analyse in detail the current network of open space and prepare a strategy for establishing a complete network of well maintained open space that ensures all residences in the urban open space system can access at least a neighbourhood park

that is within 500m walking distance. Key improvements can be made by investigating the following:

- North Warrandyte
    - Expanding the reserve at 4 Weerona Way,
    - Investigate developing the existing Crown land reserve at Summers Road
    - Provide a neighbourhood park at the North Warrandyte Community Centre
  - North Research
    - Develop the larger areas of the existing Maroondah Aqueduct into a neighbourhood park at the rear of Cameron Court.
  - Eltham
    - Further develop the connectivity reserves behind Christine Avenue
    - Develop the open space associated with the electricity easement around Valonia Drive.
8. Having regard to the outcomes of the North East Integrated Transport Strategy advocate to the State Government for a partnership to prepare a concept plan for the development of a new linear park from the Nillumbik Shire Offices in Civic Drive to the Diamond Creek at the Challenger Street Wetlands along land currently reserved for an extension of the Greensborough Bypass.
9. Work with VicRoads on extending the Metropolitan Ring Road Trail by ensuring the proposed widening of the Greensborough bypass Bridge also includes a bicycle/pedestrian lane that connects to the existing Metropolitan Ring Road Bicycle path and to the Plenty River shared path.
10. Advocate to the State Government for Parks Victoria to continue acquisition of land along the Yarra River and Plenty River that has been identified under the *Public Acquisition Overlay (PAO 3) Plenty Gorge Parklands, Yarra Valley Parklands*.
11. Continue to prepare and implement master plans for key regional open space parklands including Eltham Lower Park, Alistair Knox Park, Plenty Park, Eltham North Reserve and the Diamond Creek Reserve/Nillumbik Park.
12. Undertake conservation management plans for the Chase Reserve and Professors Hill Reserve in North Warrandyte.
13. Continue to work in partnership with community groups in improving Council's open space system and continue to provide support to Friends and Landcare Groups involved in revegetation and restoration projects on public open space.

14. Prepare concept plans and development frameworks for new recreational nodes at the Nillumbik Shire Council Offices precinct.
15. Identify areas within the open space system that can be developed to provide access for all disabilities. The areas selected should provide a cross section of open space types and settings. Issues to address include parking, environmental impacts, facilities, gradients, paths and trails. These issues should be addressed as part of the master planning process for regional open spaces. Current areas to investigate in the short term include Challenger Street Wetlands and Barak Bushlands.

## Trails

Walking and bike riding are highly popular recreational activities and the current urban trail network is limited and should be substantially extended and improved. The proposed Metropolitan Trail Network and Parks Victoria's *Linking People Linking Spaces* identifies a series of actions that will improve the trail network which include:

- Improving trail access along the Plenty and Yarra Rivers.
- Extending the Diamond Creek trail to Hurstbridge.
- Improving and substantially extending the Maroondah Aqueduct Trail to Sugarloaf Reservoir, (which is discussed in the Rural Open Space System).

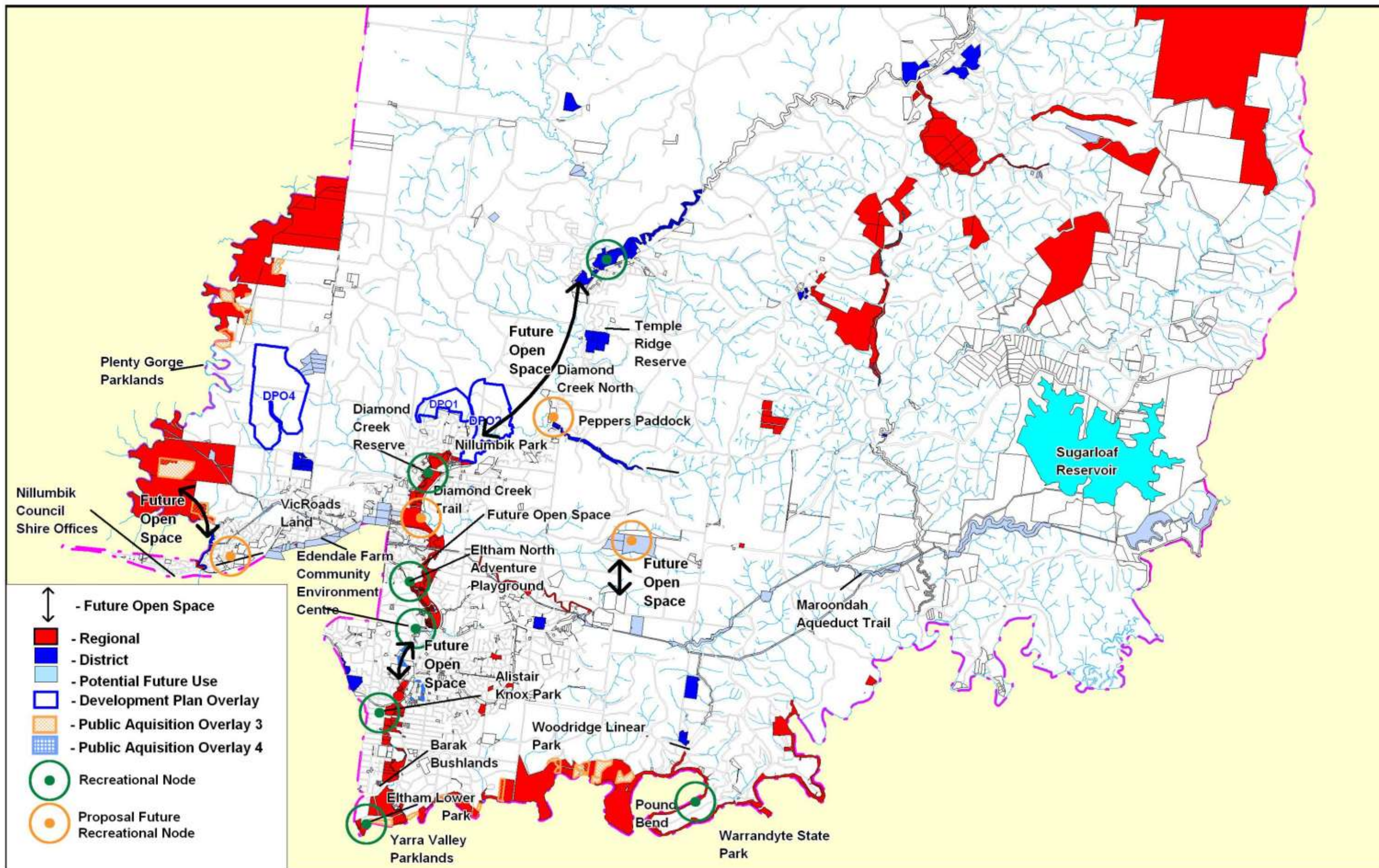
These recommendations together with other actions are shown on Map 10 and are described in detail by the following actions. Key areas of improvement will focus on extending the current shared path network, improving connectivity between existing trails, linking to the metropolitan trail network, and providing connections between the urban and rural trail networks.

## Actions for the Urban Trail System

16. Improve the existing Diamond Creek Trail by improving the overall signage and condition of the trail. Key areas include:
  - northward from Eltham Station to Edendale Farm Community Environment Centre
  - upgrade the trail connection across Main Road Diamond Creek. This can be incorporated as part of signalling the Elizabeth Street and Main Road intersection.
17. Extend the Diamond Creek Trail to Hurstbridge.
18. Connect the Maroondah Aqueduct Trail to Diamond Creek Trail at Allendale Road along the old Maroondah Aqueduct.
19. Investigate the practicalities of utilising the decommissioned Maroondah Aqueduct Siphon Bridge across the Plenty River to connect into new paths within the City of Whittlesea.

20. Investigate a walking path along the Stony Creek from the Maroondah Aqueduct to the Yarra River in North Warrandyte and Kangaroo Ground that includes providing better public access to Chase Reserve in North Warrandyte.
21. Undertake the construction of local shared pathways in new residential areas of Diamond Creek and Plenty in accordance with the approved Development Plans and Development Contribution Plans for Area B Diamond Creek and the Plenty Low Density Residential Area.
22. In liaison with Parks Victoria extend the trail network along the Yarra River by creating links along the entire length of the Yarra River.
23. In liaison with Parks Victoria investigate the feasibility of constructing a pedestrian bridge across the Yarra River at Glynns Road parkland to Pound Bend, Warrandyte State Park.
24. In liaison with Parks Victoria encourage the extension of the trail network along the Plenty River from Greensborough to Yarrambat Park, through the Plenty Gorge Parklands.
25. Work with VicRoads on extending the Metropolitan Ring Road Trail by ensuring the proposed widening of the Greensborough bypass Bridge includes a bicycle/pedestrian lane that connects to the existing Northern Ring Road Bicycle path and to the Plenty River shared path.
26. As part of Recommendation 7 investigate the extension of the Metropolitan Ring Road Trail by utilising the existing VicRoads land from the Nillumbik Shire Office precinct to the Challenger Street Wetlands Reserve.
27. In liaison with Melbourne Water investigate using the existing Melbourne Water Pipe Tracks for shared paths. Key shared paths could occur from the Plenty River in Greensborough to the St Helena Shopping Centre and to the Diamond Creek at Allendale Road and utilising the pipe track to improve access and entrances to the Maroondah Aqueduct Trail.
28. Investigate ways of providing a link from the Maroondah Aqueduct Trail in Research to the former Kangaroo Ground Waste Disposal Site.

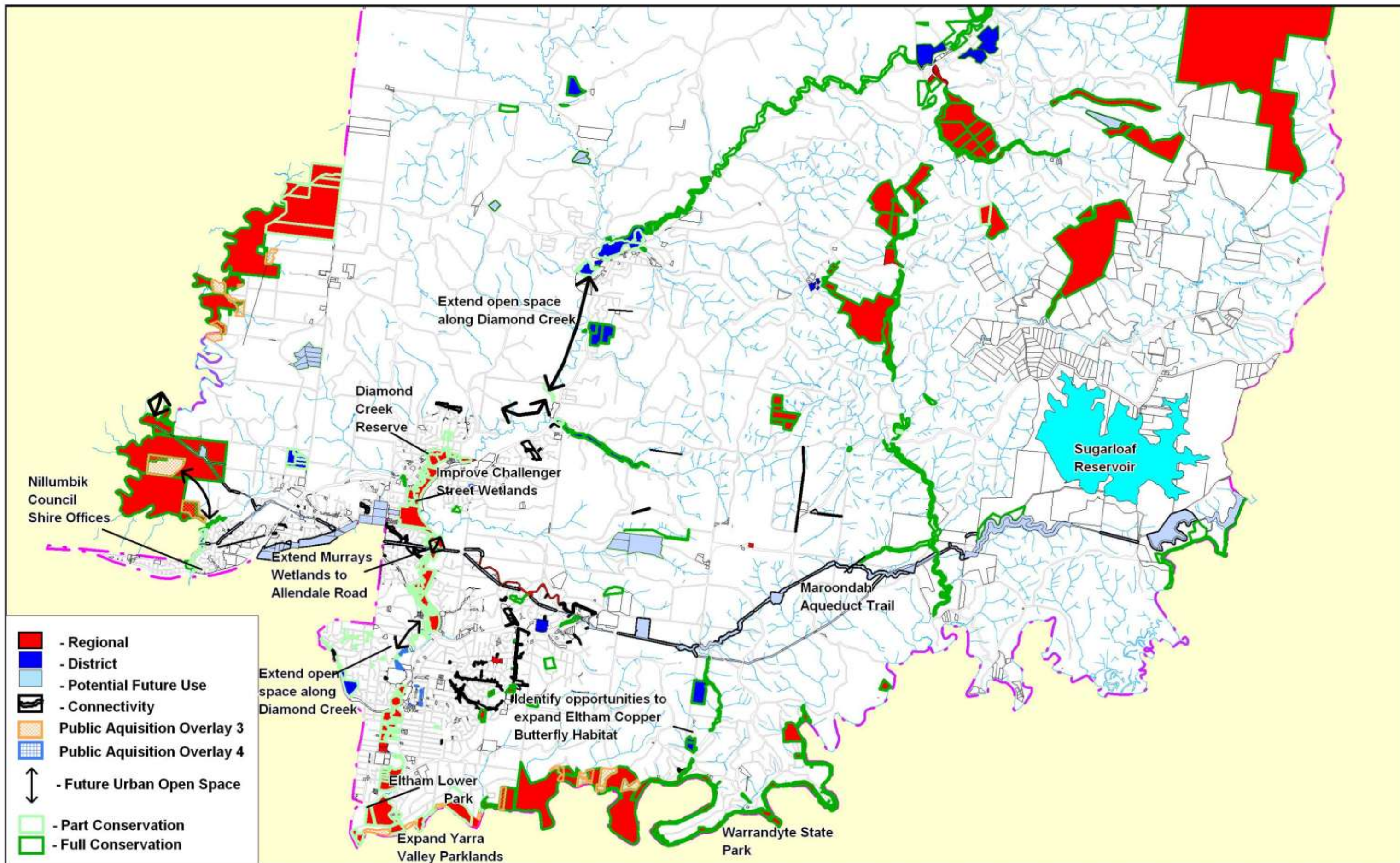












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## Features and Opportunities, Connectivity and Open Space Open Space Strategy

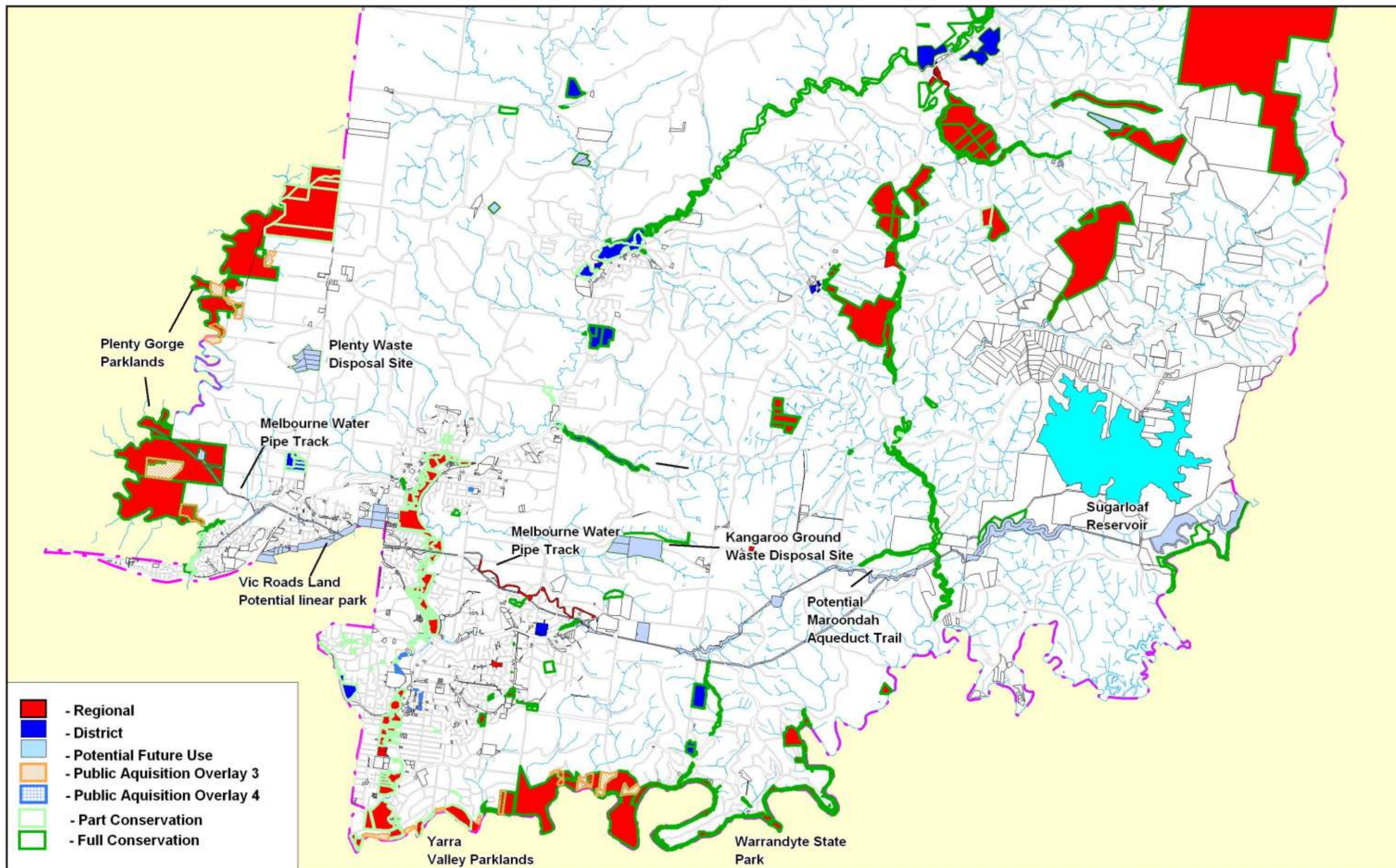
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MAP 7





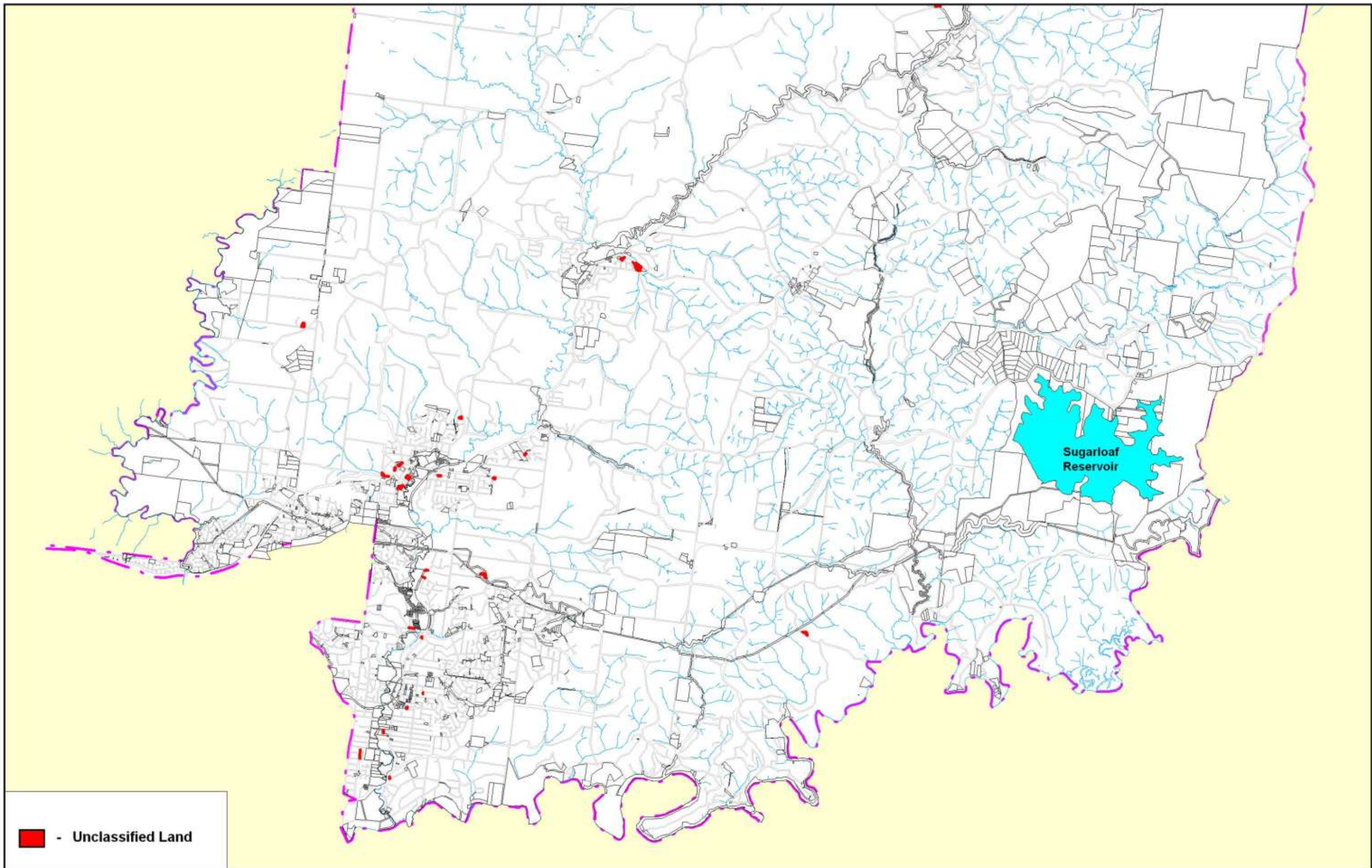








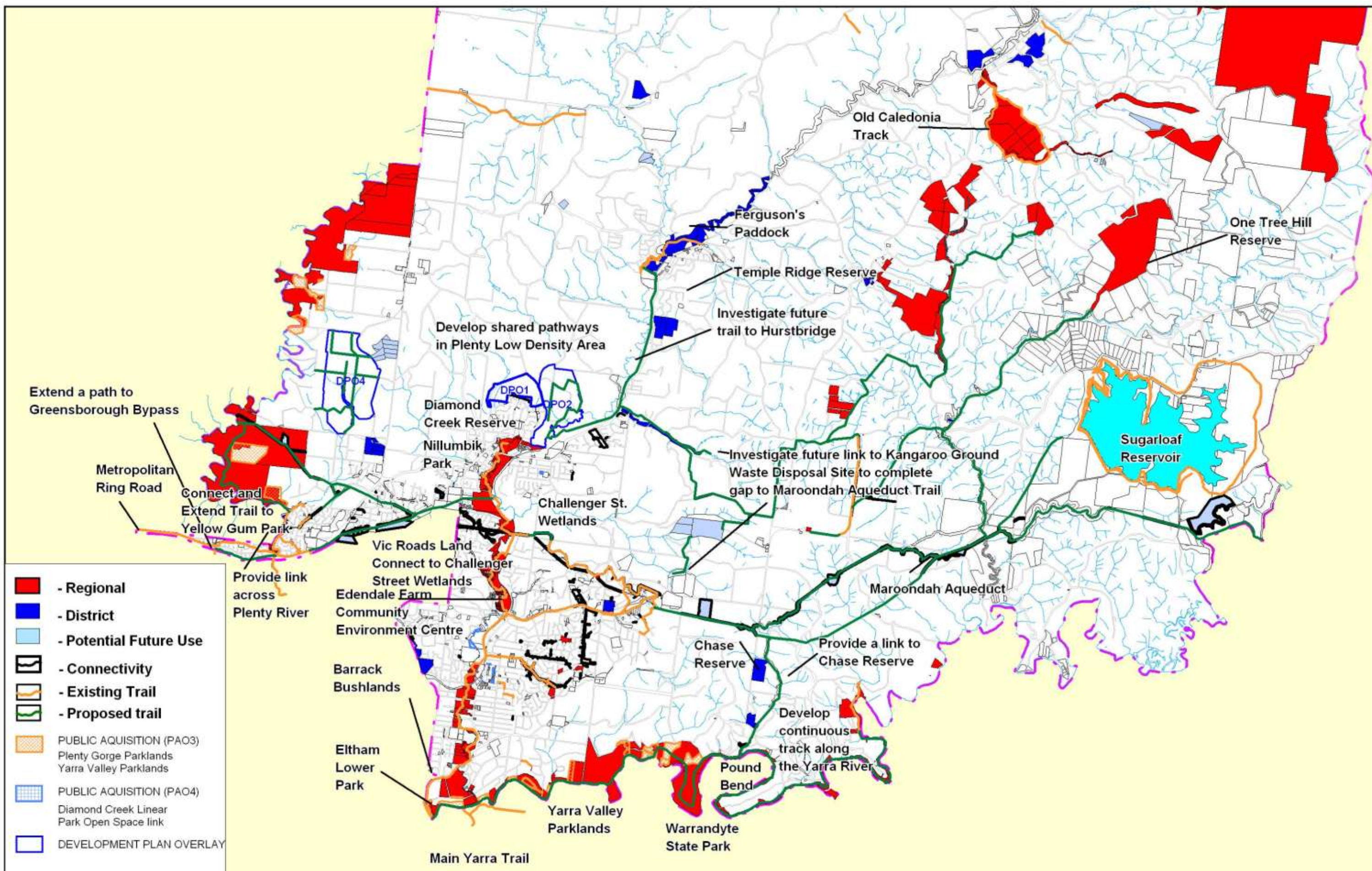












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## Features and Opportunities, Trail Network

### Urban Open Space

### Open Space Strategy

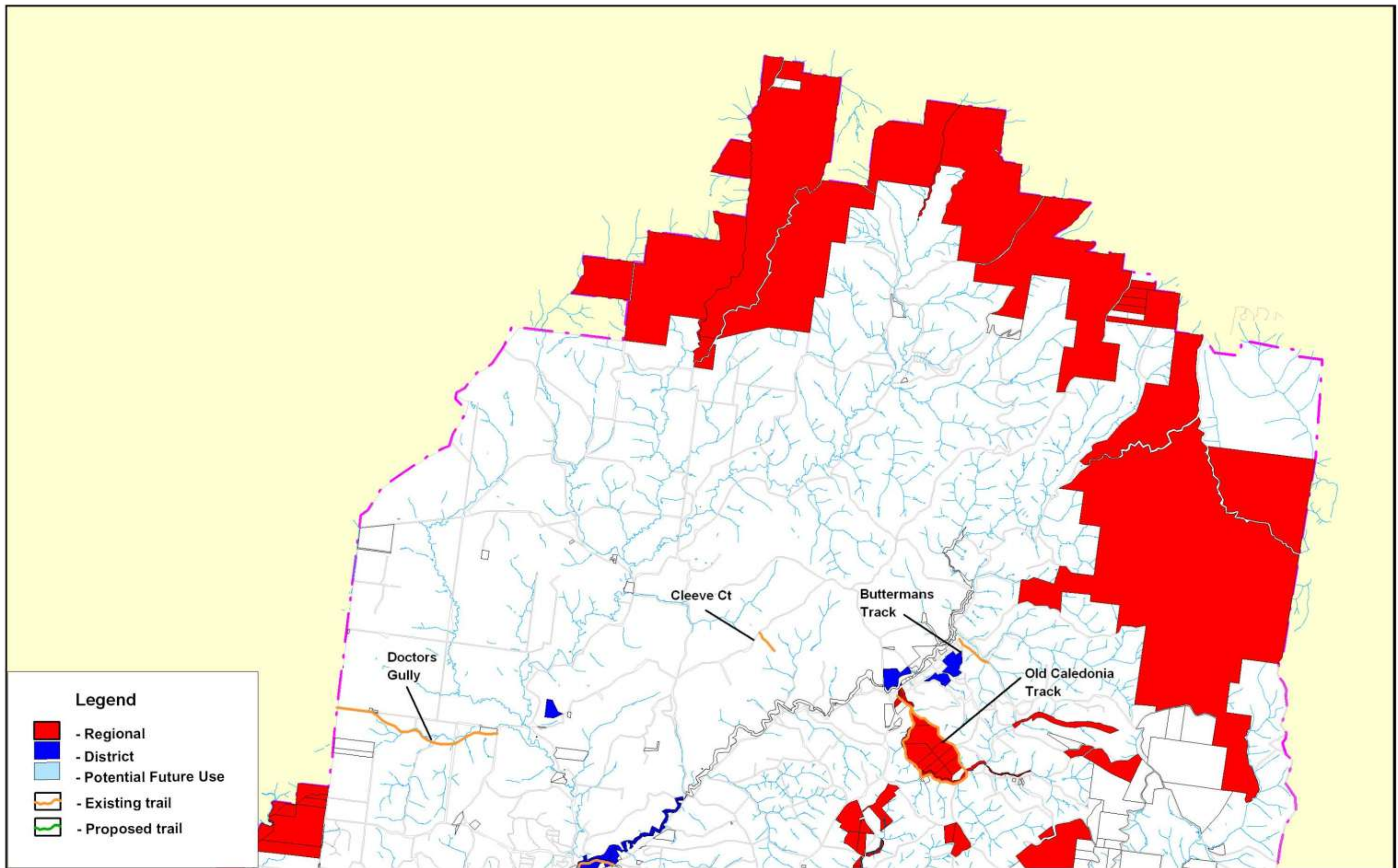
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MAP 10A











# Rural Open Space System

## Objectives

To implement Council's Open Space Vision, the rural open space system will:

1. **Contribute to the protection of environmental, heritage and landscape values.**
2. **Provide functional and diverse open space within each township and settlement to serve the local community.**
3. **Provide a range of interesting and varied regional and district recreation nodes.**
4. **Establish a network of rural recreation trails and routes.**
5. **Develop the open space system as a key tourism asset.**

For the purposes of the Open Space Strategy, the Rural Open Space System includes the following areas:

- Wattle Glen
- Kangaroo Ground
- Bend of Islands
- Watsons Creek
- Christmas Hills
- Panton Hill
- Smiths Gully
- Hurstbridge
- Doreen
- Nutfield
- Cottles Bridge
- Arthurs Creek
- Yan Yean
- Kinglake, Kinglake West
- Strathewen
- St Andrews

In these areas people generally live on larger land holdings or within the townships of Hurstbridge and smaller settlements of Panton Hill, St Andrews, Strathewen, Arthurs Creek and Watsons Creek.

Each rural township and settlement generally has well established Council reserves which encompass a range of sports and recreation facilities. Outside the townships and settlements, the Open Space System is primarily conservation focused, where there are large State and Council owned conservation reserves which play a major role in the protection of the natural environment and provide opportunities for limited passive recreation.

## Summary of Existing Open Spaces

### Rural Areas

**Table 5: Number of Reserves at a Regional/District and Local/Neighbourhood level**

Suburb	Number of reserves	Number of reserves
	Multiple use open space (Passive/Organised Sport)	Conservation open space
Arthurs Creek	1	0
Bend of Islands	0	0
Christmas Hills	1	3
Cottles Bridge	0	4
Doreen	0	1
Hurstbridge	5	6
Kangaroo Ground	1	5
Kinglake/Kinglake West	0	1
Nutfield	0	1
Panton Hill	1	6
Smiths Gully	1	7
St Andrews	3	13
Strathewen	1	0
Watsons Creek	0	2
Wattle Glen	3	1

**Table 6: Area of Reserves based on level of significance and use**

Suburb	Level of Significance (Ha)		Use (Ha)		
	Regional/District	Local Neighbourhood	Passive Recreation/Organised sport	Conservation	Connection
Arthurs Creek	0	4	4	0	0
Bend of Islands	0	0	0	0	0
Christmas Hills		41	77	34	0
Cottles Bridge	22	3	0	52	0
Doreen	0	4		4	0
Hurstbridge	45	3	30	26	0
Kangaroo Ground	24	46	35	69	58
Kinglake	3324			3324	
Kinglake West	1719			1719	
Nutfield	8	0.3	0	8	0
Panton Hill	148	0	9	139	0
Smiths Gully	330	0.3	8	323	0
St Andrews	70	73	11	141	0
Strathewen		7	7		
Watsons Creek	0.5	11	0.5	11	0
Wattle Glen	14	3	4	12	0.2

## Existing Regional and District Open Space

The key regional and district open space are identified on Map 2. The majority of open space is primarily associated with conservation and includes the larger State Government parks of Sugarloaf Reservoir, Kinglake National Park and One Tree Hill Reserve. In 1998 under the disposal of Melbourne Water land, Council acquired over 100 hectares of significant conservation land in Panton Hill known as the Panton Hill Bushland Reserve System, which on account of its size can be considered to be of regional status. Other significant regional reserves outside the municipality and used by residents include Yan Yean Reservoir, and attractions at Kinglake National Park such as Masons Falls.

Regional and district reserves occur within the townships of Wattle Glen and Hurstbridge. Due to the popularity of smaller reserves such as the St Andrews Reserve which hosts the St Andrews Market and the Kangaroo Ground War Memorial Reserve, these have also been identified as having regional significance.

## **Existing Conservation Open Space**

Key conservation open space within the Rural parts of the municipality are identified on Map 11. Generally the eastern part of the Shire has more conservation open space than the western part of the Shire, which reflects the characteristics of the Shire and historical ownership patterns. Generally the west is more agriculturally focused with traditional farmland areas of Arthurs Creek and the eastern part of the Shire has more land in public ownership, most of which is owned by Melbourne Water on account of former and current proposals to develop additional water storages within the Watsons Creek catchment.

## **Regional Recreation Nodes**

Regional recreation nodes include Yarrambat Park and Sugarloaf Reservoir and nodes just outside the municipality at Yan Yean Reservoir as well as Masons Falls in Kinglake National Park that attract thousand of visitors each year.

The townships of Hurstbridge, St Andrews and Panton Hill are also key recreation nodes and offer a range of attractions, services and facilities which support a growing tourism sector as well meeting the needs of the local community.

## **Trails**

Map 12 identifies the existing trail connections and open spaces with a connectivity function. There are currently very few existing formal rural trails although the road network is widely used for walking, running, cycling and horse riding particularly on the weekends. As these activities become more popular an extensive network of marked recreation routes that combine off road trails with minor rural roads would be a great asset to the Shire, allowing visitors and residents to safely take in the many attractions and features of the Shire on foot, bicycle or horseback. There are also opportunities to develop key tourist recreational trails similar to the popular Warburton Rail Trail located in the Shire of Yarra Ranges that could make use of the train stations at Wattle Glen and Hurstbridge.

## Features and Opportunities: Rural Open Space System

The rural area of the Shire provides an ideal setting for establishing a diversity of recreational and tourist opportunities that include an opportunity to protect the natural environment, cultural heritage and landscapes which can be enjoyed by local residents and visitors to the Shire. There is also a need to cater for local residents open space needs particularly within the major townships. Similarly to the Urban Open Space network, there is also a need to improve access and facilities of a number of key reserves so that they are accessible to people with disabilities.

### Regional and District Open Space

Map 13 identifies the opportunities to develop the Regional and District open space system. The major opportunities include the proposed expansion of the Kinglake National Park at Christmas Hills and the creation of the Warrandyte to Kinglake nature conservation link which involves the transfer of land currently owned by Melbourne Water to Parks Victoria. This proposal first outlined in the Land Conservation Council's 1994 report *Melbourne Area Final Recommendations* will add over 600 hectares to the Shire's conservation reserves further protecting the Watsons Creek catchment, which remains as one of the most intact catchments within the Melbourne metropolitan area. *(Note: Since the preparation of this report an additional 660 acres of Melbourne Water land has been added to create additional parkland between Warrandyte State Park and Kinglake National Park.)* Other key areas to improve the rural regional and district open space system include the further development of the Panton Hill Bushland Reserve System and Temple Ridge Reserve in Wattle Glen. These major Council owned conservation reserves will continue to be improved through development of signage, walking paths, improved environmental management and revegetation.

While the eastern part of the Shire has a large number of regional and district reserves, the western portion of the Shire has very few reserves, despite having key features such as the waterways of Arthurs Creek and picturesque views of the Kinglake Ranges. Given this fact, opportunities to improve existing reserves along the Arthurs Creek and at other key features in the western rural parts of the Shire should be investigated.

The Yarra River, which provides much open space within the Urban Open Space System is primarily within private ownership within the rural parts of the Shire. The only access point to the Yarra River occurs at Bouchiers Road in Kangaroo Ground. While providing public access to the Yarra River needs to be carefully managed, opportunities should be taken to increase the amount of public open space along the Yarra River in the rural parts of the Shire. A small virtually land locked parcel of open space occurs at 120 Bouchiers Lane which could be



better accessed and linked by developing a path along the adjoining Yarra River Crown land to the Bouchiers Road carpark. Other opportunities to expand open space along the Yarra River occurs at the Bend of Islands, on land currently owned by Melbourne Water at the end of Gongflers Drive and Ironbark Road.

## **Regional and District Recreational Nodes**

A new regional recreation node at the former Kangaroo Ground Waste Disposal Site is suggested in the State Government's *Linking People and Spaces* and this site could perform as a multiple use recreational reserve successfully incorporating organised sport, passive recreation and conservation purposes. There are also opportunities to further develop the recreational nodes of Fergusons Paddock in Hurstbridge, and the Wattle Glen War Memorial Park.

### **Actions**

29. Investigate improving the open space system in the western portion of the Shire by examining the potential role and function of existing reserves at
  - 240 Haleys Gully Road, Hurstbridge
  - Boyds Road, Hurstbridge
  - Ryders Flat Reserve, Arthurs Creek
30. Advocate to the State Government to continue to implement the Warrandyte to Kinglake nature conservation link and extension to Kinglake National Park.
31. Investigate opportunities to expand the network of open space along the Yarra River within the rural areas of the Shire. Current opportunities include:
  - creating better access to 120 Bouchier Road;
  - Investigating open space opportunities at Melbourne Water land at the Bend of Islands.
32. Develop and implement conservation management plans for key conservation reserves including:
  - Panton Hill Bushland Reserve System;
  - Temple Ridge Reserve, Wattle Glen;
  - 85 Mine Road, Nutfield.
33. Develop consistent signage for all rural regional and district reserves which recognises Aboriginal tribal and clan territories.
34. Prepare promotional and educational material for Council's significant regional and district conservation reserves.
35. Identify areas within the rural open space system that can be developed to provide access for all disabilities. The areas selected should focus on providing a cross section of the open space types and settings. Issues to address include parking,

facilities, gradients, paths and trails. These issues should be addressed as part of the master planning process for regional open spaces. Initial areas to investigate include Yirrip Reserve in Panton Hill and the Kangaroo Ground War Memorial Park.

36. Investigate opportunities for creating additional conservation open space within the Arthurs/Running/Deep Creek catchments.

37. Prepare concept plans for enhancement of the recreational Nodes at:

- Hurstbridge,
- Panton Hill, and
- St Andrews.

38. Investigate the feasibility of developing a new regional node at the former Kangaroo Ground Waste Disposal Site.

## **Townships and Settlements**

The open space requirements for residents with the townships of Hurstbridge and Wattle Glen are similar to the needs of residents living in the urban areas of the Shire. Map 14 identifies open space in and around these townships and identifies where residents are required to travel more than 500m to open space that provides for passive recreation. This map identifies that there are deficiencies within the outskirts of Hurstbridge north of Haleys Gully Road around Wattletree Road, in the low density area around Fawcner Crescent, and south Hurstbridge around Hillcrest Avenue. The Hillcrest Avenue area does have access to Temple Ridge Reserve and there could be some limited opportunities to consider more passive recreational opportunities such as walking paths.

Map 15 identifies the open space around the smaller settlements of the Shire. The settlements of St Andrews and Panton Hill are well served by open space particularly in relation to organised sport. St Andrews also hosts the well known St Andrews Market at the St Andrews Reserve and there are opportunities to further develop the Crown land abutting the Diamond Creek with local walking paths.

The smaller settlements of Arthurs Creek and Strathewen also have municipal reserves with ovals and these should be further improved with seating and landscaping to make them more attractive to local residents and visitors. The settlement of Christmas Hills would benefit by creating a community focal point which could be achieved at the community hall in Ridge Road. Similarly local focal points should also be investigated for the settlements of Watsons Creek, Smiths Gully and Cottlesbridge, which will provide local residents with a community focus and local meeting place.

Local schools within the townships and settlements also play a role in providing open space, particularly sporting ovals. This is especially important in areas where there no other alternative facilities such as in

Christmas Hills and Kangaroo Ground. Council should liaise with each school to ensure these facilities continue to be available to the general public.

## Potential Future Use

Map 16 identifies land that is not currently developed as open space but has a potential role in the rural open space system. Much of the land is the decommissioned Melbourne Water Aqueduct and this will be discussed under the Trails section. The other key site is the former Kangaroo Ground Waste Disposal Site which has been identified as potential regional open space. Other sites include land in Boyds Road and Haleys Gully Road in Hurstbridge.

## Unclassified Land

Map 17 and the table below identifies land that on a preliminary basis does not appear to provide a current or future open space function within the rural open space system. Similarly to the process proposed for unclassified land in the urban areas, this land will be fully assessed in accordance with the open space assessment criteria described on pages 68-69. This process will establish whether these land parcels should be retained within the open space system or whether they are surplus to requirements.

**Table 7: Land identified as Unclassified within the Rural Open Space System**

Street Address	Suburb
95 Lake View Road	ST ANDREWS
19 Dunstan Drive	HURSTBRIDGE
425 Flat Rock Road	HURSTBRIDGE
26 Cherry Tree Road	HURSTBRIDGE
38 Cherry Tree Road	HURSTBRIDGE
34 Kamarooka Drive	WATTLE GLEN
105 Menzies Road	KANGAROO GROUND
995 Arthurs Creek Road	ARTHURS CREEK VIC

## Actions

39. Identify opportunities to increase the provision of open space in areas of Hurstbridge where residents are further than 500m from open space.
40. Continue to enhance recreational open space within the settlements of Panton Hill and St Andrews to provide for shared pathways and social gatherings.

41. Identify opportunities to further develop community open space related focal points at Christmas Hills, Smiths Gully, Cottlesbridge and Watsons Creek.
42. Continue to improve the existing recreational open space at Strathewen and Arthurs Creek.
43. Evaluate land identified as unclassified to assess its current and future open space function.

## Trails

The rural open space system will benefit immensely by improving the regional trail network, and these opportunities are shown on Map 18. Key short term initiatives include ensuring the decommissioned Maroondah Aqueduct is developed into a regional trail linking Research to Christmas Hills and beyond which has been identified in the State Government open space strategy *Linking People and Spaces*. The other shorter term initiative is to continue a shared pathway from Diamond Creek to Hurstbridge, which will provide excellent opportunities to encourage combining bicycling and the train which stops at Wattle Glen and Hurstbridge.

Under the guidance of the Shire of Nillumbik Recreation Trails Strategy 2001, Council's Recreational Trails Advisory Committee continues to investigate various potential trail opportunities within the rural parts of the Shire that includes opportunities for equestrian trails in Kangaroo Ground associated with the former Kangaroo Ground Waste Disposal Site, and Pretty Hill, trails within the Panton Hill Bushland Reserve System and the extension of the Diamond Creek Trail to Hurstbridge. The Committee has also identified opportunities to utilise unopened roads that occur across the Shire that provide an opportunity to further expand the rural trail network.

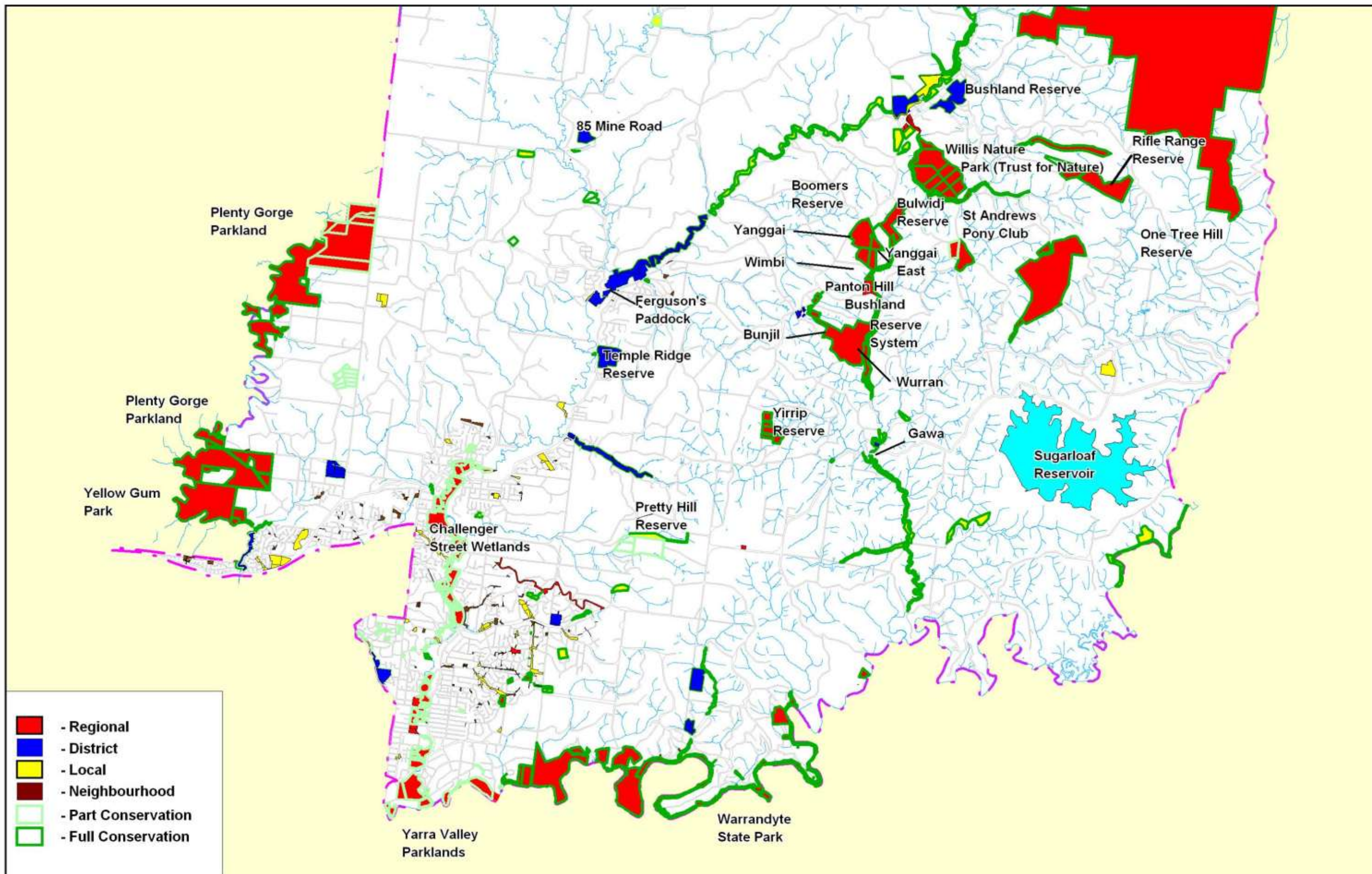
There will also be opportunities to create shared pathways once the Warrandyte to Kinglake nature conservation link is created, with potential paths along the Watson Creek and linking into Sugarloaf Reservoir and the Maroondah Aqueduct.

The Shire also benefits from a relatively quiet network of minor roads which offers the opportunity for developing sign posted routes through the rural landscape, that may link up to regional and local focal points. This is particularly relevant in the western part of the Shire where there are limited opportunities to develop shared pathways on existing open space but the road network is relatively quiet that can 'link' local open spaces. Opportunities should also be created to provide dedicated bicycle lanes along major roads such as the Kangaroo Ground - St Andrews Road, Heidelberg Kinglake Road, Eltham - Yarra Glen Road and Yan Yean Road.

## **Actions**

44. Continue to develop trails identified by the Recreational Trails Advisory Committee and the Recreational Trails Strategy.
45. Investigate the existing network of unopened roads to enhance the rural trail network.
46. Liaise with the State Government and Melbourne Water to facilitate development of the Regional trails along
  - Maroondah Aqueduct from Research to Sugarloaf Reservoir.
  - Within the proposed Warrandyte to Kinglake nature conservation link.
47. Liaise with VicRoads to create dedicated bicycle lanes on the following main rural roads
  - Yan Yean Road
  - Kangaroo Ground - St Andrews Road,
  - Heidelberg Kinglake Road
  - Eltham - Yarra Glen Road.
48. Investigate and develop a series of well signed rural routes along quiet roads initially including:
  - a north west loop from Hurstbridge incorporating local reserves on Haleys Gully Road, Boyds Road, and Mine Road.
  - a loop combining Panton Hill, Ironbark Hill Reserve, Boomers Reserve and Long Gully Road/Reserve.





## Existing Conservation Open Space Rural Open Space Open Space Strategy



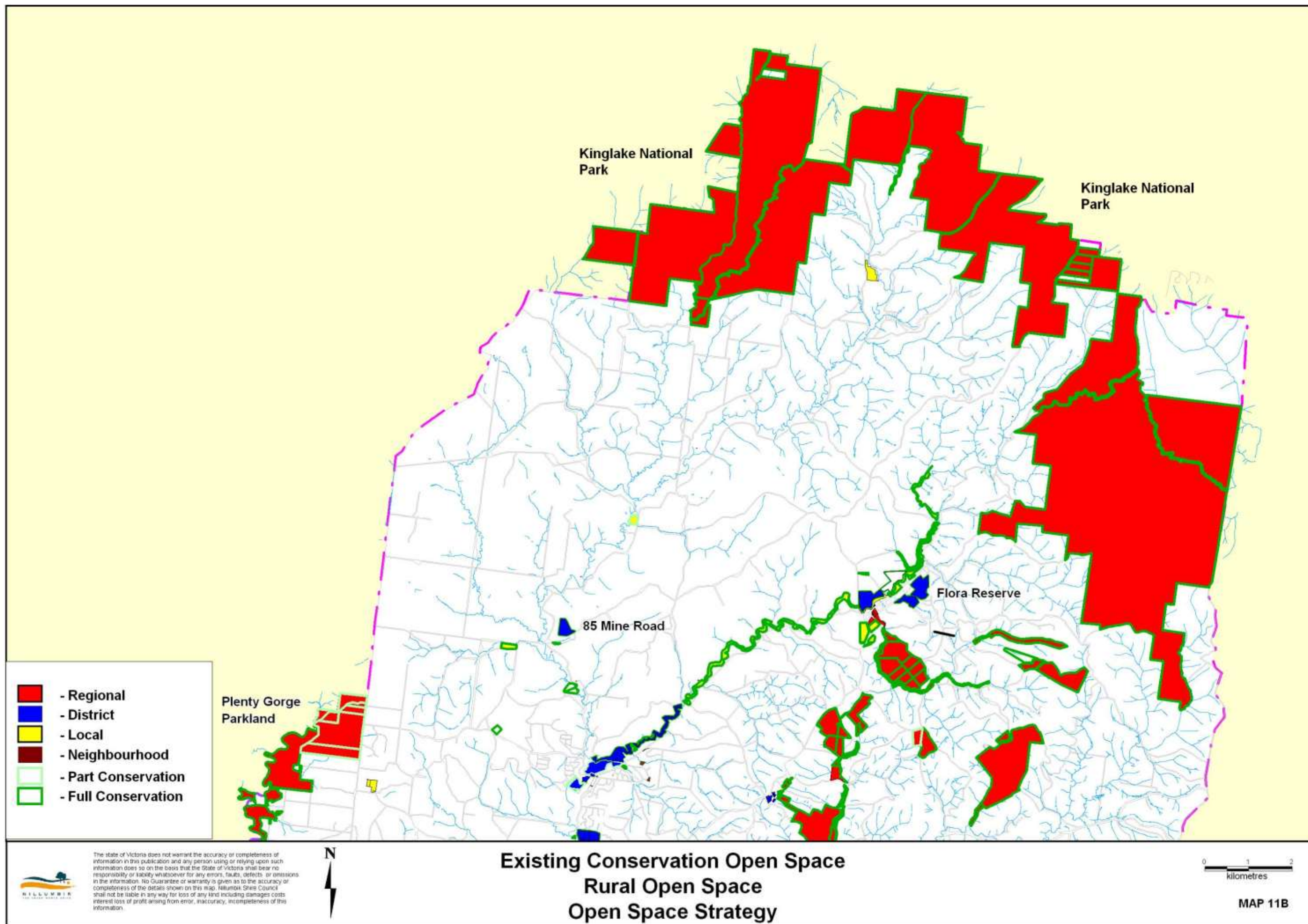
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kilometres

MAP 11A

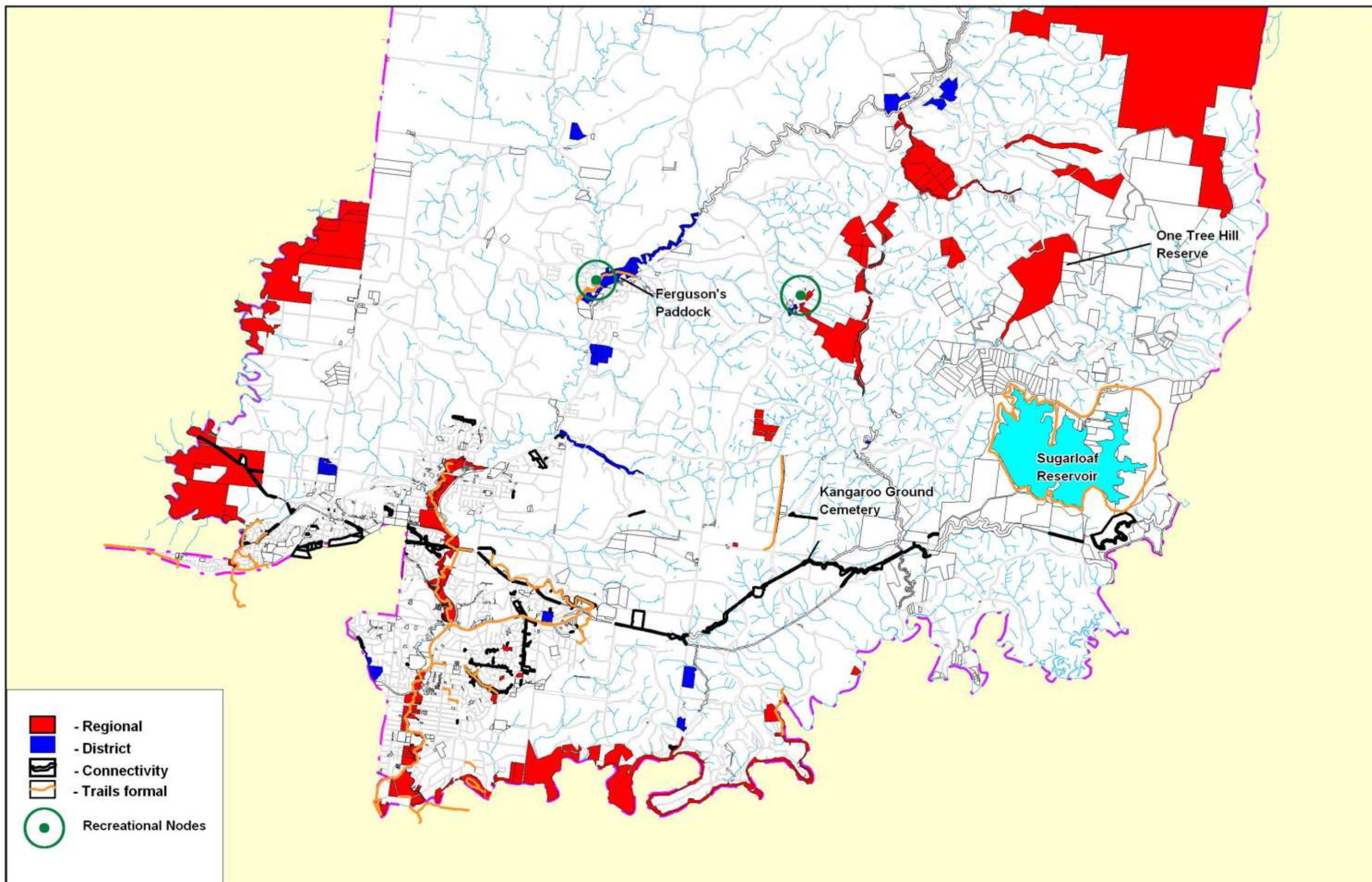








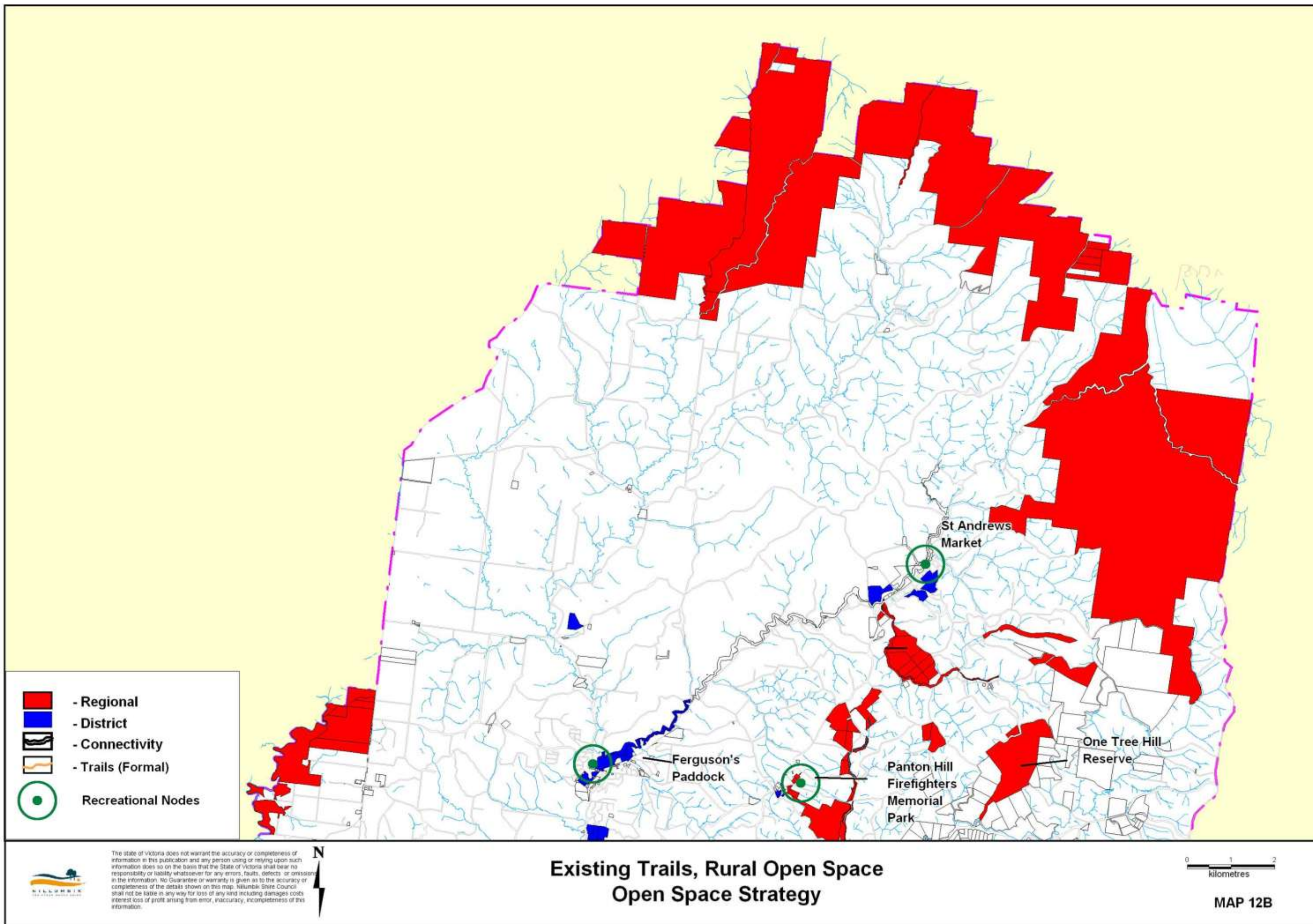




- - Regional
- - District
- - Connectivity
- - Trails formal
- - Recreational Nodes





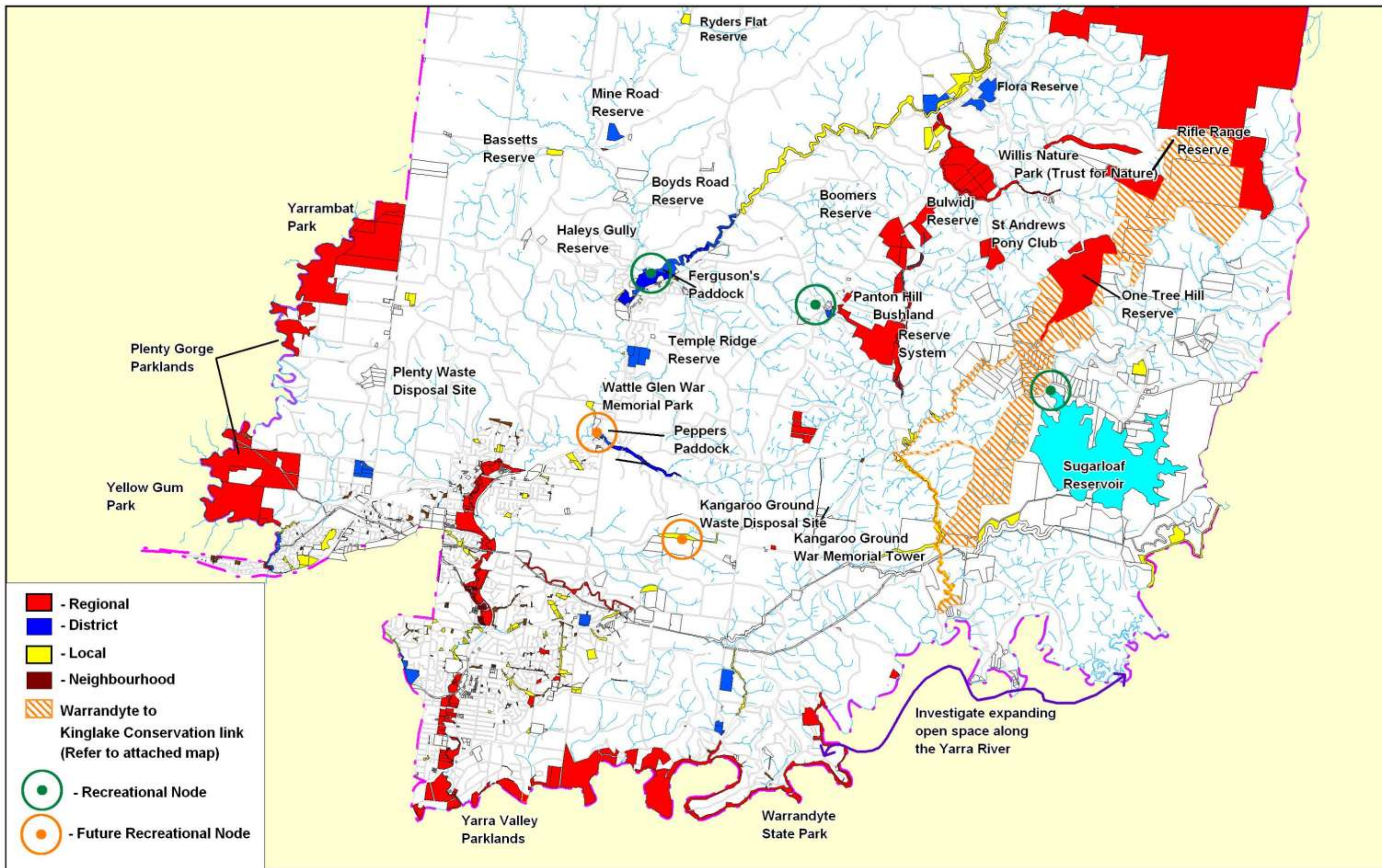


**Existing Trails, Rural Open Space**  
**Open Space Strategy**

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# Features and Opportunities, Regional and District Open Space Rural Open Space Open Space Strategy

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kilometres

MAP 13A



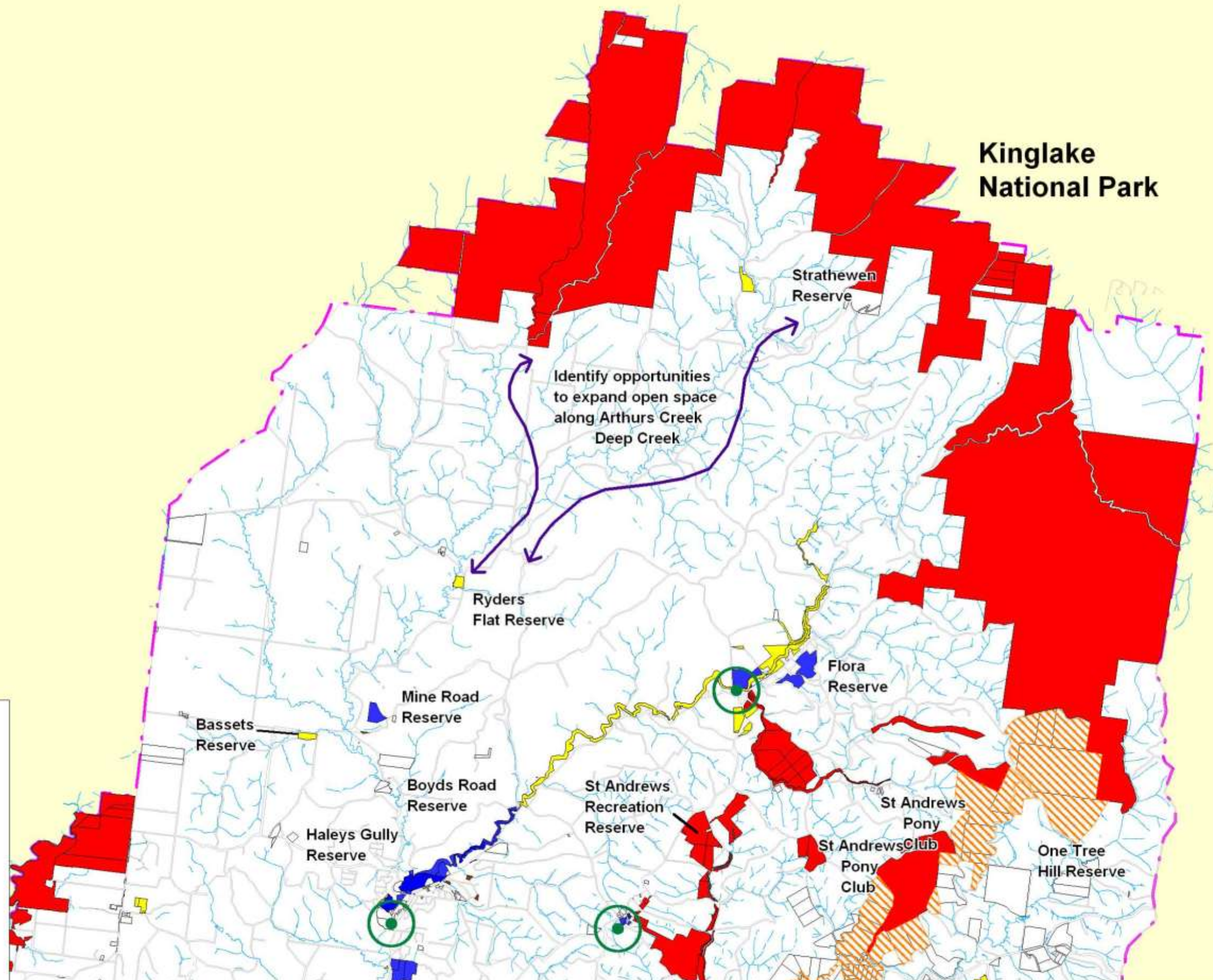
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# Kinglake National Park

Identify opportunities to expand open space along Arthurs Creek Deep Creek

Ryders Flat Reserve

Mine Road Reserve

Bassets Reserve

Boyds Road Reserve

Haleys Gully Reserve

Flora Reserve

St Andrews Recreation Reserve

St Andrews Pony Club

One Tree Hill Reserve

- Regional
- District
- Local
- Neighbourhood
- Warrandyte to Kinglake Conservation link
- Recreational Node



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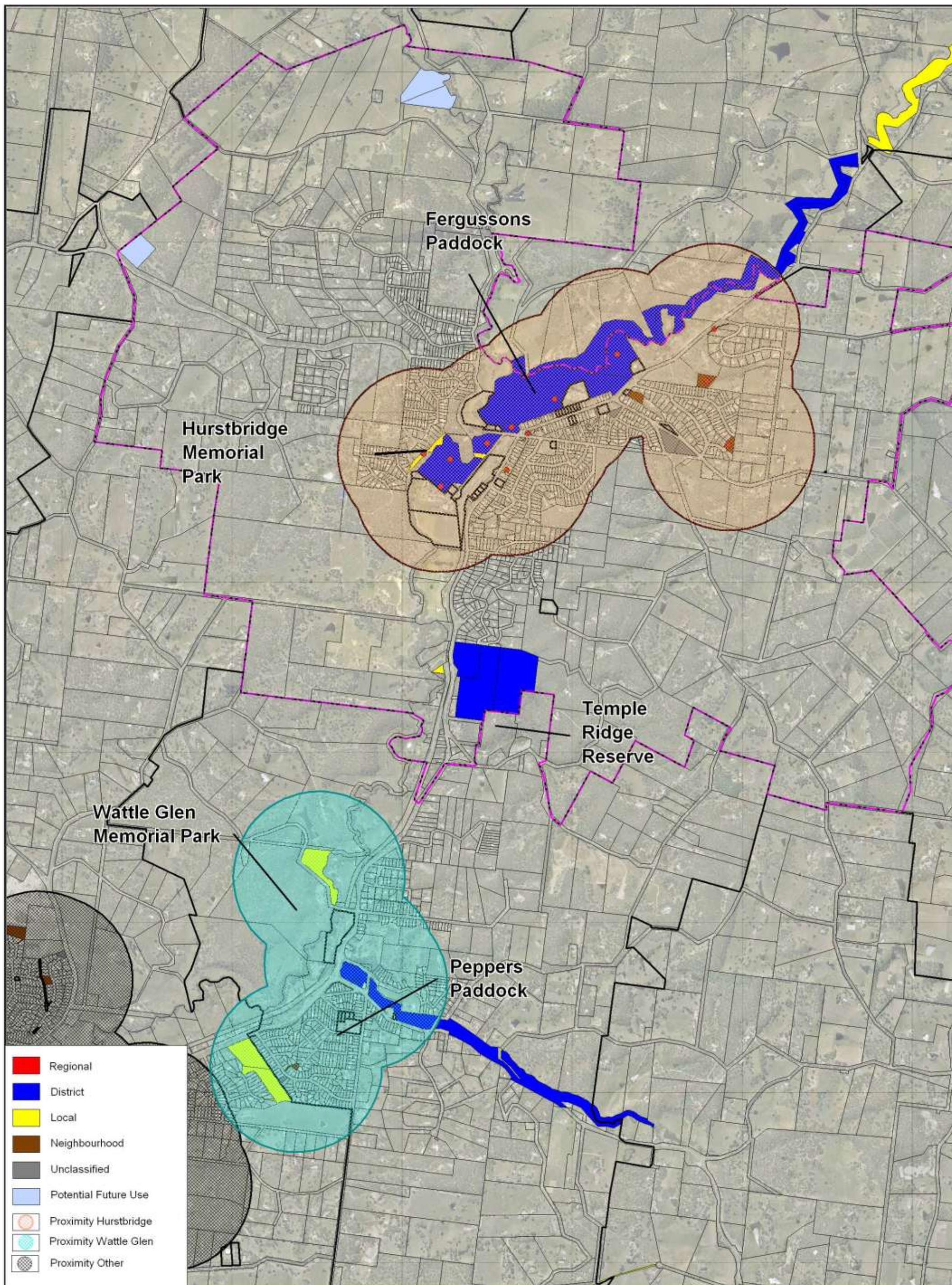
## Features and Opportunities, Regional and District Open Space Rural Open Space Open Space Strategy

0 1 2  
kilometres

MAP 13B





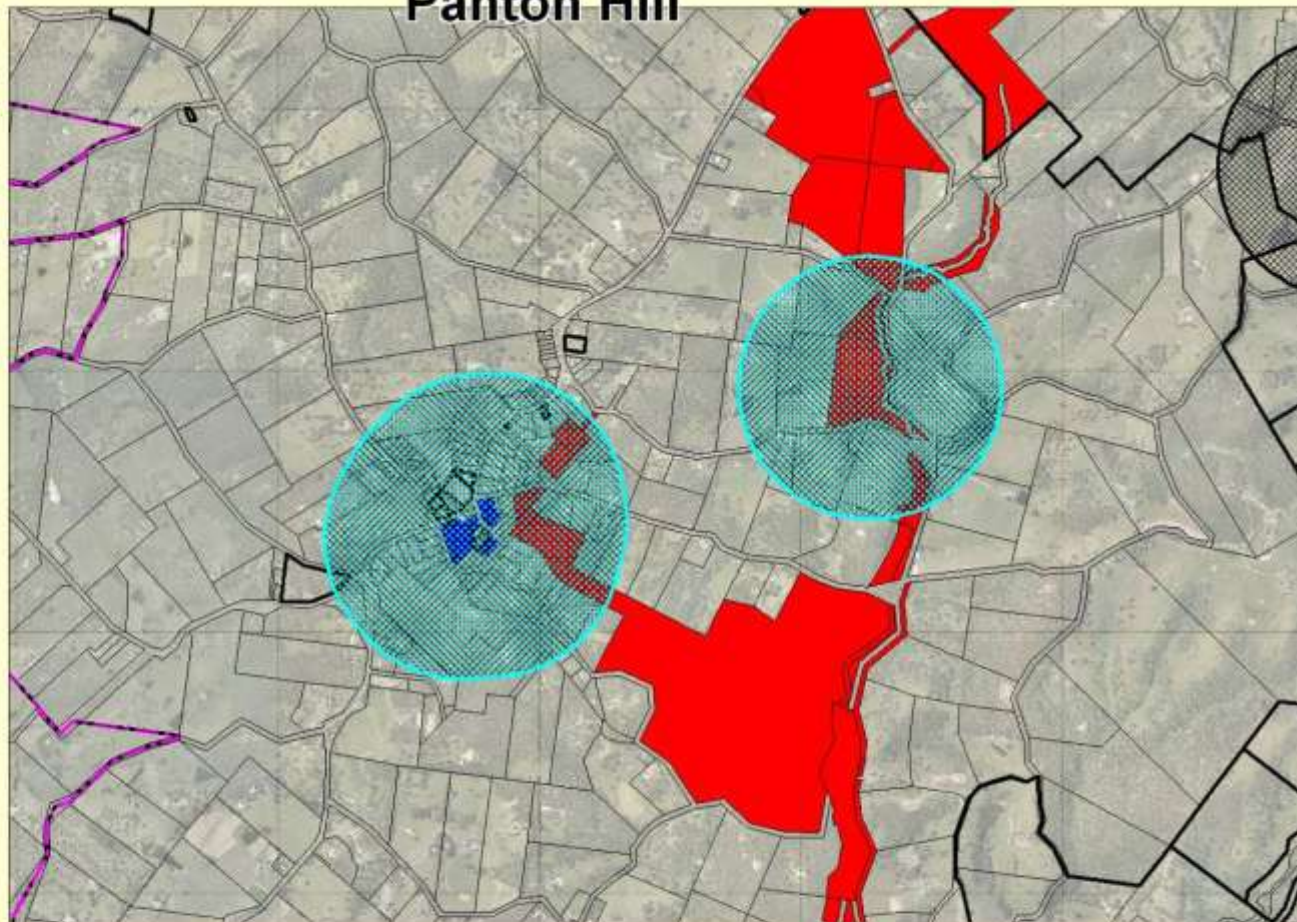




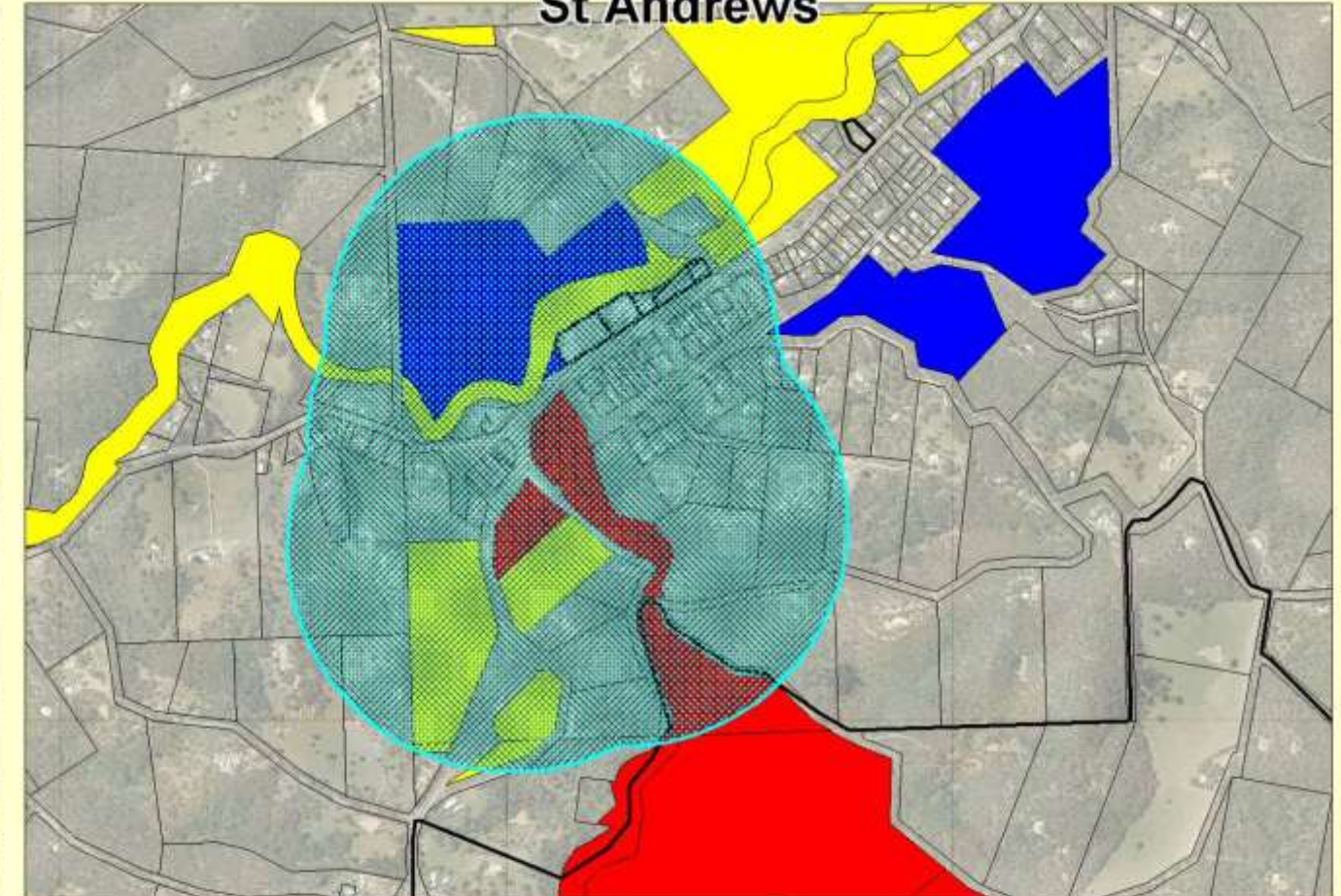




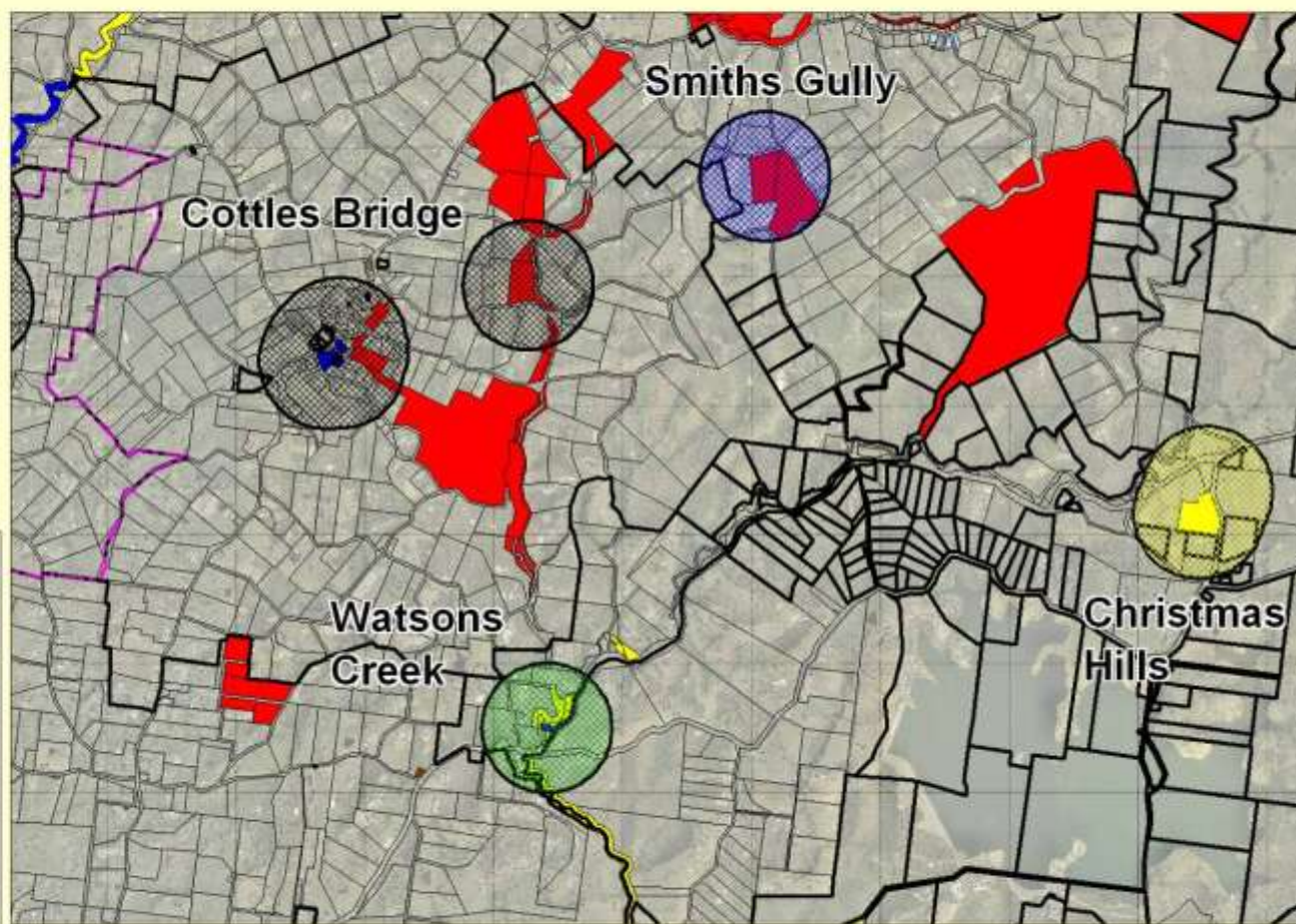
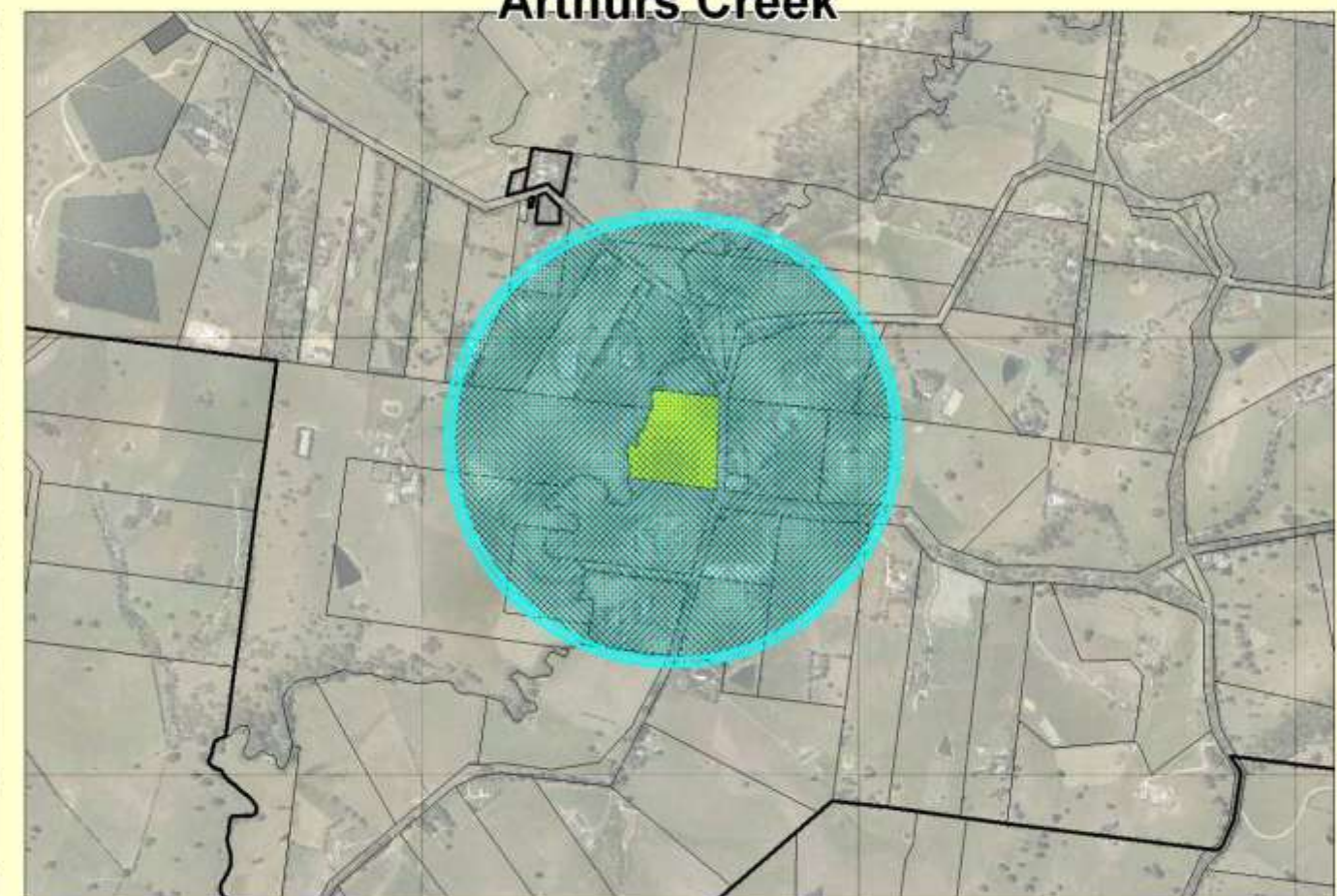
Panton Hill



St Andrews



Arthurs Creek



- Regional
- District
- Local
- Neighbourhood
- Unclassified
- Proximity This Area
- Proximity Other

## Existing Open Space - Rural Settlements

### Open Space Strategy



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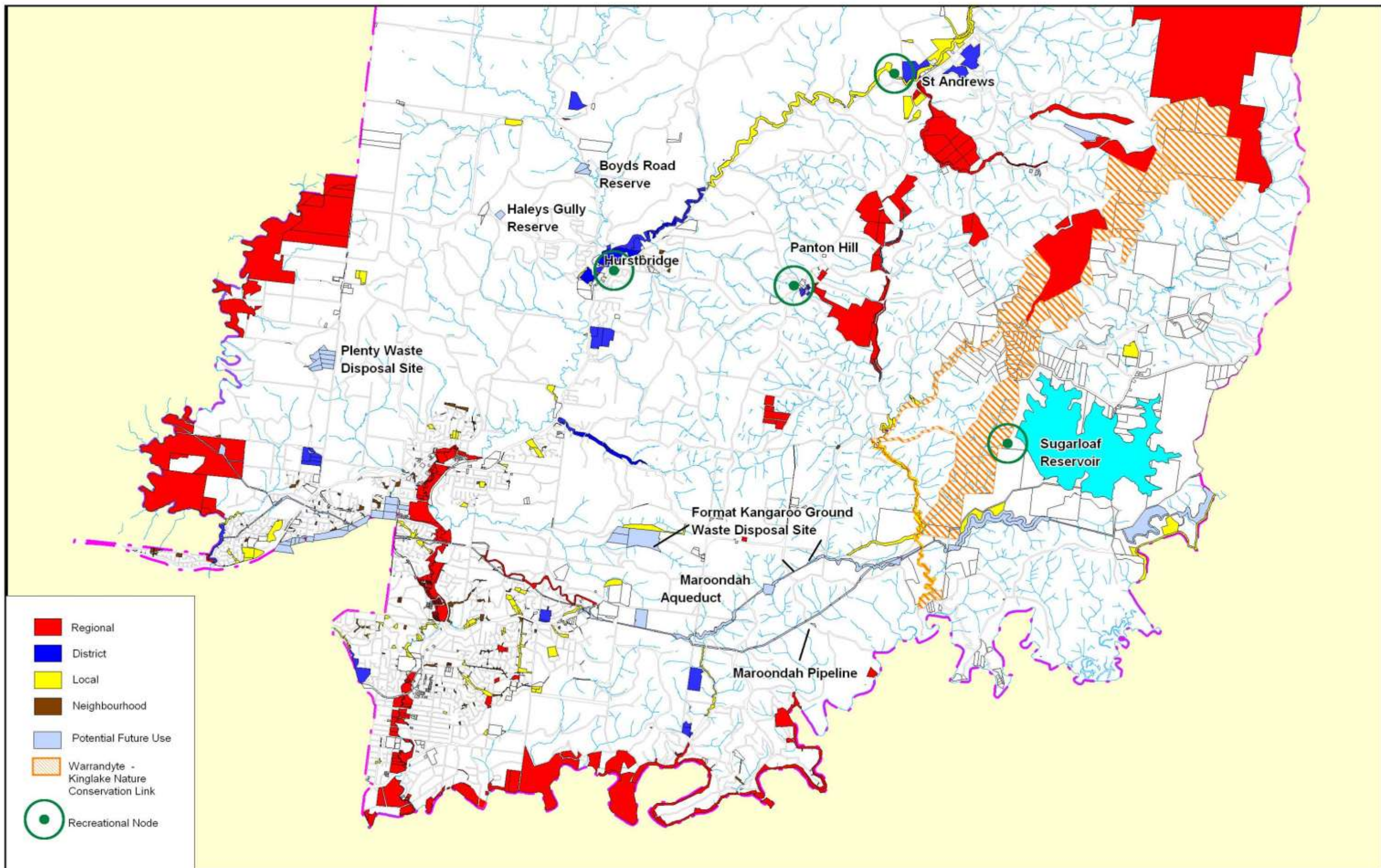
500 metre radius  
Excludes conservation and linear reserves  
because they do not provide a full range  
of recreational activities.

MAP 15





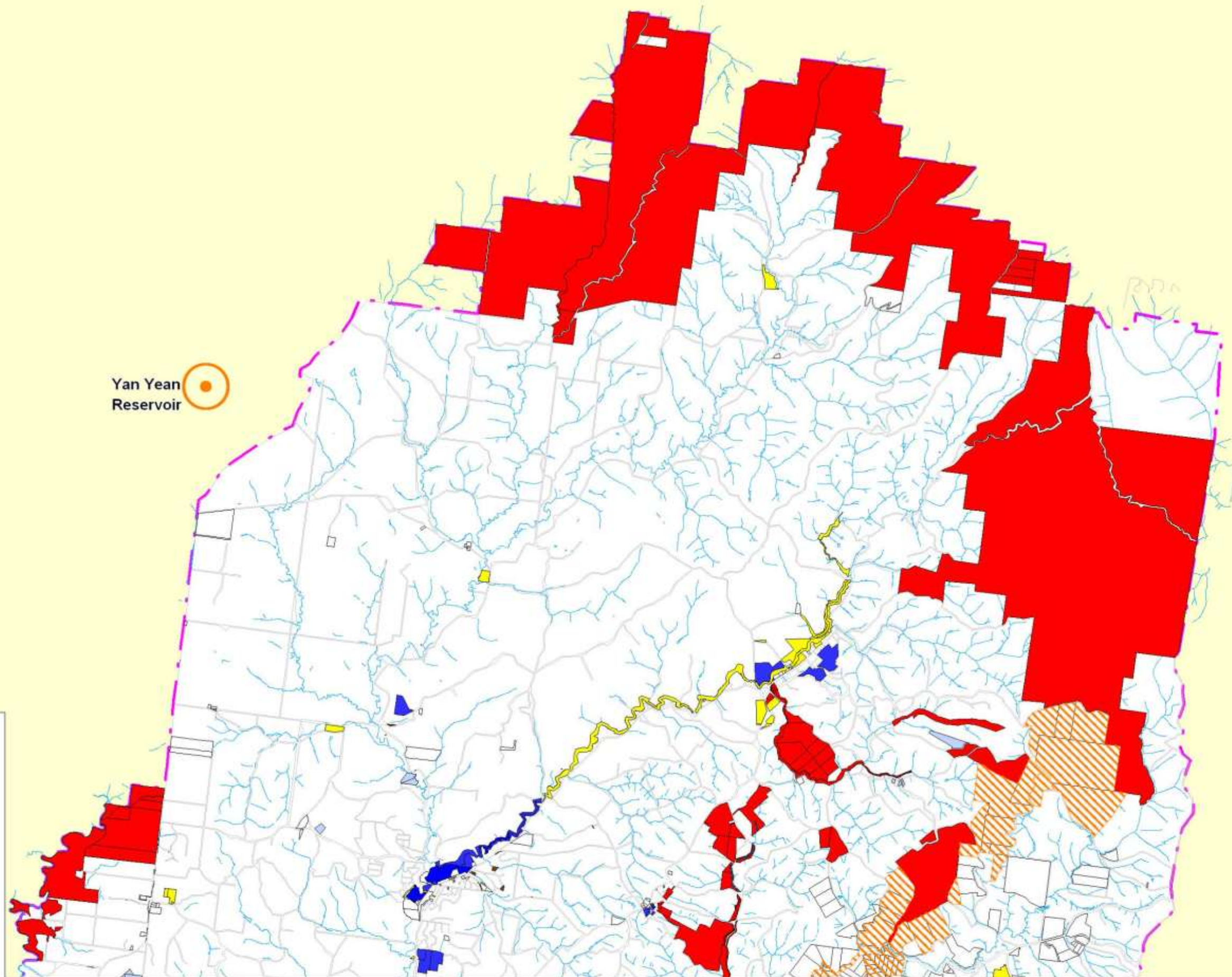








Yan Yean  
Reservoir



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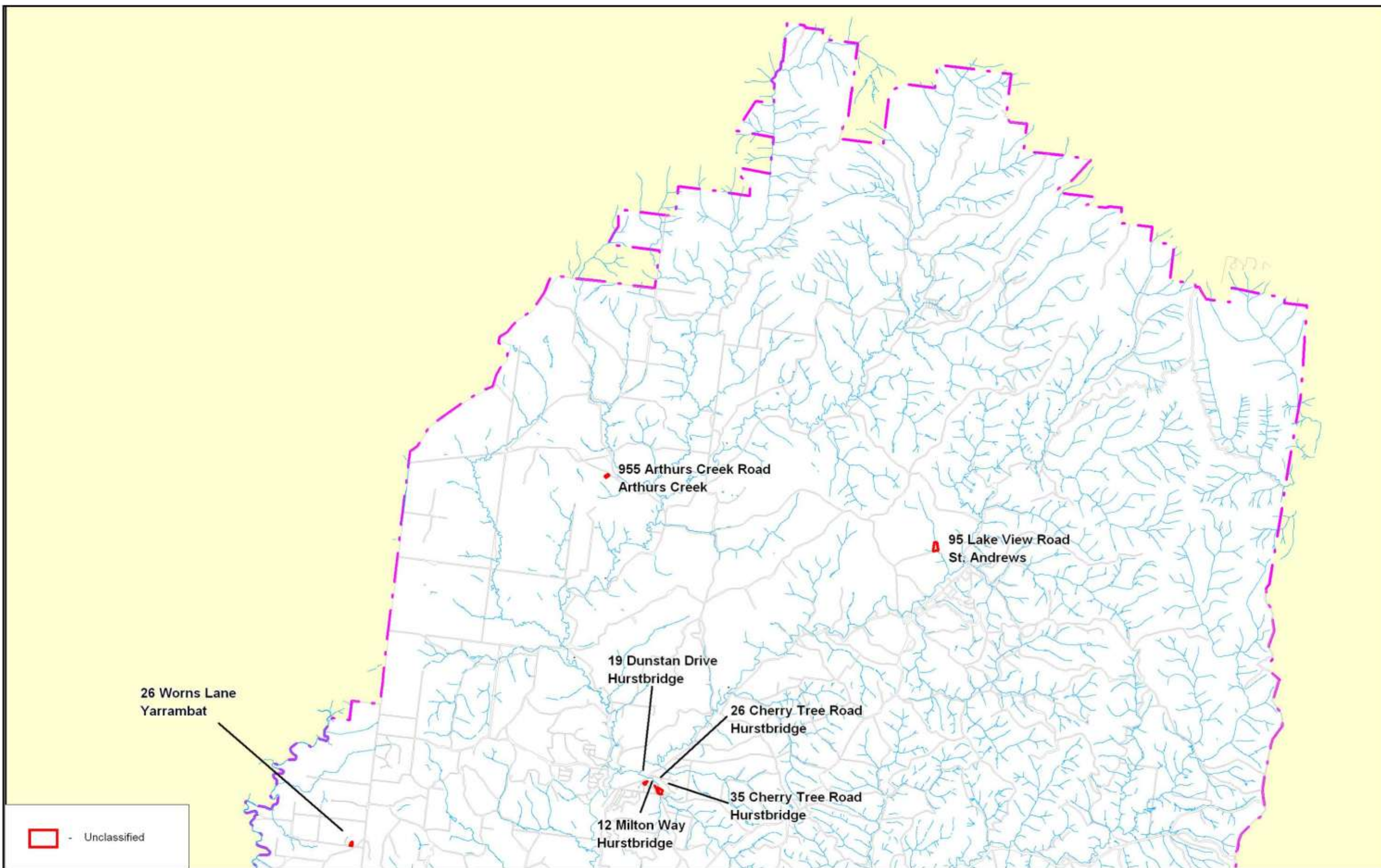
## Potential Future Use, Rural Open Space Open Space Strategy

0 1 2  
kilometres

MAP 16B







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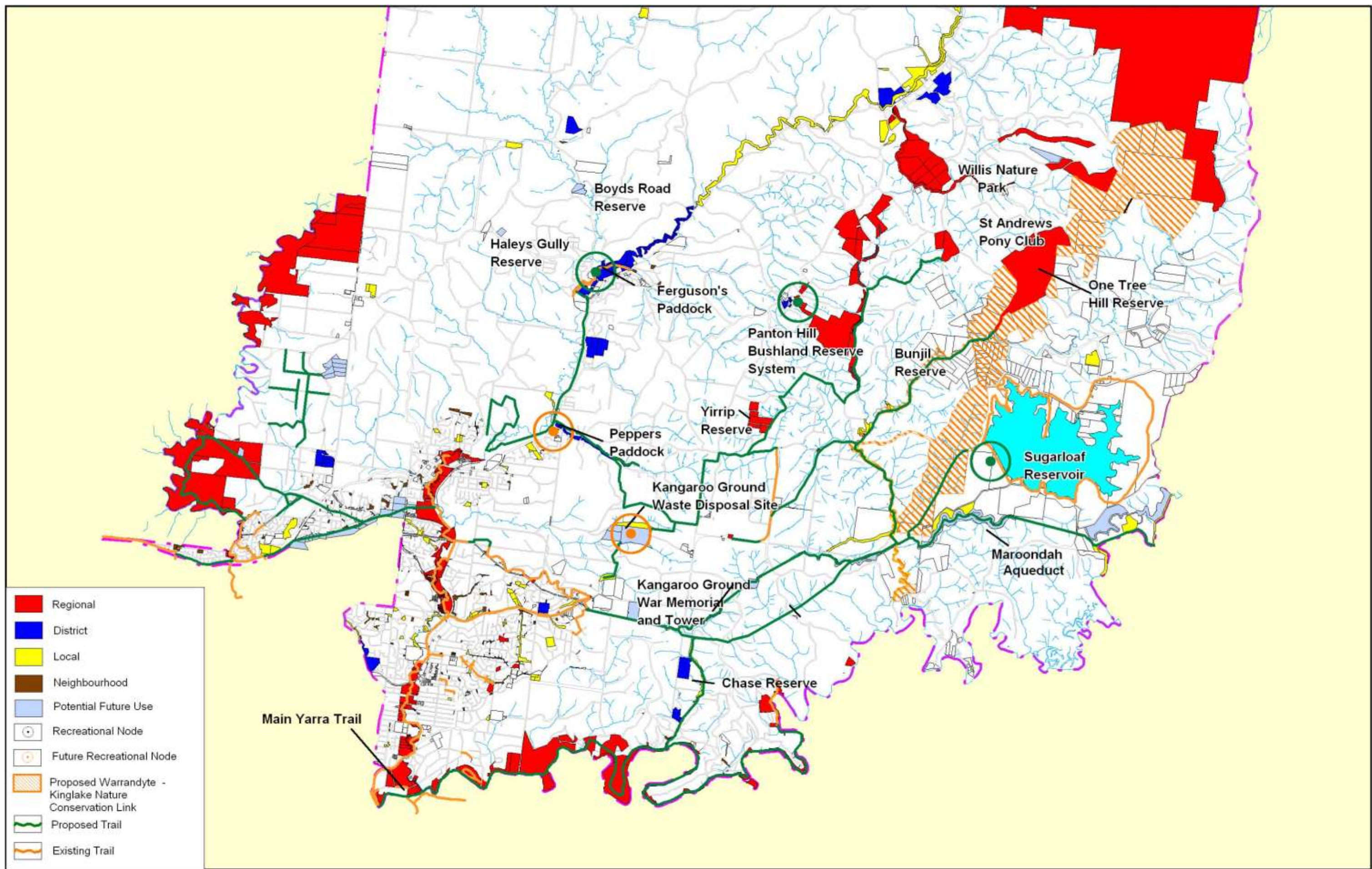
## Unclassified Land Open Space Strategy

0 1 2  
kilometres

MAP 17







- Regional
- District
- Local
- Neighbourhood
- Potential Future Use
- Recreational Node
- Future Recreational Node
- Proposed Warrandyte - Kinglake Nature Conservation Link
- Proposed Trail
- Existing Trail

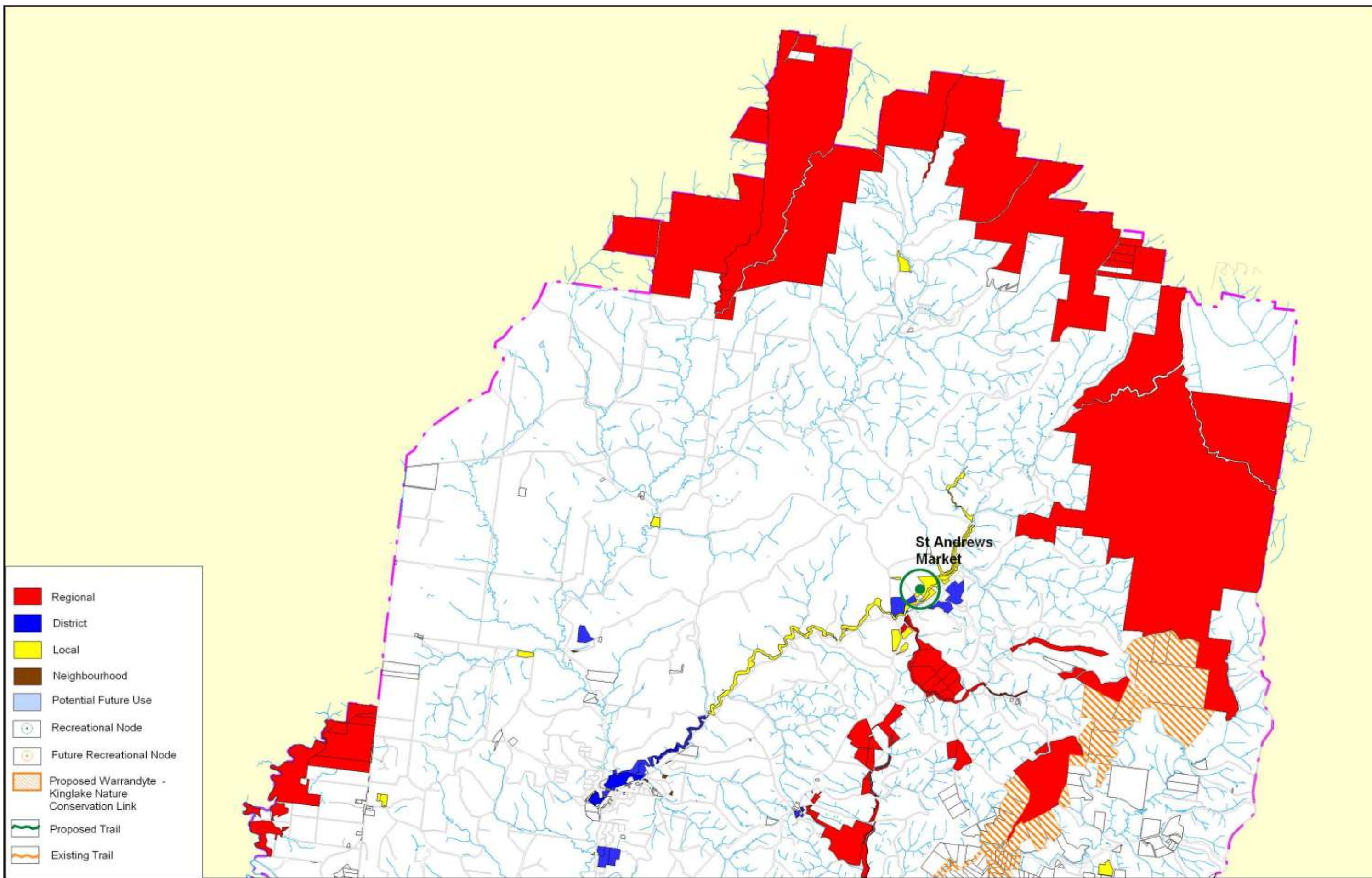
## Features and Opportunities, Trails

### Rural Open Space

### Open Space Strategy

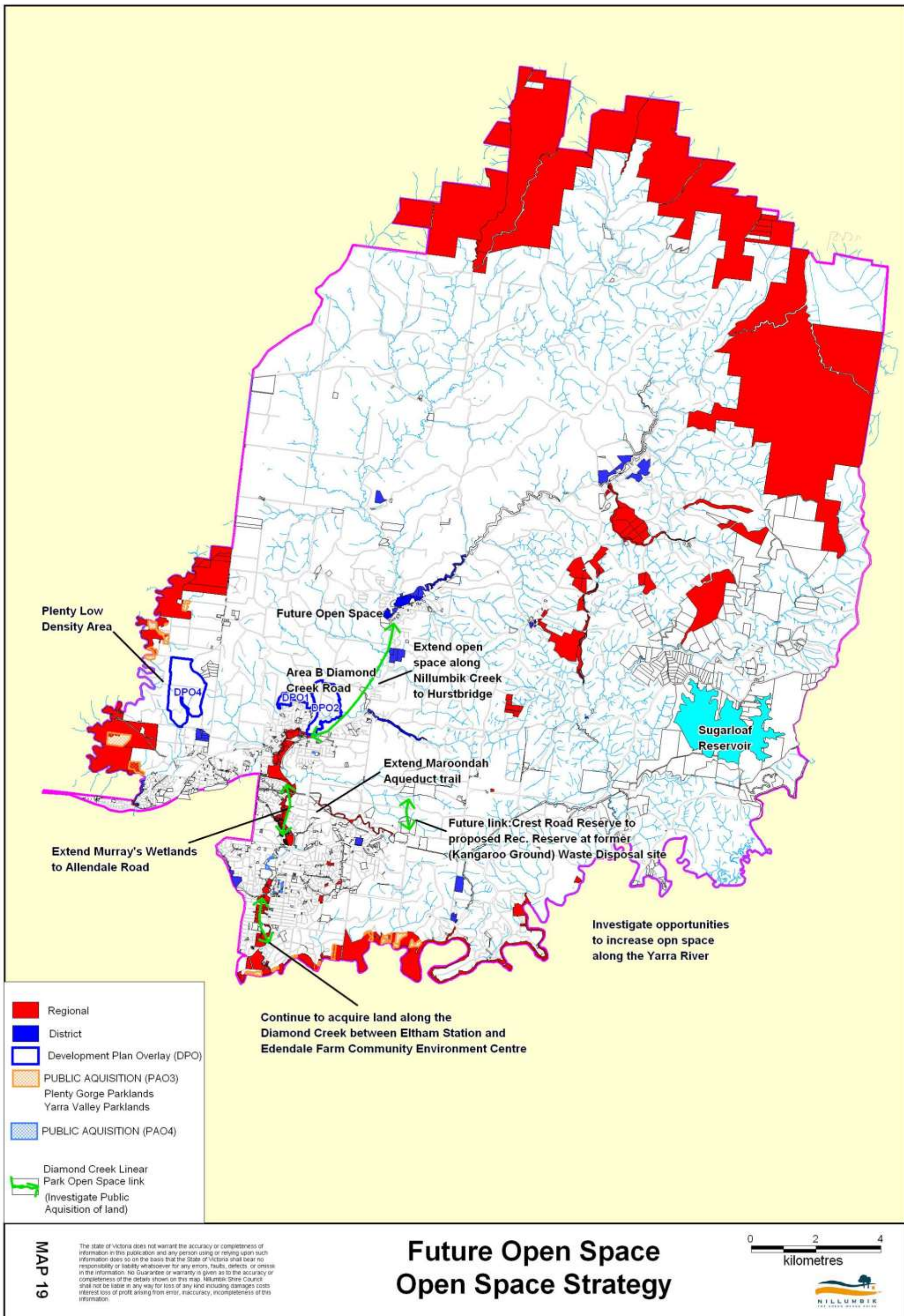
















## Section 3: Implementation, Planning and Management



Implementation of the Open Space Strategy is documented in the Open Space Strategy Implementation Plan. Each year a report to Council will be prepared that details the progress on each action.

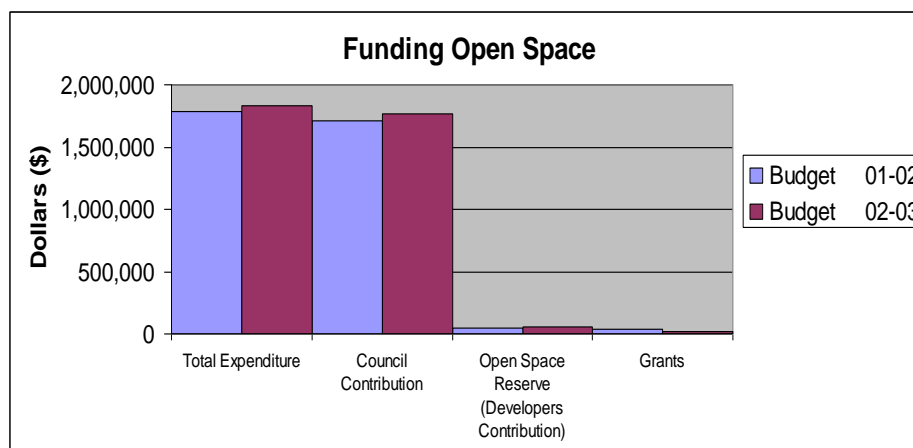
Council has a number of interrelated implementation mechanisms that are available in achieving the open space vision, objectives and actions identified in this Strategy. These include the following:

- funding projects and improvements through Council's capital works program;
- seeking external funding for the development of open space and developing partnerships with State Government agencies and the local community;
- mechanisms available through the planning scheme to acquire new open space and open space contributions from new developments;
- appraisal of existing open space to meet Council's open space objectives;
- acquisition of land to achieve identified open space needs; and
- management and development of open space.



## Funding for open space

The costs associated with development and maintenance of Council's public open space is substantial. **Table 8** provides a breakdown of how funds are obtained.



**Table 8: Open Space Expenditure**

As can be seen from the table above, the major funding contribution for open space is through revenue obtained from general rates which funds open space maintenance and a range of open space improvements through the capital works program. The contribution from developers also provides funding to increase and upgrade open space based on the increased demand generated by the new development. The graph also indicates that currently only a small proportion of open space funds originate from external grants, despite much of the open space trails forming part of the Metropolitan Trail Network. In green field subdivisions there are requirements and expectations under State and local policy for initial open space requirements to be provided and developed to an agreed level by the subdivider and these have not been included in the developer contribution component, of Table 8.

## Councils capital works budget

Each year Council provides funding for a range of capital works that include improving Council's open space network. In preparing the capital works program it is important to consider actions identified in the Open Space Strategy and also when designing infrastructure, access and mobility the needs of people with disabilities should be addressed.

## Actions

49. The process for prioritising open space capital works projects should be consistent with the priorities identified in the Open Space Strategy.
50. Any pavement upgrades should also consider opportunities for expanding the trail network.
51. Provision of open space infrastructure needs to consider Council's Community Inclusion Policy for People with a Disability 2004-2008 and associated Action Plan.

## Seeking external funding for development of open space

Much of the trail network and identified actions in this strategy involve further developing identified actions in *Linking People Linking Spaces* 2002. Key trails include:

- extending the Diamond Creek Trail to Hurstbridge
- extending the trail along the Metropolitan Ring Road reservation
- extensions of trails along the Yarra River and Plenty River
- connecting Kinglake National Park to Warrandyte State Park
- extending the Maroondah Aqueduct Trail to Sugarloaf reservoir and beyond.

These projects and other projects that provide links to the Metropolitan Trail Network, should attract State government funding as they are projects of a metropolitan and regional nature that will not only benefit residents from Nillumbik but form part of a wider metropolitan open space network.

Similarly, the conservation reserves of Nillumbik, particularly within the Watsons Creek catchment and along the major waterways are critical in protecting biodiversity at a regional and state level. Many reserves contribute to the protection of threatened vegetation communities and threatened native flora and fauna and are identified as important habitat in the *Draft Port Phillip and Westernport Native Vegetation Plan 2000*. A number of flora and fauna species are listed in the Flora and Fauna Guarantee Act 1988, the Environment Protection and Biodiversity Conservation Act 1999 and/or are recognised in international treaties such as the Japan-Australia (JAMBA) and China-Australia (CAMBA) Migratory Birds Agreement.

Ongoing management, protection and development of these key reserves requires significant resourcing. Given that they are part of a wider regional conservation system, these reserves should attract significant external funding including State and Federal Government funding.

There are also other funding opportunities that should be investigated for funding open space related projects. Funding is available from foundations, philanthropic grants and trusts and sponsorships from the corporate sector. The Victoria EasyGrants newsletter provides a starting point for investigating alternative funding sources.

## **Actions**

52. Work in partnership with the State Government to prioritise resources and seek grants and other funding opportunities for the following major regional open space trail projects within the Shire.

- extending the Diamond Creek Trail to Hurstbridge
- investigating opportunities to extend a trail along the Metropolitan Ring Road reservation to Challenger Street Wetlands.
- extensions of trails along the Yarra River and Plenty River
- ensuring the creation of the Warrandyte to Kinglake nature conservation link and extension to Kinglake National Park.
- extending the Maroondah Aqueduct Trail from Research to Sugarloaf reservoir and beyond.

## **Open Space and Subdivision**

There are clear reasons why new development should make a fair and reasonable contribution towards the provision of public open space, whether that is providing new parcels of open space or further developing existing open space. This section provides guidance in relation to the following areas:

- Planning mechanisms in obtaining open space contributions
- Criteria used to assess the need for additional open space
- Open space planning in green field and redevelopment sites
- Open space planning in rural and established areas and guidance in relation to seeking contributions toward development of public open space under the Subdivision Act 1988
- The application of Development Contributions Plans in contributing to open space improvements.



## Planning mechanisms in obtaining open space contributions

There are currently three mechanisms available through the Nillumbik Planning Scheme for developers to make a contribution towards open space. These include:

- The Subdivision Act 1988
- Clause 52.01 of the Nillumbik Planning Scheme
- Development Contribution Plans

**Subdivision Act 1988** Under Section 18 of the *Subdivision Act* 1988, Council may require up to 5 per cent of subdivided land for open space or require payment to the Council a percentage of the site value of the land in the subdivision, (up to 5 per cent), or a combination of the two providing the total requirement does not exceed 5 per cent of the site value if a greater figure is not specified in the planning scheme. The Council may only make an open space requirement if it considers that as a result of the subdivision there will be a need for more open space (or improvements to open space) having regard to:

- The existing and proposed use or development of the land;
- Any likelihood that existing open space will be more intensively used after than before the subdivision;
- Any existing or likely population density in the area of the subdivision and the effect of the subdivision on this;
- Whether there are existing places of public resort or recreation in the neighbourhood of the subdivision, and the adequacy of these;
- How much of the land in the subdivision is likely to be used for places of resort and recreation for lot owners;
- Any policies of the Council concerning the provision of places of public resort and recreation.

The Act also requires that payment received must be spent on the purchase of public open space or improve existing open space.

It is considered by many Councils and open space planners that the Act is now in need of a review and the current 5 percent maximum contribution is inadequate to meet the needs and expectations of residents and planning controls such as the requirements of Clause 56. The final report of the 2004 State Government *Inquiry into Sustainable Urban Design for New Communities in Outer Suburban Areas* concluded that the Subdivision Act 1988 should be reviewed to require a 10 per cent contribution towards public open space.

**Clause 52.01** provides Councils with the ability to define the contribution required by persons proposing to subdivide land. Councils have the ability to require the contribution to be made in either in land or cash or a combination of both. In relation to larger greenfield sites, where open space requirements have been part of a detailed plan, clause 52.01 provides an effective mechanism to obtain development contributions. In relation to smaller infill development, collecting contributions using clause 52.01 is more complex and is likely to require detailed work such as:

- Determine catchment area (could be whole or part of the Shire)
- Identify open space infrastructure projects within the area and costs of each project
- Quantify projected development occurring within the timeframe chosen (could be based on projected population increases)
- Estimate site value of future development (as payment is received as a percentage of the site value or in land)
- Determine what can be argued to be a fair and reasonable contribution developers pay towards open space improvements (based on the impact of the new development on open space demand).

**Development Contributions Plan.** A development contributions plan (DCP) is a mechanism used to levy new development for contributions to planned infrastructure needed by a future community. Infrastructure can include amongst other items public open space and improvements to public open space. Key issues in preparing a DCP include:

- Infrastructure items can only be included if they will be used by the future community of an area, including existing and new development.
- New development can only be charged in accordance with its projected share of usage.
- The DCP imposes a binding obligation on the infrastructure provider to provide the infrastructure by the date specified in the DCP.

The DCP is implemented through the Development Contributions Plan Overlay and schedule and the Development Contributions Plan Overlay identifies the area covered by the DCP which can be the whole municipality or a defined area.

## **Criteria for assessing the need for additional Public Open Space**

The following criteria should be used to assess whether a new development should require additional public open space.

# Criteria for Acquisition of Public Open Space

## **Consistency with the Open Space Strategy**

The future open space should assist in meeting the objectives and future actions identified in the Open Space Strategy. The future open space should add to the value of Councils open space system and should not duplicate the role of existing nearby open space that may better meet the needs of activities, functions and setting types required in this locality.

## **Community needs**

The future open space should contribute to the community needs including the need to ensure all residences within urban and township areas have access to functional open space that is within 500m walking distance. Therefore the new development will require additional open space if the 500m walking distance threshold cannot be met.

## **Using open space to protect and enhance the natural environment**

Where possible the future open space should contribute to the protection of significant environmental features including:

- Protection of waterways.
- Protection of remnant vegetation, habitat and habitat links.
- Threatened flora, fauna or vegetation communities.

## **Using open space to protect and enhance Cultural Heritage**

Where possible the future open space should protect sites of cultural significance and local interest.

## **Using open space to protect and enhance landscapes**

Where possible the future open space should contribute to the protection of landscape values such as a prominent hill, stand of vegetation, significant trees, or potential viewing areas.

## **Improving open space Linkages**

The future open space should contribute towards the provision of links that will connect to the existing open space network and trail system.

## **Open Space along significant waterways**

Priority should be given to securing future open space along the major waterways of the Diamond Creek, Plenty River or the Yarra River.

## **Design criteria**

- The future open space should meet the design objectives of clause 56.05 Public Open Space of the Nillumbik Planning Scheme.



- The future open space should be more than 0.5 ha with dimensions more than 70m in any direction.
- The future open space should maximise road frontage, public surveillance opportunities and minimise backing on to the rear of properties.
- The future open space should have good accessibility for all pedestrians including people with disabilities and also management vehicles.
- The future open space should be properly designed by a professional landscape architect and incorporated into subdivision landscape plans.

#### **Landscaping and maintenance of future open space**

- A developer should provide at least 2 years maintenance to any landscaping associated with new open space.
- Council should ensure that new open space is handed over to Council in a fit condition that is free of noxious and environmental weeds, rubbish, erosion problems, contamination etc and is appropriately landscaped including appropriate fencing, seating and pathways that has been agreed to by Council.
- Any proposed landscaping plans should be consistent with Council's environmental policies and species should be locally indigenous.
- Proposed landscaping should not lead to onerous future maintenance requirements once it becomes the responsibility of Council.

### **Open Space Planning in Green field and Redevelopment Sites**

Under the current Planning Scheme, it is unlikely that there will be significant new green field residential sites in the foreseeable future. However, there may be key redevelopment sites where the following considerations should be considered to determine appropriate open space requirements.

The planning and provision of open space should form part of the overall development plan (Incorporated Plan or Development Plan or similar mechanism). The final amount of open space in land or cash should then be provided via clause 52.01 of the Planning Scheme that specifically references the amount of open space required in accordance with an approved plan.

The use of Incorporated Plan Overlays and Development Plan Overlays, provide an ability to influence the future use and development of a site. Measures can include such things as open space provision and determining the road layout and addressing future social and environmental needs. Council has defined specific open space in areas where the following Development Plan Overlays apply (DPO 1, 2, 3 and 4). The advantages of determining open space at this broader level include:

- Open space can be planned effectively to address community needs and site issues including protection of areas of significance;
- Objectives of clause 56.05 Public Open Space can be more readily addressed;
- Issues regarding location, design, dimensions, linkages and adjoining land uses of proposed open space can be determined;
- Road layouts can be designed to improve the overall open space including maximising road frontage and protecting sensitive sites such as waterways through the provision of adequate buffers and limiting dwellings backing onto public open space; and
- Community needs including providing appropriate open space facilities and functions can be determined at the planning stage.

## **Actions**

53. Advocate to the State Government to review the Subdivision Act 1988 to increase the maximum amount of Public Open Space contribution to at least 10 per cent.
54. Open space contributions for large greenfield or redevelopment sites shall be determined by a detailed Development Plan or similar planning mechanism and the required open space shall then be provided in land or cash or a combination of the two via clause 52.01 of the Planning Scheme.
55. In assessing the need for additional public open space through the subdivision process the Criteria for Public Open Space Acquisition should be applied.

## **Rural subdivision**

Under the existing planning scheme there are few areas where further rural subdivision is likely to occur. However there are some larger rural parcels within the Shire that in the future could be further subdivided.

In the event of rural subdivision this section outlines objectives that should be achieved in relation to open space provision.

Rural subdivision generally results in the creation of large lots, which it has been traditionally argued do not lead to an increase demand in open space as the lots are large with ample private open space. However, the Open Space Strategy indicates a strong demand for rural trails, local focal points and the need for well developed regional and district open space. Under the Rural Open Space System, the Open Space Strategy has identified the need to develop the regional and district open space system including rural recreation nodes, the rural trail network including equestrian trails and shared pathways. There is also a need to improve local facilities in the smaller settlements to create and improve community meeting places. On this basis rural subdivision should make an open space contribution towards the development of the Rural Open Space System.

## **Actions**

56. Under the current arrangement of the Subdivision Act 1988, Council should require subdividers in rural areas to provide developer contributions up to 5 percent of the site value towards:

- addressing improvements needed to nearby regional/district and local open spaces.
- further development of and improvements to the rural open space trail system.

The following percentage contribution should apply:

- For the creation of 6 or more lots a 5 per cent contribution should apply.
- For the creation of 3 - 5 lots a contribution of 2 per cent should apply.
- For the creation of less than 3 lots no contribution should apply.

## **Subdivision in established residential areas**

Due to the extra demand for open space created from an increase in the population and/or changing demographics as a result of higher density living, there is a need to require a development contribution from redevelopment proposals within established areas. Section 1 of the Open Space Strategy identifies the population in Nillumbik will increase by just over 4 percent by 2021, (DSE 2004). With the current State Government objective and Council policy direction towards encouraging higher density developments in and around principle and major activity centres and along main public transport routes and nodes, it is expected that a major proportion of the population growth



will be accommodated by higher density housing that is expected to occur in and close to the following areas:

**Principle Activity Centre**

- Greensborough

**Major Activity Centres**

- Eltham
- Diamond Creek

**Major Public Transport Routes and nodes**

- Main Road from Research to Eltham
- Diamond Creek Road from Nillumbik Shire Council Office precinct to Yan Yean Road

Based on community needs and the Open Space Strategy vision and objectives, new residential infill developments should be required to make a contribution towards the further development of Regional/District open spaces, Local/Neighbourhood open spaces and the Regional recreational trail network. Generally, new development such as medium density housing will generate additional open space demands as the density of people around a particular neighbourhood usually increases and the private open space per dwelling usually declines. The additional people will not only utilise open space within the local neighbourhood but will also use the nearest regional and district open space and the trail network. It is this reason why development contributions should contribute towards the local and wider open space system.

Until such time there has been a review of the Subdivision Act and how public open space contributions are made in relation to infill development it is recommended that public open space contributions should be made under the Subdivision Act, where the contribution rate is determined based on meeting the tests contained in Section 18(1A) of Act 1988. While there is no standard scale such as the former VicCode 2 contribution rates, the following framework should be used as a guide when considering open space contributions. This framework is based on the VicCode 2 contribution rates as it this scale is at least generally accepted by the development industry.

**Demonstrated need for Open Space**

Assess the future needs of the Regional and District Open Space network (identify future projects within the nearest regional/district open space). Contributions should be required towards master plan development and implementation of improvements such as environmental works, pathways, car parking, toilet facilities, BBQs, seating, etc.

Assess the future needs of the Regional Trail Network (identify future projects to the nearest regional trail network). There has been an

identified need to improve the condition and signage of the existing trail network and to expand the trail network across the Shire.

Assess the condition of the local/neighbourhood reserves and whether there are identified improvements required to these reserves.

### **Contribution rates**

While there is no standard contribution rate, it is recommended that:

- For the creation of 3 dwellings, a 2 per cent cash contribution should apply.
- For the creation of 4 dwellings, a 3 per cent cash contribution should apply.
- For the creation of 5 dwellings, a 4 per cent cash contribution should apply.
- For the creation of 6 or more dwellings, a 5 per cent cash contribution should apply.

### **Actions**

57. Until such time there has been a review of the Subdivision Act, in relation to medium density housing development, the following open space contributions should be made under the *Subdivision Act 1988*.

- For the creation of 3 dwellings, a 2 per cent cash contribution should apply.
- For the creation of 4 dwellings, a 3 per cent cash contribution should apply.
- For the creation of 5 dwellings, a 4 per cent cash contribution should apply.
- For the creation of 6 or more dwellings, a 5 per cent cash contribution should apply.

58. Build on the Open Space Inventory to ensure it is regularly updated to identify open space needs and improvements.

## **Development Contributions Plans towards open space improvements**

### **Greenfield subdivisions or large redevelopment sites.**

Under Melbourne 2030 and the municipal planning scheme, the Shire of Nillumbik is not a designated growth area and is not expected to have greenfield residential sites in the foreseeable future. However a number of Greenfield sites remain under the various Development Plan Overlays. In these areas and for any large new residential areas, open space improvements should be required and provided through the preparation of a Development Contributions Plan and implemented via a Development Contributions Plan Overlay (DCPO). Open space improvements should be detailed in the Development Contributions Plan and include such facilities and works as:

- Development of master plans
- Playgrounds and equipment
- Landscaping/Revegetation
- Pathways and shared trails
- Weed control
- Seating, shelters, BBQ facilities etc.

Council should also investigate the feasibility of a Shire wide Development Contributions Plan. This investigation should consider the performance of the existing and proposed Development Contribution Plans for the three new residential areas DPO1, 2 and 4.

## **Actions**

59. Include open space improvements within Development Contributions Plans for any new greenfield or redevelopment site.
60. Advocate to the State Government for the need to improve the statutory mechanisms to obtain development contributions for public open space for dispersed in fill residential development. This would involve reviewing the existing planning mechanisms (including the Subdivision Act 1988) that are available to Councils.
61. As part of a Shire wide initiative, investigate the feasibility of preparing a broader Development Contributions Plan that incorporates identified public open space projects. The investigation should assess the performance of the existing DCPs for the three Development Plan areas DPO1, 2 and 4.

## **Adjacent Land uses and Open Space**

It is important that adjoining land uses do not detrimentally impact on the values of adjoining public open space, particularly conservation open space. To this end, it is important that appropriate uses are encouraged and inappropriate uses are discouraged. Also it is important that Council continues to foster good relationships with adjoining land owners by implementing actions such as running education programs for specific conservation reserves such as the Eltham Copper Butterfly Reserves, ensuring all reserves are in good order and free of weeds and rubbish, and managing any potential fire risk. Council can encourage a good interface with conservation reserves through targeting environmental incentive programs to adjoining landowners and encouraging Trust for Nature Conservation Covenants, or discouraging domestic pets through the planning and municipal laws processes.



## **Actions**

- 62. Through the planning process ensure new uses adjoining public open space do not detrimentally impact on the adjoining public open space.
- 63. Ensure the issuing of additional pet registrations pursuant to Council's Local Law consider the location of conservation reserves.
- 64. Encourage the use of Trust for Nature Conservation Covenants or similar mechanisms to develop an appropriate bush interface with significant conservation reserves.
- 65. Target Council's environmental incentive programs to landowners adjoining significant conservation reserves.
- 66. Continue to foster good relationships with land owners adjacent to public open space through education programs, regular contact, and ensuring all reserves are well maintained.

## **Appraisal of existing open space to meet Council's open space objectives**

Council's existing open space should be carefully assessed in accordance with the principles, vision, objectives and actions of the Open Space Strategy. Land that does not fulfil an identified existing or future open space function should be considered as surplus. Funds realised from the sale of surplus open space should be directed into funding identified open space needs.

All open space should have a primary function that describes the main purpose and use of the open space. Parcels of open space that are currently undeveloped need to be considered in relation to their potential future value as open space. The following section outlines a process to evaluate existing Council land. This process should be undertaken for all Council land that is considered for potential disposal as it will ensure that any disposal of land will not compromise achieving Council's open space vision, principles and objectives.

Council should also evaluate whether there are neighbourhoods where there is an “over supply” of open space. In some cases small pocket parks which provide limited open space value are nearby to larger reserves of a higher quality. In these cases parcels of this nature should also be considered under the Criteria of assessment for Unclassified Land described below.

#### **Criteria of assessment for Unclassified Council owned land.**

The Open Space Strategy has identified on a preliminary basis land that has no apparent open space function, which has been categorised into Unclassified land. All land in this category should be subject to a detailed assessment under the Open Space Strategy Assessment of Potentially Surplus Land Criteria in addition to statutory and consultative requirements under the Local Government Act, 1989.

#### **Open Space Strategy Assessment of Potentially Surplus Land Criteria**

##### **Identified Open Space Needs**

- Has the land an identified open space function?
- Is there an opportunity to address identified actions in the open space system?
- What is the role or potential role of the land in relation to existing or future open space needs?
- What are the anticipated community needs including the need for local parks, playground facilities, other community facilities in the area?

##### **Access and Equity**

- Would disposing of the land result in the residential or township area not having access to functional open space that is within 500m walking distance from residential areas.

##### **Protection and enhancement of the Environment**

- Does the land protect or provide buffers to any of the following?
  - remnant vegetation
  - mature trees
  - threatened flora and/or vegetation communities
  - waterways/wetlands
  - site of cultural heritage
  - landscape values

##### **Management and open space potential of the land**

- Is the site accessible to the public or can it be made accessible?

- Does the site have poor public surveillance?
- Is the site less than 0.4 hectares? (note: parcels that are contiguous with existing open space should not be considered on their own but as part of the larger parcel of open space)
- Will disposing of the land reduce the road frontage to existing open space?

### **Guidelines in relation to open space of low value**

Generally sites of low value relate to one or more of the following attributes:

- No identified function, obvious environmental significance, recreation potential or character to add value to the open space system to serve an identified function, or setting type not currently provided in the locality.
- The area is under 0.5 ha or has dimensions less than 70m in any direction
- The site backs on to the rear of residential properties and has a poor relationship with neighbouring land uses
- The site has no or difficult vehicle access
- The land does not provide valuable habitat or trail link, nor can add value to an existing habitat or trail
- It is unlikely that adjacent land may be added to make this area into a high quality or viable resource
- The land has poor visibility from a road and has poor public surveillance
- There are alternative sites in the near vicinity that better meet the needs of activities, functions and setting types required in this locality
- The site has constraints which restrict its development as open space

### **Actions**

67. All land considered as potentially surplus to open space requirements and considered for disposal will be required to be assessed against the Open Space Strategy Assessment of Potentially Surplus Land Criteria.



## **Surplus Open Space Funds**

If land is deemed to be surplus, funds generated by the proceeding sale of such land should be directed into the Open Space Fund to acquire or improve open space. Open space may not always be identified as Public Conservation Resource Zone (PCRZ) or Public Park and Recreation Zone (PPRZ) in the planning scheme as many parcels of open space are likely to have a zoning consistent with the surrounding zoning.

## **Acquisition of land to achieve identified open space needs**

Land that has been identified as a high priority to be included in the open space system should be purchased as funds become available. Council has identified the Diamond Creek Linear Park Open Space Link under Public Acquisition Overlay 4 and land associated with Development Plans 1, 2, and 4. Map 19 identifies areas where land should be investigated to be added to the open space system. This is summarized below:

- Land along the Diamond Creek to form the Diamond Creek to Hurstbridge Trail.
- Land linking the Diamond Creek Trail to Maroondah Aqueduct at Allendale Road.
- Land connecting Crest Hill Road in Research to the future regional reserve on the former Kangaroo Ground Waste Disposal Site.
- Land along key waterways of the Yarra River, Plenty River and Diamond Creek.

### **Actions**

68. As funds become available the following sites should be investigated for acquisition into the open space system.

- Land along the Diamond Creek to extend and continue regional open space along the Diamond Creek from Diamond Creek to Hurstbridge and to accommodate the Diamond Creek to Hurstbridge Trail.
- Land linking the Diamond Creek Trail to Maroondah Aqueduct at Allendale Road.
- Land connecting Crest Hill Road in Research to the future regional reserve on the former Kangaroo Ground Waste Disposal Site.
- Land along key waterways of the Yarra River, Plenty River and Diamond Creek.

69. If additional land is considered for public open space it should be assessed against the Criteria for Acquisition of Public Open Space.

## **Management of Open Space**

Appropriate management of open space is critical in achieving a high quality open space system. Management of open space is also a major contributor of the total funds spent on Council's open space system. Management levels depend on the type and function of open space. For example open space adjacent to a public library or within a town

square is expected to have a higher level of maintenance and landscaping compared to a local park or creek side reserve. Open space areas are often a combination of State Government and Council owned land and it is important to work in partnership with the relevant land owner to progress improvements and maintain the land to a satisfactory standard.

On a number of Crown reserves Council is Committee of Management, which provides Council with delegated responsibility for the ongoing management of the reserve. Being Committee of Management allows Council to the ability to generally manage and maintain the reserve how it sees fit (within the parameters of the purpose of the reservation). Key examples include St Andrews Reserve which incorporates the St Andrews Market, and Eltham Lower Park. Council is also Committee of Management for some smaller reserves. Given the costs involved in maintaining such areas it is recommended that that the Committee of Management arrangements for these smaller reserves be reviewed. The review should identify all parcels of land where Council is Committee of Management and also identify parcels where it could be beneficial to become Committee of Management.

Generally the function of open space is identified by the planning scheme zoning. Dedicated conservation open space should be zoned Public Conservation and Resource Zone (PCRZ) and broader functioning open space should be zoned Public Park and Recreation Zone, (PPRZ). The purpose of the PCRZ emphasises the need to protect the natural environment, while the PPRZ allows for greater recreation pursuits. Not all reserves are currently zoned to reflect their main function and a review of existing zones should be undertaken, with a high priority given to reviewing and correcting zoning anomalies in regional and district open space.

For each open space type, objectives have been developed that should be used to guide the level of management and development of open space.

**Main Function:            Informal Recreation**

These areas include the bulk of the open space system comprising of local and neighbourhood parks and linear reserves.

**Core Objectives**

- To provide for a range of recreational pursuits.
- To protect areas of significance including flora and fauna habitat, cultural heritage and landscape value.



### **Management Objectives**

- Control noxious and priority environmental weeds.
- Provide areas of landscaping using indigenous species and allow some areas for natural regeneration particularly along waterways.
- Ensure new facilities are located to minimise environmental impacts.

### **Main Function:        Formal**

These areas include formal gardens such as the Nillumbik Shire Council Offices, the Shire Libraries and Eltham Community and Reception Centre.

### **Core Objectives**

- To provide an attractive high quality landscape setting.
- To educate residents and visitors on the benefits of using Australian natives and indigenous plants for water conservation and supporting the local ecology of the area.

### **Management Objectives**

- Provide areas of attractive landscaping using predominantly indigenous vegetation.
- Ensure the open space is maintained to a high standard.

### **Main Function:        Conservation**

### **Conservation Objectives**

- To protect and conserve the natural environment and natural processes for their habitat, historic, scientific, landscape, habitat or cultural values.
- To assist in public education and interpretation of the environment.

### **Management Objectives**

- Control priority environmental and/or noxious weeds identified by the Environmental Works Unit.
- Ensure management processes encourage natural regeneration.
- Identify areas where revegetation should be undertaken to complement natural regeneration.
- Protect identified environmental values from rabbits through fencing and where appropriate by other measures including baiting and/or ferreting.
- Prevent erosion and sediment entering waterways.
- Ensure the reserve is accessible to the public and maintenance staff.
- Manage fire risk in accordance with the reserve's Environmental Management Plan. Where specific Environmental Management Plans have not been

developed, manage fire in accordance with Council standard provisions.

- Provide for limited signage and in designated major reserves interpretive signage.
- Ensure any trail development and trial use does not damage environmental values particularly sensitive flora species and waterways.
- Ensure any development does not impact on the environmental values of the reserve.
- Ensure the reserve is adequately fenced and maintained free of dumped rubbish/garden refuses etc.

These broad management objectives will be further developed when management plans for the major conservation reserves are undertaken

#### **Main Function not determined, (Potential Future Use)**

These areas include land that is not currently developed, but which has potential to contribute as part of the open space system when developed. The land may often be rough and appear derelict but which can have its own function as simply being open space away from a built up area and often these areas provide informal play areas for children.

#### **Core Objectives**

- To provide land for potential future open space requirements.
- Prior to development to allow the site to be used for informal recreational pursuits.

#### **Management Objectives**

- To control major infestations of weeds especially noxious and priority environmental weeds.
- Ensure the sites are maintained to a minimum standard and in accordance with safety and fire regulations.

### **Actions**

70. Undertake a review of existing public open space zoning to ensure all reserves are appropriately zoned to reflect their main purpose and function. Priority should be given to correcting planning scheme anomalies to regional and district open space.
71. Open Space should be managed generally in accordance with the Management Objectives outlined for each open space type in the Open Space Strategy
72. Continue to liaise with State Government agencies which manage public open space so that the open space is managed

in accordance with the Management Objectives outlined in the Open Space Strategy.

73. Undertake a review of existing Committee of Management arrangements. The review should identify all parcels of land where Council is Committee of Management, consider the merits of being Committee of Management and identify parcels where it could be beneficial to become Committee of Management.

## **Management Plans**

For each major conservation reserve management plans that identify the strategic direction for the reserve have been recommended. Management Plans and Master Plans should involve all relevant stakeholders including community groups, agencies and local residents. As a guide, management plans should address the following issues:

- Define a strategic direction;
- Identify management objectives;
- Ensure National, State and local policies are addressed;
- Identify existing environmental values;
- Identify environmental risks;
- Develop management strategies that address the identified risks;
- Identification of future development including new facilities, tracks, viewing platforms etc.

### **Master plans**

The Open Space Strategy has recommended the preparation for a number of regional parks and reserves that provide for a range of functions including conservation, passive and active recreation. Master plans as a minimum should identify:

- proposed strategic direction for the reserve;
- Identification of existing uses and functions;
- Proposed developments including landscaping, new facilities, features, paths etc;
- Recommendations to address potential conflicting uses within the reserve;

### **Open Space and Pets**

Council's Domestic Animal Strategy has identified areas where dogs are permitted whether restrained or otherwise in the following parks and reserves.

#### **Off-leash areas**

- Eltham Lower Park
- Griffith Park, Eltham



- Plenty River Drive Reserve Greensborough
- Eltham East Linear Reserve north of Diosma Road, Eltham
- Falkiner Street Park
- Susan Street, Eltham
- Gumtree Reserve, Research
- Woodridge Linear Park, Eltham
- Fergusons Paddock, Hurstbridge (excluding wetlands)
- Former Kangaroo Ground Waste Disposal Site, (excluding bushland reserve)
- Nillumbik Park, Diamond Creek
- Diamond Creek Reserve, (excluding wetlands)

**Areas where dogs and cats are prohibited include**

- Diamond Creek Reserve, Diamond Creek: wetlands  
Sweeneys Flat, Eltham
- Professors Hill Reserve, North Warrandyte
- Chase Reserve, Research
- Temple Ridge and Bailey Gully Reserve, Wattle Glen
- Land managed by Parks Victoria (some areas may allow dogs on leash)

## References

Australian Institute of Urban Studies (2000) Environmental Indicators for Metropolitan Melbourne Bulletin 3 City of Melbourne

Bick, D., Patrick, J. and Wallace, K., (1992) Shire of Eltham Heritage Study, Shire of Eltham.

DOI (2003) Department of Infrastructure Know Your Suburb. Website [www.doi.vic.gov.au](http://www.doi.vic.gov.au).

Department of Primary Industries (2002a) Atlas of Victorian rare and threatened wildlife. Extract for the Shire of Nillumbik May 2002.

Department of Primary Industries (2002b) Atlas of Victorian rare and threatened flora. Extract for the Shire of Nillumbik May 2002.

Department of Sustainability and Environment (DSE) (2004) Victoria in Future 2004.

du Cros (1996) Nillumbik Shire Aboriginal Heritage Study.

Port Phillip and Westernport Catchment and Land Protection Board  
(2000) *Draft Port Phillip and Westernport Native Vegetation*

## **Appendix 1**

**Policies and strategy documents which influences open space planning.**



# Melbourne 2030 Planning for sustainable growth

Prepared by Department of Infrastructure.

October 2002.

Melbourne 2030 is a plan for the growth and development of Melbourne and the metropolitan area. A key aspect of the Strategy is to manage the expected growth of Melbourne within existing urban areas, key redevelopment sites and into identified growth areas, while at the same time protecting and enhancing existing suburbs and Melbourne's green wedges. Much of the Shire of Nillumbik has been identified as a Green Wedge, and an urban growth boundary has been applied to the existing residential zoned land.

While all the nine Directions are relevant to open space, Direction 5 *A great place to be* specifically addresses open space, and identifies the Parks Victoria strategy *Linking People Linking Spaces* as the key strategic direction for regional open space. Relevant policies in Direction 5 include:

*Policy 5.5: Promote excellent neighbourhood design to create attractive, walkable and diverse communities.*

Relevant initiatives include 5.5.3 which aims to implement the Neighbourhood Principles (page 102) which represent characteristics of liveable neighbourhoods. In relation to open space the Neighbourhood Principles encourage a range of open spaces to meet a variety of needs, with links to open space networks and regional parks where possible. They also encourage the protection and enhancement of native habitat.

*Policy 5.6: Improve the quality and distribution of local open space and ensure long-term protection of public open space.*

*Policy 5.7: Rectify gaps in the network of metropolitan open space by creating new parks and ensure major open space corridors are protected and enhanced*

These policies attempt to address the inequality of parkland distribution and identify key regional gaps and introduce the *Parklands Code: urban open space principles*. Specific initiatives also aim to protect and enhance urban waterways including the Yarra River and Plenty River corridors:

*5.7.3 Provide long-term planning protection to meet demand for future open space, until land can be acquired and developed for public use in key areas that include: Plenty Gorge Parklands and Yarra Valley Parklands*

*5.7.4 Strengthen current policies and review the adequacy of planning controls relating to the Yarra and Maribyrnong to ensure the long-term protection of open space, conservation values...*

## Implications

*Melbourne 2030 emphasises the essential role of open space in making places more liveable and in protecting biodiversity. It recognises a need to review local open space in terms of community needs, quality, quantity and ensuring links with the regional park network. The Parklands Code urban open space principles has been developed for regional, waterways, reserves that have conservation value, and shared use trails. This code provides guidance for Council in relation to the planning, community involvement and management issues of open space and among other issues recommends that parkland be zoned either as Public Park and Recreation Zone or Public Conservation and Resource Zone.*

*Direction 5 is highly relevant to all undeveloped residential areas and also to existing urban areas. The need to protect and enhance the Yarra, Plenty and Diamond Creek open space corridors is a key issue and Council should identify opportunities for creating links that will improve overall public access and environmental management along these important regional open space corridors.*

*With the introduction of the Urban Growth Boundary and an emphasis on providing higher density living within and around Activity Centres and major public transport routes, there will be a need to improve existing open space within and around these areas as demand for facilities and open space is expected to increase. Eltham and Diamond Creek have been classified as Major Activity Centres and Greensborough is a Principle Activity Centre and as a result it is anticipated that the majority of population growth will occur in and around these areas.*

# Linking People and Spaces

**A strategy for Melbourne's open space network.**

**Prepared by Parks Victoria in 2002.**

Linking People and Spaces is a strategic document guiding the development of Melbourne's regional open space network. The Strategy's vision states:

*A linked network of open space for all to enjoy as a part of everyday life, preserved and enhanced into the future.*

Five guiding principles have also been developed:

- Partnerships
- Equity of access
- Diversity
- Flexibility and responsiveness
- Sustainability

Key outcomes of the strategy include:

- Improving equity through provision of six new parks in Melbourne's growth corridors, including Whittlesea.
- Completing gaps and extending shared-use trails including the Main Yarra Trail
- Improving foreshore access
- Setting priorities for vegetation protection identified by the Port Phillip and Westernport Native Vegetation Plan.
- Organising annual open space forums

Metropolitan Melbourne has been divided into geographical regions, and Nillumbik occurs in the North Region. The actions specific to Nillumbik listed in Linking People and Spaces include the following:

## **0-3 year actions**

- Monitor and evaluate further development demands for and use of recreational venues within Plenty Gorge Parklands and investigate opportunities to expand nature-based trails PV

- For new areas of open space where possible, give priority to protection of areas of national and State ecological significance COM, LG PV, DNRE
- Protect open space that's supports significant flora and fauna species, including Kinglake National Park and Plenty Gorge Parklands COM, LG, PV, DNRE
- Protect, enhance and where possible link the significant riparian vegetation of waterways such as the Yarra River, the Plenty River and Watson Creek COM, LG, MV, PV, DNRE
- Protect, restore and increase the cover of depleted vegetation communities, including Plains Grassy Woodlands, Herb-Rich Woodlands, Native Grasslands and Box Ironbark Forest within the existing open space network. Examples include Plenty Gorge Parklands COM, LG, MV, PV, DNRE

#### **4 to 9 year actions**

- Continue to develop recreational facilities at all National Parks LG
- Close the trail gap in the Maroondah Aqueduct trail between the Plenty River trail and the Metropolitan Ring Road. LG

#### **Longer term actions**

- Investigate the feasibility of establishing a recreational centre at the former Kangaroo Ground Tip. LG
- Promote east west links, both habitat and trail, in the order to complement and extend the north south links along the regions river and water ways COM. LG, PV, MV, DNRE
- Protect environmentally sensitive areas from increased visitor pressure due to growth in the residential population, especially in the Plenty Valley PV,DNRE
- Extend the Plenty River Trail to Hawkstone Park and on to Yan Yean reservoir LG, PV
- Extend the Diamond Creek Trail from Nillumbik Park to Hurstbridge Park, LG
- Complete the Maroondah Aqueduct trail link from Plenty River Trail to Diamond Creek trail, and establish the trail from Research to Healesville via Sugarloaf Reservoir Park LG, PV
- Investigate options for linking the main Yarra Trail to Kinglake National P Park LG, PV, DNRE



## **Implications**

*Linking People and Spaces* commit Council to a range of actions Key projects are:

- *closing the trail gap in the Maroondah Aqueduct trail between the Plenty River trail and the Metropolitan Ring Road,*
- *developing the former Kangaroo Ground Waste Disposal Site;*
- *extend the Diamond Creek Trail from Nillumbik Park to Hurstbridge Park, and*
- *in collaboration with Parks Victoria complete the Maroondah Aqueduct trail link from Plenty River Trail to Diamond Creek trail, and establish the trail from Research to Healesville via Sugarloaf Reservoir Park.*

# Victoria's Native Vegetation Management

## A Framework for Action

*Victoria's Native Vegetation Management A Framework for Action* establishes the strategic direction for the protection, enhancement and revegetation of native vegetation across Victoria. The primary goal of the framework is

'A reversal, across the entire landscape, of the long term decline in the extent and quality of native vegetation, leading to a Net Gain'

The Framework links the Net Gain approach with the conservation significance of the vegetation, which takes into account

- The conservation status of vegetation types
- The quality of the vegetation
- The conservation status of species present (and the potential habitat value)

While the Framework primarily focuses on vegetation management on private land, it may be used as a guide in determining appropriate acquisition of open space for conservation purposes based on the conservation significance that is defined in the Framework. In determining conservation significance, the Framework places a high emphasis on the vegetation type measured as Ecological Vegetation Classes, which has been mapped for the Shire. Planning applications involving vegetation removal may also involve applicants setting aside areas of remnant vegetation as open space as part of their offset requirements to meet Net Gain.

## **Council Plan 2004-2008**

The Council Plan 2004 -2008 is the major strategic planning document that incorporates all significant initiatives to be undertaken by Council in the short and medium term. The Council Plan identifies a Vision, Mission, and Values that have guided the development of goals, objectives, aspirations and actions.

### **Councils Vision**

Through the leadership of our elected Council, we will:

- Provide strong cooperative leadership and engage the community to promote health, safety, sustainability and prosperity
- Respect and maintain the diversity of our community and its heritage
- Preserve and enhance the environment in which we live
- Enhance pride in our community and respect for the Council

### **Council's Mission**

Our Vision and goals will be achieved by representing the needs of the community.

### **Values**

In working with, and for, the Nillumbik community Council is committed to:

- Pro-active and accountable leadership
- Honesty and transparency
- Trust and integrity
- Loyalty
- Fairness

The five goals include:

- Community, health, culture, sport and leisure
- Land use planning and environment

- Transport and infrastructure
- Economic Development
- Governance

### **Implications**

*There are a range of short and medium term commitments relevant to the Open Space Strategy. Key areas include:*

- *Advocate State and Federal Governments for improved funding for community facilities and services*
- *Actions identified in Council's existing strategies including the Recreation Strategy (2000) and Recreational Trails Strategy (2002).*
- *Implementation of the Playground Audit Development and Upgrade Program*
- *Prepare master plans for Eltham Lower Park/Lenister farm, Plenty Park*
- *Prepare a concept plan for Peppers Paddock, Wattle Glen*
- *Continue development of Falkiner Street Wetlands, Eltham.*
- *Construct a footbridge across the Yarra River at Lenister Farm*
- *Develop an open space implementation plan and commence executing high priority actions requiring planning scheme amendments.*
- *Develop and resource a maintenance program for wetlands*

### **Nillumbik Planning Scheme**

The Nillumbik Planning Scheme impacts on public open space in a range of ways including:

- guidance on the usage and type of public open space through the application of zoning namely Public Park and Recreational Zone (PPRZ) or Public Conservation and Resource Zone (PCRZ);
- an ability to require persons subdividing land to make a contribution to public open space in the form of land or cash or a mixture of both.



- Mechanisms that provide Council with the ability to coordinate new development including provision of open space in accordance with a preferred concept plan eg application of a Development Plan Overlay.
- Guidance during planning permit applications on the preferred quantity, quality, function and design of public open space.

## State Planning Policy Framework

Clause 15.10 provides the State Planning Policy directive regarding open space.

Objective 15.10-1 states:

- To assist creation of a diverse and integrated network of public open space commensurate with the needs of urban communities and rural areas.
- The planning and responsible authority is required to implement this objective through a range of measures. In summary this includes such things as ensuring connectivity by creation of shared trails, linking major parks and activity centres, providing open space along waterways and natural drainage corridors and the need to provide for open space in residential areas for recreational use.

## Particular Provisions

Clause 56 Residential Subdivision

This provision applies to planning applications to subdivide land in the Residential 1 Zone, Residential 2 Zone, Mixed Use Zone or Township Zone and is summarised in Appendix 1. Objectives and Standards relate to the usage, quantity and quality of open space that should be provided in new subdivisions. The Objectives describe the desired outcome to be achieved in the completed subdivision and standards contain the requirements to meet the objective, which should normally be met but can be varied so long as the objective is met. Key objectives and standards include Standard C16 and Standard C17, which amongst other requirements state, the provision of open space should

- Provide a balance between local, district and regional open space
- Take advantage of and protect natural and cultural features
- Incorporate land for regional linear open space where appropriate
- Provide for district parks of 3 hectare minimum, combining passive and active use, within 2 kilometres of all dwellings.
- Provide for large local parks of 1 hectare minimum, for active and passive use, within 500 metres safe walking distance from all dwellings.
- Provide for small local parks within 150 metres to 300 metres safe walking distance of all dwellings and that the location and design of public open space should take into account the following matters:

- The consistency of the location and function of the public open space with any metropolitan, regional or local public open space plan or policy, bicycle or walking trail network or structure plan set out in the scheme
- The needs of the community to be served, the population density and the profile of user
- The requirements for protection of existing trees, habitats, rocks, streams and other features of natural or cultural value.
- The opportunities to link open space into public open space and movement networks and to community facilities.
- And land provided for public open space should be:
- Of a quality and character that relates to its potential functions.

Located to ensure that every lot in the subdivision is within 500 metres walking distance of an area of existing or proposed public open space

Related to the street and lot layout in a manner that promotes personal safety and surveillance for users of the public open space and surrounding areas.

### **Implications**

*Council is required to address Clause 56.05 during subdivision applications in residential and township areas. Council will need to consider issues regarding the intended function of the open space, ensuring it contributes to community needs. Open space should also protect natural and cultural features such as waterways and remnant vegetation. The objectives and standards also define appropriate quantities of open space and emphasise that residents should not be more than 500 metres from quality public open space and that where possible open space should be linked to existing open space networks.*

### **Clause 52.01**

Clause 52.01 provides Councils with the ability to define the contribution required by persons proposing to subdivide land. Councils have the ability to require the contribution to be made in either in land or cash or a combination of both. If no amount is specified in the schedule to Clause 52.01, Councils may still require public open space contribution under the Subdivisions Act 1988.

### **Implications**

*Nillumbik Shire Council does not currently specify a contribution towards public open space in Clause 52.01 and up until now relies on Section 18(8) of the Subdivision Act 1988. Council is intending to use Clause 52.01 to specify open space contributions in new subdivisions including areas where Development Plan Overlays 1, 2 and 4 apply. This is further discussed in Section 3 Implementation and Management page 65-66.*

## Local Planning Policy Framework

Council is required to consider the MSS when preparing planning scheme amendments and during planning permit applications. Council's Municipal Strategic Statement identifies the importance of public open space in Nillumbik and the need to provide for adequate open space to meet community needs including access issues and to assist in protecting and enhancing the natural environment. The MSS identifies that open space needs to respond to population increases and demographic changes and that it is likely there will be an increased need for additional recreational facilities and localised parks/playgrounds, and a greater variety of recreational opportunities will be required. The MSS also recognises the need to locate higher density housing in areas that are close to public open space. Two key sections of the MSS include:

Clause 21.05-3 Environment, Conservation & Landscape; and

Clause 21.05-5 Infrastructure

Below is a summary of the relevant objectives and strategies

### Clause 21.05-3 Environment, Conservation & Landscape

#### Objective 1

- To protect and enhance sites of environmental significance
- Strategies
- Retain high value conservation land in public ownership wherever possible
- Establish a shire wide network of viable strategic habitat links that connect existing areas of native vegetation
- Incorporate the retention and enhancement of strategic habitat links into subdivision plans and site management plans where appropriate.
- Promote the use of Trust for Nature covenants on private bushland

#### Objective 8

- To protect and enhance conservation areas and identify opportunities to create and link areas of open space

#### Strategies

- Encourage large lot rural land use and rural living opportunities that protect the environmental and landscape values of major conservation areas such as the Plenty Gorge Metropolitan Park and Kinglake National Park.
- Strongly encourage the design of subdivisions to incorporate the potential for open space linkages and the retention of remnant vegetation and drainage lines as parts of open spaces.
- Develop and implement site management plans for conservation areas of high environmental sensitivity owned and managed by Council.
- Retain high value conservation land in public ownership.



- Apply the Public Acquisition Overlay to land identified by an authority for the purposes of acquiring public open space, notably Yarra Valley Parklands, Plenty Gorge Metropolitan Park and the Diamond Creek Linear Open Space Link.
- 

#### **Clause 21.05-5 Infrastructure**

##### **Objective 1**

- To ensure the efficient provision of infrastructure to areas designated for residential and low-density residential development.
- Ensure the provision of useable public open space in new subdivision and encourage open space links to the existing open space network.
- Clause 21.05-5 Infrastructure.

##### **Objective 5**

- To provide equitable local recreational facilities and public open spaces to meet local community needs.

##### **Strategies**

- Encourage, particularly through structure plans and strategies, the formation of open spaces and opportunities to link areas of public open space.
- Identify the recreational needs of local communities in the development of public open spaces in local areas.
- Provide active and passive recreational facilities as an integral part of each township.
- Consolidate public open space into viable management units.
- Provide public open space networks within reasonable walking distance of urban residential areas.
- Design public open spaces in ways that ensure that access is available to all persons where appropriate.
- View open space as an environmental resource and as a means of protecting significant habitat.

##### **Objective 6**

- To provide a network of public open spaces across the Shire and similarly a network of bridle and walking paths throughout the Shire.

##### **Strategies**

- Link public open spaces where possible to provide diversity of recreational opportunities.
- Actively encourage the design of subdivisions to incorporate the potential for open space linkages and the retention of remnant vegetation and drainage lines as parts of open spaces.
- Provide appropriate access to regional recreation features.
- Identify a network of appropriate routes.
- Consider the feasibility study into the options for the location of a walking/bicycle trail from Diamond Creek to Hurstbridge (Parklinks Pty. Ltd. & Ardam Design Services, 1999).
- Progressively install trail infrastructure.

## **Zones**

Council's public open space is primarily zoned either PCRZ or PPRZ. Open space zoned PCRZ generally applies where the primary function of the open space is for conservation purposes for example Warrandyte State Park or the Panton Hill Bushland Reserve System. Open space zoned PPRZ is land open space primarily used for recreational pursuits such as reserves sports grounds, but it may include land along waterways for example along the Diamond Creek where there is a mixture of passive recreation and conservation objectives.

### **Development Plan Overlay 1**

This overlay applies to recently zoned residential land north of Between Grassy Flat Road and Black Gully Road (known as Area A) in Diamond Creek. A Development Plan was approved by Council in 2001, which designates the location of public open space. A Development Contributions Plan Overlay also provides details on the proposed public open space improvements that will be undertaken.

### **Development Plan Overlay 2**

This overlay applies to recently zoned residential land east of Broad Gully Road, Diamond Creek, (known as Area B). A Development Plan was approved by Council in June 2002 and identifies public open space along the Diamond Creek and Scrubby Creek.

### **Development Plan Overlay 4**

This overlay applies to land zoned Low Density between Memorial Drive and Kurra Road in Plenty (known as Plenty Low Density Area). A Development Plan was approved by Council in December 2001 and identifies two areas of public open space one along Dry Creek and another area north of Browns Lane.

## **Public Acquisition Overlays**

There are three Public Acquisition Overlays that involve future public open space acquisition. These include:

PAO 3: Involves further acquisition by Parks Victoria of land associated with the Plenty Gorge Parklands and Yarra Valley Parklands.

PAO 4: Involves acquisition by Council of land to further develop the Diamond Creek Linear Park Open Space Link.

## **Recreation Strategy January 2000**

Council's Recreation Strategy 2000 identifies strategic directions for recreation and leisure planning for the next five to ten years. The Strategy focuses on recreation and leisure activities with an emphasis on active sports. This strategy is highly relevant to the Open Space Strategy and the recommendations need to be considered.

**Key recommendations which are relevant to this Open Space Strategy include:**

- \* A comprehensive review of Councils open space is undertaken.
- \* Master Plans are developed for all major parks and reserves.
- \* Council gradually constructs the Diamond Creek to Hurstbridge extension to the recreation trail.
- \* Recreation trails are progressively developed that are linked to recreation facilities and cater for a range of differing experiences.

## **Recreational Trail Strategy January 2002**

The Recreational Trails Strategy 2002 identifies a strategic planning framework for the development of recreational trails throughout the Shire. The Strategy provides a Recreation Trails Policy and Plan which defines trails, details a set of principles to guide trail development and provides trail design guidelines and a code of conduct for trail users. The strategy identifies a number of priority trail works and actions and recommends the establishment of a Recreation Trails Advisory Group to further prioritise trail development. Key issues the Open Space Strategy needs to consider are:

- The recommendations made by the Nillumbik Recreation Trails Advisory Group.
- The identified priority trails.

## **Nillumbik Environment Strategy**

The Nillumbik Environment Strategy is the major environmental strategic document of Council, which outlines environmental initiatives that will be undertaken by Council that are aimed at protecting and enhancing the environment. A key corner stone of the Strategy is the adoption of Ecological Sustainable Development. The Strategy identifies a series of goals and actions under six environmental themes Biodiversity, Water, Land Resources, Human Settlement Atmosphere, Natural and Cultural Heritage. In relation to open space the Strategy identifies the following:

- Future environmental performance indicator: Percentage and quality of vegetation communities protected in public reserves, and a target of at least 15 percent of each vegetation community.
- Action B27: Continue to implement environmental works on Council's environmentally significant reserves including:
  - Use of ecological burns
  - Control of pest animals and plants
  - Protection of remnant vegetation
  - Revegetation and maintenance programs
  - Development of management plans



- B32: Encourage natural regeneration of remnant vegetation in all Council reserves where possible. Review all current mowing regimes.
- H19 Ensure the Open Space Strategy considers the protection of threatened species and vegetation communities, habitat links and quality remnant vegetation.
- H25: Prepare master plans for major recreation and/or conservation parks in consultation with the community

## **Appendix 2**

### **Community surveys and responses regarding open space preferences**

**Preliminary Progress Report Open Space Strategy Nillumbik Shire Council, Jeavons and Jeavons 2000, pp49-54.**

**Recreation Trails Strategy 2002, Recreation Strategy 2000, Open Space Strategy preparation**

### **3.5 HOUSEHOLD SURVEY RESULTS – SUMMARY**

The household survey was conducted in May 2000 as a self administered questionnaire distributed by reply paid mail. Some 3000 households were sampled netting 507 responses. A number of surveys were received after the cut off date.

#### **Participation in Recreation Activities**

Walking, bike riding, dog walking/ exercise and visiting a playground with children activities were participated in by a high proportion of respondents (in the top 5 activities regularly participated in).

#### **Activities liked but not undertaken in parks**

Bike riding, walking, BBQ/ picnicking, dog walking, horse riding and playing with children (in descending rank) are the main activities people would like to do in parks but do not.

- 7% of both males and females would like to cycle but do not, mainly because facilities are too far away or inaccessible, a lack of information about where to ride and the facilities being a poor quality.
- 6% of males and 5% of females would like to walk but do not, mainly due to facilities too far away or inaccessible, no one else to do the activity with, facilities are a poor quality or too much routine commitment.
- 4% of males and 2% of females would like to BBQ/ picnic but don't as facilities are a poor quality, a lack of information about what is offered and facilities being too far away.
- 2% both males and females would like to picnic but do not because facilities are a poor quality and a lack of information.
- The main reasons 1% of males and 3% of females did not walk their dogs is that there is not one else to do activity with and it requires too much routine commitment.
- 1% of males and 3% of females did not horse ride because facilities are too far away, they are a poor quality and a lack of information about what is offered.

For residents in Hurstbridge and Diamond Creek facilities the poor quality of facilities is the major issue. In Eltham having no one else to do the activity with and a lack of information are preventing people from doing the activity they wish to do most.

#### **Reason for valuing or using a particular park**

For 30% of males and 33% of females the main reason the value or use a park is its accessibility to the family home. The next features of value in descending order where: the natural environment or native vegetation (11%), good walking tracks (6%), good playground (5%) and a pleasant tranquil environment (3%).

Eltham residents value proximity to home, the natural environment, good walking tracks and peace and quiet when using a park.

#### **Demand for Park features**

The key features important to residents when choosing a park were identified as:

- Unspoiled environment
- Large shady trees
- Away from traffic noise

- Safety
- Peace and quiet
- Natural bush
- Nature walks
- Toilets
- Scenery or views

### **The Value of Recreation Facility Types**

The value given to types of recreational facility types in Nillumbik are listed in descending order below.

All of the facility types in the top ten are open space.

The survey also identifies that there appears to be a slight relationship between the family income and the value given open spaces, the greater the income the higher the value of the open space types listed.

Open space types by order of value:

- District parks (like Eltham Lower Park)
- Large regional parks, eg. Yarra Valley metro park
- Bushland conservation areas
- Parks for social or family activities
- Ridge top reserves/ scenic lookouts
- Walking paths
- Lakes, river side parks, boating facilities
- Local neighbourhood parks
- Ornamental or botanic gardens
- Bicycle paths and facilities

If additional facilities are needed the highest priority should be given to the following types:

- Walking paths
- Local neighbourhood parks
- Bushland conservation areas
- District parks
- Bicycle paths and facilities
- Large regional parks
- Parks for social or family activities

The types of open spaces used by the largest number of people in Nillumbik are (in descending order):

- Local neighbourhood parks
- Bushland conservation areas/ nature reserves
- Walking paths
- District parks (like Eltham Lower Park)
- Large regional parks, eg Yarra Valley metro park
- Bicycle paths and facilities
- Parks for social or family activities
- Playgrounds
- Equestrian facilities/ trails
- Lakes, river side parks, boating facilities
- Outdoor paved areas in shopping streets
- Outdoor grass sports fields (excluding tennis and bowls)
- Specialised sports facilities ie tennis, bowls, hockey
- Ridge top reserves/ scenic lookouts
- Ornamental or botanic gardens
- Community gardens or farms
- Plantation reserves/ avenues of honour



### **The single most important thing Council could do to improve parks**

The suggested Council action was stronger from females.

The top five suggested activities were:

Better maintenance, clean and litter free parks, 18.54%  
Control weeds/ mow lawns, 6.11%  
Better paths/ extend existing trails, 3.55%  
Improve native environment/ indigenous plants, 2.96%  
Plant more trees, 2.56%  
Domestic animal control, 2.56%

### **Reasons for acquiring land**

Land which is currently not public has been recommended for purchase, the reasons for Council buying the land are:

Parks should be linked  
Natural bushland  
Large park area  
Prevent landowners from blocking paths  
All the bush around have been destroyed for development

### **Reasons for selling land**

Property which has been labelled as surplus land is recommended for sale, the reasons Council should sell the land are (in descending order):

- Not maintained by Council
- No idea what land Council owns
- Land is just sitting there
- Money can be used to pay for better facilities
- Fire hazard

### **Perception of Services**

The survey asked respondents to rank the importance and performance of a range of Council open space services.

Those with the highest mean importance were:

- Re vegetation and tree planting
- Protection of remnant native vegetation and weed control
- Encouraging use and appreciation of parks and the environment
- Information about and promotion of what is available
- Opportunities for residents to be involved in park planning and development
- Opportunities for residents to be involved in park and trail maintenance

Those services ranked as being performed best by Council were:

- Re vegetation and tree planting
- Protection of remnant native vegetation and weed control
- Encouraging use and appreciation of parks and the environment
- Information about promotion of what is available
- Opportunities for residents to be involved in park planning and development
- Opportunities for residents to be involved in park and trail maintenance

### **Biggest gaps in service were**

Protection of remnant native vegetation and weed control  
Revegetation and tree planting  
Information about and promotion of what is available  
Opportunities to be involved in park planning and development  
Encouraging use and appreciation of parks and the environment

### **Community opinions**

Residents were asked to give their opinion on certain statements. In descending order the following five statements received the most support.

- I would prefer to 500m to a higher quality park than have smaller, lower quality parks closer to home
- Council should acquire further open space for conservation links before acquiring more neighbourhood parks
- Council should undertake small works in lots of parks before developing one high quality neighbourhood park in every locality
- I would support the sale of some tiny, poorly sited sites parks with little potential to enable Council to develop more suitable site to a higher quality
- A greater priority should be given to maintaining the large number of small parks throughout residential areas that developing and maintaining walking, bike and equestrian tracks

### **Age groups**

The age of survey sample was consistent with the population.

### **Employment status**

40% of the sample were employed full time while 19% were employed part time. 62% of males and 28% of females are employed full time.

### **Family income**

15% of families have an annual income under \$20,000, while 11% earn over \$80,000. A significant number of residents, 27%, chose not to answer this question.

### **Country of birth**

74% of those surveyed were born in Australia. England provided the next highest level of residents with 8%, followed by Germany with 1.7%.

## **PEOPLE WITH A DISABILITY**

### **Activities like to do but can't**

Walking was the most popular activity people with a disability would like to do but can't. Other activities they would like to do are cycling, golf, gym/ aerobics, horse riding and playing with children.

### **Council support**

To assist people with a disability Council could:

Provide better physical access to parks (ie better quality paths, remove stairs)  
etc  
Assist you to learn a new activity  
Provide transport  
Put you in touch with other people with similar interests  
Provide someone to accompany and assist you

### **3.6 KEY ISSUES ARISING FROM THE COMMUNITY AND STAKEHOLDER CONSULTATION**

Accessibility and distance to open space, in addition to unspoilt environment are the key factors influencing use and value of open space for residents.

District parks eg. Eltham Lower Park are valued more than other types of parks (perhaps because of their diversity).

Additional walking paths and then local neighbourhood parks should be Councils priority for development. Linking parks should be the priority for open space acquisitions.

Better maintenance of parks is the single most important thing resident perceive (an over whelming priority) Council could do to improve parks.

The major improvements residents think Council could make in its open space services are in the areas of:

- protection of remnant vegetation, and weed control
- revegetation and tree planting and then
- information about what is available.

In order to assist people with a disability to use open space council should provide better physical access to parks, mainly for walking.

To increase use of open space in Nillumbik Councils should seek to provide a more comprehensive cycle/ walking path network of higher quality cycle paths, areas for dog exercising and more or higher quality places for children to play.

The key issues raised at Community forums and in interviews with Community groups and stakeholders included:

- The need for more efficient creative and environmental sensitive management of existing open space to reinforce the competitive strengths of the Shire open space and minimise impacts from urban growth.
- A number of key sites and corridors that should be dedicated and developed as public open space, including the Eltham gateway (as a significant green space). These need to be identified to aid future planning.
- The need to deal with the issue of the role of private land holder in contributing to the green wedge and the financing of the contribution.
- The need for a diversity of types of open space that accommodate people with disabilities, and facilities for sport and young people to meet increasing demand.
- The importance of a good planning process to deal with and manage urban growth, tourism development of roads, residential subdivisions and other construction work, fire hazard, recreation use, maintaining significant species, tree canopy, biodiversity internal decision making, strategic alliance and coordination with other entities ie Parks Victoria.
- Funding the green wedge vision and the management and development of the open spaces in the Shire to meet community demand.

## Recreation Trails Need in the Community

Summary from the Recreation Trails Strategy 2001: pages 6-7. More detailed information is available within Appendix 2 of the Recreation Trails Strategy.

A program of consultations with relevant professional agencies and the Shire community was undertaken as part of the present study to identify trail needs and opportunities. This included:

1. A survey of and meetings with representatives of all known horse activity groups, landcare and conservation groups, cycle groups and other relevant groups in the Shire. The survey related to preferred trail types, provision needs, priorities and possible routes
2. Workshops and personal discussions with representatives of resource management, planning and development support agencies including Parks Victoria, Melbourne Water, Department of Natural Resources and Environment, the district tourism association and bicycle industry representatives
3. A workshop and personal meetings with relevant Council officers, and
4. An invitation to the wider community to prepare submissions and related trail development proposals.

In summary, the survey of clubs and organisations sought responses on the issues of trail development, the types of trails which were or were not supported, and priorities for action. While it was found that there was overall support for the provision of trails in the Shire, a clear split was identified between those wanting a strongly defined network of trails throughout the Shire and those who wanted to significantly constrain trail development, largely for environmental impact reasons. Despite this split of opinion, the majority of both groups considered the adequacy and quality of existing provision to be either poor or very poor.

A wide range of issues was identified which it was felt needed action in order to improve trail adequacy and quality in the Shire. On the issue of adequacy, it was felt that there was a need for both more trails and for continuous trails, for the provision and/or enhancing of amenities and services (including shelter, information, seats, taps and for more shared trails). On the issue of quality, issues of road safety, track width, road crossings, poor standards, lack of defined routes and issues of erosion, weed infestation and trail use etiquette ranked highly as needing action.

The issue of trail features drew strong support for trails in natural bushland areas, for gravel rather than sealed routes, and for a combination of on-road and off-road routes. Opinions on length varied with moderate distances being preferred over either short or long



routes. Wider trails and moderate grades were preferred to narrow trails and steeper terrain.

Respondents expressed high levels of concern in relation to personal safety, the need for continuous routes and the removal of obstructions and overhead branches --although in the latter case there were quite clear distinctions between horse riders and bushwalkers, the latter preferring an untouched rather than 'tidied' trail environment. Environmental groups expressed greatest concern in regard to access to bushland and landcare sites and environmental degradation. Yet, both these groups and horse riders, cyclists and those walking dogs expressed very high levels of concern about vehicular traffic, road sealing and widths, warning signs and traffic calming strategies. A wide-ranging and detailed list of trail proposals was put forward in the club survey responses. These have been compiled and listed in the Appendices and have been provided to Council officers, together with a set of existing and possible route maps prepared by the respondents.

The workshops with Council officers, land owning and managing agencies (Parks Victoria, Natural Resources and Environment) and special service providers such as the CFA, provided extensive details on the 'ideal' trail; users groups to be served; the types of trails to be provided; services to be provided; design criteria and design processes; construction standards; management practices, marketing and promotion, and funding. A range of possible routes was also identified.

While it was evident that different agencies took different approaches to and had differing standards for trail development and management, a substantive body of information on these issues was drawn from the workshops. This has been incorporated in to the trail identification and development process, the specification of development principles, the design criteria and the funding guidelines presented in Part 2 of the Recreation Trails Strategy. As noted above, the full results are reported in Appendix 2 of the Recreation Trails Strategy.

The public meeting reiterated many of the concerns expressed in the submissions from conservation, horse riding and bicycle groups regarding the adequacy and quality of recreation trails in Nillumbik. The meeting supported the provision of a range of trail types; identified the need for an array of support facilities and services and defined some 20-odd possible trail routes or routes needing improvements. These are detailed in Appendix 2 of the Recreation Trails Strategy.

A total of 21 submissions were received from community members, several of whom made several submissions. All are summarised in Appendix 2 while a file of the original responses has been provided to Council officers.

A number of the submissions detailed strong arguments for the development of extensive, safe horse trails while others argued as equally strongly against allowing horse access into bushland, landcare and roadside reserves (with many citing specific locations) because of concerns regarding weed infestation, erosion and safety. Other submissions took a more even-handed approach and argued for the provision of a mix of single purpose and multi-use trails in differing parts of the Shire. They also listed an array of amenities and services which should be considered for provision.

A number of excellent trail planning principles were provided through the submissions and these have been incorporated in the planning and development process detailed in Part 2. Similarly, a quite extensive array of trail routes was identified through the submissions and again, these have been summarised in Appendix 2 and provided separately to Council officers.

## **Appendix 3**

**Fauna species and their conservation significance occurring in the Shire of Nillumbik.**

### APPENDIX 3

NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater					
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill					
<i>Acanthiza lineata</i>	Striated Thornbill					
<i>Acanthiza nana</i>	Yellow Thornbill					
<i>Acanthiza pusilla</i>	Brown Thornbill					
<i>Acanthiza reguloides</i>	Buff-rumped Thornbill					
<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill					
<i>Accipiter cirrhocephalus</i>	Collared Sparrowhawk					
<i>Accipiter fasciatus</i>	Brown Goshawk					
<i>Accipiter novaehollandiae</i>	Grey Goshawk		I			
<i>Acrobates pygmaeus</i>	Feathertail Glider					
<i>Acrocephalus stentoreus</i>	Clamorous Reed Warbler					
<i>Aegotheles cristatus</i>	Australian Owlet-nightjar					
<i>Alcedo azurea</i>	Azure Kingfisher					
<i>Alisterus scapularis</i>	Australian King-Parrot					
<i>Amphibolurus muricatus</i>	Tree Dragon					
<i>Anas castanea</i>	Chestnut Teal					
<i>Anas gracilis</i>	Grey Teal					
<i>Anas superciliosa</i>	Pacific Black Duck					
<i>Anhinga melanogaster</i>	Darter					
<i>Antechinus agilis</i>	Agile Antechinus					
<i>Antechinus swainsonii</i>	Dusky Antechinus					
<i>Anthochaera carunculata</i>	Red Wattlebird					
<i>Anthochaera chrysoptera</i>	Little Wattlebird					
<i>Anthus novaeseelandiae</i>	Richard's Pipit					
<i>Apus pacificus</i>	Fork-tailed Swift					C
<i>Aquila audax</i>	Wedge-tailed Eagle					
<i>Ardea alba</i>	Great Egret		e		L	C
<i>Ardea ibis</i>	Cattle Egret					C
<i>Ardea pacifica</i>	White-necked Heron					
<i>Artamus cyanopterus</i>	Dusky Woodswallow					
<i>Artamus personatus</i>	Masked Woodswallow					
<i>Artamus superciliosus</i>	White-browed Woodswallow					
<i>Austrelaps superbus</i>	Lowland Copperhead					
<i>Aythya australis</i>	Hardhead		v			
<i>Barnardius zonarius</i>	Australian Ringneck					
<i>Bassiana duperreyi</i>	Eastern Three-lined Skink					
<i>Biziura lobata</i>	Musk Duck		v			
<i>Botaurus poiciloptilus</i>	Australasian Bittern		e			
<i>Burhinus grallarius</i>	Bush Stone-curlew		e		L	
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo					
<i>Cacatua leadbeateri</i>	Major Mitchell's Cockatoo		v		L	
<i>Cacatua roseicapilla</i>	Galah					
<i>Cacatua sanguinea</i>	Little Corella					
<i>Cacatua tenuirostris</i>	Long-billed Corella					
<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo					
<i>Cacomantis variolosus</i>	Brush Cuckoo					



NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo					
<i>Calyptrorhynchus funereus</i>	Yellow-tailed Black-Cockatoo					
<i>Chalinolobus gouldii</i>	Gould's Wattled Bat					
<i>Chalinolobus morio</i>	Chocolate Wattled Bat					
<i>Chelodina expansa</i>	Broad-shelled Tortoise		v			
<i>Chelodina longicollis</i>	Common Long-necked Tortoise					
<i>Chenonetta jubata</i>	Australian Wood Duck					
<i>Chrysococcyx basalis</i>	Horsfield's Bronze-Cuckoo					
<i>Chrysococcyx lucidus</i>	Shining Bronze-Cuckoo					
<i>Chrysococcyx osculans</i>	Black-eared Cuckoo					
<i>Chthonicola sagittata</i>	Speckled Warbler		v			
<i>Cincloramphus cruralis</i>	Brown Songlark					
<i>Cincloramphus mathewsi</i>	Rufous Songlark					
<i>Cinclosoma punctatum</i>	Spotted Quail-thrush					
<i>Circus approximans</i>	Swamp Harrier					
<i>Cisticola exilis</i>	Golden-headed Cisticola					
<i>Climacteris erythrops</i>	Red-browed Treecreeper					
<i>Climacteris picumnus</i>	Brown Treecreeper					
<i>Colluricincla harmonica</i>	Grey Shrike-thrush					
<i>Columba leucomela</i>	White-headed Pigeon					
<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike					
<i>Coracina papuensis</i>	White-bellied Cuckoo-shrike					
<i>Coracina tenuirostris</i>	Cicadabird					
<i>Corcorax melanorhamphos</i>	White-winged Chough					
<i>Cormobates leucophaeus</i>	White-throated Treecreeper					
<i>Corvus coronoides</i>	Australian Raven					
<i>Corvus mellori</i>	Little Raven					
<i>Corvus sp.</i>	Corvid					
<i>Coturnix pectoralis</i>	Stubble Quail					
<i>Coturnix ypsilophora</i>	Brown Quail		i			
<i>Cracticus torquatus</i>	Grey Butcherbird					
<i>Crinia signifera</i>	Common Froglet					
<i>Ctenotus robustus</i>	Large Striped Skink					
<i>Cuculus pallidus</i>	Pallid Cuckoo					
<i>Cygnus atratus</i>	Black Swan					
<i>Dacelo novaeguineae</i>	Laughing Kookaburra					
<i>Daphoenositta chrysoptera</i>	Varied Sittella					
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	V	e	Vul	L	
<i>Dasyurus viverrinus</i>	Eastern Quoll		x		L	
<i>Dicaeum hirundinaceum</i>	Mistletoebird					
<i>Drysdalia coronoides</i>	White-lipped Snake					
<i>Egernia cunninghami</i>	Cunningham's Skink					
<i>Egernia saxatilis intermedia</i>	Black Rock Skink					
<i>Egernia whittii</i>	White's Skink					
<i>Egretta garzetta</i>	Little Egret		c			
<i>Egretta novaehollandiae</i>	White-faced Heron					
<i>Elanus axillaris</i>	Black-shouldered Kite					
<i>Elanus scriptus</i>	Letter-winged Kite					
<i>Elseyonornis melanops</i>	Black-fronted Dotterel					

NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
<i>Eopsaltria australis</i>	Eastern Yellow Robin					
<i>Epthianura albifrons</i>	White-fronted Chat					
<i>Eudynamys scolopacea</i>	Common Koel					
<i>Eulamprus tympanum tympanum</i>	Southern Water Skink					
<i>Eurostopodus mystacalis</i>	White-throated Nightjar					
<i>Eurystomus orientalis</i>	Dollarbird					
<i>Falco berigora</i>	Brown Falcon					
<i>Falco cenchroides</i>	Nankeen Kestrel					
<i>Falco longipennis</i>	Australian Hobby					
<i>Falco peregrinus</i>	Peregrine Falcon					
<i>Falcunculus frontatus</i>	Crested Shrike-tit					
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle					
Freshwater Turtle sp.	Freshwater Turtle					
<i>Fulica atra</i>	Eurasian Coot					
<i>Gadopsis marmoratus</i>	River Blackfish		i			
<i>Galaxias brevipinnis</i>	Broadfin Galaxias					
<i>Galaxias olidus</i>	Mountain Galaxias		i		L	
<i>Galaxias truttaceus</i>	Spotted Galaxias					
<i>Gallinago hardwickii</i>	Latham's Snipe					C
<i>Gallinula tenebrosa</i>	Dusky Moorhen					
<i>Gallinula ventralis</i>	Black-tailed Native-hen					
<i>Gallirallus philippensis</i>	Buff-banded Rail					
<i>Geocrinia victoriana</i>	Victorian Smooth Froglet					
<i>Geopelia striata</i>	Peaceful Dove					
<i>Geotria australis</i>	Pouched Lamprey					
<i>Gerygone fusca</i>	Western Gerygone					
<i>Gerygone mouki</i>	Brown Gerygone					
<i>Gerygone olivacea</i>	White-throated Gerygone					
<i>Glossopsitta concinna</i>	Musk Lorikeet					
<i>Glossopsitta porphyrocephala</i>	Purple-crowned Lorikeet					
<i>Glossopsitta pusilla</i>	Little Lorikeet					
<i>Grallina cyanoleuca</i>	Magpie-lark					
<i>Grantiella picta</i>	Painted Honeyeater		v		L	
<i>Gymnorhina tibicen</i>	Australian Magpie					
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle		e		L	C
<i>Haliastur sphenurus</i>	Whistling Kite					
<i>Hieraaetus morphnoides</i>	Little Eagle					
<i>Hirundapus caudacutus</i>	White-throated Needletail					C
<i>Hirundo ariel</i>	Fairy Martin					
<i>Hirundo neoxena</i>	Welcome Swallow					
<i>Hirundo nigricans</i>	Tree Martin					
<i>Hydromys chrysogaster</i>	Water Rat					
<i>Hylacola pyrrhopygia</i>	Chestnut-rumped Heathwren		i			
<i>Ixobrychus minutus</i>	Little Bittern		e			
<i>Lalage sueurii</i>	White-winged Triller					
<i>Lampropholis delicata</i>	Delicate Skink					
<i>Lampropholis guichenoti</i>	Garden Skink					
<i>Larus novaehollandiae</i>	Silver Gull					
<i>Lathamus discolor</i>	Swift Parrot	E	e	End	L	

NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
Lerista bougainvillii	Bougainville's Skink					
Leucosarcia melanoleuca	Wonga Pigeon					
Lichenostomus chrysops	Yellow-faced Honeyeater					
Lichenostomus fuscus	Fuscous Honeyeater					
Lichenostomus leucotis	White-eared Honeyeater					
Lichenostomus melanops	Yellow-tufted Honeyeater					
Lichenostomus penicillatus	White-plumed Honeyeater					
Limnodynastes dumerilii	Southern Bullfrog					
Limnodynastes dumerilii insularis	Southern Bullfrog (south-eastern)					
Limnodynastes peronii	Striped Marsh Frog					
Limnodynastes tasmaniensis	Spotted Marsh Frog					
Limnodynastes tasmaniensis SCR	Spotted Marsh Frog SCR					
Litoria ewingii	Southern Brown Tree Frog					
Litoria ewingii SOUTHERN	Southern Brown Tree Frog SOUTHERN					
Litoria lesueuri	Lesueur's Frog					
Litoria paraewingii	Plains Brown Tree Frog					
Litoria peronii	Peron's Tree Frog					
Litoria raniformis	Warty Bell Frog	V	v	Vul		
Litoria verreauxii verreauxii	Whistling Tree Frog					
Lophoictinia isura	Square-tailed Kite		e			
Maccullochella peelii peelii	Murray Cod		v		L	
Macquaria australasica	Macquarie Perch	E	e	End	L	
Macquaria novemaculeata	Australian Bass					
Macropus giganteus	Eastern Grey Kangaroo					
Malurus cyaneus	Superb Fairy-wren					
Manorina melanocephala	Noisy Miner					
Manorina melanophrys	Bell Miner					
Megalurus gramineus	Little Grassbird					
Melanodryas cucullata	Hooded Robin					
Meliphaga lewinii	Lewin's Honeyeater					
Melithreptus brevirostris	Brown-headed Honeyeater					
Melithreptus gularis	Black-chinned Honeyeater					
Melithreptus lunatus	White-naped Honeyeater					
Melopsittacus undulatus	Budgerigar					
Menura novaehollandiae	Superb Lyrebird					
Merops ornatus	Rainbow Bee-eater					J
Microeca fascinans	Jacky Winter					
Miniopterus schreibersii	Common Bent-wing Bat		v		L	
Mormopterus sp. 1	Southern Freetail Bat					
Mormopterus sp. EG	Freetail Bat (eastern form)					
Myiagra cyanoleuca	Satin Flycatcher					
Myiagra inquieta	Restless Flycatcher					
Myiagra rubecula	Leaden Flycatcher					
Myotis macropus	Southern Myotis		l			
Myzomela sanguinolenta	Scarlet Honeyeater					
Nannoperca australis	Southern Pigmy Perch					
Nannoscincus maccoyi	McCoy's Skink					
Neobatrachus sudelli	Common Spadefoot Toad					

NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
<i>Neochmia temporalis</i>	Red-browed Finch					
<i>Neophema chrysostoma</i>	Blue-winged Parrot					
<i>Ninox connivens</i>	Barking Owl		e		L	
<i>Ninox novaeseelandiae</i>	Southern Boobook					
<i>Ninox strenua</i>	Powerful Owl		e		L	
<i>Niveoscincus coventryi</i>	Coventry's Skink					
<i>Notechis scutatus</i>	Tiger Snake					
<i>Nycticorax caledonicus</i>	Nankeen Night Heron		v			
<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat					
<i>Nyctophilus gouldi</i>	Gould's Long-eared Bat					
<i>Ocyphaps lophotes</i>	Crested Pigeon					
<i>Oriolus sagittatus</i>	Olive-backed Oriole					
<i>Ornithorhynchus anatinus</i>	Platypus					
<i>Pachycephala olivacea</i>	Olive Whistler					
<i>Pachycephala pectoralis</i>	Golden Whistler					
<i>Pachycephala rufiventris</i>	Rufous Whistler					
<i>Paralucia pyrodiscus lucida</i>	Eltham Copper		v		L	
<i>Pardalotus punctatus</i>	Spotted Pardalote					
<i>Pardalotus striatus</i>	Striated Pardalote					
<i>Pedionomus torquatus</i>	Plains-wanderer	V	e	Vul	L	
<i>Pelecanus conspicillatus</i>	Australian Pelican					
<i>Perameles nasuta</i>	Long-nosed Bandicoot					
<i>Petauroides volans</i>	Greater Glider					
<i>Petaurus australis</i>	Yellow-bellied Glider					
<i>Petaurus breviceps</i>	Sugar Glider					
<i>Petroica goodenovii</i>	Red-capped Robin					
<i>Petroica multicolor</i>	Scarlet Robin					
<i>Petroica phoenicea</i>	Flame Robin					
<i>Petroica rodinogaster</i>	Pink Robin					
<i>Petroica rosea</i>	Rose Robin					
<i>Phalacrocorax carbo</i>	Great Cormorant					
<i>Phalacrocorax melanoleucos</i>	Little Pied Cormorant					
<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant					
<i>Phalacrocorax varius</i>	Pied Cormorant		l			
<i>Phaps chalcoptera</i>	Common Bronzewing					
<i>Phaps elegans</i>	Brush Bronzewing					
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale		v		L	
<i>Phascolarctos cinereus</i>	Koala					
<i>Philemon citreogularis</i>	Little Friarbird					
<i>Philemon corniculatus</i>	Noisy Friarbird					
<i>Phylidonyris melanops</i>	Tawny-crowned Honeyeater					
<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater					
<i>Phylidonyris pyrrhoptera</i>	Crescent Honeyeater					
<i>Phyllodactylus marmoratus</i>	Marbled Gecko					
<i>Physignathus lesueurii howittii</i>	Gippsland Water Dragon					
<i>Platalea flavipes</i>	Yellow-billed Spoonbill					
<i>Platalea regia</i>	Royal Spoonbill		v			
<i>Platycercus elegans</i>	Crimson Rosella					
<i>Platycercus eximius</i>	Eastern Rosella					



NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
Podargus strigoides	Tawny Frogmouth					
Podiceps cristatus	Great Crested Grebe					
Pogona barbata	Eastern Bearded Dragon					
Poliocephalus poliocephalus	Hoary-headed Grebe					
Porphyrio porphyrio	Purple Swampphen					
Porzana fluminea	Australian Spotted Crake					
Porzana tabuensis	Spotless Crake					
Prototroctes maraena	Australian Grayling	V	v	Vul	L	
Psephodus haematonotus	Red-rumped Parrot					
Pseudechis porphyriacus	Red-bellied Black Snake					
Pseudemoia entrecasteauxii	Southern Grass Skink					
Pseudemoia sp.	unidentified grass skink					
Pseudemoia sp. FORM (P. pag/cry)	grass skink FORM (P.pag/cry)					
Pseudemoia spenceri	Spencer's Skink					
Pseudocheirus peregrinus	Common Ringtail Possum					
Pseudonaja textilis	Eastern Brown Snake					
Pseudophryne bibronii	Bibron's Toadlet					
Pseudophryne semimarmorata	Southern Toadlet					
Psophodes olivaceus	Eastern Whipbird					
Pteropus poliocephalus	Grey-headed Flying-fox		v			
Pteropus sp.	unidentified flying-fox					
Ptilonorhynchus violaceus	Satin Bowerbird					
Pycnoptilus floccosus	Pilotbird					
Rallus pectoralis	Lewin's Rail		e			
Rattus fuscipes	Bush Rat					
Rattus lutreolus	Swamp Rat					
Rhinolophus megaphyllus	Eastern Horseshoe Bat				L	
Rhinoplocephalus nigrescens	Eastern Small-eyed Snake					
Rhipidura fuliginosa	Grey Fantail					
Rhipidura leucophrys	Willie Wagtail					
Rhipidura rufifrons	Rufous Fantail					
Saproscincus mustelinus	Weasel Skink					
Scotorepens orion	Eastern Broad-nosed Bat					
Sericornis frontalis	White-browed Scrubwren					
Sericornis magnirostris	Large-billed Scrubwren					
Smicronis brevirostris	Weebill					
Sminthopsis murina	Common Dunnart		i			
Sterna caspia	Caspian Tern		v			C
Strepera graculina	Pied Currawong					
Strepera versicolor	Grey Currawong					
Suta flagellum	Little Whip Snake					
Tachybaptus novaehollandiae	Australasian Grebe					
Tachyglossus aculeatus	Short-beaked Echidna					
Tadarida australis	White-striped Freetail Bat					
Tadorna tadornoides	Australian Shelduck					
Tandanus tandanus	Freshwater Catfish		v		L	
Threskiornis molucca	Australian White Ibis					
Threskiornis spinicollis	Straw-necked Ibis					

NAME	COMMON NAME	AROT	VROT	EPBC	FFG	Treaties
<i>Tiliqua nigrolutea</i>	Blotched Blue-tongued Lizard					
<i>Tiliqua rugosa</i>	Stumpy-tailed Lizard					
<i>Tiliqua scincoides</i>	Common Blue-tongued Lizard					
<i>Todiramphus sanctus</i>	Sacred Kingfisher					
<i>Trichoglossus chlorolepidotus</i>	Scaly-breasted Lorikeet					
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet					
<i>Trichosurus caninus</i>	Mountain Brushtail Possum					
<i>Trichosurus vulpecula</i>	Common Brushtail Possum					
<i>Turnix varia</i>	Painted Button-quail					
<i>Tympanocryptis diemensis</i>	Mountain Dragon					
<i>Tyto alba</i>	Barn Owl					
<i>Tyto novaehollandiae</i>	Masked Owl		e		L	
<i>Tyto tenebricosa</i>	Sooty Owl		v		L	
<i>Vanellus miles</i>	Masked Lapwing					
<i>Vanellus tricolor</i>	Banded Lapwing					
<i>Varanus varius</i>	Tree Goanna		i			
<i>Vespadelus darlingtoni</i>	Large Forest Bat					
<i>Vespadelus regulus</i>	Southern Forest Bat					
<i>Vespadelus vulturnus</i>	Little Forest Bat					
<i>Vombatus ursinus</i>	Common Wombat					
<i>Wallabia bicolor</i>	Black Wallaby					
<i>Xanthomyza phrygia</i>	Regent Honeyeater	E	c	End	L	
<i>Zoothera lunulata</i>	Bassian Thrush					
<i>Zosterops lateralis</i>	Silvereye					

## **Appendix 4**

**Flora species and their conservation significance occurring in the Shire of Nillumbik.**

## APPENDIX 4

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FPG	EPBC
Acacia acinacea	Gold-dust Wattle	Shrub				
Acacia aculeatissima	Thin-leaf Wattle	Small Shrub				
Acacia brownii	Heath Wattle	Small Shrub				
Acacia dealbata	Silver Wattle	Large Shrub to Medium Tree				
Acacia genistifolia	Spreading Wattle	Large Shrub to Medium Tree				
Acacia gunnii	Ploughshare Wattle	Small Shrub				
Acacia implexa	Lightwood	Large Shrub to Medium Tree				
Acacia lanigera var. lanigera	Woolly Wattle	Small Shrub				
Acacia lanigera var. whanii	Woolly Wattle	Small Shrub				
Acacia leprosa	Cinnamon Wattle	Large Shrub to Medium Tree				
Acacia mearnsii	Black Wattle	Large Shrub to Medium Tree				
Acacia melanoxylon	Blackwood	Large Shrub to Medium Tree				
Acacia mucronata var. longifolia	Narrow-leaf Wattle	Large Shrub to Medium Tree				
Acacia myrtifolia	Myrtle Wattle	Shrub				
Acacia obliquinervia	Mountain Hickory Wattle	Large Shrub to Medium Tree				
Acacia paradoxa	Hedge Wattle	Shrub				
Acacia pycnantha	Golden Wattle	Large Shrub to Medium Tree				
Acacia stricta	Hop Wattle	Shrub				
Acacia ulicifolia	Juniper Wattle	Shrub				
Acacia verniciflua	Varnish Wattle	Large Shrub to Medium Tree				
Acacia verticillata	Prickly Moses	Shrub				
Acaena agnipila	Hairy Sheep's Burr	Medium Forb/Herb				
Acaena agnipila/ovina complex	Hairy/Australian Sheep's Burr					
Acaena echinata	Sheep's Burr	Medium Forb/Herb				
Acaena novae-zelandiae	Bidgee-widgee	Medium Forb/Herb				
Acaena ovina	Australian Sheep's Burr	Large Forb/Herb				
Acianthus exsertus	Gnat Orchid	Medium Forb/Herb				
Acianthus pusillus	Small Mosquito Orchid	Medium Forb/Herb				
Acrotriche prostrata	Trailing Ground-berry	Prostrate Shrub				
Acrotriche serrulata	Honey-pots	Prostrate Shrub				
Adiantum aethiopicum	Common Maidenhair	Tufted Ground Fern				
Agrostis aemula var. aemula	Purplish Blown-grass	Medium Tufted grass/sedge				
Agrostis avenacea var. avenacea	Common Blown-grass	Small Tufted grass/sedge				
Agrostis avenacea var. perennis	Wetland Blown-grass	Small Tufted grass/sedge		k		
Agrostis venusta	Misty Bent	Small Tufted grass/sedge				
Ajuga australis	Austral Bugle	Large Forb/Herb				
Alisma plantago-aquatica	Water Plantain	Medium Forb/Herb				
Allocasuarina littoralis	Black Sheoak	Large Shrub to Medium Tree				
Allocasuarina paludosa	Scrub Sheoak	Shrub				
Alternanthera denticulata	Lesser Joyweed	Medium Forb/Herb				
Amphibromus fluitans	River Swamp Wallaby-grass	Medium Non-tufted grass/sedge	V	k	X	V
Amphibromus nervosus	Common Swamp Wallaby-grass	Large Tufted grass/sedge				
Amyema miquelii	Box Mistletoe	Epiphyte				
Amyema pendula ssp pendula	Drooping Mistletoe	Epiphyte				
Amyema quandang var.	Grey Mistletoe	Epiphyte				



NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
quandang						
Anogramma leptophylla	Annual Fern	Tufted Ground Fern				
Aphanes australiana	Australian Piert	Medium Forb/Herb				
Aphelia gracilis	Slender Aphelia	Tiny Tufted grass/sedge				
Aphelia pumilio	Dwarf Aphelia	Tiny Tufted grass/sedge				
Apium prostratum ssp. prostratum var. prostratum	Sea Celery	Prostrate or Mat-forming Forb/Herb				
Arthrochilus huntianus ssp. huntianus	Elbow Orchid	Medium Forb/Herb				
Arthropodium fimbriatum	Nodding Chocolate-lily	Large Forb/Herb				
Arthropodium milleflorum	Pale Vanilla-lily	Large Forb/Herb				
Arthropodium strictum	Chocolate Lily	Large Forb/Herb				
Asperula conferta	Common Woodruff	Medium Forb/Herb				
Asperula gunnii	Mountain Woodruff	Medium Forb/Herb				
Asperula scoparia	Prickly Woodruff	Medium Forb/Herb				
Asplenium bulbiferum ssp. gracillimum	Mother Spleenwort	Tufted Ground Fern				
Asplenium flabellifolium	Necklace Fern	Tufted Ground Fern				
Astroloma humifusum	Cranberry Heath	Prostrate Shrub				
Australina pusilla ssp. muelleri	Shade Nettle	Medium Forb/Herb				
Austrocynoglossum latifolium	Forest Hound's-tongue	Medium Forb/Herb				
Austrodanthonia auriculata	Lobed Wallaby-grass	Small Tufted grass/sedge				
Austrodanthonia bipartita	Leafy Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia caespitosa	Common Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia duttoniana	Brown-back Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia eriantha	Hill Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia fulva	Copper-awned Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia geniculata	Kneed Wallaby-grass	Small Tufted grass/sedge				
Austrodanthonia induta	Shiny Wallaby-grass	Large Tufted grass/sedge				
Austrodanthonia laevis	Smooth Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia penicillata	Slender Wallaby-grass	Small Tufted grass/sedge				
Austrodanthonia pilosa	Velvet Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia racemosa var. racemosa	Stiped Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia setacea	Bristly Wallaby-grass	Medium Tufted grass/sedge				
Austrodanthonia tenuior	Purplish Wallaby-grass	Medium Tufted grass/sedge				
Austrofestuca hookeriana	Hooker Fescue	Medium Tufted grass/sedge				
Austrostipa bigeniculata	Kneed Spear-grass	Large Tufted grass/sedge				
Austrostipa blackii	Crested Spear-grass	Large Tufted grass/sedge				
Austrostipa densiflora	Dense Spear-grass	Medium Tufted grass/sedge				
Austrostipa elegantissima	Feather Spear-grass	Medium Non-tufted grass/sedge				
Austrostipa flavescens	Coast Spear-grass	Large Tufted grass/sedge				
Austrostipa mollis	Supple Spear-grass	Large Tufted grass/sedge				
Austrostipa muelleri	Wiry Spear-grass	Large Non-tufted grass/sedge				
Austrostipa nodosa	Knotty Spear-grass	Large Tufted grass/sedge				
Austrostipa pubinodis	Tall Spear-grass	Large Tufted grass/sedge				
Austrostipa rudis ssp. australis	Veined Spear-grass	Large Tufted grass/sedge				
Austrostipa rudis ssp. nervosa	Veined Spear-grass	Large Tufted grass/sedge				
Austrostipa rudis ssp. rudis	Veined Spear-grass	Large Tufted grass/sedge				
Austrostipa scabra ssp. falcata	Rough Spear-grass	Medium Tufted grass/sedge				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Austrostipa scabra ssp. scabra	Rough Spear-grass	Medium Tufted grass/sedge				
Austrostipa semibarbata	Fibrous Spear-grass	Medium Tufted grass/sedge				
Azolla filiculoides	Pacific Azolla	Small Forb/Herb				
Azolla pinnata	Ferny Azolla	Small Forb/Herb				
Baeckea ramosissima ssp. ramosissima	Rosy Baeckea	Small Shrub				
Banksia marginata	Silver Banksia	Large Shrub to Medium Tree				
Banksia spinulosa var. cunninghamii	Hairpin Banksia	Shrub				
Baumea articulata	Jointed Twig-sedge	Large Tufted grass/sedge				
Bedfordia arborescens	Blanket-leaf	Large Shrub to Medium Tree				
Billardiera scandens var. brachyantha	Velvet Apple-berry	Shrub		r		
Billardiera scandens var. scandens	Common Apple-berry	Climber				
Blechnum cartilagineum	Gristle Fern	Tufted Ground Fern				
Blechnum chambersii	Lance Water-fern	Tufted Ground Fern				
Blechnum minus	Soft Water-fern	Tufted Ground Fern				
Blechnum nudum	Fishbone Water-fern	Tufted Ground Fern				
Bolboschoenus fluviatilis	Tall Club-sedge	Large Non-tufted grass/sedge		k		
Bolboschoenus medianus	Marsh Club-sedge	Large Non-tufted grass/sedge				
Bossiaea cinerea	Showy Bossiaea	Shrub				
Bossiaea prostrata	Creeping Bossiaea	Prostrate Shrub				
Bothriochloa macra	Red-leg Grass	Medium Non-tufted grass/sedge				
Brachyscome cardiocarpa	Swamp Daisy	Large Forb/Herb				
Brachyscome decipiens	Field Daisy	Medium Forb/Herb				
Brachyscome diversifolia	Tall Daisy	Medium Forb/Herb				
Brachyscome multifida	Cut-leaf Daisy	Medium Forb/Herb				
Brachyscome perpusilla	Rayless Daisy	Medium Forb/Herb				
Brachyscome uliginosa	Small Swamp-daisy	Medium Forb/Herb				
Bracteantha bracteata	Golden Everlasting	Large Forb/Herb				
Bracteantha viscosa	Shiny Everlasting	Large Forb/Herb				
Brunonia australis	Blue Pincushion	Medium Forb/Herb				
Bulbine bulbosa	Bulbine Lily	Medium Forb/Herb				
Bulbine semibarbata	Leek Lily	Medium Forb/Herb				
Burchardia umbellata	Milkmaids	Medium Forb/Herb				
Bursaria spinosa ssp. spinosa	Sweet Bursaria	Large Shrub to Medium Tree				
Caesia calliantha	Blue Grass-lily	Large Forb/Herb				
Caesia parviflora var. parviflora	Pale Grass-lily	Large Forb/Herb				
Caladenia amoena	Charming Spider-orchid	Medium Forb/Herb	E	e	L	E
Caladenia australis	Southern Spider-orchid	Medium Forb/Herb		k		
Caladenia caerulea var. caerulea	Blue Caladenia	Medium Forb/Herb				
Caladenia carnea var. carnea	Pink Fingers	Medium Forb/Herb				
Caladenia catenata	Pink Fingers/White Caladenia	Medium Forb/Herb				
Caladenia clavigera	Plain-lip Spider-orchid	Medium Forb/Herb				
Caladenia concolor	Crimson Spider-orchid	Medium Forb/Herb	V	e	L	V
Caladenia deformis	Bluebeard Caladenia	Medium Forb/Herb				
Caladenia dilatata	Green-comb Spider-orchid	Medium Forb/Herb				
Caladenia fuscata	Dusky Caladenia	Medium Forb/Herb				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
<i>Caladenia gracilis</i>	Musky Caladenia	Medium Forb/Herb				
<i>Caladenia iridescens</i>	Western Bronze Caladenia	Medium Forb/Herb				
<i>Caladenia oenochila</i>	Wine-lipped Spider-orchid	Medium Forb/Herb	K	v		
<i>Caladenia parva</i>	Small Spider-orchid	Medium Forb/Herb		k		
<i>Caladenia patersonii</i>	Common Spider-orchid	Medium Forb/Herb		k		
<i>Caladenia phaeoclavia</i>	Brown-clubbed Spider-orchid	Medium Forb/Herb				
<i>Caladenia praecox</i>	Early Caladenia	Medium Forb/Herb				
<i>Caladenia prolata</i>	Fertile Caladenia	Medium Forb/Herb		k		
<i>Caladenia pusilla</i>	Tiny Caladenia	Medium Forb/Herb				
<i>Caladenia reticulata</i>	Veined Spider-orchid	Medium Forb/Herb				
<i>Caladenia rosella</i>	Little Pink Spider-orchid	Medium Forb/Herb	E	e	L	E
<i>Caladenia tentaculata</i>	Mantis Orchid	Medium Forb/Herb				
<i>Caladenia venusta</i>	Large White Spider-orchid	Large Forb/Herb	R	r	X	
<i>Calandrinia calyptata</i>	Pink Purslane	Prostrate or Mat-forming Forb/Herb				
<i>Caleana major</i>	Large Duck-orchid	Medium Forb/Herb				
<i>Callistemon sieberi</i>	River Bottlebrush	Shrub				
<i>Callitriche muelleri</i>	Round Water-starwort	Prostrate or Mat-forming Forb/Herb				
<i>Callitriche palustris</i>	Swamp Water-starwort	Prostrate or Mat-forming Forb/Herb		k		
<i>Callitriche sonderi</i>	Matted Water-starwort	Prostrate or Mat-forming Forb/Herb		k		
<i>Calochilus imberbis</i>	Naked Beard-orchid	Medium Forb/Herb		r		
<i>Calochilus paludosus</i>	Red Beard-orchid	Medium Forb/Herb				
<i>Calochilus robertsonii</i>	Purplish Beard-orchid	Medium Forb/Herb				
<i>Calochlaena dubia</i>	Common Ground-fern	Non-tufted Ground Fern				
<i>Calotis scabiosifolia</i> var. <i>scabiosifolia</i>	Rough Burr-daisy	Medium Forb/Herb				
<i>Calystegia marginata</i>	Forest Bindweed	Climber				
<i>Calystegia sepium</i>	Large Bindweed	Climber				
<i>Cardamine gunnii</i>	Common Bitter-cress	Medium Forb/Herb				
<i>Cardamine papillata</i>	Forest Bitter-cress	Medium Forb/Herb		v		
<i>Cardamine tenuifolia</i>	Slender Bitter-cress	Medium Forb/Herb		k		
<i>Carex appressa</i>	Tall Sedge	Large Tufted grass/sedge				
<i>Carex breviculmis</i>	Common Grass-sedge	Small Tufted grass/sedge				
<i>Carex brownii</i>	Stream Sedge	Medium Tufted grass/sedge				
<i>Carex chlorantha</i>	Green-top Sedge	Small Non-tufted grass/sedge		k		
<i>Carex fascicularis</i>	Tassel Sedge	Medium Tufted grass/sedge				
<i>Carex gaudichaudiana</i>	Fen Sedge	Small Tufted grass/sedge				
<i>Carex inomitata</i>	Hillside Sedge	Medium Tufted grass/sedge				
<i>Carex inversa</i>	Knob Sedge	Small Tufted grass/sedge				
<i>Carex iynx</i>	Tussock Sedge	Medium Tufted grass/sedge		k		
<i>Carex longibrachiata</i>	Bergalia Tussock	Large Tufted grass/sedge				
<i>Carex polyantha</i>	River Sedge	Large Tufted grass/sedge				
<i>Carex tereticaulis</i>	Hollow Sedge	Large Tufted grass/sedge				
<i>Carpobrotus modestus</i>	Inland Pigface	Prostrate or Mat-forming Forb/Herb				
<i>Cassinia aculeata</i>	Common Cassinia	Shrub				
<i>Cassinia arcuata</i>	Drooping Cassinia	Shrub				
<i>Cassinia longifolia</i>	Shiny Cassinia	Shrub				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Cassinia trinerva	Three-nerved Cassinia	Shrub				
Cassytha glabella	Slender Dodder-laurel	Epiphyte				
Cassytha melantha	Coarse Dodder-laurel	Epiphyte				
Cassytha pubescens	Downy Dodder-laurel	Epiphyte				
Centella cordifolia	Centella	Medium Forb/Herb				
Centipeda cunninghamii	Common Sneezeweed	Medium Forb/Herb				
Centipeda elatinoides	Elatine Sneezeweed					
Centipeda minima	Spreading Sneezeweed	Prostrate or Mat-forming Forb/Herb				
Centrolepis aristata	Pointed Centrolepis	Tiny Tufted grass/sedge				
Centrolepis fascicularis	Tufted Centrolepis	Tiny Tufted grass/sedge				
Centrolepis strigosa ssp. strigosa	Hairy Centrolepis	Tiny Tufted grass/sedge				
Chamaescilla corymbosa var. corymbosa	Blue Stars	Medium Forb/Herb				
Cheilanthes austrotenuifolia	Green Rock-fern	Tufted Ground Fern				
Cheilanthes distans	Bristly Cloak-fern	Tufted Ground Fern				
Cheilanthes sieberi ssp. sieberi	Narrow Rock-fern	Tufted Ground Fern				
Chenopodium pumilio	Clammy Goosefoot	Medium Forb/Herb				
Chiloglottis reflexa	Autumn Bird-orchid	Medium Forb/Herb				
Chiloglottis trapeziformis	Dainty Bird-orchid	Medium Forb/Herb				
Chiloglottis valida	Common Bird-orchid	Medium Forb/Herb				
Chionogentias polysperes	Early Forest-gentian	Medium Forb/Herb				
Chloris truncata	Windmill Grass	Small Tufted grass/sedge				
Chrysocephalum apiculatum	Common Everlasting	Large Forb/Herb				
Chrysocephalum semipapposum	Clustered Everlasting	Large Forb/Herb				
Clematis aristata	Mountain Clematis	Climber				
Clematis microphylla var. microphylla	Small-leaved Clematis	Climber				
Comesperma ericinum	Heath Milkwort	Shrub				
Comesperma volubile	Love Creeper	Climber				
Convolvulus erubescens	Pink Bindweed	Prostrate or Mat-forming Forb/Herb				
Convolvulus remotus	Grassy Bindweed	Prostrate or Mat-forming Forb/Herb				
Coprosma quadrifida	Prickly Currant-bush	Shrub				
Correa glabra var. glabra	Rock Correa	Shrub				
Correa reflexa var. reflexa	Common Correa	Shrub				
Corybas diemenicus	Veined Helmet-orchid	Small Forb/Herb				
Corybas fimbriatus	Fringed Helmet-orchid	Small Forb/Herb		r		
Corybas incurvus	Slaty Helmet-orchid	Small Forb/Herb				
Cotula australis	Common Cotula	Medium Forb/Herb				
Craspedia spp.	Common Billy-buttons	Medium Forb/Herb				
Craspedia variabilis	Variable Billy-buttons	Medium Forb/Herb				
Crassula closiana	Stalked Crassula	Medium Forb/Herb				
Crassula colorata var. acuminata	Dense Crassula	Medium Forb/Herb				
Crassula decumbens var. decumbens	Spreading Crassula	Medium Forb/Herb				
Crassula helmsii	Swamp Crassula	Prostrate or Mat-forming Forb/Herb				
Crassula peduncularis	Purple Crassula	Prostrate or Mat-forming Forb/Herb				



NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
<i>Crassula sieberiana</i> ssp. <i>sieberiana</i>	Sieber Crassula	Medium Forb/Herb				
<i>Crassula sieberiana</i> ssp. <i>tetramera</i>	Australian Stonecrop	Medium Forb/Herb				
<i>Crepidomanes venosum</i>	Veined Bristle-fern	Epiphyte				
<i>Cryptostylis leptochila</i>	Small Tongue-orchid	Medium Forb/Herb				
<i>Cryptostylis subulata</i>	Large Tongue-orchid	Large Forb/Herb				
<i>Cyathea australis</i>	Rough Tree-fern	Tree Fern				
<i>Cymbonotus preissianus</i>	Austral Bear's-ears	Prostrate or Mat-forming Forb/Herb				
<i>Cynoglossum suaveolens</i>	Sweet Hound's-tongue	Medium Forb/Herb				
<i>Cyperus gunnii</i> ssp. <i>gunnii</i>	Flecked Flat-sedge	Large Tufted grass/sedge				
<i>Cyperus lucidus</i>	Leafy Flat-sedge	Large Tufted grass/sedge				
<i>Cyrtostylis reniformis</i>	Small Gnat-orchid	Medium Forb/Herb				
<i>Dampiera stricta</i>	Blue Dampiera	Small Shrub				
<i>Daucus glochidiatus</i>	Austral Carrot	Medium Forb/Herb				
<i>Daviesia latifolia</i>	Hop Bitter-pea	Shrub				
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	Shrub				
<i>Daviesia mimosoides</i> ssp. <i>mimosoides</i>	Blunt-leaf Bitter-pea	Shrub				
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	Shrub				
<i>Derwentia derwentiana</i>	Derwent Speedwell	Large Forb/Herb				
<i>Desmodium gunnii</i>	Southern Tick-trefoil	Prostrate or Mat-forming Forb/Herb				
<i>Desmodium varians</i>	Slender Tick-trefoil	Prostrate or Mat-forming Forb/Herb		k		
<i>Deyeuxia minor</i>	Small Bent-grass	Small Tufted grass/sedge				
<i>Deyeuxia quadrisetata</i>	Reed Bent-grass	Large Tufted grass/sedge				
<i>Deyeuxia rodwayi</i>	Tasman Bent-grass	Medium Non-tufted grass/sedge				
<i>Dianella amoena</i>	Matted Flax-lily	Medium Forb/Herb	E	e		E
<i>Dianella brevicaulis</i>	Small-flower Flax-lily	Medium Forb/Herb				
<i>Dianella caerulea</i> var. <i>caerulea</i>	Paroo Lily	Medium Forb/Herb				
<i>Dianella longifolia</i> var. <i>grandis</i>	Glaucous Flax-lily	Medium Forb/Herb		v		
<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily	Medium Forb/Herb				
<i>Dianella revoluta</i>	Black-anther Flax-lily	Medium Forb/Herb				
<i>Dianella tasmanica</i>	Tasman Flax-lily	Medium Forb/Herb				
<i>Dichelachne crinita</i>	Long-hair Plume-grass	Medium Tufted grass/sedge				
<i>Dichelachne hirtella</i>	Hairy Plume-grass	Medium Tufted grass/sedge				
<i>Dichelachne inaequiglumis</i>	Loose Plume-grass	Medium Tufted grass/sedge				
<i>Dichelachne micrantha</i>	Short-hair Plume-grass	Medium Tufted grass/sedge				
<i>Dichelachne rara</i>	Common Plume-grass	Medium Tufted grass/sedge				
<i>Dichelachne sieberiana</i>	Plume-grass	Small Tufted grass/sedge				
<i>Dichondra repens</i>	Kidney-weed	Prostrate or Mat-forming Forb/Herb				
<i>Dicksonia antarctica</i>	Soft Tree-fern	Tree Fern				
<i>Dillwynia cinerascens</i>	Grey Parrot-pea	Small Shrub				
<i>Dillwynia glaberrima</i>	Smooth Parrot-pea	Small Shrub				
<i>Dillwynia phyllicoides</i>	Small-leaf Parrot-pea	Small Shrub				
<i>Dillwynia sericea</i>	Showy Parrot-pea	Small Shrub				
<i>Dipodium punctatum</i>	Hyacinth Orchid	Large Forb/Herb				
<i>Dipodium roseum</i>	Rosy Hyacinth-orchid	Large Forb/Herb				

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Diuris chryseopsis	Golden Moths					
Diuris orientis	Wallflower Orchid	Medium Forb/Herb				
Diuris palustris	Swamp Diuris	Medium Forb/Herb		v	L	
Diuris pardina	Leopard Orchid	Medium Forb/Herb				
Diuris sulphurea	Tiger Orchid	Medium Forb/Herb				
Diuris X palachila	Broad-tip Diuris	Medium Forb/Herb		r		
Dodonaea viscosa ssp. cuneata	Wedge-leaf Hop-bush	Shrub				
Dodonaea viscosa ssp. spatulata	Sticky Hop-bush	Shrub				
Doodia australis	Common Rasp-fern	Tufted Ground Fern				
Doodia caudata	Small Rasp-fern	Tufted Ground Fern				
Drosera binata	Forked Sundew	Medium Forb/Herb				
Drosera macrantha	Climbing Sundew	Scrambler				
Drosera peltata ssp. auriculata	Tall Sundew	Medium Forb/Herb				
Drosera peltata ssp. peltata	Pale Sundew	Medium Forb/Herb				
Drosera whittakeri ssp. aberrans	Scented Sundew	Small Forb/Herb				
Echinopogon ovatus	Common Hedgehog-grass	Medium Non-tufted grass/sedge				
Einadia hastata	Saloop	Medium Forb/Herb				
Einadia nutans ssp. nutans	Nodding Saltbush	Medium Forb/Herb				
Einadia trigonos ssp. trigonos	Lax Goosefoot	Medium Forb/Herb				
Elatine gratioloides	Waterwort	Prostrate or Mat-forming Forb/Herb				
Eleocharis acuta	Common Spike-sedge	Medium Non-tufted grass/sedge				
Eleocharis sphacelata	Tall Spike-sedge	Large Non-tufted grass/sedge				
Elymus scaber var. scaber	Common Wheat-grass	Medium Tufted grass/sedge				
Enchylaena tomentosa var. tomentosa	Ruby Saltbush	Small Shrub				
Epacris impressa	Common Heath	Shrub				
Epilobium billardierianum ssp. billardierianum	Smooth Willow-herb	Large Forb/Herb				
Epilobium billardierianum ssp. cinereum	Grey Willow-herb	Large Forb/Herb				
Epilobium billardierianum ssp. intermedium	Variable Willow-herb	Large Forb/Herb				
Epilobium hirtigerum	Hairy Willow-herb	Large Forb/Herb				
Eragrostis brownii	Common Love-grass	Small Tufted grass/sedge				
Eriochilus cucullatus	Parson's Bands	Medium Forb/Herb				
Eryngium vesiculosum	Prickfoot	Prostrate or Mat-forming Forb/Herb				
Eucalyptus blakelyi	Blakely's Red-gum	Large Shrub to Medium Tree				
Eucalyptus bridgesiana	But But	Large Shrub to Medium Tree				
Eucalyptus camaldulensis	River Red-gum	Large Tree				
Eucalyptus camphora ssp. humeana	Mountain Swamp-gum	Large Shrub to Medium Tree				
Eucalyptus cephalocarpa	Silver-leaf Stringybark	Large Shrub to Medium Tree				
Eucalyptus cypellocarpa	Mountain Grey-gum	Large Tree				
Eucalyptus dives	Broad-leaved Peppermint	Large Shrub to Medium Tree				
Eucalyptus fulgens	Green Scentbark	Large Shrub to Medium Tree		r		
Eucalyptus globoidea	White Stringybark	Large Shrub to Medium Tree				
Eucalyptus goniocalyx	Bundy	Large Shrub to Medium Tree				
Eucalyptus leucoxylon ssp. connata	Yellow Gum	Large Shrub to Medium Tree		v	N	

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<i>Eucalyptus macrorhyncha</i>	Red Stringybark	Large Shrub to Medium Tree				
<i>Eucalyptus melliodora</i>	Yellow Box	Large Tree				
<i>Eucalyptus obliqua</i>	Messmate Stringybark	Large Tree				
<i>Eucalyptus ovata</i> var. <i>ovata</i>	Swamp Gum	Large Shrub to Medium Tree				
<i>Eucalyptus polyanthemus</i> ssp. <i>vestita</i>	Red Box	Large Shrub to Medium Tree				
<i>Eucalyptus radiata</i> ssp. <i>radiata</i>	Narrow-leaf Peppermint	Large Shrub to Medium Tree				
<i>Eucalyptus regnans</i>	Mountain Ash	Large Tree				
<i>Eucalyptus rubida</i>	Candlebark	Large Shrub to Medium Tree				
<i>Eucalyptus tricarpa</i>	Red Ironbark	Large Tree				
<i>Eucalyptus viminalis</i> ssp. <i>pyroriana</i>	Coast Manna-gum	Large Shrub to Medium Tree				
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum	Large Tree				
<i>Eucalyptus yarraensis</i>	Yarra Gum	Large Shrub to Medium Tree	R	k	X	
<i>Euchiton collinus</i>	Clustered/Creeping Cudweed	Medium Forb/Herb				
<i>Euchiton involucratus</i>	Star Cudweed	Medium Forb/Herb				
<i>Euchiton sphaericus</i>	Annual Cudweed	Medium Forb/Herb				
<i>Exocarpos cupressiformis</i>	Cherry Ballart	Large Shrub to Medium Tree				
<i>Exocarpos strictus</i>	Pale-fruit Ballart	Shrub				
<i>Gahnia radula</i>	Thatch Saw-sedge	Large Tufted grass/sedge				
<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge	Large Tufted grass/sedge				
<i>Galium binifolium</i>	Reflexed Bedstraw	Medium Forb/Herb				
<i>Galium gaudichaudii</i>	Rough Bedstraw	Medium Forb/Herb				
<i>Galium migrans</i>	Wandering Bedstraw	Medium Forb/Herb				
<i>Galium propinquum</i>	Maori Bedstraw	Prostrate or Mat-forming Forb/Herb				
<i>Gastrodia sesamoides</i>	Cinnamon Bells	Large Forb/Herb				
<i>Genoplesium despectans</i>	Sharp Midge-orchid	Medium Forb/Herb	K			
<i>Geranium homeanum</i>	Northern Cranesbill	Large Forb/Herb				
<i>Geranium potentilloides</i>	Cinquefoil Cranesbill	Medium Forb/Herb				
<i>Geranium potentilloides</i> var. <i>potentilloides</i>	Soft Cranesbill	Medium Forb/Herb				
<i>Geranium retrorsum</i>	Grassland Cranesbill	Medium Forb/Herb				
<i>Geranium solanderi</i> var. <i>solanderi</i>	Austral Cranesbill	Medium Forb/Herb		v		
<i>Geranium</i> sp. 2	Variable Cranesbill	Medium Forb/Herb				
<i>Geranium</i> sp. 4	Rough Cranesbill	Medium Forb/Herb				
<i>Glossodia major</i>	Wax-lip Orchid	Medium Forb/Herb				
<i>Glossostigma elatinoides</i>	Small Mud-mat	Prostrate or Mat-forming Forb/Herb				
<i>Glyceria australis</i>	Australian Sweet-grass	Medium Tufted grass/sedge				
<i>Glycine clandestina</i>	Twining Glycine	Climber				
<i>Glycine latrobeana</i>	Clover Glycine	Prostrate or Mat-forming Forb/Herb	V	v	L	V
<i>Glycine microphylla</i>	Small-leaf Glycine	Climber				
<i>Glycine tabacina</i>	Variable Glycine	Scrambler				
<i>Gnaphalium indutum</i>	Tiny Cudweed	Medium Forb/Herb				
<i>Gompholobium huegelii</i>	Common Wedge-pea	Small Shrub				
<i>Gonocarpus humilis</i>	Shade Raspwort	Medium Forb/Herb				
<i>Gonocarpus tetragynus</i>	Common Raspwort	Medium Forb/Herb				
<i>Goodenia blackiana</i>	Black's Goodenia	Medium Forb/Herb				

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<i>Goodenia elongata</i>	Lanky Goodenia	Medium Forb/Herb				
<i>Goodenia geniculata</i>	Bent Goodenia	Medium Forb/Herb				
<i>Goodenia lanata</i>	Trailing Goodenia	Prostrate or Mat-forming Forb/Herb				
<i>Goodenia ovata</i>	Hop Goodenia	Shrub				
<i>Goodia lotifolia</i>	Golden Tip	Shrub				
<i>Goodia lotifolia</i> var. <i>pubescens</i>	Silky Golden-tip	Shrub		r		
<i>Grammitis billardierei</i>	Common Finger-fern	Tufted Ground Fern				
<i>Gratiola peruviana</i>	Austral Brooklime	Medium Forb/Herb				
<i>Gratiola pubescens</i>	Glandular Brooklime	Medium Forb/Herb				
<i>Grevillea repens</i>	Creeping Grevillea	Small Shrub	R	r		
<i>Gynatrix pulchella</i>	Hemp Bush	Shrub				
<i>Hakea decurrens</i> ssp. <i>physocarpa</i>	Bushy Needlewood	Shrub				
<i>Hakea nodosa</i>	Yellow Hakea	Shrub				
<i>Hakea ulicina</i>	Furze Hakea	Shrub				
<i>Haloragis heterophylla</i>	Varied Raspwort	Medium Forb/Herb				
<i>Hardenbergia violacea</i>	Purple Coral-pea	Scrambler				
<i>Hedycarya angustifolia</i>	Austral Mulberry	Large Shrub to Medium Tree				
<i>Helichrysum</i> aff. <i>rutidolepis</i> (Lowland Swamps)	Pale Swamp Everlasting	Prostrate or Mat-forming Forb/Herb		v		
<i>Helichrysum rutidolepis</i>	Pale Everlasting	Medium Forb/Herb				
<i>Helichrysum scorpioides</i>	Button Everlasting	Medium Forb/Herb				
<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass	Medium Non-tufted grass/sedge				
<i>Hibbertia acicularis</i>	Prickly Guinea-flower	Small Shrub				
<i>Hibbertia obtusifolia</i>	Grey Guinea-flower	Small Shrub				
<i>Hibbertia riparia</i>	Erect Guinea-flower	Small Shrub				
<i>Histiopteris incisa</i>	Bat's Wing Fern	Non-tufted Ground Fern				
<i>Hovea heterophylla</i>	Common Hovea	Small Shrub				
<i>Hydrocotyle callicarpa</i>	Small Pennywort	Medium Forb/Herb				
<i>Hydrocotyle foveolata</i>	Yellow Pennywort	Medium Forb/Herb				
<i>Hydrocotyle geraniifolia</i>	Forest Pennywort	Scrambler				
<i>Hydrocotyle hirta</i>	Hairy Pennywort	Medium Forb/Herb				
<i>Hydrocotyle laxiflora</i>	Stinking Pennywort	Prostrate or Mat-forming Forb/Herb				
<i>Hydrocotyle pterocarpa</i>	Wing Pennywort	Medium Forb/Herb				
<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort	Prostrate or Mat-forming Forb/Herb				
<i>Hydrocotyle tripartita</i>	Slender Pennywort	Prostrate or Mat-forming Forb/Herb				
<i>Hydrocotyle verticillata</i>	Shield Pennywort	Medium Forb/Herb				
<i>Hymenanthera dentata</i>	Tree Violet	Shrub				
<i>Hymenophyllum cupressiforme</i>	Common Filmy Fern	Epiphyte				
<i>Hymenophyllum flabellatum</i>	Shiny Filmy Fern	Epiphyte				
<i>Hypericum gramineum</i>	Small St John's Wort	Medium Forb/Herb				
<i>Hypericum japonicum</i>	Matted St John's Wort	Prostrate or Mat-forming Forb/Herb				
<i>Hypolepis rugosula</i>	Ruddy Ground-fern	Non-tufted Ground Fern				
<i>Hypoxis glabella</i> var. <i>glabella</i>	Tiny Star	Medium Forb/Herb				
<i>Hypoxis hygrometrica</i> var. <i>hygrometrica</i>	Golden Weather-glass	Medium Forb/Herb				
<i>Hypoxis hygrometrica</i> var.	Golden Weather-glass	Medium Forb/Herb				



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<i>villosisepala</i>						
<i>Hypoxis vaginata</i> var. <i>vaginata</i>	Yellow Star	Medium Forb/Herb				
<i>Imperata cylindrica</i>	Blady Grass	Medium Tufted grass/sedge				
<i>Indigofera australis</i>	Austral Indigo	Shrub				
<i>Isachne globosa</i>	Swamp Millet	Medium Non-tufted grass/sedge				
<i>Isoetopsis graminifolia</i>	Grass Cushion	Small Forb/Herb				
<i>Isolepis cernua</i>	Nodding Club-sedge	Small Tufted grass/sedge				
<i>Isolepis fluitans</i>	Floating Club-sedge	Small Tufted grass/sedge				
<i>Isolepis hookeriana</i>	Grassy Club-sedge	Small Tufted grass/sedge				
<i>Isolepis inundata</i>	Swamp Club-sedge	Small Tufted grass/sedge				
<i>Isolepis marginata</i>	Little Club-sedge	Tiny Tufted grass/sedge				
<i>Isolepis platycarpa</i>	Broad-fruit Club-sedge	Small Tufted grass/sedge				
<i>Isolepis victoriensis</i>	Victorian Club-sedge	Small Tufted grass/sedge		k		
<i>Isotoma fluviatilis</i> ssp. <i>australis</i>	Swamp Isotome	Prostrate or Mat-forming Forb/Herb				
<i>Joycea pallida</i>	Silvertop Wallaby-grass	Large Tufted grass/sedge				
<i>Juncus amabilis</i>	Hollow Rush	Medium Tufted grass/sedge				
<i>Juncus australis</i>	Austral Rush	Large Tufted grass/sedge				
<i>Juncus bufonius</i>	Toad Rush	Small Tufted grass/sedge				
<i>Juncus filicaulis</i>	Thread Rush	Small Tufted grass/sedge				
<i>Juncus flavidus</i>	Yellow Rush	Large Tufted grass/sedge				
<i>Juncus gregiflorus</i>	Green Rush	Large Tufted grass/sedge				
<i>Juncus holoschoenus</i>	Joint-leaf Rush	Small Tufted grass/sedge				
<i>Juncus homalocaulis</i>	Wiry Rush	Small Tufted grass/sedge				
<i>Juncus pallidus</i>	Pale Rush	Large Tufted grass/sedge				
<i>Juncus pauciflorus</i>	Loose-flower Rush	Medium Tufted grass/sedge				
<i>Juncus phaeanthus</i>	Dark-flower Rush	Large Tufted grass/sedge		r		
<i>Juncus planifolius</i>	Broad-leaf Rush	Small Tufted grass/sedge				
<i>Juncus prismatocarpus</i>	Branching Rush	Small Tufted grass/sedge				
<i>Juncus procerus</i>	Tall Rush	Large Tufted grass/sedge				
<i>Juncus radula</i>	Hoary Rush	Medium Tufted grass/sedge				
<i>Juncus remotiflorus</i>	Diffuse Rush	Medium Tufted grass/sedge				
<i>Juncus sarophorus</i>	Broom Rush	Large Tufted grass/sedge				
<i>Juncus subsecundus</i>	Finger Rush	Medium Tufted grass/sedge				
<i>Juncus usitatus</i>	Billabong Rush	Large Tufted grass/sedge				
<i>Juncus vaginatus</i>	Clustered Rush	Large Tufted grass/sedge				
<i>Kennedia prostrata</i>	Running Postman	Prostrate or Mat-forming Forb/Herb				
<i>Kunzea ericoides</i>	Burgan	Shrub				
<i>Lagenophora gracilis</i>	Slender Bottle-daisy	Medium Forb/Herb				
<i>Lagenophora huegelii</i>	Coarse Bottle-daisy	Medium Forb/Herb				
<i>Lagenophora stipitata</i>	Common Bottle-daisy	Medium Forb/Herb				
<i>Lastreopsis acuminata</i>	Shiny Shield-fern	Tufted Ground Fern				
<i>Lemna disperma</i>	Common Duckweed	Small Forb/Herb				
<i>Lepidium pseudotasmanicum</i>	Shade Peppergrass	Medium Forb/Herb				
<i>Lepidosperma curtisiae</i>	Little Sword-sedge	Small Tufted grass/sedge				
<i>Lepidosperma elatius</i>	Tall Sword-sedge	Large Tufted grass/sedge				
<i>Lepidosperma gunnii</i>	Slender Sword-sedge	Small Tufted grass/sedge				
<i>Lepidosperma laterale</i>	Variable Sword-sedge	Medium Tufted grass/sedge				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Lepidosperma semiteres	Wire Rapier-sedge	Medium Tufted grass/sedge				
Leptinella reptans	Creeping Cotula	Prostrate or Mat-forming Forb/Herb				
Leptoceras menziesii	Hare Orchid	Medium Forb/Herb				
Leptorhynchos squamatus	Scaly Buttons	Medium Forb/Herb				
Leptorhynchos tenuifolius	Wiry Buttons	Large Forb/Herb				
Leptospermum continentale	Prickly Tea-tree	Shrub				
Leptospermum grandifolium	Mountain Tea-tree	Large Shrub to Medium Tree				
Leptospermum lanigerum	Woolly Tea-tree	Large Shrub to Medium Tree				
Leptospermum myrsinoides	Heath Tea-tree	Shrub				
Leptospermum obovatum	River Tea-tree	Shrub				
Leucochrysum albicans ssp. albicans	Hoary Sunray	Medium Forb/Herb				
Leucopogon ericoides	Pink Beard-heath	Shrub				
Leucopogon virgatus var. virgatus	Common Beard-heath	Small Shrub				
Levenhookia dubia	Hairy Stylewort	Medium Forb/Herb				
Levenhookia sonderi	Slender Stylewort	Small Forb/Herb		r		
Lilaeopsis polyantha	Australian Lilaeopsis	Medium Forb/Herb				
Lindsaea linearis	Screw Fern	Non-tufted Ground Fern				
Linum marginale	Native Flax	Large Forb/Herb				
Lissanthe strigosa ssp. subulata	Peach Heath	Small Shrub				
Lobelia anceps	Angled Lobelia	Medium Forb/Herb				
Lobelia gibbosa var. gibbosa	Tall Lobelia	Medium Forb/Herb				
Lobelia pedunculata	Matted Pratia	Prostrate or Mat-forming Forb/Herb				
Lomandra filiformis ssp. coriacea	Wattle Mat-rush	Medium Forb/Herb				
Lomandra filiformis ssp. filiformis	Wattle Mat-rush	Medium Forb/Herb				
Lomandra longifolia ssp. longifolia	Spiny-headed Mat-rush	Large Forb/Herb				
Lomandra micrantha ssp. micrantha	Small-flower Mat-rush	Large Forb/Herb				
Lomandra micrantha ssp. tuberculata	Small-flower Mat-rush	Large Forb/Herb				
Lomandra multiflora ssp. multiflora	Many-flowered Mat-rush	Large Forb/Herb				
Lomandra nana	Dwarf Mat-rush	Medium Forb/Herb				
Lomatia fraseri	Tree Lomatia	Large Shrub to Medium Tree				
Lomatia ilicifolia	Holly Lomatia	Small Shrub				
Lomatia myricoides	River Lomatia	Shrub				
Luzula meridionalis var. densiflora	Common Woodrush	Small Tufted grass/sedge				
Luzula meridionalis var. flaccida	Common Woodrush	Small Tufted grass/sedge				
Luzula meridionalis var. meridionalis	Common Woodrush	Small Tufted grass/sedge				
Lycopus australis	Australian Gipsywort	Large Forb/Herb				
Lyperanthus suaveolens	Brown-beaks	Medium Forb/Herb				
Lythrum hyssopifolia	Small Loosestrife	Medium Forb/Herb				
Lythrum salicaria	Purple Loosestrife	Large Forb/Herb				
Marsilea drummondii	Common Nardoo	Medium Forb/Herb				
Mazus pumilio	Swamp Mazus	Medium Forb/Herb				
Melaleuca ericifolia	Swamp Paperbark	Shrub				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Melaleuca parvistaminea	Rough-barked Honey-myrtle	Shrub				
Melaleuca squarrosa	Scented Paperbark	Shrub				
Mentha australis	River Mint	Medium Forb/Herb				
Mentha diemenica	Slender Mint	Medium Forb/Herb				
Mentha laxiflora	Forest Mint	Large Forb/Herb				
Microlaena stipoides var. stipoides	Weeping Grass	Medium Non-tufted grass/sedge				
Microseris sp. 2	Yam Daisy	Medium Forb/Herb				
Microseris sp. 3	Yam Daisy	Large Forb/Herb				
Microsorium pustulatum ssp. pustulatum	Kangaroo Fern	Epiphyte				
Microtis arenaria	Notched Onion-orchid	Large Forb/Herb				
Microtis parviflora	Slender Onion-orchid	Medium Forb/Herb				
Microtis unifolia	Common Onion-orchid	Large Forb/Herb				
Millotia tenuifolia var. tenuifolia	Soft Millotia	Medium Forb/Herb				
Monotoca scoparia	Prickly Broom-heath	Shrub				
Muellerina eucalyptoides	Creeping Mistletoe	Epiphyte				
Myoporum sp. 1	Sticky Boobialla	Shrub				
Myosotis australis	Austral Forget-me-not	Medium Forb/Herb				
Myriophyllum caput-medusae	Coarse Water-milfoil	Medium Forb/Herb				
Myriophyllum crispatum	Upright Water-milfoil	Large Forb/Herb				
Myriophyllum salsugineum	Lake Water-milfoil	Large Forb/Herb				
Myriophyllum variifolium	Varied Water-milfoil	Medium Forb/Herb				
Neopaxia australasica	White Purslane	Prostrate or Mat-forming Forb/Herb				
Notodanthonia semiannularis	Wetland Wallaby-grass	Medium Tufted grass/sedge				
Olearia argophylla	Musk Daisy-bush	Large Shrub to Medium Tree				
Olearia erubescens	Moth Daisy-bush	Small Shrub				
Olearia lirata	Snowy Daisy-bush	Shrub				
Olearia myrsinoides	Silky Daisy-bush	Small Shrub				
Olearia ramulosa var. ramulosa	Twiggy Daisy-bush	Shrub				
Olearia ramulosa var. stricta	Twiggy Daisy-bush	Small Shrub				
Opercularia ovata	Broad-leaf Stinkweed	Prostrate or Mat-forming Forb/Herb				
Opercularia varia	Variable Stinkweed	Prostrate or Mat-forming Forb/Herb				
Ophioglossum lusitanicum	Austral Adder's-tongue	Medium Forb/Herb				
Oplismenus hirtellus	Basket-grass	Small Non-tufted grass/sedge				
Ottelia ovalifolia ssp. ovalifolia	Swamp Lily	Medium Forb/Herb				
Oxalis exilis	Shady Wood-sorrel	Prostrate or Mat-forming Forb/Herb				
Oxalis perennans	Grassland Wood-sorrel	Medium Forb/Herb				
Oxalis radicata	Stout-rooted Wood-sorrel	Medium Forb/Herb				
Ozothamnus ferrugineus	Tree Everlasting	Shrub				
Ozothamnus obcordatus	Grey Everlasting	Shrub				
Pandorea pandorana	Wonga Vine	Climber				
Parietaria debilis	Shade Pellitory	Medium Forb/Herb				
Parsonsia brownii	Twining Silkpod	Climber				
Patersonia fragilis	Short Purple-flag	Large Forb/Herb				
Pelargonium australe	Austral Stork's-bill	Large Forb/Herb				
Pelargonium inodorum	Kopata	Medium Forb/Herb				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
<i>Pellaea falcata</i>	Sickle Fern	Tufted Ground Fern				
<i>Pellaea nana</i>	Dwarf Sickle-fern	Tufted Ground Fern		r		
<i>Pentapogon quadrifidus</i>	Five-awned Spear-grass	Medium Tufted grass/sedge				
<i>Persicaria decipiens</i>	Slender Knotweed	Large Forb/Herb				
<i>Persicaria hydropiper</i>	Water-pepper	Large Forb/Herb				
<i>Persicaria lapathifolia</i>	Pale Knotweed	Large Forb/Herb				
<i>Persicaria praetermissa</i>	Spotted Knotweed	Large Forb/Herb				
<i>Persicaria prostrata</i>	Creeping Knotweed	Medium Forb/Herb				
<i>Persicaria subsessilis</i>	Hairy Knotweed	Large Forb/Herb				
<i>Persoonia juniperina</i>	Prickly Geebung	Shrub				
<i>Phragmites australis</i>	Common Reed	Large Non-tufted grass/sedge				
<i>Phyllangium divergens</i>	Wiry Mitrewort	Prostrate or Mat-forming Forb/Herb				
<i>Phylloglossum drummondii</i>	Pigmy Clubmoss	Tiny Tufted grass/sedge				
<i>Picris angustifolia</i> ssp. <i>angustifolia</i>	Native Picris	Large Forb/Herb				
<i>Pimelea axiflora</i>	Bootlace Bush	Shrub				
<i>Pimelea curviflora</i>	Curved Rice-flower	Small Shrub				
<i>Pimelea flava</i>	Yellow Rice-flower	Shrub				
<i>Pimelea humilis</i>	Common Rice-flower	Small Shrub				
<i>Pimelea linifolia</i> ssp. <i>linifolia</i>	Slender Rice-flower	Shrub				
<i>Pimelea pauciflora</i>	Poison Rice-flower	Shrub		r		
<i>Pimelea stricta</i>	Gaunt Rice-flower	Shrub				
<i>Pittosporum bicolor</i>	Banyalla	Large Shrub to Medium Tree				
<i>Plantago debilis</i>	Shade Plantain	Medium Forb/Herb				
<i>Plantago gaudichaudii</i>	Narrow Plantain	Medium Forb/Herb				
<i>Plantago hispida</i>	Hairy Plantain	Medium Forb/Herb				
<i>Plantago varia</i>	Variable Plantain	Medium Forb/Herb				
<i>Platylobium formosum</i>	Handsome Flat-pea	Prostrate Shrub				
<i>Platylobium obtusangulum</i>	Common Flat-pea	Small Shrub				
<i>Platysace lanceolata</i>	Shrubby Platysace	Shrub				
<i>Pleurosorus rutifolius</i>	Blanket Fern	Tufted Ground Fern				
<i>Poa clelandii</i>	Noah's Ark	Medium Tufted grass/sedge				
<i>Poa ensiformis</i>	Sword Tussock-grass	Medium Tufted grass/sedge				
<i>Poa labillardierei</i> var. <i>labillardierei</i>	Common Tussock-grass	Medium Tufted grass/sedge				
<i>Poa morrisii</i>	Soft Tussock-grass	Medium Tufted grass/sedge				
<i>Poa rodwayi</i>	Velvet Tussock-grass	Medium Tufted grass/sedge				
<i>Poa sieberiana</i> var. <i>hirtella</i>	Grey Tussock-grass	Medium Tufted grass/sedge				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass	Medium Tufted grass/sedge				
<i>Poa tenera</i>	Slender Tussock-grass	Medium Non-tufted grass/sedge				
<i>Podolepis jaceoides</i>	Showy/Basalt Podolepis	Large Forb/Herb				
<i>Podolobium procumbens</i>	Trailing Podolobium	Small Shrub				
<i>Polyscias sambucifolia</i>	Elderberry Panax	Shrub				
<i>Polyscias sambucifolia</i> ssp. 3	Mountain Panax	Shrub				
<i>Polystichum proliferum</i>	Mother Shield-fern	Tufted Ground Fern				
<i>Pomaderris aspera</i>	Hazel Pomaderris	Large Shrub to Medium Tree				
<i>Pomaderris elachophylla</i>	Small-leaf Pomaderris	Shrub				
<i>Pomaderris elliptica</i> var. <i>elliptica</i>	Smooth Pomaderris	Shrub				
<i>Pomaderris ferruginea</i>	Rusty Pomaderris	Shrub				



NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Pomaderris lanigera	Woolly Pomaderris	Shrub				
Pomaderris prunifolia var. prunifolia	Prunus Pomaderris	Shrub				
Pomaderris racemosa	Cluster Pomaderris	Shrub				
Pomaderris vacciniifolia	Round-leaf Pomaderris	Shrub		v		
Poranthera microphylla	Small Poranthera	Medium Forb/Herb				
Portulaca oleracea	Common Purslane	Prostrate or Mat-forming Forb/Herb				
Potamogeton crispus	Curly Pondweed	Medium Forb/Herb				
Potamogeton ochreateus	Blunt Pondweed	Medium Forb/Herb				
Prasophyllum brevifolium	Short-lip Leek-orchid	Medium Forb/Herb				
Prasophyllum odoratum	Scented Leek-orchid	Large Forb/Herb				
Prostanthera lasiantha var. lasiantha	Victorian Christmas-bush	Large Shrub to Medium Tree				
Pseudognaphalium luteoalbum	Jersey Cudweed	Medium Forb/Herb				
Pteridium esculentum	Austral Bracken	Non-tufted Ground Fern				
Pteris tremula	Tender Brake	Tufted Ground Fern				
Pterostylis aff. biseta	Rustyhoo	Medium Forb/Herb				
Pterostylis alpina	Alpine Greenhood	Medium Forb/Herb				
Pterostylis atrans	Dark-tip Greenhood	Medium Forb/Herb				
Pterostylis concinna	Trim Greenhood	Medium Forb/Herb				
Pterostylis curta	Blunt Greenhood	Medium Forb/Herb				
Pterostylis cycnocephala	Swan Greenhood	Medium Forb/Herb				
Pterostylis decurva	Summer Greenhood	Medium Forb/Herb				
Pterostylis falcata	Large Sickle Greenhood	Medium Forb/Herb				
Pterostylis foliata	Slender Greenhood	Medium Forb/Herb				
Pterostylis melagramma	Tall Greenhood	Large Forb/Herb				
Pterostylis mutica	Midget Greenhood	Medium Forb/Herb				
Pterostylis nana	Dwarf Greenhood	Medium Forb/Herb				
Pterostylis nutans	Nodding Greenhood	Medium Forb/Herb				
Pterostylis parviflora	Tiny Greenhood	Medium Forb/Herb				
Pterostylis pedunculata	Maroonhood	Medium Forb/Herb				
Pterostylis plumosa	Bearded Greenhood	Medium Forb/Herb				
Pterostylis revoluta	Large Autumn Greenhood	Medium Forb/Herb				
Pterostylis robusta	Large Striped Greenhood	Medium Forb/Herb				
Pterostylis smaragdina	Emerald-lip Greenhood	Medium Forb/Herb	R	r		
Pterostylis sp. aff. alata	Striped Greenhood	Medium Forb/Herb				
Pterostylis squamata	Common Ruddyhood	Medium Forb/Herb				
Pterostylis X ingens	Sharp Greenhood	Medium Forb/Herb		r		
Pultenaea daphnoides	Large-leaf Bush-pea	Shrub				
Pultenaea gunnii ssp. gunnii	Golden Bush-pea	Shrub				
Pultenaea humilis	Dwarf Bush-pea	Small Shrub				
Pultenaea juniperina	Prickly Bush-pea	Shrub				
Pultenaea muelleri var. muelleri	Mueller's Bush-pea	Shrub				
Pultenaea pedunculata	Matted Bush-pea	Small Shrub				
Pultenaea scabra	Rough Bush-pea	Shrub				
Pultenaea weindorferi	Swamp Bush-pea	Shrub	R	r	L	
Pycnosorus spp	Billy Buttons					
Pyrorchis nigricans	Red-beaks	Medium Forb/Herb				
Ranunculus amphitrichus	Small River Buttercup	Prostrate or Mat-forming Forb/Herb				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
Ranunculus glabrifolius	Shining Buttercup	Medium Forb/Herb				
Ranunculus inundatus	River Buttercup	Medium Forb/Herb				
Ranunculus lappaceus	Australian Buttercup	Medium Forb/Herb				
Ranunculus plebeius	Forest/Hairy Buttercup	Medium Forb/Herb				
Ranunculus pumilio var. pumilio	Ferny Small-flower Buttercup	Medium Forb/Herb				
Ranunculus scapiger	Hairy Buttercup	Medium Forb/Herb				
Ranunculus sessiliflorus var. sessiliflorus	Annual Buttercup	Medium Forb/Herb				
Rapanea howittiana	Muttonwood	Large Shrub to Medium Tree				
Ricinocarpos pinifolius	Wedding Bush	Shrub				
Rubus parvifolius	Small-leaf Bramble	Scrambler				
Rumex bidens	Mud Dock	Medium Forb/Herb				
Rumex brownii	Slender Dock	Medium Forb/Herb				
Sambucus gaudichaudiana	White Elderberry	Medium Forb/Herb				
Schoenoplectus tabernaemontani	River Club-sedge	Large Non-tufted grass/sedge				
Schoenus apogon	Common Bog-sedge	Small Tufted grass/sedge				
Schoenus brevifolius	Zig-zag Bog-sedge	Medium Non-tufted grass/sedge				
Schoenus maschalinus	Leafy Bog-sedge	Small Tufted grass/sedge				
Sclerolaena muricata var. muricata	Black Roly-poly	Small Shrub		k		
Sebaea ovata	Yellow Sebaea	Medium Forb/Herb				
Senecio biserratus	Jagged Fireweed	Medium Forb/Herb				
Senecio glomeratus	Annual Fireweed	Large Forb/Herb				
Senecio hispidulus var. dissectus	Rough Fireweed	Medium Forb/Herb				
Senecio hispidulus var. hispidulus	Rough Fireweed	Medium Forb/Herb				
Senecio linearifolius	Fireweed Groundsel	Large Forb/Herb				
Senecio minimus	Shrubby Fireweed	Large Forb/Herb				
Senecio odoratus var. odoratus	Scented Groundsel	Large Forb/Herb				
Senecio quadridentatus	Cotton Fireweed	Large Forb/Herb				
Senecio squarrosus	Leafy Fireweed	Medium Forb/Herb				
Senecio tenuiflorus	Slender Fireweed	Large Forb/Herb				
Siloxerus multiflorus	Small Wrinklewort	Small Forb/Herb				
Solanum aviculare	Kangaroo Apple	Shrub				
Solanum laciniatum	Large Kangaroo Apple	Shrub				
Solanum prinophyllum	Forest Nightshade	Medium Forb/Herb				
Solenogyne dominii	Smooth Solenogyne	Small Forb/Herb				
Solenogyne gunnii	Hairy Solenogyne	Medium Forb/Herb				
Sphaerolobium vimineum	Leafless Globe-pea	Small Shrub				
Spirodela punctata	Thin Duckweed	Prostrate or Mat-forming Forb/Herb				
Spyridium parvifolium	Dusty Miller	Shrub				
Stackhousia monogyna	Creamy Stackhousia	Medium Forb/Herb				
Stellaria caespitosa	Matted Starwort	Medium Forb/Herb				
Stellaria flaccida	Forest Starwort	Medium Forb/Herb				
Stellaria multiflora	Rayless Starwort	Medium Forb/Herb				
Stellaria pungens	Prickly Starwort	Medium Forb/Herb				
Stuartina muelleri	Spoon Cudweed	Medium Forb/Herb				

NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
<i>Stylidium despectum</i>	Small Trigger-plant	Medium Forb/Herb				
<i>Stylidium graminifolium</i>	Grass Trigger-plant	Large Forb/Herb				
<i>Stylidium</i> sp. 2	Common Trigger-plant	Large Forb/Herb				
<i>Tetrarrhena juncea</i>	Forest Wire-grass	Large Non-tufted grass/sedge				
<i>Tetratheca bauerifolia</i>	Heath Pink-bells	Small Shrub				
<i>Tetratheca ciliata</i>	Pink-bells	Small Shrub				
<i>Teucrium corymbosum</i>	Forest Germander	Large Forb/Herb				
<i>Thelionema caespitosum</i>	Tufted Lily	Large Forb/Herb				
<i>Thelymitra</i> aff. <i>pauciflora</i>	Black and Yellow Sun-orchid	Medium Forb/Herb				
<i>Thelymitra antennifera</i>	Rabbit Ears	Medium Forb/Herb				
<i>Thelymitra aristata</i>	Great Sun-orchid	Large Forb/Herb				
<i>Thelymitra carnea</i>	Pink Sun-orchid	Medium Forb/Herb				
<i>Thelymitra flexuosa</i>	Twisted Sun-orchid	Medium Forb/Herb				
<i>Thelymitra ixioides</i>	Spotted Sun-orchid	Large Forb/Herb				
<i>Thelymitra media</i>	Tall Sun-orchid	Large Forb/Herb				
<i>Thelymitra nuda</i>	Plain Sun-orchid	Medium Forb/Herb				
<i>Thelymitra pauciflora</i>	Slender Sun-orchid	Medium Forb/Herb				
<i>Thelymitra rubra</i>	Salmon Sun-orchid	Medium Forb/Herb				
<i>Thelymitra</i> X <i>truncata</i>	Hybrid Sun-orchid complex	Medium Forb/Herb				
<i>Themeda triandra</i>	Kangaroo Grass	Medium Tufted grass/sedge				
<i>Thysanotus patersonii</i>	Twining Fringe-lily	Climber				
<i>Thysanotus tuberosus</i>	Common Fringe-lily	Medium Forb/Herb				
<i>Tmesipteris obliqua</i>	Long Fork-fern	Epiphyte				
<i>Tricoryne elatior</i>	Yellow Rush-lily	Large Forb/Herb				
<i>Triglochin procerum</i>	Water Ribbons	Large Forb/Herb				
<i>Triglochin striatum</i>	Streaked Arrowgrass	Medium Forb/Herb				
<i>Triptilodiscus pygmaeus</i>	Common Sunray	Medium Forb/Herb				
<i>Typha domingensis</i>	Cumbungi	Large Forb/Herb				
<i>Typha orientalis</i>	Cumbungi	Large Forb/Herb				
<i>Urtica incisa</i>	Scrub Nettle	Large Forb/Herb				
<i>Utricularia australis</i>	Yellow Bladderwort	Medium Forb/Herb				
<i>Vallisneria americana</i> var. <i>americana</i>	Ribbon-weed	Medium Forb/Herb				
<i>Velleia paradoxa</i>	Spur Velleia	Medium Forb/Herb				
<i>Veronica calycina</i>	Hairy Speedwell	Medium Forb/Herb				
<i>Veronica gracilis</i>	Slender Speedwell	Large Forb/Herb				
<i>Veronica plebeia</i>	Trailing Speedwell	Medium Forb/Herb				
<i>Viminaria juncea</i>	Golden Spray	Shrub				
<i>Viola betonicifolia</i> ssp. <i>betonicifolia</i>	Showy Violet	Medium Forb/Herb				
<i>Viola hederacea</i>	Ivy-leaf Violet	Medium Forb/Herb				
<i>Viola sieberiana</i>	Tiny Violet	Medium Forb/Herb				
<i>Vittadinia muelleri</i>	Narrow-leaf New Holland Daisy	Medium Forb/Herb				
<i>Wahlenbergia communis</i>	Tufted Bluebell	Large Forb/Herb				
<i>Wahlenbergia gracilentia</i>	Annual Bluebell	Medium Forb/Herb				
<i>Wahlenbergia gracilis</i>	Sprawling Bluebell	Large Forb/Herb				
<i>Wahlenbergia gymnoclada</i>	Naked Bluebell	Large Forb/Herb				
<i>Wahlenbergia luteola</i>	Yellowish Bluebell	Large Forb/Herb				
<i>Wahlenbergia multicaulis</i>	Many-stemmed Bluebell	Large Forb/Herb				

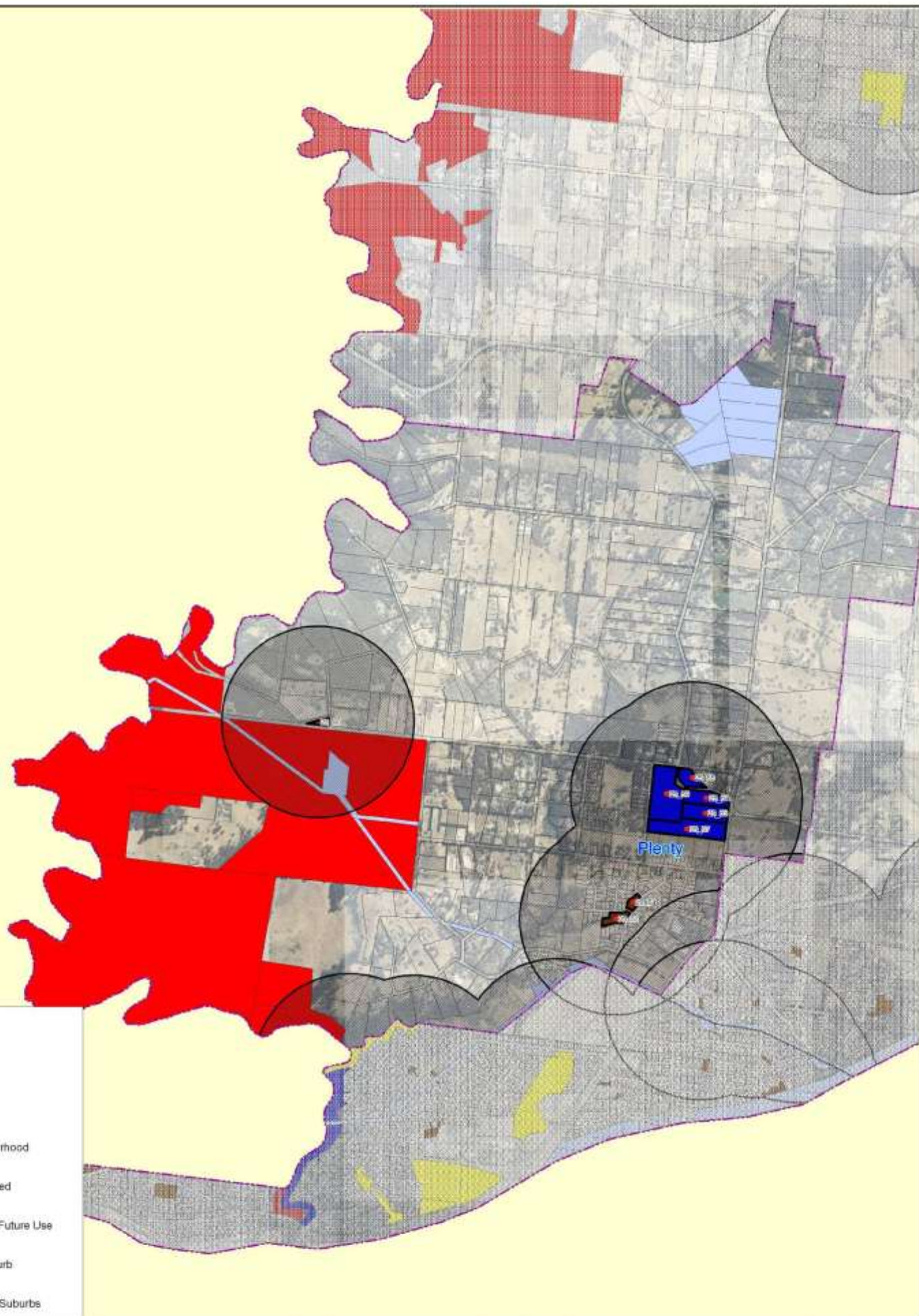
NAME	COMMONNAME	LIFE FORM	AROTS	VROTS	FFG	EPBC
<i>Wahlenbergia stricta</i>	Tall Bluebell	Large Forb/Herb				
<i>Wolffia australiana</i>	Tiny Duckweed	Small Forb/Herb				
<i>Wurmbea dioica</i> ssp. <i>dioica</i>	Common Early Nancy	Medium Forb/Herb				
<i>Xanthorrhoea australis</i>	Austral Grass-tree	Large Forb/Herb				
<i>Xanthorrhoea minor</i> ssp. <i>lutea</i>	Small Grass-tree	Large Forb/Herb				
<i>Xanthosia leiophylla</i>	Cut-leaf Xanthosia	Prostrate Shrub				
<i>Xanthosia tridentata</i>	Hill Xanthosia	Small Shrub				



## **Appendix 5**

**Open Space proximity maps by suburb.**





- Regional
- District
- Local
- Neighbourhood
- Unclassified
- Potential Future Use
- This Suburb
- Adjacent Suburbs

MAP 4B

The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall have no responsibility or liability whatsoever for any error, fault, defect, or omission in the information. No Guarantee or warranty is given as to the accuracy or completeness of the details shown on this map. Villandri Open Council shall not be liable in any way for loss of any kind including damages, costs, interest, loss of profit arising from error, inaccuracy, incompleteness of this information.

## Open Space Proximity: Plenty

### Draft Open Space Strategy

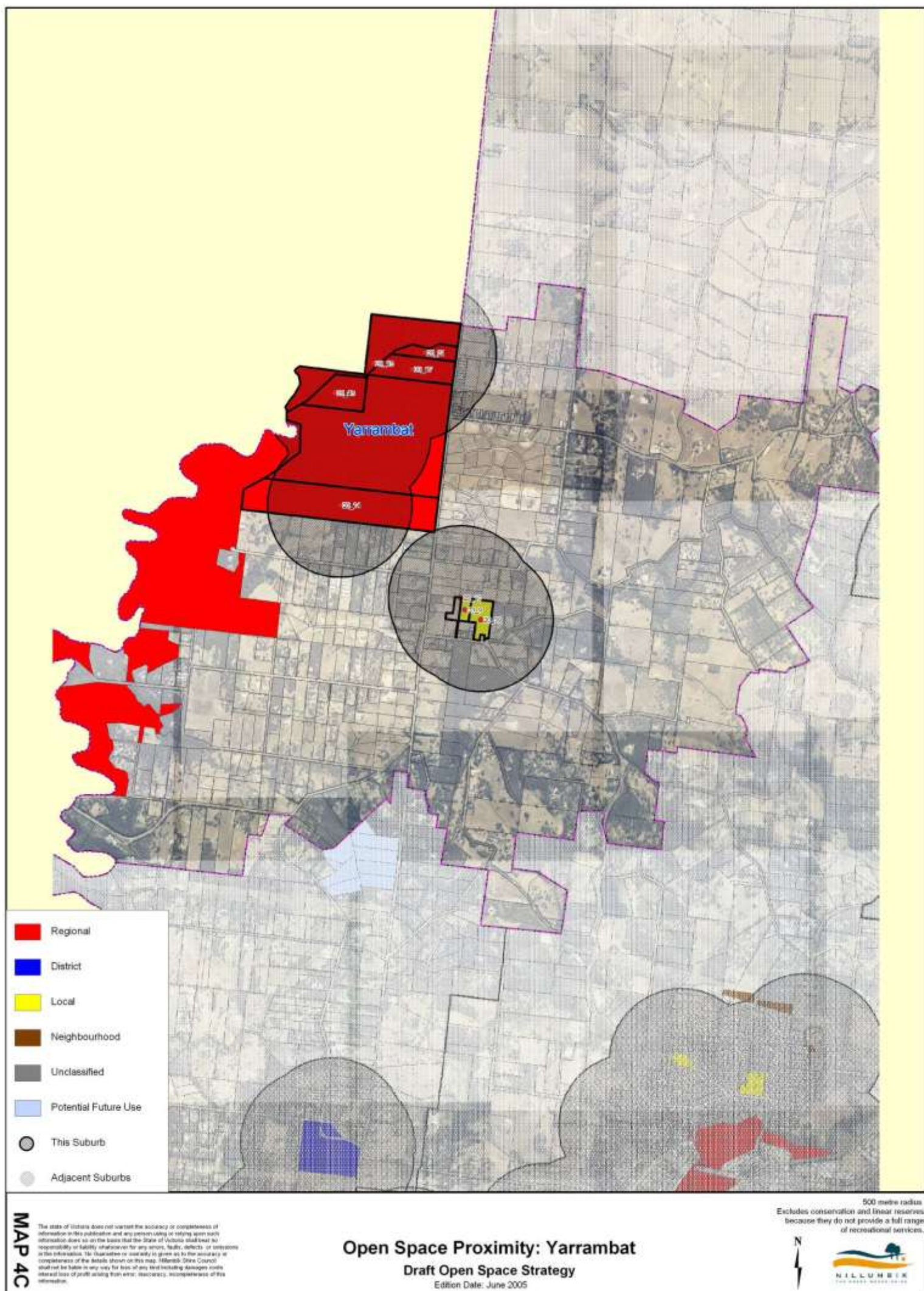
Edition Date: June 2005

500 metre radius.  
Excludes conservation and linear reserves  
because they do not provide a full range  
of recreational services.



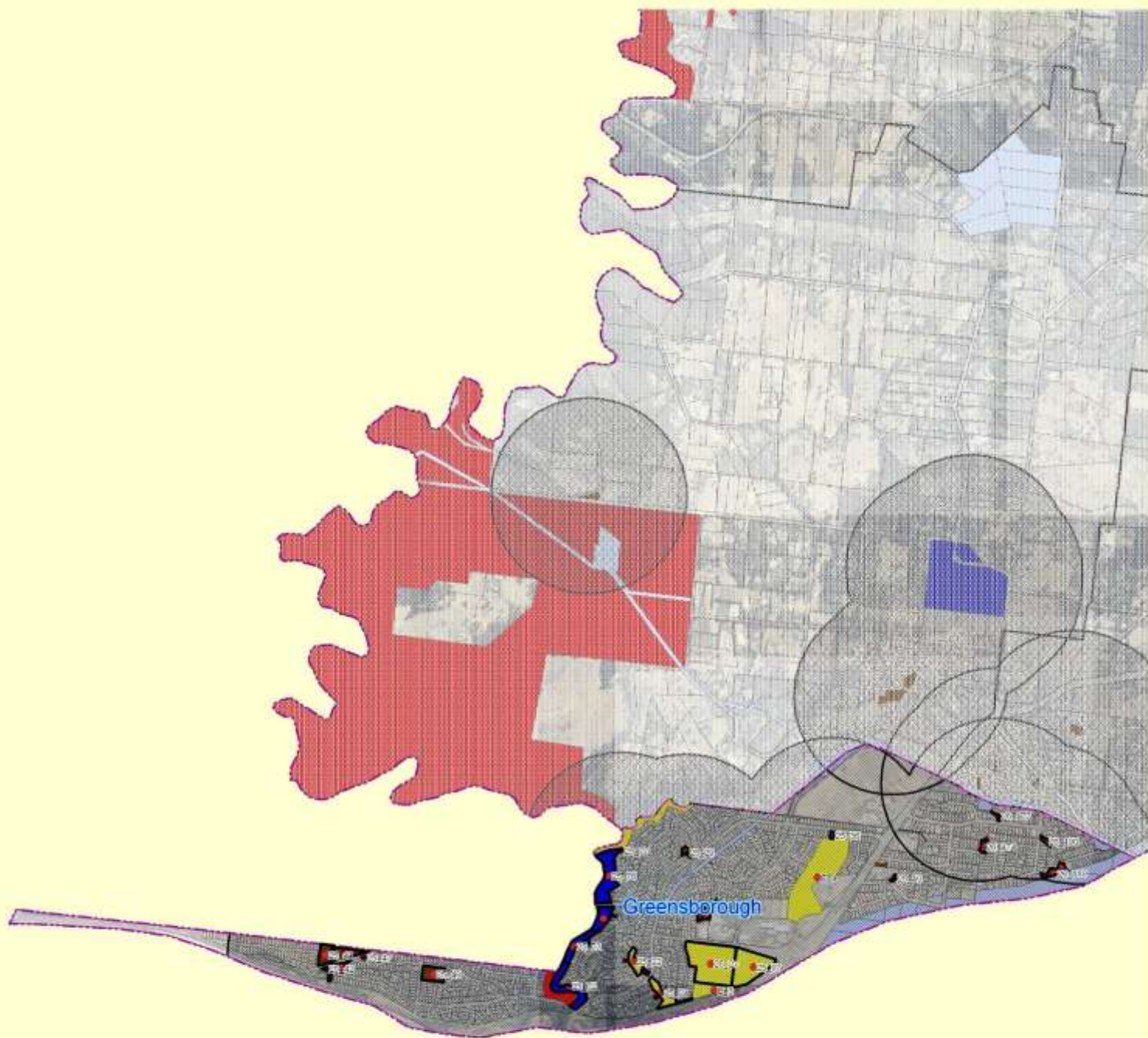












- Regional
- District
- Local
- Neighbourhood
- Unclassified
- Potential Future Use
- This Suburb
- Adjacent Suburbs

MAP 4F

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## Open Space Proximity: Greensborough

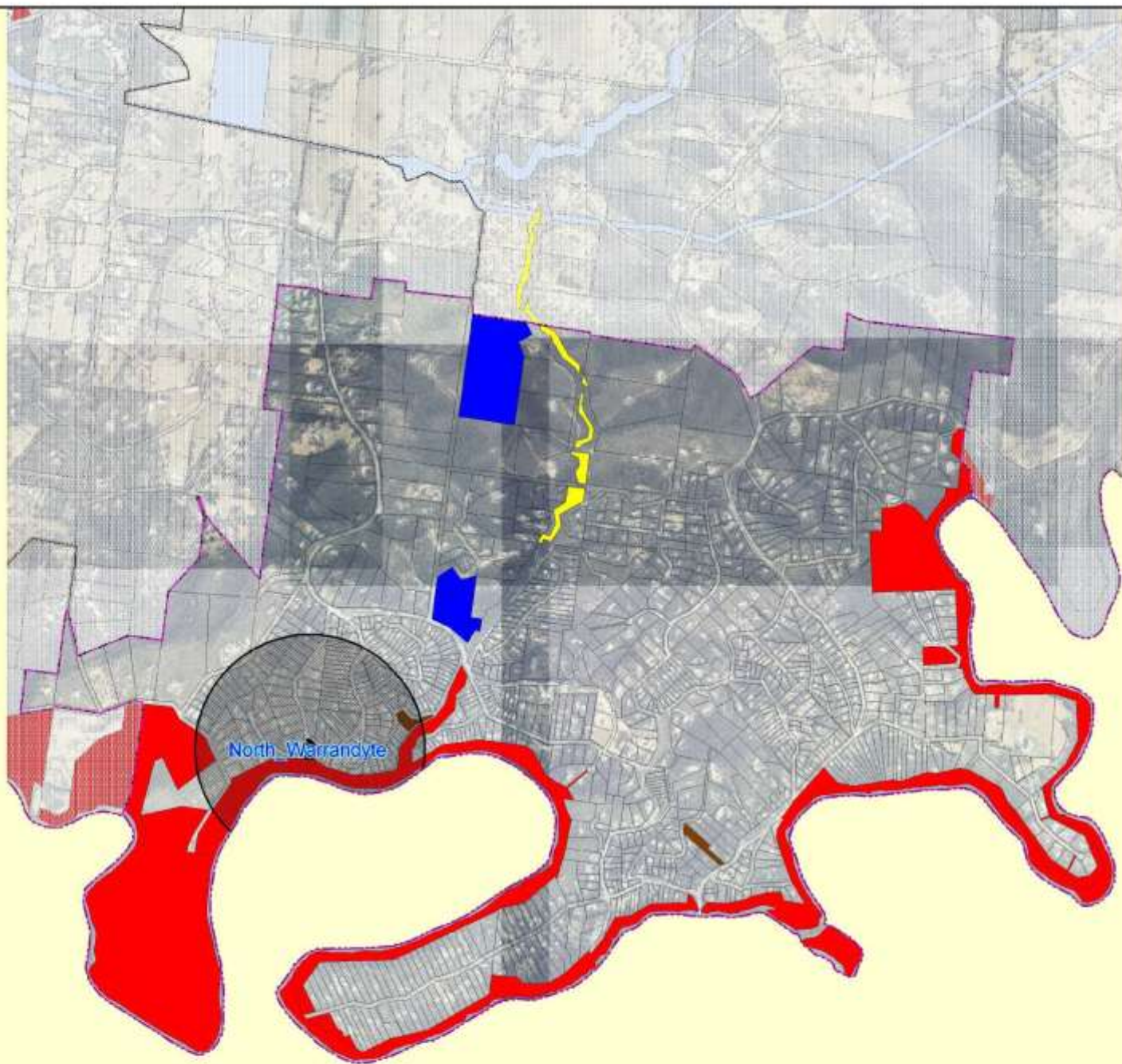
### Draft Open Space Strategy

Edition Date: June 2005

500 metre radius  
Excludes conservation and linear reserves  
because they do not provide a full range  
of recreational services.







- Regional
- District
- Local
- Neighbourhood
- Unclassified
- Potential Future Use
- This Suburb
- Adjacent Suburbs

MAP 4R

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## Open Space Proximity: North Warrandyte

Draft Open Space Strategy

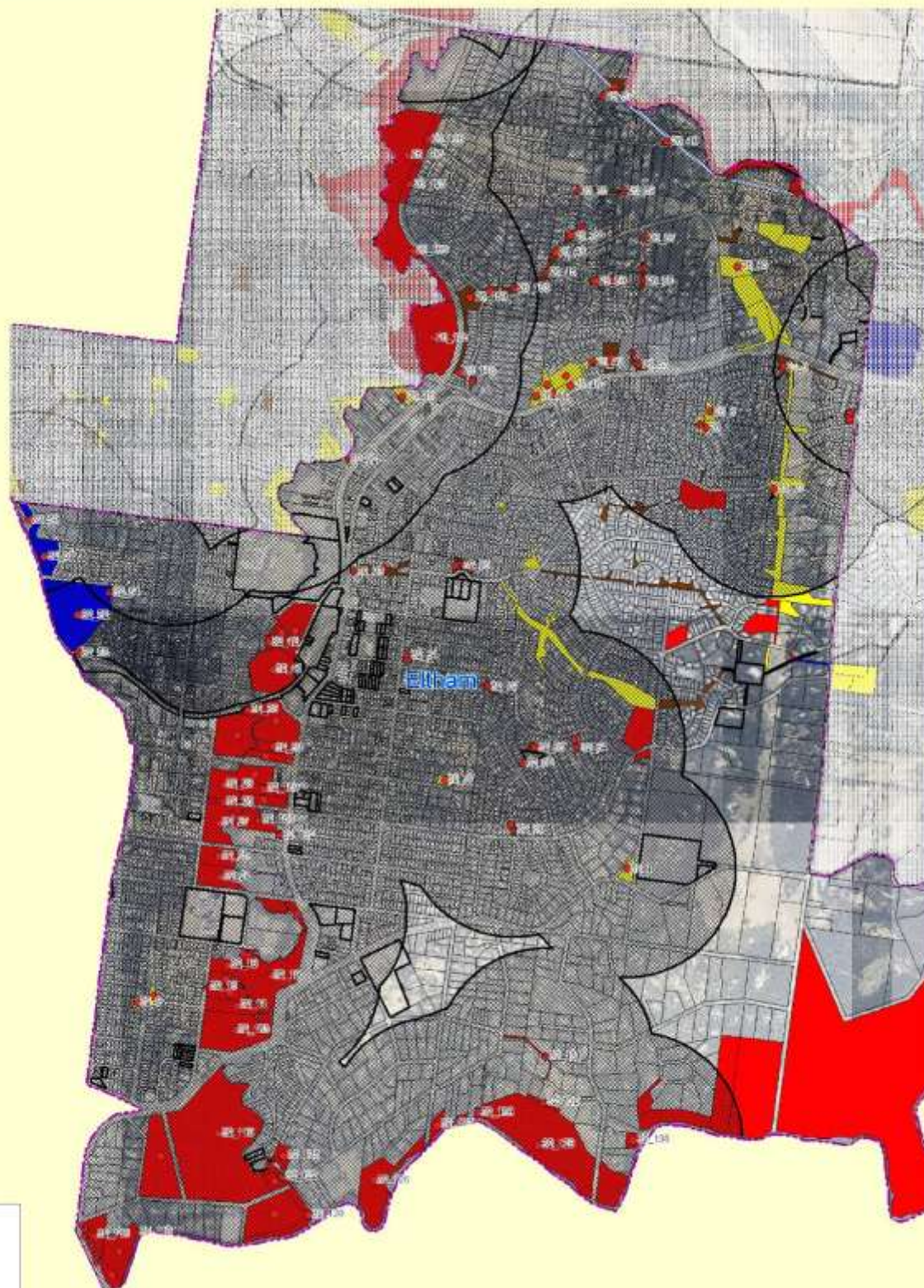
Edition Date: June 2005

500 metre radius.  
Excludes conservation and linear reserves  
because they do not provide a full range  
of recreational services.









- Regional
- District
- Local
- Neighbourhood
- Unclassified
- Potential Future Use
- This Suburb
- Adjacent Suburbs

MAP 4S

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## Open Space Proximity: Eltham

### Draft Open Space Strategy

Edition Date: June 2005

500 metre radius  
Excludes conservation and linear reserves  
because they do not provide a full range  
of recreational services.







