



City of Ipswich **Natural Environment Policy: Background Paper**

Supporting a healthy and vibrant natural environment





Cover image: Gothic bottlebrush by E White
This page: Glossy ibis by R Crutcher
Ipswich Enviroplan Photo Comp

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OPENING THE DISCUSSION

Ipswich City Council is developing a new policy for the natural environment. The scope will cover the green elements that make up the city. Other environmental issues such as air and odour, noise, domesticated animals and waste, recycling and landfill will not be covered through this policy.

A policy for the natural environment is to have close links to council's key strategic documents including:

- Ipswich Enviroplan Program and Levy Policy
- Ipswich Nature Conservation Strategy
- Waterway Health Strategy
- Planning Scheme.

Council's goal for the environment is to conserve important areas of native habitat, protect important waterways and enhance their water quality and respond to climate change and use resources prudently (Corporate Plan 2017-2022). A new policy will set-out a strategic position and principles to achieve this goal.

This document provides further information about the values and elements that make up the city's natural environment. It includes insight into trends of what is happening to the city's natural environment.

Council is seeking input from the community, stakeholders and interest holders. **We want to hear what natural environment matters you think are important for the city.**

Historical context

Ipswich has some of the longest European settlements in the state. Consequently its natural environment has seen modification over an extended period of time from activities such as urban settlement, mining, forestry and agriculture.

Yet despite extensive modification of our natural environment, the city has managed to retain and conserve:

- biologically diverse, ecologically important and attractive natural areas and systems (terrestrial and aquatic) supporting a broad range of plants, animals and ecological functions that provide ecosystem services; and
- an integrated greenspace network of publicly and privately owned conservation estates, bushland reserves, green areas and corridors that contribute to:
 - significant vegetation, habitat, environmental features, waterway areas and ecosystems;
 - natural features and landscapes, including those of cultural significance for the Aboriginal community;
 - the scenic amenity and physical attractiveness of the city;
 - the recreational needs of the community; and
 - economic activity, particularly for tourism.



Bird by L Kirk
Ipswich Enviroplan Photo Comp

WHAT DO WE MEAN BY IPSWICH'S NATURAL ENVIRONMENT?

Ipswich's natural environment is a complex and multifaceted greenspace network comprising:

a) Key nature conservation areas of core habitat and significant vegetation in:

- the Little Liverpool Range including Mount Beau Brummell, Mount Mort and Mount Grandchester;
- the Teviot Range including Ivory's Rock, Mount Goolman, Mount Blaine and Flinders Peak;
- the area extending from Flinders Peak to Karawatha, including White Rock and Spring Mountain;
- Pine Mountain and Saplings Pocket; and
- Ebenezer/Mount Forbes.

b) Strategic corridor links including:

- regional cross-border corridors focussed on the areas of the Little Liverpool Range, Flinders Peak to Karawatha and D'Aguilar Range;
- priority local corridors connecting:
 - the northern part of the Little Liverpool Range Corridor to Rosewood along the ridgeline and slopes running across Tallegalla, The Bluff and Ashwell;
 - Ebenezer/Mount Forbes to the Flinders-Karawatha Corridor through Mutdapilly and Purga; and
 - Sapling Pocket through Pine Mountain to Chuwar.

c) Environmental management areas that have a primary strategic function of separating and buffering land uses and that also contain areas of vegetation and provide connections including in association with the Carole Park, Redbank, Dinmore/Riverview, Swanbank/New Chum and Ebenezer/Willowbank regional business and industry areas.

d) Significant urban nodes of other native vegetation that form 'stepping stones' through the landscape.

e) A waterway system of significant watercourses, designated wetlands and associated buffer (riparian) areas including¹:

- Bremer and Brisbane rivers;
- Bundamba lagoon, Ten and Seven Mile swamps;
- Creeks including Sandy (Carole Park and Camira), Goodna, Six Mile, Woogaroo (and its tributaries Opossum and Mountain), Black Snake, Western (and its tributaries Spring and Franklin Vale), Warrill, Purga, Ebenezer, Bundamba, Deebling, Ironpot, Mihi and Sandy (Tivoli and Chuwar);
- ephemeral wetlands in urban areas; and
- Happy Jack Gulley and O'Dwyer's Gulley.

(f) Remnant² vegetation communities of different forms including:

- rainforest, dry vine forest, soft wood forest, open forests, woodlands, heathlands, wetlands and grasslands.

(g) Diverse native plants and animals including:

- over 2,000 recorded species;
- 5 local priority conservation species;
- 38 locally significant species;
- 34 state significant species; and
- 18 nationally significant species.

A map of features that comprise the natural environment is included in Appendix B, as well as a map of *Cultural Landscape Values* which can be found in Appendix C.

Aboriginal landscape and cultural heritage values

Aboriginal cultural landscape values are intrinsically linked with the values and elements that define the natural environment.

For example ridgelines were used traditionally as pathways and alluvial flats were used for hunting grounds and various activities.

The *Cultural Heritage Act, 2003* provides protection for Aboriginal cultural heritage and cultural landscape values. The Act defines these values as 'features' such as rock outcrops, caves, natural wetlands, waterholes and natural springs, native vegetation, hills, mountains and mound formations.

¹ Refer Appendix A for more detailed explanatory information.

² Remnant Vegetation: Relatively natural vegetation that meets classification of remnant regional ecosystem vegetation under the Queensland Government (and mapped accordingly).

WHAT ARE THE VALUES OF IPSWICH'S NATURAL ENVIRONMENT?

Ipswich's natural environment provides vital habitat to the diverse native flora and fauna of our region. Besides its biological values, the natural environment contributes to the economic prosperity, amenity, liveability and lifestyle of the city and its residents. The natural environment enhances land values, attracts tourists to the city, provides recreational opportunities for the community, improves community health, increases

economic development and enables continued cultural and spiritual connection by the Traditional Owner community. Its cultural landscape values are extensive and highly significant. The natural environment is valued for the extensive 'ecosystem services' it provides such as water and air purification, noise and light management, temperature regulation, recreation opportunities, and support of physical, spiritual and emotional wellbeing.

WHAT IS HAPPENING TO IPSWICH'S NATURAL ENVIRONMENT?

Ipswich contains one of the most highly diverse natural environments in South East Queensland, from vine forest along the Brisbane River to the heath-covered top of Flinders Peak. This diverse landscape provides habitats for many different native plants and animals including significant species such as the Brush-tailed Rock Wallaby, Koala, Platypus, Plunkett mallee and Cooneana olive.

Making up 45 percent of vegetation in the city, 'Spotted Gum and Ironbark' open forest and woodland is the main type of remnant vegetation occurring in the city. In contrast, only 0.02 per cent³ of Semi-evergreen vine forest remains.

Figure 1 highlights a 20-year trend from 1997 to 2017 with respect to the extent of remnant vegetation mapped in the city – refer Appendix D for map. The amount of change has seen a decline of 11 percent from 26,354ha to 23,395ha – a decrease of 2,959ha. Over the same period, South East Queensland remnant vegetation decreased by 17,860ha.

Extent of remnant vegetation in the city

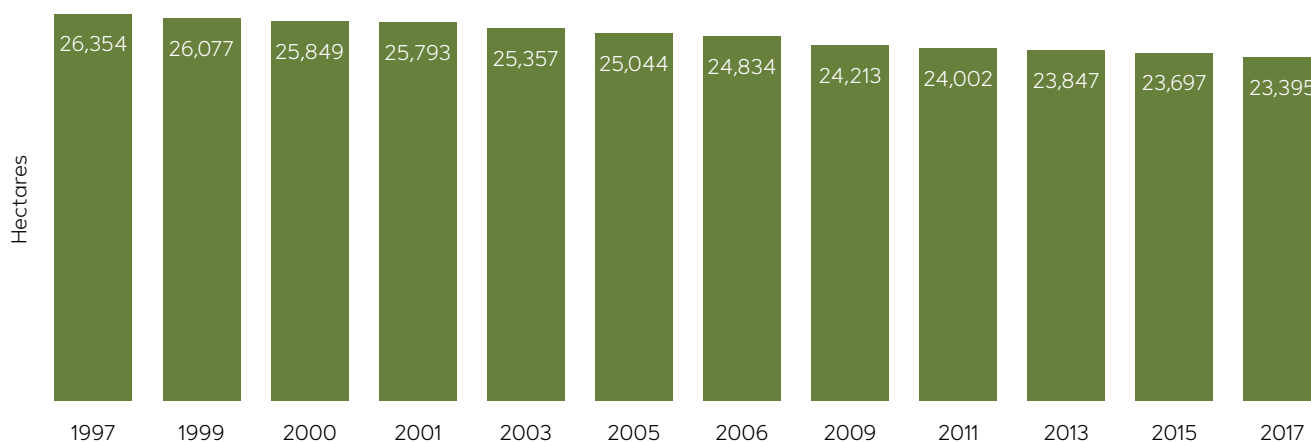


Figure 1: Over the 20-year period from 1997 to 2017 the extent of natural vegetation mapped in the city decreased by 11 percent (Source: Queensland Government - Bioregion and Subregion Analysis of Remnant Regional Ecosystem Vegetation 1997-2017).

³ Nature Conservation Strategy 2015

Accordingly, remnant vegetation as a percentage of city land area has reduced from 24.1 percent to 21.4 percent - a decrease of 2.7 percent, - Figure 2.

Remnant vegetation as a percentage of the city area

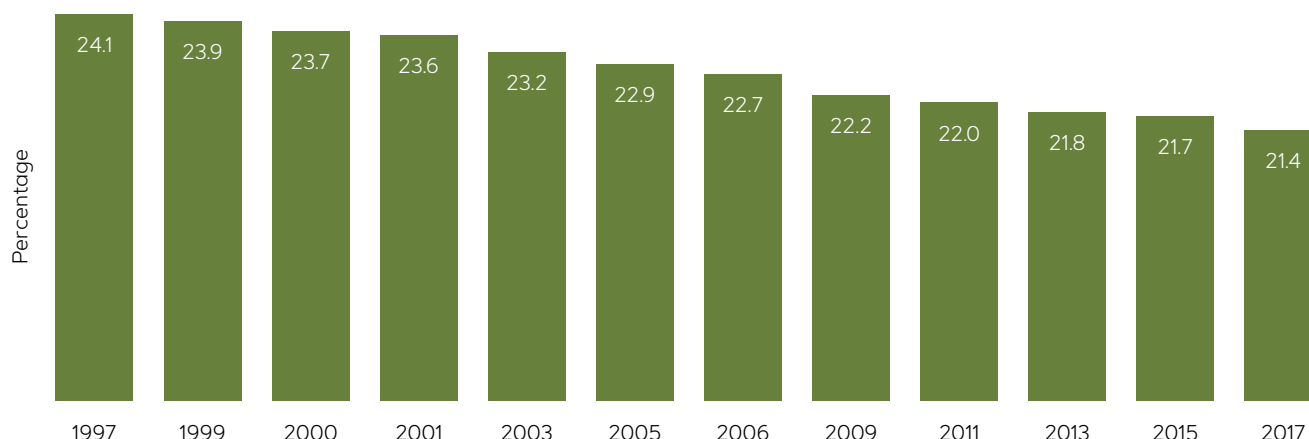


Figure 2: The percentage of the city mapped as naturally vegetated (Source: Queensland Government - Bioregion and Subregion Analysis of Remnant Regional Ecosystem Vegetation 1997-2017).

That said, council has protected extensive areas from clearing through tools such as land-use planning, land acquisitions and landholder partnerships. Most of the remaining vegetation is identified primarily for conservation purposes. More than 8,440ha of open space is owned or controlled by council, of which 7,774ha (92 percent) is publicly accessible.

Ipswich Enviroplan Program

Funded through a levy paid by ratepayers, the program involves acquiring significant areas, managing the natural area estate, monitoring and planning, partnering with landholders and raising awareness in the community.

Introduced in 1996, a key highlight of the program has been the extensive purchase of significant areas such as:

- endangered Swamp Tea-tree at Purga
- habitat for multiple threatened flora at White Rock
- Brush-tailed Rock Wallaby habitat at Mount Flinders
- Koala and Glossy Black Cockatoo habitat at Mount Grandchester.

The Bremer River is the city's primary waterway. From a water quality standpoint, it is a highly degraded system that fails to meet state government objectives. The river scores poorly through the regional Ecosystem Health Monitoring Program (EHMP) Queensland. Overall, waterway health in Ipswich is rated poor or very poor based on assessments of water quality and vegetation condition.

Most waterways in Ipswich have been significantly modified or altered from the pre-European state, with only a few waterways still having natural features, biodiversity and ecosystem functions considered to be in a 'healthy natural state'. Despite the health and condition of waterways, council has undertaken extensive replanting programs at key strategic sites to restore vegetation and stabilise banks. As well as restoration, land-use planning tools have been used to manage impacts from development in proximity of watercourses.

The status of native plants and animals is varied. Typically, species that are robust, agile, adaptable and mobile (e.g. Common Brush-tailed Possum) are thriving, while species requiring specific needs (i.e. dietary) are facing challenges. Koalas are one such species faced with challenges, and which council is investing extensive resources in for their recovery.

WHAT HAS CONTRIBUTED TO CHANGE WITHIN THE NATURAL ENVIRONMENT?

The natural environment is impacted by key threatening processes including:

- loss of native vegetation
- impacts from climate change
- inappropriate fire regimes
- introduced pest plants and animals
- dryland salinity
- increasing disconnection with nature

Loss of native vegetation

In particular, loss of native vegetation as a result of clearing is considered a key threat as it leads to the loss of ecosystem services, loss of habitat for plants and animals, and potential to cause fragmentation within the landscape. Clearing may also facilitate the spread of introduced plants and animals as well as being a contributor towards climate change.

There are many challenges involved with managing the natural environment to reduce the impacts caused by these threats, particularly in relation to catering for the need for development. However, there are also some opportunities to combat some of these risks, potentially resulting in a gain for the natural environment and for the local community.

Impacts from climate change

Ipswich's natural environment is not immune to climate change. Rising temperatures, shifting rainfall patterns and more intense and frequent extreme events, such as storms, impact native plants and animals and the habitat they rely on.

Inappropriate fire regimes

Poorly managed fire regimes threaten native vegetation communities, plants and animal populations. More frequent and intense bushfire seasons increase soil erosion, expand pest plant and animal populations, reduce water quality and increase soil salinity.

Introduced pest plants and animals

Pest plants and animals modify the environment. Native plants are faced with pressures such as competition for nutrients and light, and native animals are forced to cope with predation and altered food sources.

Dryland salinity

Dryland salinity effects the survival range for native plant and animal species. Sensitive plants are lost, while habitats, both terrestrial and aquatic, are reduced.

Increasing disconnection with nature

Community disconnection with nature often results in a lack of empathy towards the natural environment. This often leads to biodiversity not being recognised as underpinning environmentally sustainable development. As a consequence, short-term socio-economic benefits are considered ahead of long term environmental considerations.



50 shades of green by R Miller
Ipswich Enviroplan Photo Comp

Growing city – challenges with opportunity

Current figures from South East Queensland Regional Plan – Shaping SEQ (2017) expects the SEQ region to grow by an additional 1.9 million people (from 3.4 million to 5.3 million) by the year 2041. The population of the Ipswich Local Government Area is expected to grow by 136 per cent (with an extra 300,000 residents) to 520,000 people by 2041 (from the current population of approximately 220,000).

To manage this growth, the City of Ipswich will need to generate at least 61,000 extra jobs and provide for an extra 112,000 dwellings (including supporting infrastructure).

Growth and change has brought, and continues to bring with it opportunities as well as challenges for the community and for council. Extensive growth areas have been set aside for residential development on greenfield sites and opportunities for urban consolidation and infill. This includes higher density living and mixed use areas around key centres and transport nodes. This has seen, and will continue to see, growth and change managed through the strategic framework and planning scheme that provides land for development uses as well as conservation outcomes.

WHAT THINGS HELP IPSWICH'S NATURAL ENVIRONMENT?

The community and council have a solid background in working closely to care for the city's natural environment. Significant areas are protected and managed through approaches such as:

- conservation zones in the Ipswich Planning Scheme – 23,139 hectares⁴ (the current extent of which is found in Appendix E)
- identified cultural landscape value areas (see Appendix C)
- voluntarily acquiring areas and including these in the Natural Area Estate – 6,611 hectares⁵
- voluntary Conservation Agreements on private owned land – 6,460 hectares⁶
- Bushcare and Parkcare groups working on council land
- Environmental and Sustainability grants
- Local Law 49: Protection of Important Vegetation.

Besides council, state and Commonwealth Governments contribute to protecting natural values and areas through:

Nature Refuges (Qld)

Legal protection over vegetation on private land, similar to a national park. There are five properties protected within the city:

- Bowman Park Koala Nature Refuge
- Edward Corbould Nature Refuge
- Gum Tips Nature Refuge
- Old Hiddenvale Nature Refuge
- Tir Na Crann Nature Refuge.

Regional Parks (Qld)

Protects smaller areas of significant conservation value under state government tenure. The city contains five regional parks, which council manages on behalf of the state:

- Denmark Hill Regional Park
- Flinders Peak Regional Park
- Ipswich Pteropus Regional Park
- Mount Beau Brummell Regional Park.
- White Rock Regional Park

⁴ Spatial Query 2020

⁵ Nature Conservation Strategy 2015

⁶ Nature Conservation Strategy 2015

Vegetation Management Act 1999 (Qld)

Regulates clearing of native vegetation, manages regrowth vegetation and classified ecosystems based on their conservation significance.

Nature Conservation Act 1992 (Qld)

Sets legal protection for national parks and similar conservation areas, lists and sets regulations for impacts to threatened plants and animals.

Nature Conservation (Wildlife) Regulation 2006 (Qld)

Regulates activities associated with certain classes of plants and animals e.g. taking or keeping.

Environmental Protection Act 1994 (Qld) and subordinate legislation

Regulates activities that have the potential to impact environment.

Water Act 2000 (Qld)

Regulates impacts on watercourses and management of water.

Environmental Protection (Water) Policy 2009 (Qld)

Manages water quality of waterways.

Environmental Offsets Act 2014 (Qld)

Establishes a framework in relation to environmental offset management.

Planning Act 2016 and Planning Regulation 2017 (Qld)

Regulates land use, particularly prohibits certain types of development in priority koala areas.

Fisheries Act 1994 (Qld)

Regulates fisheries and fish habitats.

Aboriginal Cultural Heritage Act 2003 (Qld)

Regulates activities that may cause harm to Aboriginal cultural heritage and aboriginal cultural landscape features.

Human Rights Act 2019 (Qld)

Protects the cultural rights of Aboriginal peoples to conserve and protect the environment and productive capacity of their land, territories, water, coastal seas and other resources. Also, protects the right to maintain and strengthen their distinctive spiritual, material and economic relationship with the land, territories, waters, coastal seas and other resources with which they have a connection under Aboriginal tradition.

Environmental Protection and Biodiversity Conservation Act 1999 (Comm)

Reflects the national interest in biodiversity conservation through managing world heritage areas, nationally threatened species and managing illegal trade in wildlife and wildlife parts.

There are an extensive number of mechanisms, involving many stakeholders, providing different levels of management, for a variety of matters. This highlights the complexity and challenges associated with managing the city's natural environment as a whole.

State protection of koalas

The state government regulates impacts on koalas in the city through its Nature Conservation (Koala) Conservation Plan 2017. The plan identifies:

- Koala priority areas - large, connected areas that will focus habitat protection, habitat restoration and threat mitigation to areas that have the highest likelihood of safeguarding koala populations in South East Queensland.
- Koala habitat areas - areas that are subject to protections under the new koala conservation protections in South East Queensland.
- Koala districts map - establishes what requirements of the Nature Conservation (Koala) Conservation Plan 2017 apply to each area of Queensland.

NEXT STEPS AND QUESTIONS?

Developing a natural environment policy is a shared, community-wide responsibility.

Council also plays an important role. As we develop the policy we want to reflect the priorities and aspirations of the community, as well as take into account best environmental practice and expert advice.

You can join this important discussion online through Shape Your Ipswich (Shapeyouripswich.com.au).

JOIN THE CONVERSATION ONLINE!**Contact:**

Senior Planning Officer
(Strategic Conservation Planning)
council@ipswich.qld.gov.au
(07) 3810 6666

APPENDIX A: EXPLANATORY NOTES DEFINING WATERWAY SYSTEMS COMPONENTS

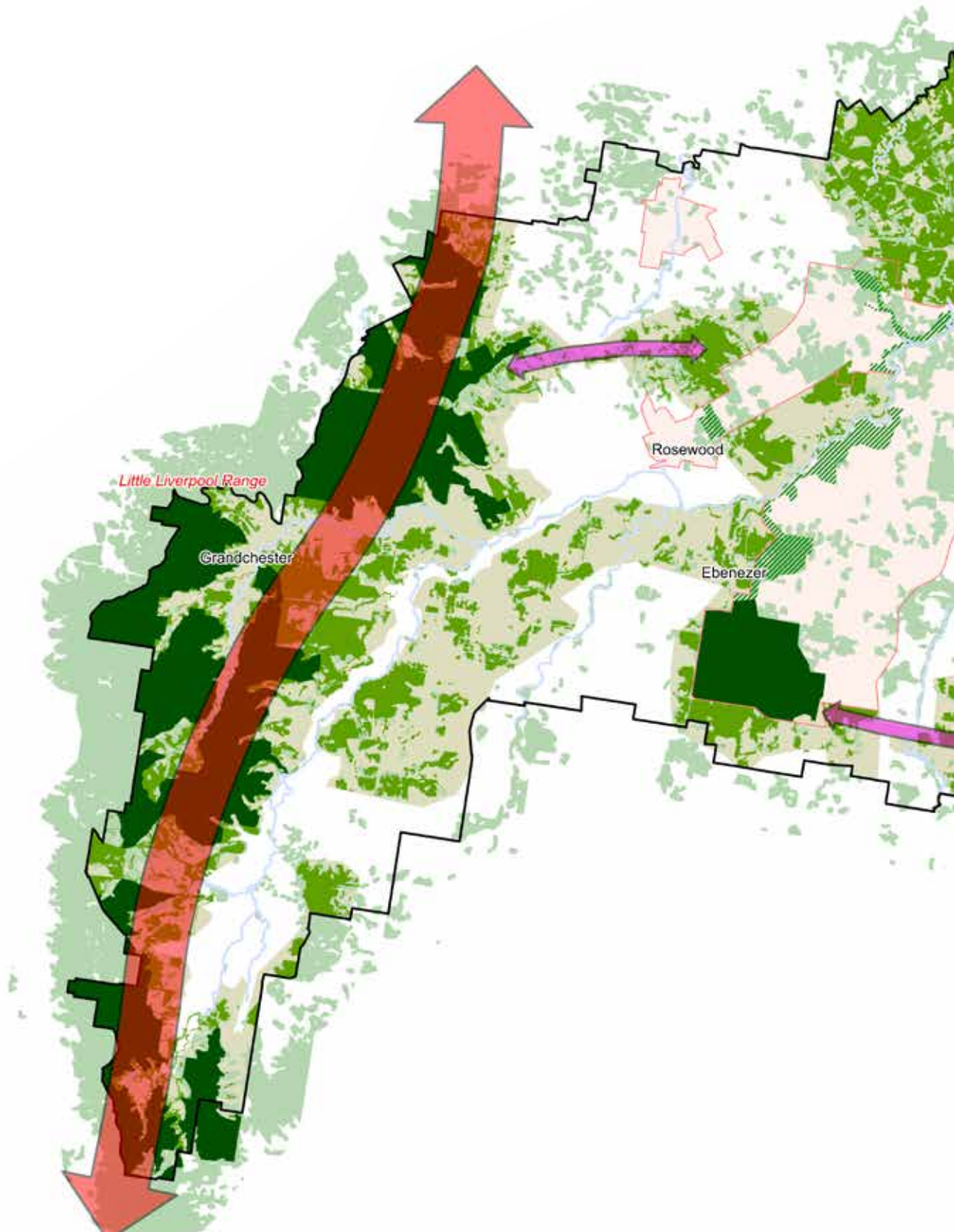
From the perspective of strategic land use planning and assessment of development within the Ipswich Local Government Area:

- a) significant watercourses have been identified based on their stream order category:
 - (i) major watercourses - Stream Orders 8 to 5;
 - (ii) medium watercourses - Stream Orders 4 and 3;
 - (iii) minor watercourses - Stream Orders 2 and 1, where it has been determined it is prudent and feasible for them to be retained in their natural form;
- b) state significant wetlands have been identified as designated wetlands; and
- c) indicative buffer (riparian) areas to the significant watercourses (specified as a distance either side of the centre of the watercourse) and designated wetlands (specified as a distance from the edge of the wetland) have been identified to provide the basis for more detailed investigation of the riparian extent and assessment of impacts from development:
 - (i) major watercourses - 50 metres;
 - (ii) medium watercourses - 25 metres;
 - (iii) minor watercourses - 10 metres; and
 - (iv) designated wetlands - 100 metres.



Jumping for Joy by S George
Ipswich Enviroplan Photo Comp

APPENDIX B: IPSWICH'S NATURAL ENVIRONMENT FEATURES



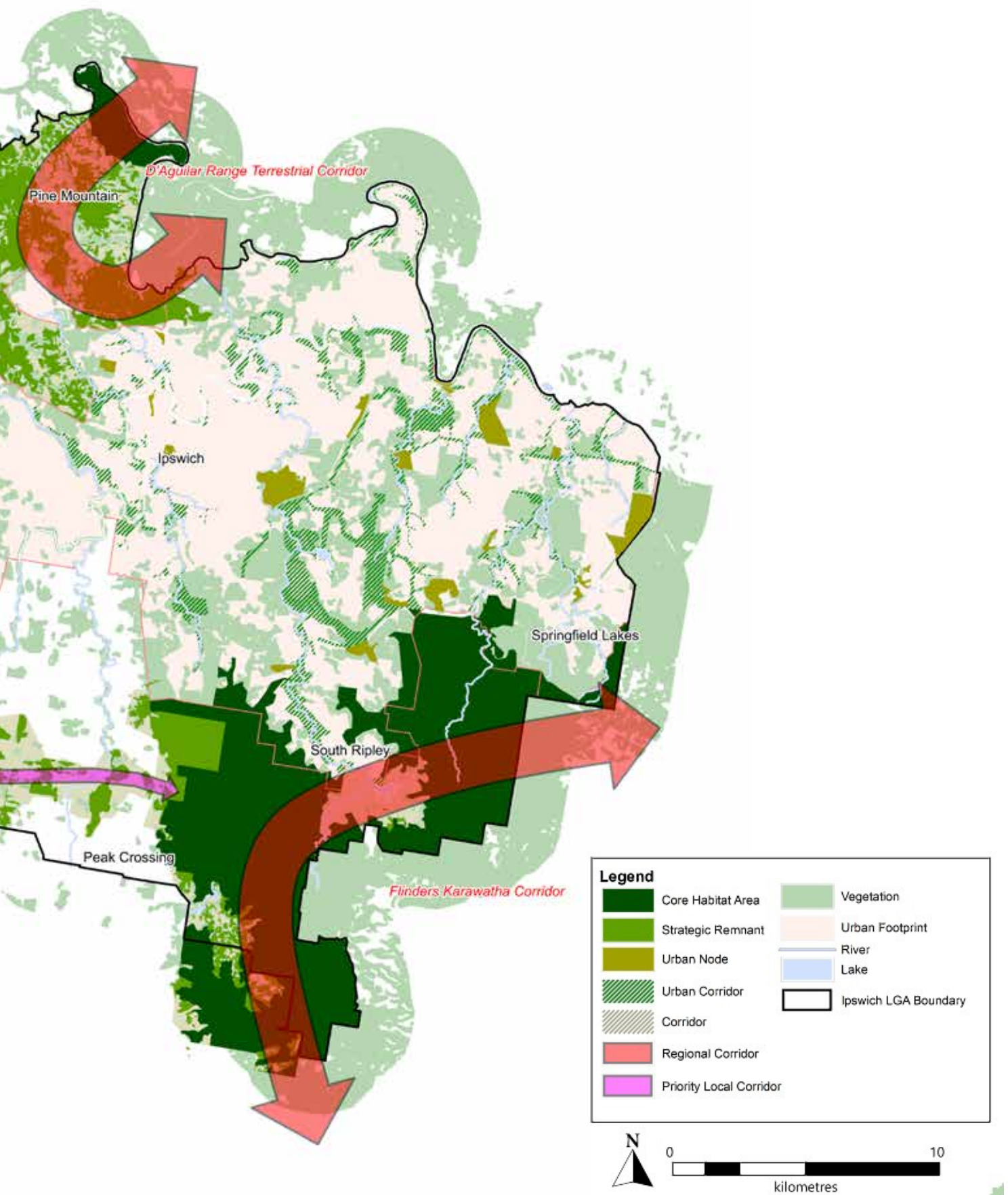


Figure 3: (Source from Nature Conservation Strategy 2015.)

APPENDIX C: IPSWICH'S CULTURAL LANDSCAPE VALUES



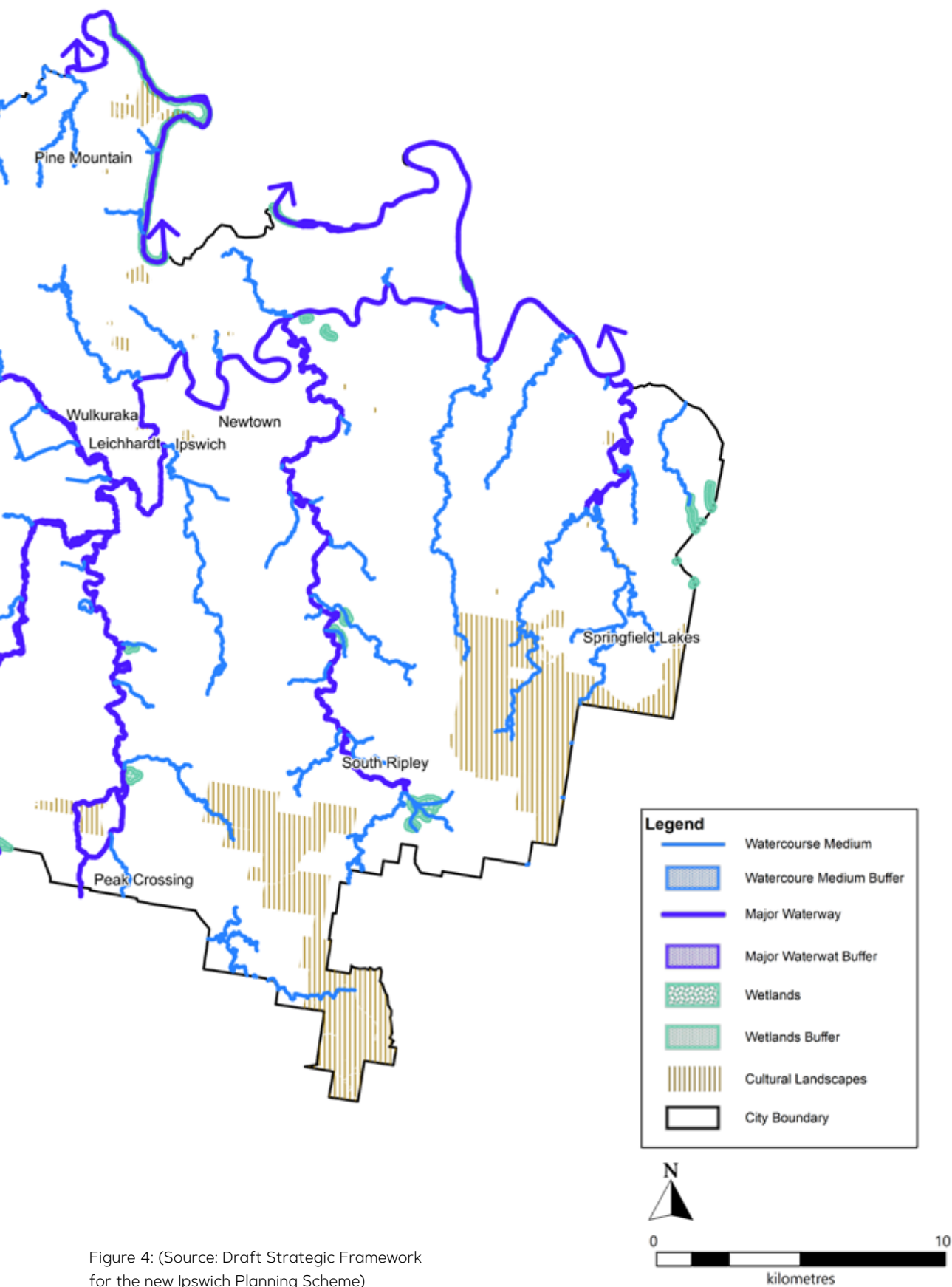
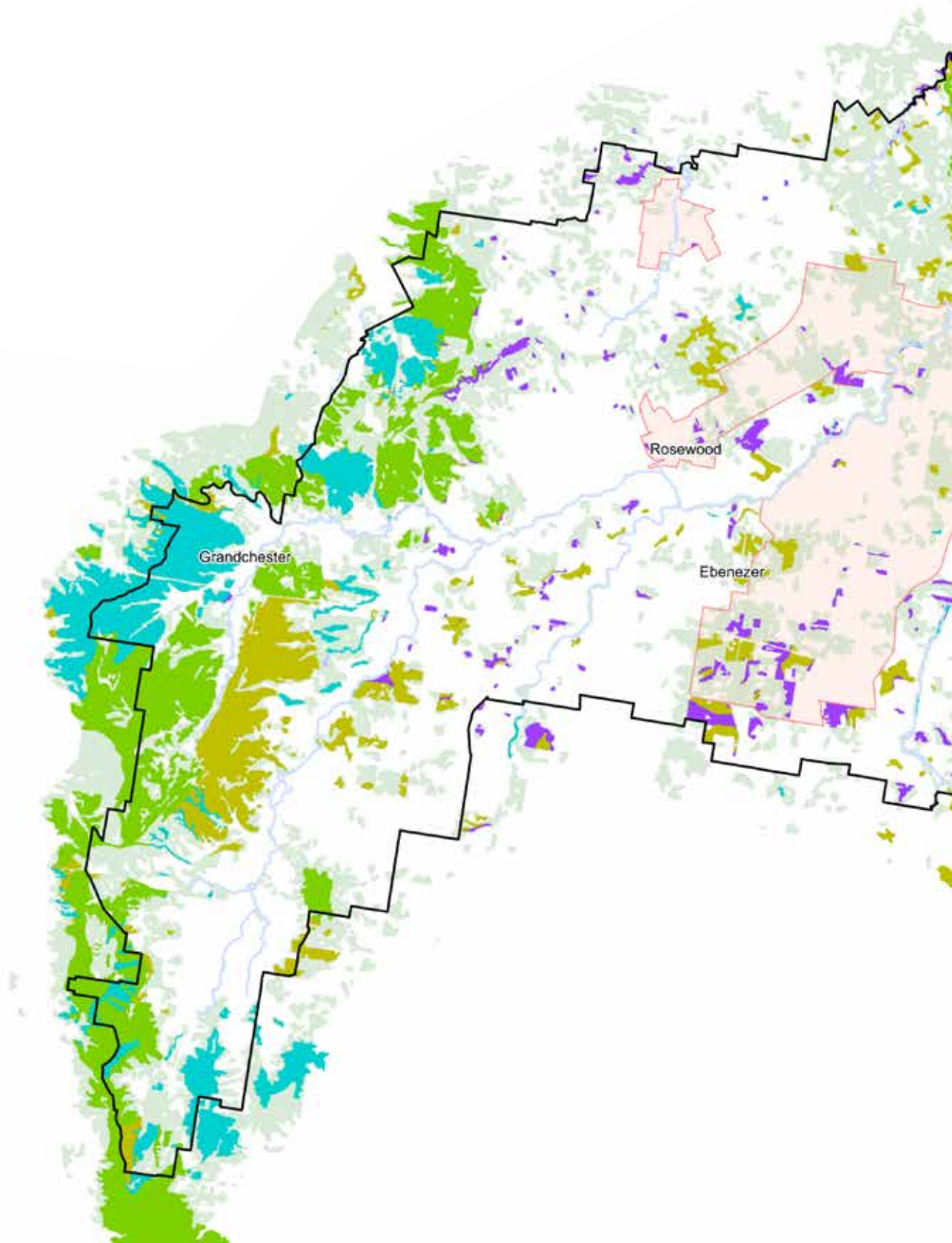


Figure 4: (Source: Draft Strategic Framework for the new Ipswich Planning Scheme)

APPENDIX D: EXTENT OF REMNANT VEGETATION MAPPED ACROSS THE CITY



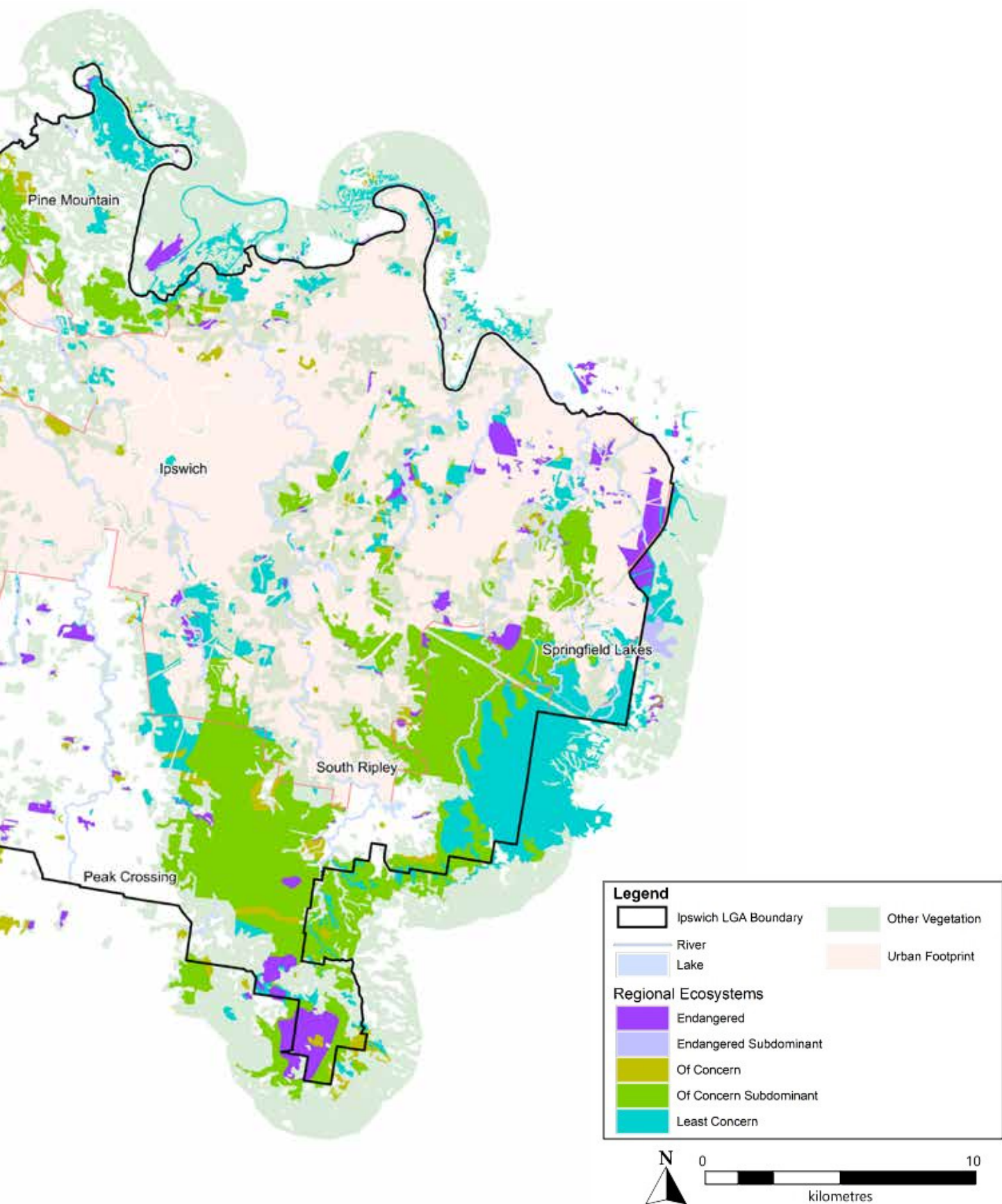
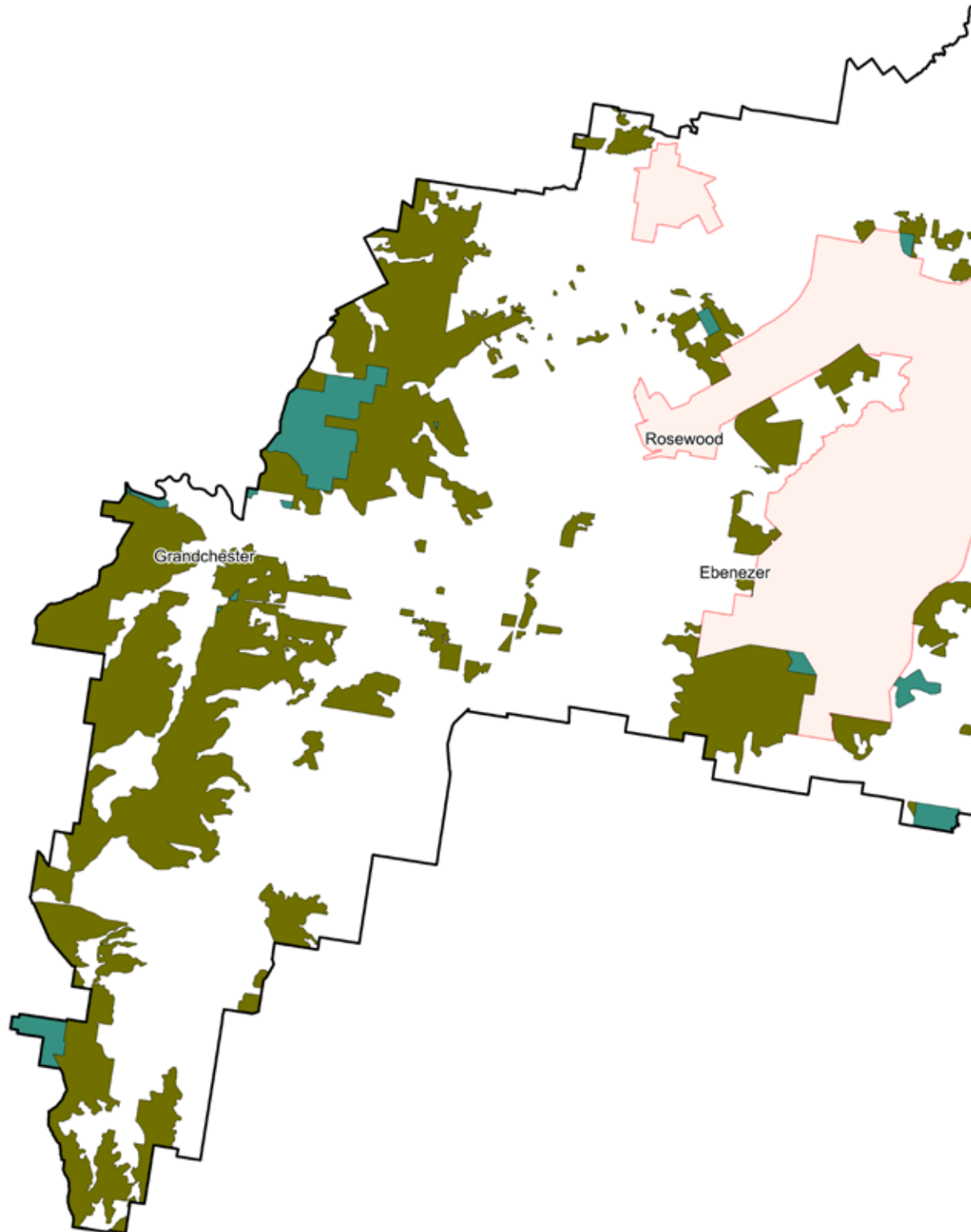


Figure 5: Extent of mapped remnant vegetation in the City in 2017 (Source: Queensland Government - Bioregion and Subregion Analysis of Remnant Regional Ecosystem Vegetation 1997-2017).

APPENDIX E: AREAS ZONED FOR CONSERVATION PURPOSES IN THE IPSWICH PLANNING SCHEME



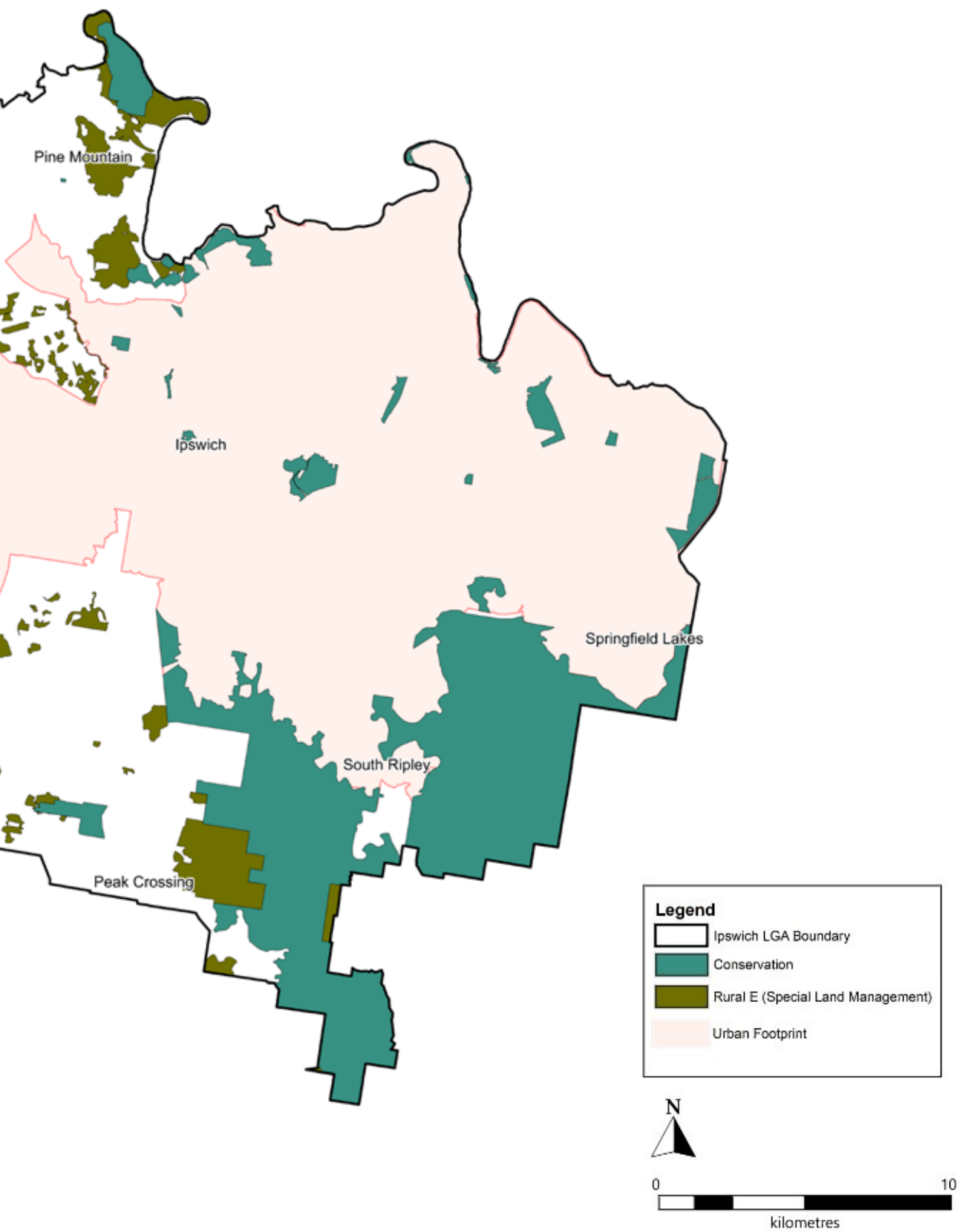


Figure 6: Extent of area zoned for conservation purposes through the Ipswich Planning Scheme (as produced in January 2020).

REFERENCES AND FURTHER READING

Department of Infrastructure and Planning

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Resting by A South
Ipswich Enviroplan Photo Comp



View from Above by H Mai
Ipswich Enviroplan Photo Comp



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