



Brisbane Community Biodiversity Strategy

A Strategy to Engage the Community in Brisbane's Biodiversity

Prepared by Brisbane Catchments Network



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2012**

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Photos: Thank you to Daryl Evans, Michelle Mills, Bryan Hacker, Louise Orr, Megan Prance, Moggill Creek Catchment Group and Bulimba Creek Catchment Coordinating Committee. All photos are of areas within catchments in Brisbane.

Foreword

Sometimes you have to take the initiative. The Community Biodiversity Strategy is an ambitious effort by community groups to engage grass roots people in actions to protect and sustain an amazing diversity of species in our city.

Our challenge is to seek wider community support for this cause by bringing in new ideas and initiatives and reshaping our arguments to address the current social and political landscape.

Our environmental groups have laboured for a long time to protect, enhance and manage our environment – with many successes. To be effective we have to be innovative to reach out to a wider audience and engage them in a unified movement for change and overcome a common feeling of “what difference could I make?”

In Brisbane it is urban growth that provides a primary threat; add to this the national and global facts that include thousands of species becoming extinct over short time frames, exploding human population, over exploitation of our natural resources and food security projections. Are we consuming our world?

Science alone cannot save our biodiversity. Just look at the Climate Change approach. The International Panel on Biodiversity and Ecosystem Services is looking also at the social sciences – and that’s where we come in!

Protecting biodiversity from “death of a thousand cuts” can be helped by learning to value local knowledge and expertise and listening to the wisdom of the elders, at all levels – your members, Prof Ian Lowe and Dr David Suzuki for instance.

If people are seen as the problem – then people’s behaviour and attitudes must be a major part of the solution. There are actions we can take as individuals and communities in our own areas and this can help us understand tackling the bigger issues.

So let’s us unite in putting forward our new strategy, and by putting ideas into action - become a cumulative part in returning our natural systems and areas to good health. Let us become a part of “the solution”.



Wayne Cameron
President of BCN





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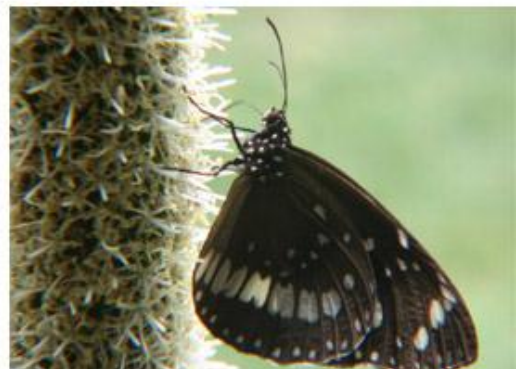
Acknowledgments

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 - Bayside Creeks Catchment Group Inc.
 - Bulimba Creek Catchment Coordinating Committee Inc.
 - Cabbage Tree Creek Catchment Committee Inc.
 - Cubberla-Witton Catchments Network Inc.
 - Kedron Brook Catchment Network Inc.
 - Moggill Creek Catchment Management Group Inc.
 - Norman Creek Catchment Coordinating Committee Inc.
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Audience

This Strategy is aimed at catchment groups, sub-catchment groups, potential friends of catchment groups, businesses and the community at large.

We hope this will be a motivational tool that can be employed by catchment groups to aid in community involvement and awareness, and protection of biodiversity.

“All of us in Australia have a job to do if we are to succeed in avoiding the foreseeable catastrophic loss of genes, species and ecosystems. Our tasks will be at various scales, from backyards to landscapes and from weeks to decades.”

Australia’s Biodiversity Conservation Strategy 2010-2030



What is a Strategy?

A Strategy is a tool which provides information and tools to aid in achieving an overall vision.

Our vision:

A healthy and biodiverse Brisbane

In order to attain our vision this strategy will provide direction and scope for achieving long term goals.

Why We Prepared This Strategy

“Community involvement in conservation is one of the most effective forms of environmental education”

Brisbane City Biodiversity Strategy 1998

The South East Queensland Natural Resource Management Plan 2009-2031 stated:

“The region has a history of voluntary community action supported by industry and government investment. Private landowners manage the majority of the region. Enhancing and maintaining the capacity and ability of the community to engage in planning, implementing and monitoring local actions to support the achievement of regional targets is a priority.”

Obviously, community involvement plays a large role in biodiversity conservation. However, although there are many biodiversity strategies available, until now there has been no biodiversity strategy for Brisbane that targets the community. Using the South East Queensland Natural Resource Management Plan 2009-2031 as a foundation, Brisbane Catchments Network aim to address this issue through the formation of this strategy.

The objective of this strategy is to help maintain biodiversity in the modified environment of a contemporary and growing city through:

- **Valuing:** Raising levels of awareness, understanding and commitment to valuing and conserving biodiversity at the community level
- **Doing:** Strengthening biodiversity conservation through increasing involvement from all levels of the community in activities undertaken on ground with a local focus
- **Supporting:** Appealing to a wider audience in a way which empowers people and supports the community to help itself

It aims to empower communities, focusing on positive ways to achieve increased involvement in maintaining biodiversity. This Community Biodiversity Strategy will be something that catchment groups – as well as sub-catchment groups, organisations, businesses – can utilise as a tool to help them gain community involvement, and educate the wider community on the benefits and need for the conservation of biodiversity.



Who We Are:

- Brisbane Catchments Network



Brisbane Catchments Network (BCN) is a collaboration of all existing community-based volunteer catchment groups operating within the city of Brisbane. The network provides opportunities for individual groups to share information and develop partnerships and projects to address citywide issues. Through a fundamental desire to address the issue of community involvement and biodiversity conservation, BCN has driven the creation of this Brisbane Community Biodiversity Strategy.

Brisbane Catchments Network (BCN):

- Is a partnership, communication and information sharing network of catchment and land care groups across Brisbane
- Provides members with a common voice on sub-regional natural resource management issues
- Communicates with all levels of government, community and other stakeholders, across the city and SEQ Region
- Coordinates collaborative on-ground projects across the Lower Brisbane River and associated coastal areas
- BCN can provide advice on:
 - Identification of priority waterway and catchment issues
 - Community education
 - Awareness raising and engagement activities
 - Strategic waterway and catchment issues both across the city and in the SEQ region
 - Seeking opportunities for development of relevant individual and joint grant applications from Council
 - Regional and commonwealth funding sources on a strategic, city-wide basis

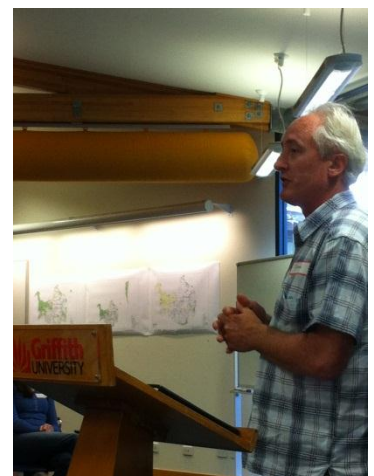
How Did the Strategy First Come Into Being?

BCN raised the desire to create a biodiversity strategy for Brisbane aimed at empowering the community – a Brisbane Community Biodiversity Strategy. The creation of this strategy has been strongly facilitated by the various community groups within BCN.

This strategy differs from other biodiversity strategies available as it is aimed solely at the community. In order to ensure that the strategy focused on issues most pertinent to the community, there was significant stakeholder input throughout the creation of the strategy. Most importantly, a stakeholder workshop was held. This consisted of around 40 Stakeholders attending and workshopping what issues they felt were most important to biodiversity conservation in Brisbane. The purpose of the workshop was to provide the direction for the body of the strategy.

The workshop took place over three hours on Saturday 1st September 2012. Simon Baltais, the Keynote Speaker, delivered a speech on the importance of biodiversity in our area. Following this Wayne Cameron, the chair of BCN, addressed all attendees on the purpose of the workshop and strategy. Attendees were then broken into five groups (given butcher's paper and pens), each group workshopping what they thought was important to biodiversity conservation in Brisbane. Each group then presented their outcomes to the other groups. At the conclusion of the workshop the butcher's paper from all five tables – upon which each group had written any ideas during the workshopping process – were attached to the back wall. All attendees were given three stickers to vote on the outcomes they thought were most important to include in the strategy.

The outcomes voted on were integrated to form the objectives of this strategy. All outcomes were important and are included in the archive of this strategy (p. 37).





Background

South East Queensland is one of the most biodiverse areas in the world, often referred to as a 'biodiversity hot-spot'. The hub of South East Queensland is Brisbane, which is considered to be the most biodiverse capital city in Australia. Brisbane is also one of the fastest growing cities in Australia, and this has led to often conflicting demands on its environment and ecosystem.

Many of Brisbane's ecosystems are unique, but under threat from damaging processes such as:

- Vegetation clearing
- Increasing fragmentation of remaining vegetation
- Pest species
- Pollutants

What is an Ecosystem?

An ecosystem is a community of interacting organisms and their surrounding environment.

Healthy ecosystems possess high levels of biodiversity, while unhealthy ecosystems possess lower levels of biodiversity. The health of an ecosystem - and the biodiversity within an ecosystem - can be highly affected by human influence

Five Kingdoms of Life

Biodiversity refers to all life on earth. It ranges from large animals down to microorganisms. All biological life can be classified into five kingdoms:

- Monera (bacteria)
- Protists (algae)
- Fungi
- Plants
- Animals

What is Biodiversity?

Biodiversity refers to the variety of life in a particular habitat or ecosystem. The Nature Conservation Act 1992 identifies four different levels of biodiversity:

• REGIONAL DIVERSITY

the diversity of the landscape components of a region, and the functional relationships that affect environmental conditions within ecosystems

• ECOSYSTEM DIVERSITY

the diversity of the different types of communities formed by living organisms and the relations between them

• SPECIES DIVERSITY

the diversity of species

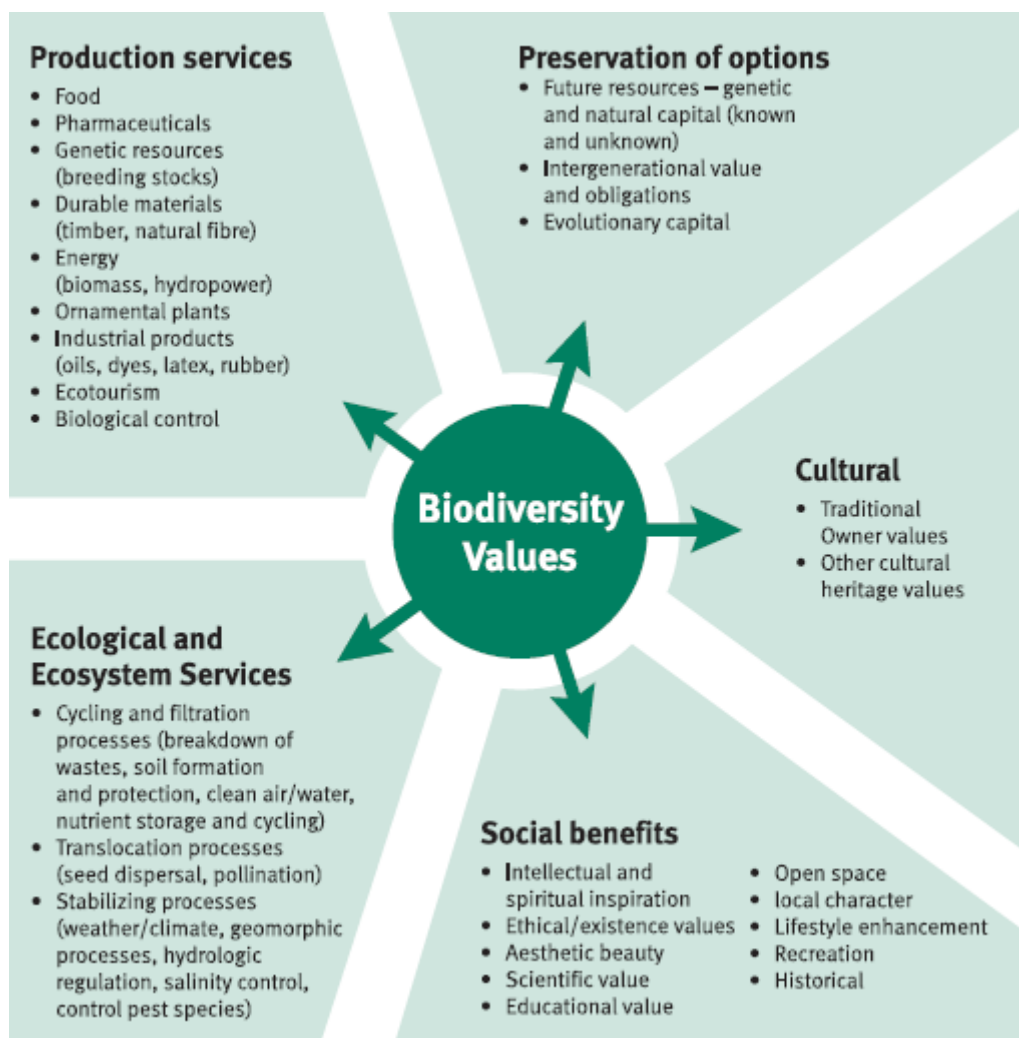
• GENETIC DIVERSITY

the diversity of genes within each species

“Conserving biodiversity is an essential part of safeguarding the biological life support systems on Earth.”

-Australia’s Biodiversity Conservation Strategy 2010-2030

The figure below shows just how significantly biodiversity influences different aspects of life. Biodiversity is beneficial and essential for production services, the preservation of options such as maintaining future resources, vital ecological and ecosystem services, social benefits and cultural values.



(Regional Nature Conservation Strategy for South East Queensland 2003-2008)

Why value Biodiversity?

The SEQ NRM states a plethora of reasons biodiversity should be valued, appreciated and protected. These include:

- *South East Queensland is home to some of the richest diversities of animal and plant species in Australia. However, all living creatures rely on the biological life support systems provided by healthy ecosystems and biodiversity.*
- *The iconic native species found in our ecosystems are crucial to the tourism industry*
- *Biodiversity strongly affects human health*
- *Healthy, biodiverse ecosystems are more robust, presenting favourable conditions for reducing the impact of pests and diseases in human, agricultural and natural systems*
- *Vegetation and insects allow for pollination of natural and agricultural plants – which is important for food supplies, fuel, building materials, fibre and ornamental resources and the survival of many of our ecosystems*
- *Natural, biodiverse landscapes provide aesthetic inspiration to residents and visitors, and have been shown to aid in community health and wellbeing*
- *The provision of ecosystem services is dependent on maintaining biodiversity*

What is Bad?

Currently much of society is living an unsustainable lifestyle. If we continue to do so we are risking the degeneration of ecological systems which support our life, and creating a bleak future for coming generations. Conserving biodiversity is central to sustainable living.

The SEQ State of the Region 2008 found that:

- *Our economy is growing but our consumption patterns may threaten our natural ecosystems*
- *Our ability to enjoy an outdoor lifestyle is limited by the declining availability of open space per capita*
- *We continue to use more than our share of global resources*
- *The region's biodiversity is threatened by the continued loss of natural habitat and critical regional ecosystems*

Furthermore, Brisbane's rapidly increasing population, climate change, lack of preservation of natural ecosystems has led to a decline in biodiversity; and loss of biodiversity on a global scale forms a direct threat to health and wellbeing.



Ecosystem Services

Ecosystem services refer to the range of goods and services the natural environment supplies – or the benefits that the community obtain from natural environments. Ecosystem Services are key components of the sustainability or liveability a region. The South East Queensland Natural Resource Management Plan 2009-2031 found ecosystem services to include:

- *The filtering of runoff to supply high-quality water for human consumption*
- *The provision of food and building materials*
- *The provision of medicines and pharmaceuticals*
- *The pollination of food plants*
- *Recreational opportunities*

The preservation and management of ecosystem services are essential for our region's response to climate change, long-term economic, social, cultural and environmental sustainability, and community quality of life. It is important to remember that the provision of all ecosystem services is dependent on safeguarding our biodiverse areas and supporting habitats.

Biodiversity Statistics

Australia is identified as one of the world's 'Megadiverse' countries, however Australia's biodiversity is diminishing. Over the past 11 years the number of threatened plant species has increased almost 20%; similarly, the number of threatened animal species has grown by over 24% to 439 species.

Biodiversity for plants, fungi, lichens and bryophytes in the Moreton pastoral district is represented in the table below. Moreton extends from the NSW border to the Sunshine Coast and west to the Great Dividing Range so encompasses the Greater Brisbane region. The V, N & E figures refer to the Vulnerable, Near Threatened and Threatened species. Care needs to be taken with the interpretation of this data. The figure for fungi will be distorted by the reduced number of collections in most of Queensland. However, one highlight is the presence in Moreton of 20% of the plant species in Qld that have been identified as Threatened, Near Threatened and Vulnerable. This reflects the loss of habitat and ongoing threatening processes.

Biodiversity Data for Moreton and Queensland Regions	Moreton	Queensland	% of Species Occurring in Moreton
Number of species all taxa	5955	15515	38.4
Number of native species	2984	8104	36.8
Number of vascular	3953	9380	42.1
Number of exotic species (vascular)	951	1276	74.5
Number of V, N & E species	212	1033	20.5
Number of fungi species	705	1212	58.2

Data provided by Queensland Herbarium 19 October 2012
Telephone 07 3896 9326 Facsimile 07 3896 9624
Brisbane Botanic Gardens Mt Coot-tha, Mt Coot-tha Road
TOOWONG Q 4066

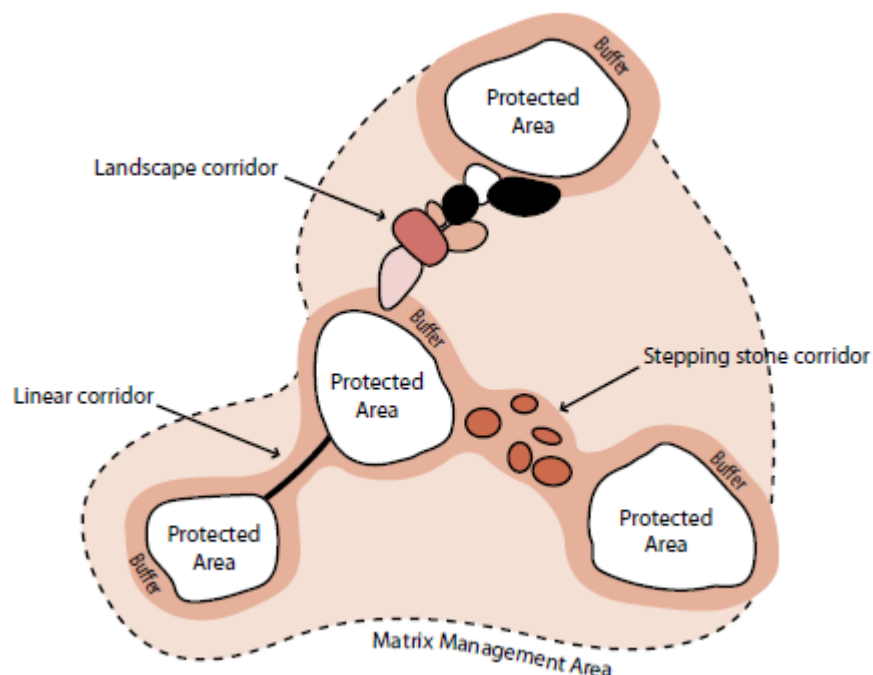
The majority of pressures on biodiversity arise directly or indirectly from human activities. Major future drivers of change include climate change, population growth, economic development and consumption of natural resources; these all have strong potential to further reduce ecosystem, species and genetic biodiversity.

Environmental Progress equates to reduction of threats to the environment and improvements in the health of our ecosystems. With improvements in biodiversity management and ongoing commitment we can aim to combat such problems and improve the health of the area we live in.

Wildlife Corridors

Wildlife corridors are areas of habitat, or links of habitat, that allow for the connection of wildlife communities which would be otherwise separated by roads, housing and other anthropogenic influences. These corridors provide connections between different areas of habitat for wildlife populations.

Wildlife corridors allow for increased habitat and movement, migration, colonisation and interbreeding between plants and animals. Below is a figure illustrating connecting corridors from Australia's Biodiversity Conservation Strategy.



Areas of core habitat are connected by wildlife corridors. There are three types of corridors: stepping stone, linear and landscape. Stepping stone corridors consist of a sequence of smaller, discontinuous corridors across the landscape such as roadside vegetation or wetlands. Linear corridors link continuous remnant patches of habitat such as vegetation or rivers and streams. Landscape corridors are similar to linear corridors but allow for a larger area of habitat that can be lived in, not just moved through.

Such corridors are important to the preservation of biodiversity, especially in regards to movement and gene flow.

Biodiversity and Community Health

Biodiversity affects everybody within the ecosystem or community. In recent research the importance of biodiversity for community health has been increasingly stressed. Research shows that the ways in which biodiversity affects human health are plentiful:

- A connection to natural biodiversity can help prevent lifestyle diseases such as obesity, diabetes and cardio-pulmonary disease (these diseases can be attributed somewhat to disconnection from natural biodiversity and shifts in human demography) (Cohabinitiative 2010)
- Biodiversity improves food production and human nutrition, where declines in agricultural biodiversity have strong repercussions on human health and food security (VicHealth 2007)
- Healthy and biodiverse ecosystems that humans rely on provide protection from natural disasters such as droughts and floods (TEEB 2009)
- Better health outcomes and positive mental health benefits are associated with access to healthy natural environments (Maller *et al* 2006)
- Preventing loss of biodiversity also prevents psychological and mental health implications, which have been observed in communities affected by loss of biodiversity - notably Indigenous people and those with a strong connection to the land (National Climate Change Adaptation Research Plan)
- Living in areas of high biodiversity helps prevent sickness, as loss of biodiversity contributes to the outbreaks of disease (Aguirre & Tabor 2008) and is attributed to the spread of many infectious diseases which lead to concomitant human suffering (Cassis 1998)
- Biodiversity allows for and aids medical research (Cohabinitiative 2010)

With biodiversity impacting so strongly on the community, and our lives in general, BCN recognised the need for a community biodiversity strategy that was created by the community and for the community. BCN hopes that everyone will recognise that they can play a part in conserving Brisbane's biodiversity for the good of themselves, their families, their communities, and for society as a whole.

Objectives:

Valuing:

Raise levels of awareness, understanding and commitment to valuing and conserving biodiversity at the community level

Doing:

Strengthen biodiversity conservation through increased involvement from all levels of the community in activities undertaken on ground with a local focus

Supporting:

Appeal to a wider audience in a way which empowers people and supports the community to help itself



Valuing:

Raise levels of awareness, understanding and commitment to valuing and conserving biodiversity at the community level.

In order to persuade the community to want to protect and maintain biodiversity, it is crucial that they value it. Effort needs to be placed in raising levels of awareness, understanding and commitment to valuing and conserving biodiversity at the community level. Benefits gained from increased biodiversity levels need to be highlighted and demonstrated. The concept of protecting first and replacing second is imperative – although it is important to restore degraded areas, primary effort needs to be focused on protecting and maintaining important, biodiverse areas, lessening the need for restoration. By this we hope to maintain a healthy world which allows us to live well in our environment, with environments maintaining their intrinsic features for future generations.

Results from the Stakeholder Workshop show the community feel it is important to elucidate ‘What’s In It For Me?’ – what the community will gain through increased biodiversity conservation. Through education to the broader public awareness and value should be increased. Additionally, the community feel prominent places such as community gardens or school programs are needed to increase awareness. It is also hoped that adaptive management and resilience will be built into our landscape. Overall the community hopes to create a healthy environment to be maintained for future generations.

Actions

Photography Competition

Photography engages the artistic, creative, and the community at large. Utilising photography, Moggill Creek Catchment Group's (MCCG) Photography Competition is a great example of an action which increases awareness of biodiversity conservation at the community level, and can be employed by all catchment groups. The objective of the photography competition is to:



- Raise awareness of local environmental issues, especially among children living in the catchment
- Encourage people to enjoy the native flora and fauna of their local environment
- Promote awareness of the Brisbane Catchment Groups
- Encourage membership and participation in the work of the group

Residents of Moggill Creek Catchment and others submit photos with an environmental focus. There are different categories, including:

- Native plants and animals
- People in their catchment
- Young Persons "My Catchment"
- My Favourite Place in the Catchment

In addition, People's Choice, Chairman's Choice, Supreme Exhibit and Novice awards are given.

These photos are put up in a display at the local shopping centre, with a member of MCCG staffing the stall. Interest is generated through desire to compete in the photography competition. In addition, having these environmentally focused photos displayed in a central area which receives a lot of human traffic, and informed members of the catchment group present with information engenders interest. Through this competition, held annually (with photos usually submitted in August and the winning photos announced in early September), new members are continually generated for the Moggill Creek Catchment Group.

For more information visit www.moggillcreek.org or email mccgsecretary@live.com.au

Actions

Active Workshops

Many catchment groups hold open days or workshops. However, to engage the community and create a 'fun' atmosphere, additional actions can be incorporated into these open days/workshops. This 'fun' atmosphere engrosses attendees and encourages them to value biodiversity at large.



Bulimba Creek Catchment Coordinating Committee (B4C) is a prime example of a catchment group employing active workshops. Open days at B4C's Sustainability Centre consist of many activities, complementing each other and forming a fun and engaging workshop. Activities vary from workshop to workshop, but follow a central format: each workshop includes a time to settle in, a fun activity to engage attendees, morning tea, and gardening work at the sustainability centre (which consists of a plethora of plants, some animals, and is used as a community garden). The 'fun' activities are core to the day, and are often a marketing point when advertising the open day. Such activities have included:

- Tai Chi (often used as a warm-up or precursor to the workshop)
- African drumming
- Building a raised frog pond
- Soap making
- Earth Art

Catchment groups could employ similar activities or use their own to draw attention and add a fun vibe to their open days.

B4C's active workshops occur once a month on a Saturday. They often draw community members of the Bulimba Creek Catchment who attend for a fun outing, rather than solely environmentally focused people. This point is exemplified by online community forums with discussions or reviews of B4C's workshops, often written by community members who are not part of the catchment group, who have attended a workshop and enjoyed themselves. Active workshops allow for a wider base of people, and educate those who may have little knowledge on biodiversity as to the importance of biodiversity in their catchment. As such, these workshops consistently raise levels of awareness and understanding of biodiversity at the community level.

For more information visit www.bulimbacreek.org.au or email b4c@bulimbacreek.org.au

Actions

Focal Areas Where Biodiversity is Being Restored

Often catchments have focal points, areas in a prominent place central to the community. Restoring or regenerating biodiversity in these focal points can be a way to raise levels of awareness of biodiversity conservation and protection at the community level.

An example of a focal point where biodiversity is being restored is the area adjacent to the showgrounds, off a major roundabout in Brookfield. In this area Moggill Creek is crossed by a prominent bridge leading to Upper Brookfield. This area would be a focal point of the Moggill Creek Catchment Group (MCCG).



Until recently this community focal point was riddled with environmental weeds. However, through dedication and the aid of grants, effort is being focused on restoring this area. Weeds are being removed, with the massive white figs being made more prominent. In addition, other native plants are being nurtured, such as black beans, three veined cryptocaryas, sedges and river she-oaks. The restoration of this area also includes regeneration, with limited planting to be carried out to increase biodiversity and stabilise the bed of the creek, and further planting to the south of the area.

Through these efforts, this focal point of Moggill Creek Catchment has become a much healthier area, gaining community attention. Group members accept thousands of free native plants from MCCG's community nursery each year, together with expert advice on revegetation principles.

Surely every catchment would have a prominent focal area. Value is placed in these areas, and focusing efforts of restoration in such areas can draw the attention of the community. Interest generated through this helps to raise awareness, understanding and promote commitment to maintaining the health of the community's ecosystems.

For more information visit www.moggillcreek.org or email mccgsecretary@live.com.au

Additional Actions

- Expressly creating corridor projects (eg Ithaca Intact, Cubberla Creek Connect, Witton for Wildlife, Toowong Creek Turnaround) to encourage identification at the local level. Such actions can be used for public relations, grants and sponsorships
- Running colouring-in competitions of wetlands or bushlands run by catchment groups
- Conducting corridor and catchment tours (eg Mountains 2 Mangroves bus tours, cycle your creek/catchment)
- Utilising other events (eg National Tree Day, community plantings) to raise awareness of issues pertinent to the catchment (eg endangered species, corridor projects, general biodiversity loss issues)
- Implementing Interpretive Signage. For example, signing mangroves, fungi, habitat plants, bush tucker plants, wildlife corridors, wetlands, etc. These signs can be interactive and allow for the community to learn from them
- Running catchment tours
- Mounting themed displays to be rotated through City Council Libraries

For more information visit www.cubberlawitton.org or email cwcn1@bifpond.com



Doing:

Strengthen biodiversity conservation through increased involvement from all levels of the community in activities undertaken on ground with a local focus

Community involvement is paramount when trying to make a difference on a local scale. Effort needs to be focused on bringing attention to protecting our local areas. Focus points or areas of community significance for local areas should be identified with restoration efforts concentrated in such areas, producing results and greenspace that can be noticed and appreciated by the community. By instilling the importance of biodiversity into the minds of local community we can maximise awareness and encourage results.

Results from the Stakeholder Workshop show the community feel it is important that activities are undertaken on ground at the local scale, fitting local areas into the 'big picture'. They also feel that protecting biodiversity should not be promoted on its own, instead incorporating the message into others. Additionally emphasis should be placed on resourcing private landowners to protect biodiversity. If possible, actions should be undertaken that help developers meet environmental objectives.

Actions

Wildlife Conservation Partnerships

The Wildlife Conservation Partnerships Program (WCPP) is a Brisbane City Council (BCC) initiative. As much of Brisbane's wildlife habitat is on privately owned land, private landowners need to be resourced to manage their land, maintaining a healthy area, biodiversity, and providing habitat.



Private landowners on areas over 0.5 ha are able to be part of this program, which offers five different types of agreement:

- Working Towards Land for Wildlife
- Land For Wildlife
- General Voluntary Conservation Agreement
- Higher Voluntary Conservation Agreement
- Voluntary Conservation Covenant

All agreements are voluntary and free, with each agreement type offering a varying level of assistance to the landowner. WCPP officers visit properties and provide the landowner with advice and assistance on how to manage their land environmentally and sustainably, including:

- How to protect and/or restore and manage the wildlife habitat on the property
- Weed identification and control
- Native plant identification and restoration
- General rehabilitation techniques
- Pest animal species and how to control them
- Fauna-friendly fencing
- Nest boxes
- Plant propagation
- Fire management
- Erosion and sediment control
- Tree planting

Encouraging landowners to participate in the Wildlife Conservation Partnership Program will strengthen biodiversity conservation through helping community members protect and restore wildlife habitat on their land.

For more information phone 07 3403 8888 or email wcpp@brisbane.qld.gov.au

Actions

One Third for Nature

One Third for Nature aims to establish and manage vegetation on private land, and assist landowners in creating, protecting and restoring habitats for wildlife on their properties. The program is voluntary and free, and involves landowners making a personal commitment to devote one third of their property to nature. It offers various levels of involvement and commitment depending on where you live and how involved you wish to be.



A Bulimba Creek Catchment Coordinating Committee (B4C) initiative, One Third for Nature, has predominately been employed within the catchment, and requires support from the catchment group members for functioning. It is currently open to members of B4C, and involves the dedication of an area of the property to establish native vegetation and habitat. In this dedicated area B4C will create a landscape plan which the landowner will work towards. This plan includes:

- Identifying vegetation communities on the site and prescribing actions and a schedule for rehabilitation of such areas
- Identifying and proposing habitat creation nodes and potential corridor linkages
- Identifying and planning to eradicate, remediate or manage processes that are threatening to natural functions and values of the vegetation and ecosystem
- Preparing a Vegetation and Habitat Rehabilitation and Regeneration Plan and the sequence over five years to be implemented
- Incorporating a Property Management Plan to be reviewed annually and renewed after five years using adaptive management principles
- Prescribing methods of rehabilitation, revegetation and regeneration that are sustainable to the landowner (including cost effectiveness)
- Recommending applicable voluntary conservation agreements and assistance packages to the landowner
- Incorporating a monitoring and maintenance schedule

One Third for Nature has proven successful within the Bulimba Creek Catchment, creating healthier, native and biodiverse gardens on private land, which help towards creating a more biodiverse catchment. Additionally, it reinforces the concept of thinking ecologically to the community. Using one Third for Nature as a guide, this program could be expanded to other catchments, or similar programs could be employed by other catchments to strengthen biodiversity conservation through locally-focused, on ground activities.

For more information phone 07 3420 4800 or email b4c@bulimbacreek.org.au

Additional Actions

- Themed Projects such as ‘Where have all our fairy wrens gone’. Iconic species are used to highlight issues such as:
 - Habitat loss/habitat needs
 - Importance of insects
 - Benefits and importance of native flora for food chains
 - Wildlife movement solutions/corridors

These projects generate community interaction and results ¹

- The Colour of Biodiversity – utilise popular critters to create interest and engagement for habitat creation ¹
- Pollinator Link partnership (this program is accessible to any dwelling area) ²
- Batty BBQ flyout counts – community BBQs are held, during which Bat flyout data are gathered, and information about bats and the significance of biodiversity is given (done in conjunction with Bat Conservation and Rescue QLD) ²
- Mangrove Watch – a monitoring program that partners mangrove scientists and community participants ³

1. For more information visit www.cubberlawitton.org or email cwc1@bigpond.com

2. For more information visit www.northerncatchmentsnetwork.org.au or email northerncatchments@gmail.com

3. For more information visit www.ctccc.com.au or email geoffredman@live.com.au



Supporting:

Appeal to a wider audience in a way which empowers people and supports the community to help itself.

Currently biodiversity conservation and restoration is primarily done by environmental groups. Effort should be focused on engaging a wider audience such as other community, social and recreational groups. It is important to support the community to help itself, with focus on generating hope and empowering people.

Results from the Stakeholder Workshop show the community feel it is important that technology be used to appeal to the younger generation, and common ground be found through social networking. Additionally, relationships should be fostered with the education sector and community groups. There was an overall aim to promote help and empower people.

Actions

Landcare for Singles

Landcare for Singles' Speed Planting is an initiative by Landcare Australia aimed at the younger community. Speed planting is summarised with the catch phrase 'You've heard of speed dating, well this is speed planting. Plant a new plant with a new person every 8 minutes and then join everyone to mingle over a tasty lunch'.



Landcare Australia has recognised the need to appeal to a wider audience in a way which empowers people and supports the community to help itself. Speed Planting is an example of a successful initiative to address this need. It attracts young singles, and is a great way to entice new volunteers as well as spread the word about Landcare and the work they are doing.

Initially Landcare for Singles' Speed Planting events were run to address recruitment issues for Landcare groups in the Yarra Valley and Dandenong Ranges areas in Victoria. These initial events were hugely successful, and attracted over 100 participants; 95% of participants were new to Landcare.

Following the success of these initial events Landcare Australia developed a project kit which is available to download from their website, and intended to be used by environmental groups across Australia. The project kit includes promotional artwork (with area to insert the logo of whichever group is running it) to help promote the event, and a comprehensive guide on how to run a Landcare for Singles event.

For more information email events@landcareaustralia.com.au or visit www.landcareonline.com.au/?page_id=8114

Actions

Involving Schools

Involving schools is a great way to appeal to a wider audience. It is important to foster an understanding of the value and importance of biodiversity in school children from a young age. Many catchment groups are working with schools in various ways to help educate students on this subject. By doing so they are instilling in the students the importance of biodiversity, and also potentially creating a wider base of members for their catchment group. Some examples are below:



- Bulimba Creek Catchment Coordinating Committee (B4C) has fostered an ongoing partnership with Mt Gravatt High School, in particularly the senior geography classes. This has been a very successful partnership, and a module on the environment and clean-up has been integrated into the school's year 11 Geography curriculum. This involves teaching of the topic on the school's behalf, and then a field visit to Bulimba Creek Catchment. During this visit students visit various sites where they collect data, and also participate in a clean up of water hyacinth at the Tingalpa Wetlands. Mt Gravatt High School, with thanks to its partnership with B4C, is also consistently a finalist in the Healthy Waterways competition. This is a partnership which both benefits B4C and Mt Gravatt High School, providing curriculum, fun excursions, and most importantly education on biodiversity. In addition, B4C also regularly gives tours of the catchment to other local schools.
- Cubberla Witton Catchment Network (CWCN) are working with schools in their catchment. Utilising more of a 'fun' angle, CWCN use interactive games to engage and educate schools. An example is the Mushroom Murder Mystery Game, which is combined with information provision on fungi and their importance, and involves interactive role play by students and hands-on activities such as spore prints and forays. In addition, CWCN have taken lessons on soil, engaging students with activities such as looking at soil life with microscopes, assessing leaf litter with pitfall traps and filtering dirty water back to clean water. These lessons often link in with the school's curriculum and are a good learning experience for the students. CWCN are also currently working on developing other projects (and accompanying education packs) for schools such as Biodiversity in my School Yard.
- Moggill Creek Catchment Group (MCCG) are working with both primary and high schools in their catchment in various ways. This includes a focus on revegetation at the schools. In the last few years input from the students has been integrated into this process. Knowledgeable MCCG members have also given lessons on local environmental concerns when invited to do so.

Catchment, bushcare and environmental groups could pursue similar avenues with local schools to appeal to – and educate – this younger audience, and support the community.

For more information contact the respective catchment groups (see p. 28)

Additional Actions

- Plant Me Instead information campaign (information on native species which can be planted for environmental benefit instead of others) ¹
- Music by the Creek ¹
- Art in the Park ²
- Family Fun Days – combine community planting with educational entertainment and aim at children ¹
- Fierce Creatures of Moreton Bay, a recycling art competition utilising rubbish found in and around creeks or on the beach. ¹
- Book worms for biodiversity – writers, bush poets and environmental authors recite, read and talk about biodiversity in conjunction with BCC library. ¹

1. For more information visit www.cubberlawitton.org or email cwc1@bigpond.com

2. ²For more information visit www.pullenpullencatchment.org.au or email contactus@pullenpullencatchment.org.au

Your Local Catchment Group

If you would like further information, or to become involved with a catchment group, you can use the details provided below to contact the respective catchment group.

Bayside Creeks Catchment Group

Website: www.baysidecreeks.org.au

Ph: 0400 404 929

Email: info@baysidecreeks.org.au



Bulimba Creek Catchment Coordinating Committee

Website: www.bulimbacreek.org.au

Ph: 07 3420 4800

Email: b4c@bulimbacreek.org.au



Cabbage Tree Creek Catchment Committee

Website: <http://www.ctccc.com.au/>

Ph: 0427 483 412

Email: geoffredman@live.com.au



Cubberla-Witton Catchments Network

Website: www.cubberlawitton.org

Ph: 07 3878 4581 or 0407 583 441

Email: cwc1@bigpond.com



Kedron Brook Catchment Network

Website: www.kedronbrook.org.au

Email: enquiries@kedronbrook.org



Moggill Creek Catchment Group

Website: www.moggilcreek.org

Ph: 07 3374 4240

Email: mccgsecretary@live.com.au



Norman Creek Catchment Coordinating Committee

Website: www.n4c.org.au

Email: normanck@bigpond.net.au



Northern Catchments Network

Website: www.northerncatchmentsnetwork.org.au

Ph: 0423 772 151

Email: northerncatchments@gmail.com



Oxley Creek Catchment Association

Website: www.oxleycreekcatchment.org.au

Ph: 07 3278 2899

Email: occa@flatrate.net.au



Pullen Pullen Catchment Group

Website: www.pullenpullencatchment.org.au

Email: contactus@pullenpullencatchment.org.au



Wolston and Centenary Catchments Group

Website: www.wacc.org.au

Ph: 0430 450 570

Email: info@wacc.org.au





Glossary

Agricultural Biodiversity – The variability and variety of plants, animals and micro-organisms that are either directly or indirectly used for food and agriculture.

Biodiversity – the variety of life on Earth at all its levels, from genes to ecosystems, and the ecological and evolutionary processes that sustain it

Degradation – In an environmental sense, refers to the deterioration of the environment through factors such as depletion of resources, destruction of ecosystems and loss of wildlife

Ecosystem – A community of interacting organisms and their physical environment

Fragmentation – The process whereby, often through economic/ industrial/ residential development, habitat becomes discontinuous or disconnected.

Gene Flow – The transfer of genes from one population to another; decreases inbreeding.

Non-Vascular Plant – Plants without a stem. They do not possess lignified tissues (responsible for stems) and subsequently do not grow to be tall. These plants reproduce via spores.

Vascular Plant – Plants with a stem. They possess lignified tissue (responsible for stems) used to transport water, minerals and photosynthetic products through the plant. These plants reproduce via seeds.

Resource Archive

Included below are useful resources. Over the past 20 years there has been much effort put into strategies and plans for Biodiversity and Natural Resource Management. Any of these important and useful documents which are not yet included will be listed and compiled in a future progression of this initial strategy.

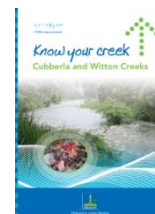
Weblinks:

Brisbane Rainforest Action and Information network:

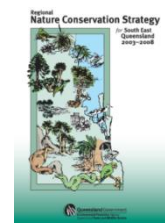
<http://www.brisrain.org.au/>



Know Your Creek Booklets: <http://www.brisbane.qld.gov.au/environment-waste/natural-environment/creeks-and-waterways/known-your-creek/index.htm>



Regional Nature Conservation Strategy for South East Queensland
2003-2008: <http://www.derm.qld.gov.au/register/p01118aa.pdf>



SEQ Catchments Natural Resource Management Plan:
<http://www.seqcatchments.com.au/resources-nrm-plan.html>



State of the Environment: <http://www.environment.gov.au/soe/>



The Creek in our Backyard: A practical guide for landholders:

http://saveourwaterwaysnow.com.au/dbase_upl/the_creek_in_our_backyard_reprint.pdf



Weeds to Whack:

http://saveourwaterwaysnow.com.au/01_cms/details.asp?ID=51



Reference Books:

Dinkum Gardening: Creating a bushland garden in Brisbane, Tim Low (1993).

Mangroves to Mountains. A Field Guide to the Native Plants of South-east Queensland. Revised Edition. (G. Leiper *et al.* 2008)

Mt Coot-tha Forest Management Plan (BCC 2003)

Our Place in the Country: Managing your acreage property in West Brisbane (MCCG & PPCG 2009)

Putting Back the Forest. A Landcare Guide for Brookfield, Pullenvale and Moggill. (REPA, 1994)

Wild Plants of Greater Brisbane. A Queensland Museum Guide (2003).

Wildlife of Greater Brisbane. Queensland Museum (1995)



Fungi summary:

- Fungi recycle nutrients
- Fungi called mycorrhiza are beneficial symbiotic partners of most plants
- Macrofungi are usually short lived but these are just the fruit of the fungus which work unseen in soil, wood or plants
- Although some fungi may be edible, most are not and some may be fatally poisonous, so please DO NOT EAT any wild fungi



Wolston and Centenary Catchments (WaCC) Vision:

OUR CATCHMENT
OUR COMMUNITY
OUR COMMITMENT

"A catchment where our creeks are in harmony with the natural and built environments, providing a safe and nurturing home for wildlife, and a natural asset for the enjoyment of the community." - developed at a WaCC catchment workshop in 2009.

The group is open for membership to individuals, community groups, schools and other educational institutions, industry and other corporate stakeholders who subscribe to the objectives and vision of Wolston and Centenary Catchments.

Contact:

Wolston & Centenary Catchments (WaCC)
PO Box 937, Mount Ommaney QLD 4074
0400 711 321
info@wacc.org.au
www.wacc.org.au



Dedicated to a better Brisbane

Fungi of south-west Brisbane



What fungi do for our bushlands

Fungi are mushrooms, moulds, yeasts and the like. Modern scientific treatments include them in a kingdom of their own. Fungi are some of the busiest unseen workers in ecosystems.

Decomposer fungi are essential for recycling nutrients, which are then available to plants. Some decomposer fungi accelerate the formation of hollows in trees and wood, these hollows are important as habitat for vertebrates.

Most plants have a beneficial symbiotic relationship with fungi, called mycorrhiza. Mycorrhiza are found on and around plant roots and form a network of fungi fibres. Mycorrhiza help plants with nutrient and water absorption from soil and other substrates. They may protect plant roots from pathogens. Many native mycorrhiza produce fruiting bodies, many of which are an important food source for small ground dwelling marsupials like bandicoots.



Fungi need to be considered as part of local bushland management as they play critical roles in ecosystem health and function. To have a healthy diversity of

Marasmius aff. haematocephalus



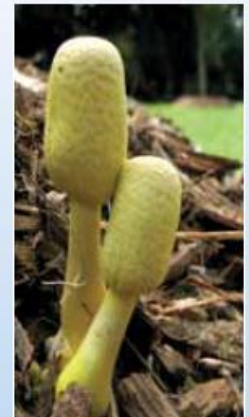
Panus fasciatus

fungi there needs to be diverse selection of habitat for them. Decomposer fungi need different substrates available, so a range of leaf litter, twigs and wood of different sizes including standing dead wood. Mulching wood reduces diversity of fungi and may encourage weedy fungi. For a diversity of mycorrhiza there needs to be a diversity of plant partners available. Thus in re-vegetation a mixture of plantings is best and when restoring disturbed sites local mycorrhiza may also need to be reintroduced to the site with plantings.

Some fungi, often microfungi, may cause diseases. In balanced, healthy ecosystems these have a role in forming gaps. Unfortunately in disturbed or unbalanced systems like monocultures, fungal diseases can cause serious damage.

The recent spread of the **exotic fungal disease Myrtle Rust** (*Uredo rangelii*) damages plants from the Myrtaceae including Australian natives

like bottle brushes, tea trees and eucalypts. Some local species like the lilly-pillies and myrtles are particularly sensitive to this disease. Unfortunately some areas of local vegetation which contain sensitive species have been badly affected by this new disease. Hopefully this foreign disease will not cause long-term harm to local bushlands. Better management strategies include avoiding mass plantings of sensitive species.



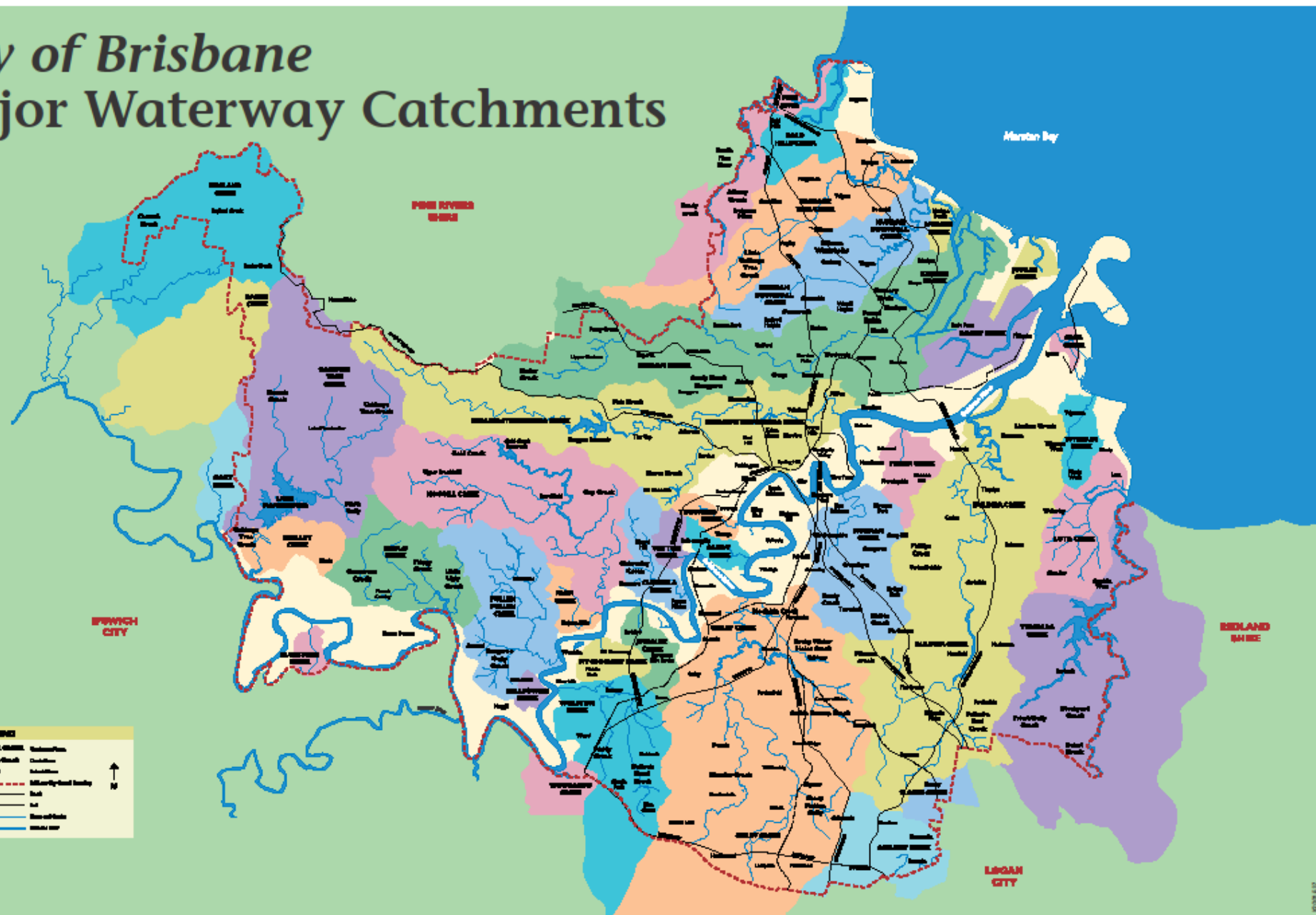
Leucocoprinus birnbaumii

Macrofungi are the larger, more visible fruiting bodies of fungi, these include mushrooms, boletes, cup fungi, puffballs, coral fungi, club fungi, jelly fungi and many more. The fruit bodies are often short lived but the fungi live on and work in the soil, logs and with plants the whole time.



Cyathus striatus

City of Brisbane Major Waterway Catchments



Brisbane's Core Biodiversity Network

HOW WILL IT BE USED?

The Core Biodiversity Network will help achieve our vision for the city's future by guiding investments in protecting, managing and restoring vegetation, habitat areas and ecological corridors. It will also be a valuable land-use planning tool to inform biodiversity-friendly development.

For more information on Brisbane's plans for managing growth visit www.brisbane.qld.gov.au and search for 'CityShape'. If you would like to provide feedback on the Core Biodiversity Network, please contact Council on (07) 3403 9902.

The Core Biodiversity Network is another way Council is achieving our vision for the city's future.



Brisbane City Council
Information
GPO Box 1434
Brisbane Qld 4001

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For more information visit
www.brisbane.qld.gov.au
or call (07) 3403 8888



Dedicated to a better Brisbane

Brisbane's Core Biodiversity Network

WHAT IS THE CORE BIODIVERSITY NETWORK?

The Core Biodiversity Network was introduced as a part of Brisbane's 'CityShape' plan for sustainable growth. The network maps vegetation and habitat areas and shows how they are linked by ecological corridors.

Wildlife and their supporting environments exist across the city, on public and private lands, within urban and rural areas. Brisbane is protecting its biodiversity by conserving large natural areas and small bushland patches in our suburbs.

In order to sustain the diversity of plant and animal species in Brisbane and to minimise the impacts of a rapidly growing city on our environment, Council has mapped areas of ecological significance within the network.

The network contains the following elements.

- **Habitat areas and core corridors** are places where plants and animals live, grow, eat, breed and nest. This includes all of Brisbane's natural areas and major waterways.
- **Zones of influence** are 'buffers' around Brisbane's natural areas and major waterways that protect them from development impacts and support vegetation that helps wildlife movement.

- **Stepping stone corridors** are patches of vegetation (including trees in backyards and local parks) that birds and arboreal animals use to move between habitat areas.
- **Other habitat areas** are separated from habitat areas and core corridors by urban development. They provide refuge for local populations of animals and plants.
- **Restoration sites** are areas identified for regeneration and/or rehabilitation.

ECOLOGICAL CORRIDORS

Wildlife move around the city in search of food, water, shelter, mates and/or to escape danger. The areas they move through are called ecological corridors. These ecological corridors can be either completely vegetated or have only a few large trees.

How much wildlife and the type of wildlife that moves through a corridor depends on the density, structure, composition and condition of the vegetation within the corridor. Well-vegetated corridors encourage shy wildlife such as bandicoots to move through, while corridors with fewer trees support more resilient wildlife such as possums.

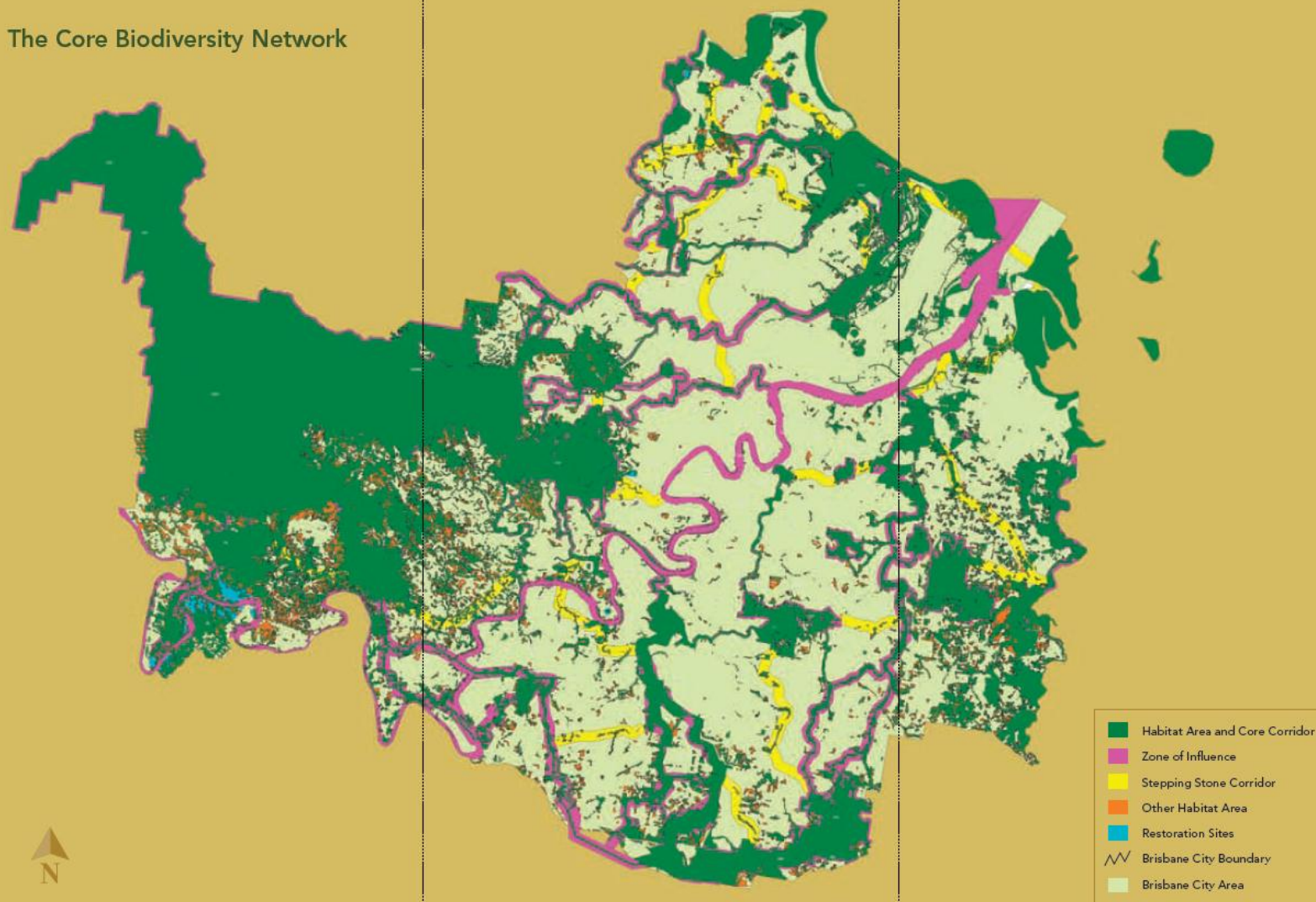
SUSTAINING DIVERSITY INTO THE FUTURE

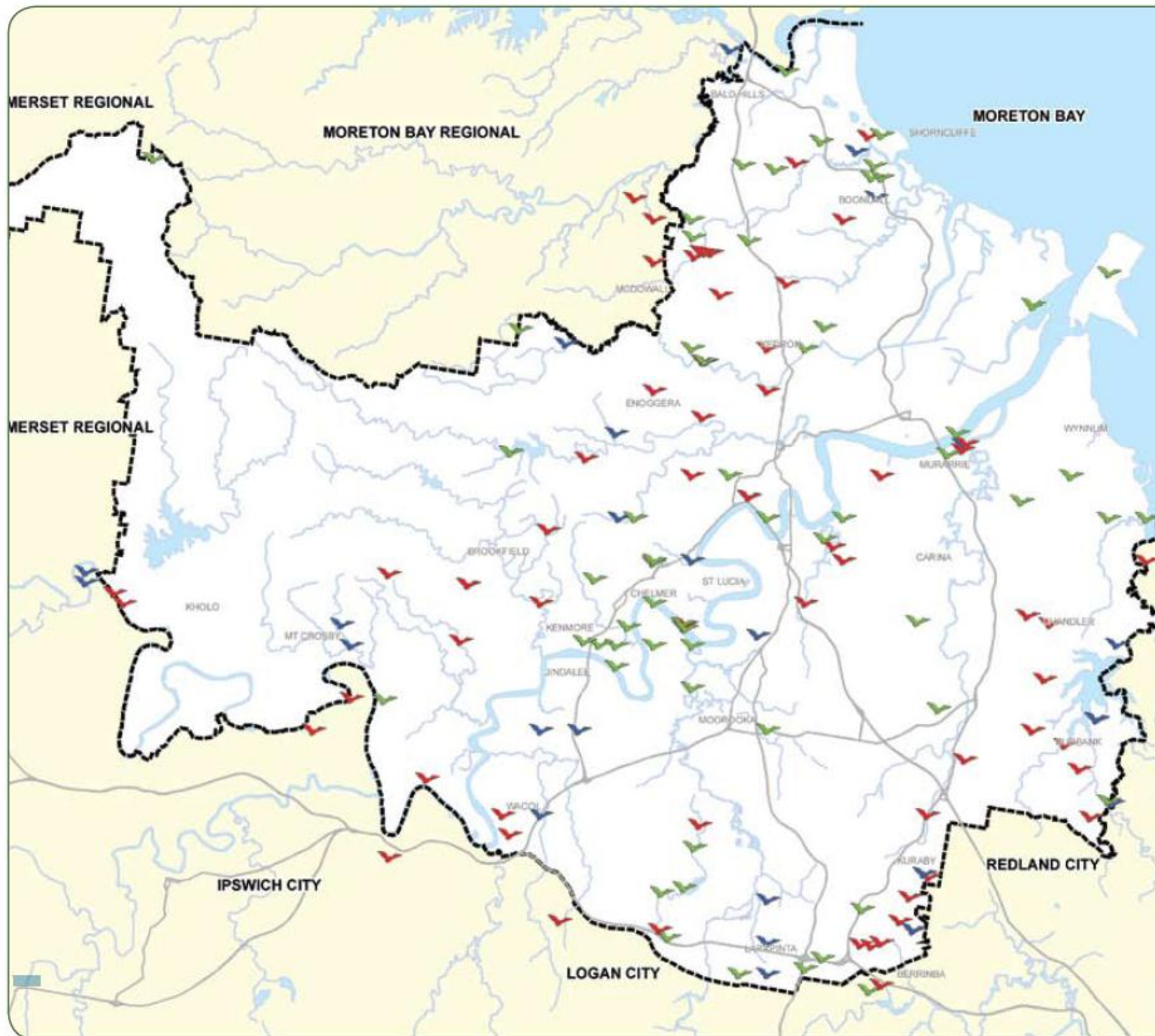


Brisbane is a city that cares about the environment. Maintaining Brisbane's status as Australia's most biodiverse capital city, while accommodating large population growth and managing threats such as climate change, is a significant challenge.




To help maintain this status, Brisbane City Council has set a bold target to restore a further 10 per cent of mainland Brisbane to natural habitat, so that 40 per cent of the city will be covered by native vegetation by 2026. Reaching this target will help ensure the long-term survival of our unique native plants and animals.

The Core Biodiversity Network





Flying-foxes

-  Grey-headed flying-fox
-  Black flying-fox
-  Little red flying-fox

DATA INFORMATION

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 2007 Aerial Imagery © 2007 Fugro Spatial Solutions
 2005 Aerial Imagery © 2005 QASCO
 2005 Brawley © 2005 Melway Publishing
 2002 Contours © 2002 AAM/Match
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Kilometers
 1:250,000 @ A4

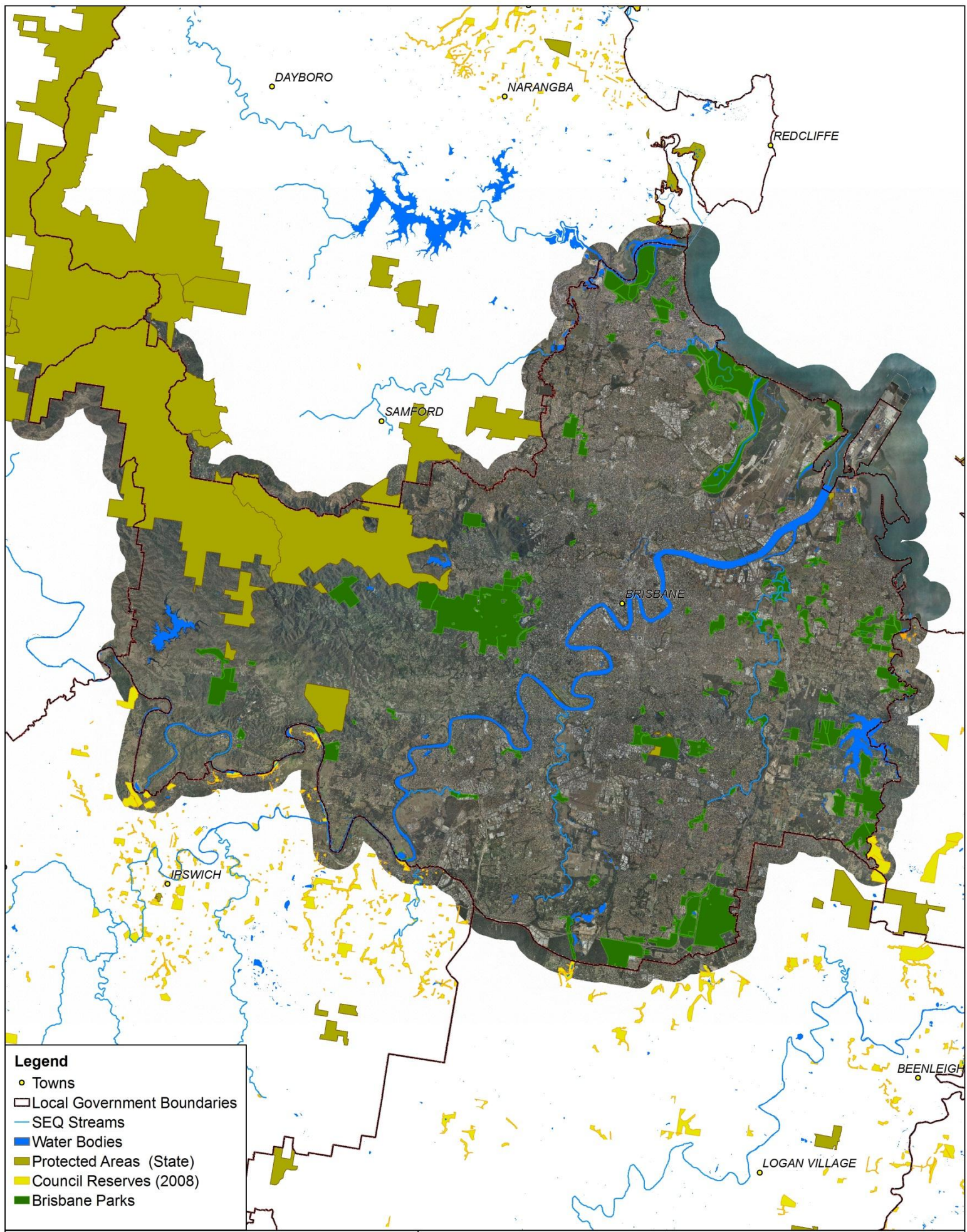
Publisher : Spatial Information Services
 Publication Date : 11 August 2009
 Reference : BMO75496
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 Filename : BMO75496_A4_1.tif
 Projection : Map Grid of Australia, Zone 56
 Horizontal Datum : Geocentric Datum of Australia 1994



Conservation Action Statement

**Records of
 flying-foxes
 in Brisbane**

Dedicated to a better Brisbane



Map: Brisbane Reserves and Surrounds
Imagery 2009

1:200,000 printed A3
GDA 1994 Zone 56
Data Sources: DERM, DEEDI, SEQHWP, DIP, BCC

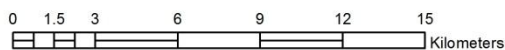
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Mapping Partners





SEQ Catchments is a community-based, not-for-profit organisation helping to build a sustainable community that cares for and values the natural resources and biodiversity of South East Queensland, and that recognises the impact of personal and collective actions on the environment.

Mobilising and involving the community is a key action to set local and regional priorities that address environmental issues and identify projects and partnerships to deliver tangible, on-ground solutions. SEQ Catchments generate government and business investment into these community-driven programs and implement and manage these projects to completion.

SEQ catchments works closely with the Queensland and Local Government to promote a balanced, long term approach to land development, infrastructure planning and economic growth, via the award winning SEQ NRM Plan (see Resource Archive). SEQ Catchments is committed to delivering the long term targets detailed in the SEQ NRM Plan 2009-2031, and do this in a number of ways:

- Working with the Australian, Queensland and Local Governments as well as the corporate sector to influence policy, align planning with the SEQ NRM Plan, and secure funding for on-ground environmental projects
- Encouraging and assisting the development of partnerships between the community, the corporate sector and governments at all levels to deliver NRM outcomes
- Mobilising and involving community groups and individual landholders to identify, develop and carry out projects at the grassroots local level
- Providing technical advice in the areas of data collection, mapping, vegetation management, soil conservation, water quality and property management planning to the community and our project partners

SEQ NRM Targets			
Improving Air and Atmosphere	Improving Coastal and Marine Areas	Community Investment	Improving Land Condition
Nature Conservation	Retaining/ Increasing Regional Landscape Areas	Working With Traditional Owners	Better Management of Water

Outcomes From Stakeholder Workshop

Below are the outcomes (transposed from the butchers paper used on the day) of the Stakeholder Workshop, held on Sep 1 2012, and used to inform the direction of the strategy. All are responses and ideas relating to two questions:

Question 1: How do you think we can help the community to better understand why biodiversity is important, and how do we all work together to make it happen?

Group 1:

- Why
 - Protecting local to fit into 'big picture'
 - Want to live well in our environment
 - Don't want to live in concrete
 - Maintain 'real world' and healthy world for future generations
 - We rely on our environment for ecological services (clean air, water, soil)
 - Need biodiverse systems not monocultures
 - Everyone has an appreciation and understanding of why biodiversity is important
 - Climate change/variability makes management imperative – rapid change not just change
 - Need adaptation – we need to adapt to nature, not nature to adapt to us
- How
 - Information boards in shopping centres
 - links to websites
 - photography competitions
 - Engage community groups as well as environmental groups
 - Work at two levels (community)
 - the understanding
 - those yet to understand
 - Use of local markets and other community events – be visible
 - Face to face rather than brochures
 - Engage students at many levels (primary, high and university)
 - Work at individual and specified local areas
 - Have champions
 - famous promoters
 - spokes species (eg koalas)
 - Native bees and pollination processes
 - Engage with arts and culture – indigenous

Group 2:

- Image issue
- How to effectively communicate with community? Towns?
- Make information available on all sources, especially for young. Social networking, papers
- Generate personal interest. Is it "cool"?
- Address the disconnect between all our areas of life, promote awareness, making it local
- Promoting hope, empowering people
- Negative image that greenies are 'anti-development'. Work on joint understanding. Collaborations & partnerships
- Value people's positive input. Follow up, revisit, encourage
- Emphasise connectivity between all assets. It all matters
- Be clear on what biodiversity really is
- Integrate learning into other areas of teaching, activity, community
- Don't sell the message on its own, incorporate it into others
- Convince that biodiversity increases overall value
- Show that it opens opportunities
- Most people have a concern at biodiversity loss but feel disempowered to do anything about it
- Do we need more "heroes"? Popular lobbyists
- The "time poor" problem of a modern life
- Community levels of ignorance – need to address
- Instil some "peer pressure" – to pull people into green activity
- Have ready-made plans to facilitate participation

- Create opportunities to encourage participation, learn from those that don't work
- Tap into others (like uni students), who want to participate or have to participate

Group 3:

- Relates to their life – is cool
- A physiological model
- Groups (of people) = what is important to them
- Look for common ground by networking
- Outreach for a project (Clem Jones sports model)
- Positive "can do" projects
- Add adventure and fun to children's activities- connect to environment, environment deficit syndrome
- Proposals
- Common strategy – catchment and school – a prospective partnership
- Develop modules (with motivated teachers) in target schools
- Publicise/advertise project (local)
- Pollinator gardens, healthy food gardens, wildlife attracting gardens, bush tucker gardens
- Use natural spaces to do lessons
- Monitoring for birds and wildlife
- Catchment – vegetation management plan
- Biodiversity in my school yard

Group 4:

- Education to broader public
 - increasing awareness
- Nursery/landscaping
- Invasive species
- Understanding the impacts
- Lack of leadership
- Need for more innovative strategies to engage communities (photography competitions/groups)
- Corporate/top-down awareness

Group 5:

- Bushcare – demonstrating locally
- Private landholder projects – land for wildlife, catchment group projects
- Community gardens – expand thinking to biodiversity
- Kids day – 'gecko wildlife'; socially fun days
- Regular events
 - sunshine coast wild flower festival
 - plantings
 - outings
 - etc
- Social networking
 - facebook
 - take advantage of new technologies – birds; frogs; weeds
 - linkedin
 - encourage innovation in social network
 - youtube
- Skill and resourcing an issue
- Geography teachers, marine educators – involve
- WSPA – projects are successful – short time frame
- Wildlife (Greater Brisbane) survey

- Collaboration projects – between env education, schools, landcare groups, etc
- Competitions that attract kids & fun, educational
- Take kids out into the bush
- Landcare
 - review their engagement process
 - what reports are available to advise us?
 - children's landcare
- Use legislation (EPBC act)
- Interpretive trails
 - Downfall
- Bunya
- bris forest park
- Boondall
- (local government facility)
- Developers put funds into management funds (biodiversity)
- Youth for climate change - eg Bellengin I, uni student placements
- ECO news gone broke
- No biodiversity legislation

Question 2: What are the main directions you think a community biodiversity strategy should contain, and outline (very briefly) a strategy to achieve this?

Group 1:

- Simply planting trees is not restoring habitat
- Technology – appeal to younger generations
- Empowering & engaging communities
 - schools
 - link to youth for climate change
 - church groups
- Identify focus points for local areas
 - eg Brookfield showgrounds
 - have prominent places to increase awareness
→ community gardens/nursery
 - link into broader educational programs
 - issue – programs going in schools
- Preserve biodiversity in our areas -lobbying and educating
- Protect first, replace 2nd
 - research that give priorities
 - identify natural areas in our regions to add to current knowledge
- Need to set goals and principles
- Become an advisory service to private land holders and others
- Incentivise (find fundings) for management
 - weed rebates
- Existence rights

Group 2:

- Main Strategy Directions
 - WIIFM (What's in it for me)
 - Do it yourself
 - Promote actions already in hand; improve awareness to improve participation
 - Show people that biodiversity happens everywhere, and can be improved anywhere. Information available, a good way forward
 - Address negative attitudes, instil a new way of thinking, value what we have or could have. "Lower the barriers"
- How to Achieve These
 - "Birds, butterflies, Bees"
 - can't 'sell' flying foxes. Use things people do like & understand
 - conversations on eco-services with financial or social benefits
 - Use manageable concepts and activities
 - eg buy local plants to bring in birds, bees, improve local food and habitat
 - put in water – baths, etc?
 - Use "sound bytes"
 - respond quickly and positively to the media! Repeat! Education... Try to get double results with half the effort!
 - reach out, link
 - Suburb improvements & benefits? Show them how after a short effort nature carries on working "24/7". Stop inappropriate waste – green bins a great benefit v. weeds
 - Provide solutions to "problem" animals and plants. Install nest boxes? show benefits of fauna, flora, ecosystems

Group 3:

- Maintain and enhance biodiversity through public and private land
- We need to manage our landscape both on public and private land
- We need to encourage a more environmentally lifestyle
- We need to build in adaptive management and resiliency into our landscape
- Ensure legislation applied
- Resourcing private landowners to protect biodiversity
- Demonstrate good catchment management
- Being green is good for the hip pocket - show it, demonstrate it
- Local action (incremental steps) – connection to place is powerful in getting behavioural change
- Education – get them early
- Personal contact! Partnerships, relationship building
- Create pathways – hand out plants (free) to step them to biodiversity outcomes

Group 4:

- Maximise community group involvement/commitment
 - greater flexibility in group scheduling
 - social opportunities: movie nights, discussions, bringing family/friends in
- Opportunities for visibility of long-term benefits from short term actions > relationships, sense of place
 - follow up from planning days, etc
- Opportunities for tactile learning
 - Geckoes, snake man, learn through doing
- Access for all
 - people with disabilities
 - refugee groups → to participate in regeneration, surveys, etc

Group 5:

- Catchment groups as a receptacle for project ideas – from other groups
 - eg. N-E wetland corridor
 - I. d. local groups
 - I. d. common grounds
- Scope projects with multiple outcomes - eg koalas, NSUD, carbon
- Development
 - better ecological outcome
 - lesser developmental footprint
 - influence ecologically sustainable development
 - community involvement in planning
 - networking best provided guidelines (sharing experience)
 - educating people on development schemes (ie city plan)
- Actions that help developers meet environmental objectives
- Offset projects – catchment based
- A tangible best practice guide to control impacts of growth

References

Publications

Aguirre, A.A. and Tabor, G.M. (2008). Global factors driving emerging infectious diseases, *Annals of the New York Academy of Sciences*, vol. 1149, no. 1, pp. 1–3.

Australian Government, *State of the Environment 2011*
<http://www.environment.gov.au/soe/2011/report/index.html>

Cassis, G. (1998) Biodiversity loss: a human health issue, *Medical Journal of Australia*, vol. 169, pp. 568-569.

Cohabinitiative (2010) *The importance of biodiversity to human health : UN CBD COP 10 Policy Brief* <http://www.cohabnet.org/news/documents/COP10policybrief1r.pdf>

Maller, C. et al. (2006) Healthy nature healthy people: 'contact with nature' as an upstream health promotion intervention for populations, *Health Promotion International*, vol. 21, no. 1, pp. 45-54.
<http://heapro.oxfordjournals.org/content/21/1/45>

Maller, C. et al. (2008) *Healthy parks, healthy people : the health benefits of contact with nature in a park context : a review of relevant literature*, 2nd edn. Melbourne: School of Health and Social Development, Faculty of Health Medicine, Nursing and Behavioural Sciences, Deakin University and Parks Victoria.
http://parkweb.vic.gov.au/_data/assets/pdf_file/0018/313821/HPHP-deakin-literature-review.pdf

Moncrief, M 2012, 'Better lives for people, but nature under cloud', *The Sydney Morning Herald*, 13 October, p. 15.

Moggill Creek Catchment Group (n.d.). *Our Place in the Country : Managing your Acreage Property in West Brisbane*.
<http://www.moggillcreek.org/media/docs/Our%20Place%20in%20the%20Country.pdf>

National Biodiversity Strategy Review Task Group (2010) *Australia's Biodiversity Conservation strategy 2010-2030*
<http://www.environment.gov.au/biodiversity/publications/strategy-2010-30/pubs/biodiversity-strategy-2010.pdf>

National Climate Change Adaptation Research Facility (NCCARF) (2010) *National Climate Change Adaptation Research Plan: Freshwater Biodiversity : Consultation*

Draft, October 2010.

www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCgQFiAA&url=http://www.sustainable.unimelb.edu.au/files/mssi/Freshwater-Biodiversity_NCCARF-consultation-draft.pdf&ei=IoR6UMK4E-WSiQfqwYGgDA&usg=AFQjCNEmMEGyV2bNiqe8Sa4w1ECXDfnKgw&sig2=9BBkL4E7WHf2Lek76va5xw&cad=rja

Nature Conservation Act 1992 (Qld)

<http://www.legislation.qld.gov.au/legisln/current/n/naturecona92.pdf>

Regional Nature Conservation Strategy for South East Queensland 2003-2008 (2003)

<http://www.feral.org.au/regional-nature-conservation-strategy-for-south-east-queensland-2003-2008/>

South East Queensland Natural Resource Management Plan 2009-2031 (2009)

<http://www.seqcatchments.com.au/resources-nrm-plan.html>

The Economics of Ecosystems and Biodiversity (TEEB) (2009) The Economics of Ecosystems and Biodiversity for National and International Policy Makers – Summary: Responding to the Value of Nature, Part IV. SEQ State of the region 2008

http://www.teebweb.org/Portals/25/Documents/TEEB_D1%20summary%20FINAL%20DOC.pdf

Victorian Health Promotion Foundation (VicHealth) (2007) A Submission in Response to the Consultation Paper Land and Biodiversity at a Time of Climate Change

<http://www.vichealth.vic.gov.au/Media-Centre/Submissions/2007.aspx>

Websites

Brisbane City Council. *Wildlife Conservation Partnership Program*

<http://www.brisbane.qld.gov.au/environment-waste/natural-environment/wildlife/wildlife-conservation-partnership-program/index.htm>

Landcare Australia. *Landcare for Singles*

http://www.landcareonline.com.au/?page_id=8114

Moggill Creek Catchment Group. *Newsletter.*

http://www.moggillcreek.org/media/docs/newsletters/n_2010_summer.pdf

http://www.moggillcreek.org/media/docs/newsletters/n_2011_winter.pdf

Mount Gravatt High School (2012) *Newsletter*, July 2012.

<http://mtgravattshs.eq.edu.au/wcms/images/2012%20July%20%20Newsletter.pdf>

