

PINE RIVERS RURAL DISTRICT ECOLOGICAL CORRIDORS

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1.0 INTRODUCTION

Cardno Chenoweth was engaged by Moreton Bay Regional Council (MBRC) to prepare corridor mapping for the rural portion of the former Pine Rivers local government area. This mapping builds on mapping prepared for the former Caboolture local government area (Chenoweth EPLA, 2008) and for the Urban Footprint portion of MBRC (Chenoweth EPLA, 2010).

The methodology employed in the current study broadly follows methodologies employed in Chenoweth EPLA (2008) and Chenoweth EPLA (2010). These are discussed in the following sections.

2. ECOLOGICAL CORRIDORS

2.1 CORRIDOR THEORY AND PRACTICE

In effect, all vegetation including remnant, non-remnant and scattered trees facilitate the movement of fauna between broader areas of integral habitat. The movement of fauna within this matrix is limited by the integrity of vegetation in addition to the presence of impassable barriers including urban development and linear infrastructure such as fences and roads.

The identification of discrete corridors within this matrix is necessary to protect ecological values and functions that are important at a regional scale including (EPA, 2002):

- The maintenance of long term evolutionary/genetic processes that allow the natural change in distributions of species and connectivity between populations of species over long periods of time;
- The maintenance of landscape/ecosystems processes associated with geological, altitudinal and climatic gradients, to allow for ecological responses to climate change;
- The maintenance of large scale seasonal/migratory species processes and movement of fauna; and
- Maximising connectivity between large tracts/patches of remnant vegetation.

At a local scale, corridors are important for the day to day movement of fauna in the search for food, mates, nesting opportunities and dispersal.

Species differ in their habitat requirements within corridors (Lindenmayer & Nix, 1993), connectivity between habitat patches (Loney & Hobbs, 1991) and their tolerance of severance and barriers. Some birds and other highly mobile species may move across a mosaic of disturbed and natural landscape, but may need specific habitat and resources at regular spacing (‘stepping stones’); while small shy understorey mammals may find even a powerline easement an impassable obstacle. Edge effects, such as predation or displacement of woodland birds by more aggressive edge-dwellers, can extend the width of an apparently narrow break such that it becomes a wide gap in useable habitat; whereas a relatively simple link such as a culvert can provide an effective link beneath a highway for some species.

A frequently asked question is how wide should a corridor be? Unfortunately the scientific literature currently does not provide a concise answer to this question. Variables including vegetation types, species assemblages (both existing and desired), the condition of vegetation, whether vegetation is planted or remnant, the nature of adjoining land uses and the condition of the ground layer (e.g. are there logs and leaf litter) are some of the factors that affect the actual use of corridors. However it is clearly understood that there is a positive relationship between corridor width and animal use (Tubelis *et al.*, 2007 and Sieving *et al.*, 2000). Corridors that will allow regional scale movement for a diversity of wildlife; to provide connectivity over longer periods of time for entire populations or sub-populations; and to

support viable communities of species within the corridor itself need to be at least 300-500 metres at a minimum (DECC, 2004; Bond, 2003; Bennett, 2003).


Wide corridors are also valuable in areas where adjacent incompatible land uses continually degrade edges. A study of fauna corridors in Eden, New South Wales (Recher *et al.*, 1987) found the following:

- Corridors of 250m width retained a complete suite of bird species; and
- Corridors of >100m width retained the full suite of arboreal mammals apart from the Yellow bellied glider, which was only recorded in the widest (250m) corridor.

The Recher *et al.* (1987) study took place in native forest buffered by pine plantations. In the absence of this buffering capacity, additional buffers are required to reduce edge effects. Murcia (1995) found that most abiotic and direct biological edge effects extend 0-50m into bushland. Therefore, vegetated buffers of 50m width from the outside edge of existing vegetation are desirable in addition to the corridor width. That is, corridors should be at least 350m wide.

In recognition of the above, the retention of a functional ecological corridor in a fragmented landscape is indeed a challenge. It is unlikely that continuity of 350m bands of habitat can be achieved in an urbanised setting and hence other principles also need to be taken into account when planning in such environments as illustrated in Table 1 below:

Table 1: Descriptions and illustrations of corridor considerations

Recognising the current/future value of cleared areas	
<p>The identification of areas supporting high value biophysical attributes is an important first step to prioritise significant habitat contributing to the corridor core. However, some areas that are degraded (e.g. with Camphor Laurel) or devoid of vegetation may be located in critical points along the corridor that provide continuity in corridor habitat. It is therefore important to recognise and map these areas so as to ensure the „gate is not closed’ on the future capacity to restore an unimpeded corridor.</p>	
<p>Further, cleared areas between isolated patches may not pose a gap for some species (e.g. koalas in some rural areas) and the incorporation of intermediate landscapes in a corridor maybe valid. Therefore the maintenance of these areas free of development maybe sufficient to retain some level of connectivity.</p>	

Recognising the potential value of isolated patches, or 'stepping stones'

The notion that corridors are linear features in the landscape needs to be carefully considered. Isolated patches may also be important to the overall viability of habitat provided within a corridor. For instance, isolated patches may form highly significant 'stepping stones' within the corridor for altitudinal migrants or raptors.



Recognising the value of rehabilitation in beneficial locations

Linking some isolated patches to broader habitat areas may improve the overall viability of these patches and in turn improve the overall functionality of the corridor. The retention and restoration of intermediate areas may therefore be an important component of the corridor network. This does not necessarily imply that each patch would need be linked by broad (350m) wide corridors as in some instances a far narrower linkage may suffice (e.g. the viability of some glider metapopulations could be improved by re-instating narrow links between patches).



Recognising fauna movement barriers and the importance of barrier mitigation techniques

Management of fauna corridors within a disturbed setting must consider the multitude of physical barriers present within a developed environment. Such physical barriers may impact upon landscape integrity (such as nutrient cycling), reduce fauna movement permeability and, as a consequence, reduce biodiversity (Bissonette, 2009). Barriers include:

- *Natural watercourses* - This however is not a major threat with most fauna capable of crossing most urban streams;
- *Fences* - Generally small wire-strand fences represent little barrier to large vertebrates, whereas tall (2m) chain wire fences and timber fences represent a problem. Small impenetrable fences such as concrete barriers along roadways are a significant obstacle to all ground dwelling fauna; and
- *Linear infrastructure* – These types of infrastructure create significant gaps that may adversely affect fauna and include roadways; rail lines; and utility corridors.



Major physical barriers, such as highways, may require significant investment to mitigate the barrier such as land bridges, fauna underpasses and other engineered solutions. Research has demonstrated that many species will use crossing structures (Van der Ree, 2009, Van der Grift, 2009).

The most appropriate location for crossing structures may not align with the existing extent of mapped vegetation.

2.2 EXISTING ECOLOGICAL CORRIDOR MAPPING

2.2.1 BPA Corridors

Broad corridors of State and Regional significance that are approximately 5km and 2.5km wide respectively have been mapped by Department of Environment and Resource Management (DERM) as part of the Biodiversity Planning Assessment mapping of Southeast Queensland (EPA, 2007). Corridors located in part in the rural portion of the former Pine Rivers local government area include the:

- State Significant D'Aguilar Range Terrestrial Corridor – Follows the approximate ridgeline of the D'Aguilar Range (via Enoggera Forest Reserve, Mount Glorious Forest Reserve, D'Aguilar Forest Reserve and Mount Mee Forest Reserve);
- State Significant Pine River to D'Aguilar Terrestrial Corridor – Extends northeast from Enoggera Forest Reserve to near the mouth of the Pine River (via Samford and Bunyaville Forest Reserves);
- North Pine River Riparian Corridor; and
- South Pine River Riparian Corridor.

2.2.2 Former Local Government Mapping

Corridors in Caboolture Shire identified by Chenoweth EPLA (2008) were aimed at identifying viable links throughout the Shire and into the former neighboring local authorities of Pine Rivers, Redcliffe, Caloundra, Kilcoy and Esk. Corridors were aimed at connecting large habitat areas protected by tenure (e.g. National Park, existing open space) and/or vegetation protected under the *Vegetation Management Act 1999* including Endangered Regional Ecosystems. This mapping was not integrated in Planning Scheme overlay mapping.

In 2010 Chenoweth EPLA prepared corridor mapping for the Urban Footprint portion of Moreton Bay Regional Council building on the 2008 study.

The former Pine Rivers Shire included corridor mapping as part of its overlay mapping in the Planning Scheme (Overlay Code Map 1B – Biodiversity (Biodiversity Corridors)). The corridors are variable in width ranging from under 50m to over 3,000m wide. Within the Scheme, Probable Solution 18.4 of the Biodiversity Code and Probable Solution 2.1 of the Waterway Code both identify the provision of 100m wide corridors.

3. CURRENT STUDY MAPPING

3.1 METHODOLOGY

The centerline of corridors was mapped utilising several sources of information including:

- The corridors identified for the former Caboolture Shire by Chenoweth EPLA (2008);
- Aerial photography;
- Waterway mapping;
- Contours to assist in identifying ridgelines and spurs;
- Tenure mapping (specifically focusing on lands in the conservation estate to act as ‘hubs’ for the corridor network);
- Road kill data (specifically this included known road kill locations for bandicoots);
- Koala corridor mapping prepared by Moreton Bay Regional Council;
- Regional Ecosystem mapping (identifying remnant and regrowth areas); and
- Brisbane City Council’s Draft Core Biodiversity Network.

Corridors were largely located along creeks and maximised the use of remnant, regrowth and woody vegetation where possible in order to minimise the need for establishing broad areas of vegetation. The corridors mapped did not aim to capture the specific needs of ‘umbrella’ or ‘keystone’ species, but aimed at capturing the habitat requirements of a diversity of fauna and flora species by integrating a diversity of habitat types.

Once the centerline of each corridor was established, each was buffered according to the priorities outlined in Table 2:

TABLE 2: Moreton Bay Regional Council Corridor Prioritisation

Priority	Width	Application	Justification
1	350m	Priority 1 corridors were applied to corridors identified by the CNCCS Expert Panel, those that connect significant parcels of vegetation and/or support existing vegetation largely across their 350m width.	Based on the minimum width of corridor that has been demonstrated to maintain a complete suite of bird species (Recher <i>et al.</i> , 1987) plus appropriate buffers (Murcia, 1995).
2	200m	Priority 2 corridors were applied to major waterways such as the North Pine, South Pine and Caboolture Rivers and/or areas where there were frequent nodes of remnant vegetation, often greater than 200m in width.	200m was adopted as an intermediate buffer between rankings 1 and 3. It recognises the value of the corridor as habitat and for movement opportunities.
3	100m	Priority 3 corridors are primarily waterway based and support little to no remnant vegetation.	Based on the minimum corridor widths prescribed under the Probable Solutions of the former Caboolture Shire’s Nature Conservation Overlay, former Pine Rivers Biodiversity and Waterway Codes.

Some corridors were mapped as supporting variable rankings, particularly where minor branches extended from a primary route.

The draft mapping was reviewed by an Expert Panel and Council officers. Experts attending the panel included:

- Leslie Rosalind, State Koala Policy Unit
- John Bowden, local expert;
- Carole Green, Pine Rivers Koala Care Association; and
- Bruce Bunkum, Moreton Bay Regional Council Natural Areas Supervisor.

The final corridor mapping was integrated with the entire corridor network for the Moreton Bay Regional Council area. Many of the corridors identified represented natural extensions of those mapped as part of previous studies.

The corridors, along with their buffered areas are mapped in Figure 1 and are summarized in Table 3 below. New corridors mapped as part of the current study have been shaded:

TABLE 3: Moreton Bay Regional Council Corridors

Corridor	Description	Width
Aerodrome – Beerburum East State Forest Corridor	Aerodrome – Beerburum East State Forest Corridor joins the Aerodrome Corridor to Beerburum East State Forest. This corridor follows woody plantation vegetation and a patch of Melaleuca Open Forest on Coastal Alluvium (12.3.5) north to Beerburum East State Forest.	Priority 1 (350m wide).
Aerodrome Corridor	The Aerodrome Corridor is located immediately south of the Caboolture Aerodrome along an unnamed creek. It consists of mapped Remnant Eucalypt forest on Alluvial Plains (12.3.11), Melaleuca Open Forest (12.3.5), Melaleuca/Queensland Blue Gum on Alluvial Plains (12.3.6) and Swamp Oak Open Forest on Marine Clay Plains (12.1.1) of Regional and Local Significance. The link provides connectivity between these areas of vegetation and King John Creek and the Caboolture River.	Priority 2 (200m wide).
Albany Creek Corridor	The Albany Creek Corridor aligns with Albany Creek, which is a tributary of the South Pine river. This corridor supports vegetation of State and Regional Significance that forms a riparian community along much of the extent of the watercourse.	Priority 3 (100m wide).
Armstrong Creek Corridor	Connecting with the D'Aguilar Range National Park the Armstrong Creek Corridor includes areas of regional ecosystem 12.11.3, minor areas of 12.3.1, mapped regrowth and unmapped scattered trees that complete the linkage with the North Pine River.	Priority 1 (350m wide).
Baxters Creek Corridor	The Baxters Creek Corridor links the D'Aguilar National Park with the D'Aguilar Range to North Pine Reservoir Corridor largely areas of regional ecosystem 12.11.3 in addition to minor areas of 12.3.2 and unmapped scattered trees.	Priority 1 (350m wide).
Beachmere Conservation Park Corridor	The Beachmere Conservation Park Corridor is located in the south-east of the Shire, along the shore front. It connects patches of coastal vegetation including Mangrove Shrubland (12.1.3), Saltpan Vegetation (12.1.2) and Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6) from Sandstone Point through to the Beachmere Conservation Park.	Priority 2 (200m wide).
Beerburum Creek Corridor	The Beerburum Creek Corridor follows woody vegetation and some patches mapped as Scribbly Gum Open Forest (12.5.3) and Melaleuca Open Forest on Coastal Alluvium (12.3.5) along Beerburum Creek in the north of the Shire. It forms a connection between Beerburum East State Forest and Beerburum West State Forest. This corridor crosses the railway line and fauna crossing structures may need to be implemented.	Priority 2 (200m wide).
Beerburum West State Forest – Peachester State Forest Corridor	The Beerburum West State Forest – Peachester State Forest Corridor in the north of Caboolture Shire provides linkage to the Glasshouse Corridor (major corridor as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City. This linkage is provided mainly through woody vegetation and some remnant patches of Scribbly Gum Woodland on Sedimentary Rocks/Blackbutt Tall Open Forest on Sedimentary Rocks (12.9-10.4/12.9-10.14) and Flooded Gum Open Forest on Alluvial Plains (12.3.2) in Beerburum West State Forest and Peachester State Forest.	Priority 1 (350m wide).

Bellthorpe Corridor	The Bellthorpe Corridor in the north-west of the shire follows a number of wooded creek lines, including Running Creek and McColls Creek, from the Stanley River Corridor to Bellthorpe State Forest, Bellthorpe Forest Reserve and the Blackall Range Corridor (major corridor as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City. This corridor links areas of regional significance including Vine Forest (12.12.1, 12.12.16) and Blackbutt Open Forest on Igneous Rocks (12.12.2) with areas of woody vegetation.	Priority 1 (350m wide).
Bergin Creek Corridor	The Bergin Creek Corridor incorporates, in addition to minor areas of mapped regrowth, the remnant regional ecosystems 12.11.3, 12.11.5 and the Of Concern 12.3.11. The corridor forms part of a network connecting the Bunyaville Conservation Park to the Samford Conservation Park.	Priority 1 (350m wide).
Bongaree Corridor	The Bongaree Corridor, comprising Regionally Significant vegetation links large remnant patches that are fragmented by developed land.	Priority 2 (200m wide).
Branch Creek Corridor	The Branch Creek Corridor aligns this watercourse which is located in largely undeveloped, rural landscape. No remnant vegetation occurs within the corridor boundary.	Mostly Priority 3 (100m wide), with some areas Priority 2 (200m wide).
Brendale – Eatons Hill Corridor	The Brendale – Eatons Hill Corridor utilises larger patches of Locally and Regionally Significant remnant patches in the area to retain a link between Conflagration Creek and a major tributary of the South Pine River. The remnant areas incorporated in this corridor includes the last remaining patches in this largely developed landscape. Recent road upgrades in the vicinity include fauna crossing infrastructure. Vegetation in this area has been identified as important for the Wallum Froglet and Koalas.	Priority 1 (350m wide).
Bullock Creek Corridor	Bullock Creek Corridor provides a link between Bullock Creek Conservation Park on the coast and the Elimbah Creek Corridor (which provides a broader link to Beerburum East State Forest). The corridor connection is mapped mainly through remnant Mangrove Shrubland (12.1.3) and Melaleuca/Queensland Blue Gum Open Forest (12.3.6) in the north-east of the Shire.	Priority 1 (350m wide).
Bunyaville – Samford State Forest Corridor	The Bunyaville – Samford State Forest (SF) Corridor links between Bunyaville Forest Reserve in the east with Samford Forest Reserve through the inclusion of tracts of non-remnant bushland that remaining in this partially developed landscape. The link represents an important corridor between two broad areas of protected estate.	Priority 1 (350m wide).
Bunyaville Corridor	The Bunyaville Corridor links Bunyaville Forest Reserve with the South Pine River along a watercourse which supports non-remnant vegetation along its banks for almost the entire length of the corridor. A small patch of Regionally Significant 12.11.3a is present at the southern extent of the corridor where it meets Bunyaville Forest Reserve.	Priority 3 (100m wide).
Burpengary Creek – Pine Rivers North Corridor	The Burpengary Creek – Pine Rivers North is primarily a land based link following patches of woody vegetation and some areas of Ironbark Open Forest on Metamorphics (12.11.19) between the existing Burpengary Creek Corridor south to the Rush Creek locality of Pine Rivers Shire.	Priority 1 (350m wide).
Burpengary Creek Corridor	The Burpengary Creek Corridor incorporates both Burpengary Creek and Little Burpengary Creek and provides important connectivity between highland country in the far southwest of the Shire and the King Scrub locality of Pine Rivers Shire and the Coast. It also ensures links to Freshwater National Park with coastal habitats. Patches of vegetation vary substantially including Melaleuca Open Forest (12.3.5), Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6), Scribbly Gum Open Forest (12.5.3), Notophyll Vine Forest on Alluvial Plains (12.3.1), Ironbark Open Forest on Metamorphics (12.11.19) and Ironbark, Queensland Blue Gum Woodland on Metamorphics (12.11.14). Remnant Vegetation is mapped as State, Regional and Local Significance.	Priority 1 (350m wide).
Cabbage Tree Creek Corridor	Following the course of Cabbage Tree Creek, the Cabbage Tree Creek Corridor forms a link between Bunyaville Forest Reserve in the east with Samford Forest Reserve across a developed landscape where the watercourse supports vegetation along almost the entirety of its northern and southern banks. Regionally Significant vegetation (12.3.11) is included in the corridor where it occurs along Cabbage Tree Creek. The corridor extends into lands under the jurisdiction of Brisbane City Council.	Mostly Priority 3 (100m wide), with some areas Priority 2 (200m wide).

Caboolture River Corridor	The Caboolture River Corridor provides linkage between Deception Bay in the East and Upper Caboolture and Pine Rivers Shire in the West. The corridor eventually links with the broad wooded environments of Mt Mee as well as with the Wararba Creek Conservation Park. The corridor is the 'backbone' for several other corridors within the Urban Footprint. Remnant vegetation in the corridor includes Eucalypt Forest on alluvial plains (12.3.11), Eucalypt Open Forest on Metamorphics (12.11.3), Notophyll Vine Forest with Hoop Pines (12.11.10) and Melaleuca Open Forest (12.3.5). It is dissected by Morayfield Road, the North Coast Railway line and the Bruce Highway and is therefore likely to require fauna crossing structures in these locations.	Priority 2 (200m wide).
Camp Mountain Corridor	Eucalypt associations on granite and metasediment in addition to unmapped vegetation on rural residential properties connects the Samford Creek with the D'Aguilar National Park through the Camp Mountain Corridor.	Priority 1 (350m wide).
Cedar Creek Corridor	The Cedar Creek Corridor supports a high diversity of regional ecosystems including the Endangered 12.3.1; the Of Concern 12.12.12, 12.12.1 and 12.8.25; and the Least Concern 12.12.2, 12.12.15, 12.12.16, 12.3.7, 12.11.2, 12.11.3, 12.11.5, 12.11.10 and 12.8.3.	Priority 1 (350m wide).
Clear Mountain Conservation Park Connection Corridor	The corridor in this location is surrounded by broad areas of remnant vegetation. It has been mapped to acknowledge the significance of the vegetation in this location in linking disconnected portions of the Clear Mountain Conservation Park.	Priority 1 (350m wide).
Clear Mountain Corridor	The Clear Mountain Corridor connects Clear Mountain Forest Reserve with the South Pine River, incorporating remnant vegetation of Regional Significance. The expert panel identified this corridor as regionally significant. Clear Mountain, including its lower slopes and outliers has been identified as supporting important glider habitat.	Priority 1 (350m wide).
Closeburn Corridor	Continuous mapped remnant and regrowth vegetation connects the Clear Mountain Conservation Park with several corridors within the Cedar Creek area.	Priority 1 (350m wide).
Closeburn to Cedar Creek Corridor	This corridor represents a continuation of the Closeburn Corridor through continuous mapped remnant and regrowth vegetation.	Priority 1 (350m wide).
Conflagration Creek Corridor	The Conflagration Creek Corridor includes the watercourse which for the most part is sparsely vegetated and traverses a developed landscape. The watercourse has been channelled in places. Areas of vegetation include a patch of Locally Significant remnant vegetation at the southern extent of the corridor and State Significant vegetation (12.1.3) at the northern limit.	Priority 3 (100m wide).
Conondale Range Crossing Corridor	Located through the north-western highlands of Caboolture Shire, the Conondale Range Crossing Corridor links two sections of Bellthorpe Forest Reserve to the Conondale Corridor (major corridor as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City. The connection is formed through sections of remnant regional ecosystems including Simple Notophyll Vine Forest to Complex Notophyll Vine Forest (12.12.1, 12.12.16, 12.8.3) linked by woody vegetation.	Priority 1 (350m wide).
D'Aguilar Range Corridor	The D'Aguilar Range Corridor in the south-west of Caboolture Shire connects a number of regional ecosystems through woody vegetation to Mt Mee Forest Reserve and the Mount Pleasant locality in Pine Rivers Shire. Patches of remnant vegetation include Notophyll Vine Forest with Hoop Pine (12.11.10), Eucalypt Open Forest on Metamorphics (12.11.3) and Eucalypt Tall Open Forest on Metamorphics (12.11.2).	Priority 1 (350m wide).
D'Aguilar Range to North Pine Reservoir Corridor	Associated with the upper stretches of the North Pine River the corridor incorporated many riparian associations including areas of 12.3.7, 12.3.11 and the Endangered 12.3.1. There are also several patches of regrowth and mapped remnant sclerophyll associations on metasediments and granite.	Priority 1 (350m wide).
Dawson Creek Corridor	Forest Red Gum (12.12.23) and Grey Iron Bark (12.12.15) associations on granites occur along the Dawson Creek Corridor.	Priority 3 (100m wide).
Dayboro Corridor	Dayboro Corridor, following the upper extent of the North Pine River where it occurs near the township of Dayboro, includes several patches of remnant vegetation that occur in this landscape. Remnant vegetation includes patches of Local Significance (12.11.3), other remnants, as well as scattered non-remnant areas.	Priority 3 (100m wide).
Deception Bay – Lakeside Corridor	The Deception Bay-Lakeside Corridor links a patch of remnant vegetation in Kurwongbah with Saltwater Creek via a watercourse that is aligned with State, Regionally and Locally significant remnant patches. Some areas of cleared land are also included in the corridor.	Priority 3 (100m wide).

Deception Bay Corridor	The Deception Bay Corridor aligns the boundary of a large area of coastal wetland. It includes narrow bands of State (12.1.2) and Regionally Significant (12.2.5) vegetation that occur in this location. Broad areas of marine vegetation occur immediately outside of the Urban footprint to the north.	Priority 2 (200m wide).
Delaney Creek Corridor	Delaney Creek Corridor runs along Delaney Creek in the west of Caboolture Shire through woody vegetation. This corridor joins the Mt Mee State Forest – Delaney Creek State Forest Corridor to the Mt Mee Forest Reserve – Stanley River Corridor along Delaney Creek.	Priority 1 (350m wide).
Delaney Creek State Forest - Beerburum Forest Reserve Corridor	The Delaney Creek State Forest – Beerburum Forest Reserve Corridor is a mostly overland link between the Delaney Creek State Forest and the Beerburum Forest Reserve. This link is through areas mapped as Eucalypt Open Forest on Metamorphics (12.3.11), Blackbutt Tall Open Forest on Igneous Rocks/Eucalypt Open Forest on Igneous Rocks (12.12.2/12.12.15) and woody vegetation.	Priority 1 (350m wide).
Dobson Creek Corridor	The Dobson Creek Corridor encompasses Regionally Significant vegetation present along this waterway, linking with the Caboolture River and associated corridor.	Priority 2 (200m wide).
Donnybrook Corridor	The Donnybrook Corridor complements the Bullock Creek Corridor link by also linking to the Bullock Creek Conservation Park. This provides a link North of the Conservation Park along the Pumicestone Passage frontage of the Donnybrook locality through to Beerburum East State Forest and both the Glass Mountain Creek (environmental link) and Pumicestone Passage Corridor (major corridor) (Overlay Map 7.8 Caloundra City Plan) in the South-east of Caloundra City. This link runs through both woody vegetation and a number of remnant vegetation patches including Saltpan Vegetation (12.1.2), Mangrove Shrubland (12.1.3), Scribbly Gum Open Forest (12.5.3) and Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6).	Priority 3 (100m wide).
Elimbah Creek Corridor	Elimbah Creek Corridor follows Elimbah Creek from Pumicestone Passage through the localities of Toorbul and Meldale to Beerburum East State Forest. This link consists of Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6) and Mangrove Shrubland (12.1.3) connected with woody vegetation. Elimbah Creek Corridor is also connected in the north to Bullock Creek Corridor and in the south to Ningi Creek – Elimbah Creek Corridor. This corridor has already been the focus of revegetation effort and should therefore be regarded as a priority.	Priority 1 (350m wide).
Eliza Creek Corridor	Eliza Creek Corridor follows Eliza Creek through woody vegetation to Eucalypt Open Forest on Metamorphics (12.11.3) in the locality of Ocean View, Pine Rivers Shire. Eliza Creek branches off from the Caboolture River, providing a connection between the Caboolture River Corridor and habitat areas in Pine Rivers Shire.	Priority 1 (350m wide).
Four Mile Creek Corridor	The Four Mile Creek Corridor connects remnants in Clear Mountain with the North Pine River estuary. This extensive corridor aligns the watercourse and includes vegetation patches of Regional and Local Significance where they occur along the watercourse. At the North Pine River estuary, the Four Mile Creek Corridor includes expanses of State Significant tidally influenced vegetation (12.1.1) present at this location.	Priority 2 (200m wide).
Fresh Water Creek Corridor	The Freshwater Creek Corridor links Hays Inlet Conservation Park with remnants west of the Bruce Highway via Freshwater Creek. The corridor includes non-remnant patches along tributaries of Freshwater Creek as well as State, Regionally and Locally Significant vegetation where they occur along the watercourse. It represents an important east-west corridor within the Urban Footprint.	Priority 1 (350m wide).
Gregors Creek Corridor	Gregors Creek Corridor, following woody vegetation along Gregors Creek, linking the Caboolture River Corridor into Ocean View, Pine Rivers Shire. Gregors Creek branches south from the Caboolture River and passes through a patch of Eucalypt Open Forest on Metamorphics (12.11.3) to link into Pine Rivers Shire.	Priority 1 (350m wide).
Griffin Corridor	The Griffin Corridor network links Hays Inlet Conservation Park in the north with the estuarine environments located at the mouth of the North Pine River. The corridor follows watercourses that remain partly vegetated, with some small patches of remnant vegetation and State Significant vegetation included in the network. Although the area supports little mappable vegetation, all native vegetation (irrespective of remnant status) in the area has been identified by the expert panel as of importance to koalas and gliders.	Priority 2 (200m wide).

Hays Inlet Corridor	The Hays Inlet Corridor links sections of Hays Inlet Conservation Park. It includes large areas of remnant vegetation as well as patches of State and Regionally Significant vegetation, as well as portions of non-remnant vegetation. This corridor was identified as regionally significant by the expert panel.	Priority 1 (350m wide).
House Mountain Range Corridor	This broad ridgeline corridor connects the D'Aguilar National Park with the South Pine River through almost continuous areas of eucalypt associations (12.11.3 and 12.11.5).	Priority 1 (350m wide).
House Mountain Range to Cedar Creek Corridor	The House Mountain Range to Cedar Creek Corridor provides a ridge to valley linkage through mapped remnant and regrowth vegetation.	Priority 3 (100m wide).
Kedron Brook (east) Corridor	The Kedron Brook (east) Corridor follows Kedron Brook from Ferny Grove in the west to the eastern extent of the Shire boundary. The watercourse include non-remnant riparian vegetation along its banks, along with park area and the Kedron Country Golf Course. State (12.3.1) and Regionally (12.3.11) vegetation is included in the corridor where it occurs along Kedron Brook. The corridor extends into lands under the jurisdiction of Brisbane City Council.	Priority 3 (100m wide).
Kedron Brook (west) Corridor	The Kedron Brook (west) Corridor aligns the southern extent of the Samford Forest Reserve, picking up non-remnant vegetation as well as Regionally Significant vegetation that occurs in this location. The corridor generally aligns with a portion of Kedron Creek until it becomes part of the Kedron Brook (east) Corridor.	Priority 1 (350m wide).
King Johns Creek - Lagoon Creek Corridor	The King Johns Creek – Lagoon Creek Corridor is located in the north of the Shire along both King Johns and Lagoon Creeks and links into Beerburum West State Forest. Both creeks are linked by patches of State, Regional and Local Significance, and Regrowth vegetation. Patches of remnant vegetation include Scribbly Gum Open Forest (12.5.3), Melaleuca Open Forest (12.3.5), and Banksia Woodlands (12.3.14). On the eastern side of the Bruce Highway each creek joins at Tea Tree Swamp before draining south to the Caboolture River. The corridor is dissected by several roads including the Bruce Highway, Old Gympie and Beerburum Road and is therefore likely to require fauna crossing structures in these locations.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
Kobble Creek Corridor	Numerous patches of Least Concern regional ecosystems in addition to mapped regrowth occur within the Kobble Creek Corridor.	Priority 1 (350m wide).
Kurwongbah (east) Corridor	The corridor captures a diversity of eucalypt communities including areas of the Of Concern 12.3.11 and the Endangered 12.5.3.	Priority 1 (350m wide).
Kurwongbah (west) Corridor	Primarily eucalypt associations on diverse geological substrates including alluvium, sedimentary, metasediments, granite and deeply weathered profiles. Includes areas of the Endangered regional ecosystem 12.5.3.	Priority 1 (350m wide).
Laceys Creek Corridor	The heavily wooded upper reaches of the Laceys Creek corridor form an important link with the D'Aguilar National Park. While the remnant vegetation of the lower reaches is broken, areas of mapped regrowth and unmapped scattered vegetation complete this riparian linkage.	Priority 1 (350m wide).
Lake Samsonvale (east) Corridor	A diversity of ecosystems occur along this largely wooded corridor including the Least Concern 12.3.7, 12.11.5, 12.11.5 and Of Concern 12.12.12 and 12.11.14. The corridor in association with the Lake Samsonvale (west) Corridor forms a link around the Lake which is completed by the Clear Mountain Conservation Park	Priority 1 (350m wide).
Lake Samsonvale (west) Corridor	The corridor supports broad areas primarily consisting of Least Concern regional ecosystems in addition to some patches of the Endangered 12.3.1 and areas of mapped regrowth. The corridor in association with the Lake Samsonvale (east) Corridor forms a link around the Lake which is completed by the Clear Mountain Conservation Park	Priority 1 (350m wide).
Mackenzie Creek Corridor	Following the ridgeline to the north of Mackenzie Creek, this corridor provides a link between Laceys Creek and the D'Aguilar National Park. While most of the corridor is wooded, the lower portions near Laceys Creek would benefit from restoration.	Priority 1 (350m wide).
Moorina – Rush Creek Corridor	The Moorina – Rush Creek Corridor provides linkages through Eucalypt Open Forest on Metamorphics (12.11.3) along a number of small creeks. This corridor connects Burpengary Creek Corridor to the Rush Creek locality of Pine Rivers Shire.	Priority 1 (350m wide).

Morayfield - Burpengary Corridor	The Morayfield - Burpengary Corridor links Burpengary Creek with coastal wetlands near the mouth of the Caboolture River. The corridor includes patches of vegetation that are of State (including large patches of the Endangered 12.5.3), Regional and Local Significance, as well as non-remnant vegetation and mostly cleared lands.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
Mosquito Creek Corridor	The Mosquito Creek Corridor is primarily a riparian linkage incorporating eucalypt associations on both alluvial and metasediment deposits.	Priority 1 (350m wide).
Mount O'Reilly Corridor	The Mount O'Reilly Corridor predominantly supports remnant stands of 12.11.3 linking ridgeline habitat to the Cedar Creek Valley.	Priority 1 (350m wide).
Mount Samson Creek Corridor	While some fringing 12.3.1 occurs along Mount Samson Creek the corridor is dominated by Least Concern associations such as 12.11.3.	Priority 1 (350m wide).
Mount Samson Creek to Cedar Creek Corridor	While there is no remnant vegetation and scantily mapped regrowth vegetation in this corridor, the scattered trees along drainage lines provide a north south linkage between the Mount Samson Creek Corridor and the Cedar Creek Corridor.	Priority 3 (100m wide).
Mount Samson Creek to Closeburn Corridor	This corridor forms a largely wooded connection between the Mount Samson Creek to Closeburn Corridor.	Priority 3 (100m wide).
Mount Samson Range Corridor	While there is little diversity in vegetation associations along this corridor the area supports continuous vegetation coverage.	Priority 1 (350m wide).
Mount Samson Range to Kobbie Creek Corridor	The Mount Samson Range to Kobbie Creek Corridor traverses broad areas of remnant vegetation continuous with the habitats of the D'Aguilar National Park.	Priority 1 (350m wide).
Mount Beerburum Connection Corridor	The Mount Beerburum Connection Corridor links Beerburum Creek to the Glasshouse Corridor (Major Corridor) as mapped in Overlay map 7.8 of the Caloundra City Plan.	Priority 1 (350m wide).
Mt Mee Forest Reserve – Stanley River Corridor	The Mt Mee Forest Reserve – Stanley River Corridor provides a connection between the Stanley River Corridor, Mt Mee Forest Reserve and the Mount Archer locality of Kilcoy Shire. This connection is made through a large patch of Eucalyptus Forest on Igneous Rocks (12.12.15), and patches of Araucarian Vine Forest on Igneous Rocks (12.12.13) and woody vegetation along several waterways.	Priority 1 (350m wide).
Mt Mee State Forest – Delaney Creek State Forest Corridor	The Mt Mee State Forest – Delaney Creek State Forest Corridor extends through the woody vegetation lining Centipede, Cuthbert and Bungo Creeks as well as patches of Forest Red Gum Open Forest (12.11.9) and Notophyll Vine Forest/Eucalypt Open Forest on Metamorphics (12.11.10/12.11.3). The corridor connects Delaney Creek State Forest to Mt Mee State Forest and extends into the Mount Byron locality of Esk Shire.	Priority 1 (350m wide).
Mt Pleasant to Flagstone Creek Corridor	The remnant vegetation along the corridor is mainly composed of stands of regional ecosystem 12.11.3. The Mt Pleasant to Flagstone Creek Corridor is important to linking the Ocean View Corridor to both the Mt Pleasant to North Pine Reservoir Corridor and downstream habitats.	Priority 1 (350m wide).
Mt Pleasant to North Pine Reservoir Corridor	While largely supporting areas mapped as regrowth, the corridor is important in that it links numerous discrete patches of mapped remnant sclerophyll forests of ridgeline habitat and forms a lengthy north-south link within the local government area.	Priority 1 (350m wide).
Murrenbong Corridor	In the vicinity of the Murrenbong Scout Camp this corridor supports stands of remnant vegetation known to be of importance to local koala populations.	Priority 1 (350m wide).
Murrumba Downs Corridor	The Murrumba Downs Corridor aligns with a vegetated watercourse (supporting non-remnant vegetation) to link Fresh Water Creek with Yebri Creek to the south.	Priority 2 (200m wide).
Narangba Corridor	Narangba Corridor runs through the locality of Narangba. This corridor links Burpengary Creek Corridor via patches of Ironbark Open Forest on Metamorphics (12.11.19) interspersed with woody vegetation to the Rush Creek locality of Pine Rivers Shire.	Priority 1 (350m wide).
Narangba East Corridor	The Narangba East Corridor runs through the locality of Narangba. This corridor links Burpengary Creek Corridor via patches of Ironbark Open Forest on Metamorphics (12.11.19) interspersed with woody vegetation to the Rush Creek locality.	Priority 2 (200m wide).

Ningi Corridor	The Ningi Corridor is located in the Ningi township on the East Coast of Caboolture Shire. The Ningi Corridor connects to Beerburum East State Forest through areas of mapped remnant Melaleuca Open Forest (12.3.5), Swamps dominated by sedges (12.2.15), Corymbia, Banksia, Callitris and Acacia species on Beach Ridges (12.2.5) and Melaleuca Open Forest to Woodland on Sand Plains (12.2.7) as well as areas of regrowth and woody vegetation. The patches of vegetation are ranked as both State and Locally Significant. Much of the area surrounding Ningi remains as integral vegetation – the primary purpose of this link is to ensure connectivity through potential future development.	Priority 2 (200m wide).
Ningi Creek – Elimbah Creek Corridor	The Ningi Creek – Elimbah Creek Corridor provides a link between the Elimbah Creek Corridor and the Ningi Corridor. This link is formed through Scribbly Gum Open Forest (12.5.3).	Priority 1 (350m wide).
North Lakes Corridor	The North Lakes Corridor encompasses vegetation and open space aligning watercourses along the length of the corridor that are mainly part of the North Lakes Golf Course. A small 'arm' extending west from this corridor terminates at the Bruce Highway and includes State and Locally Significant remnants.	Priority 3 (100m wide).
North Pine River Corridor	The North Pine River Corridor aligns with the North Pine River from Lake Samsonvale in the west to the mouth of the river in the east. State Significant riparian vegetation communities (12.3.1, 12.3.7) occur in the corridor. Smaller patches of other vegetation, including areas of Local Significance are also included.	Priority 2 (200m wide).
Ocean View Corridor	While continuous remnant or regrowth vegetation is absent along the matrix of linkages making up the Ocean View Corridor, scattered unmapped trees contributes to local functionality. The area is known to support a koala population.	Mostly Priority 1 (350m wide), with some areas Priority 3 (100m wide).
One Mile (Joyner) Corridor	The One Mile (Joyner) Corridor is composed of a network of corridors that align the watercourse and its tributaries, linking Clear Mountain Forest Reserve with the North Pine River. The corridor incorporates remnant vegetation that occurs along the watercourse, which is of Regional and Local Significance. Residential development in the foothills of Clear Mountain largely defines the numerous arms of the corridor, each of which is likely to play an important role.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
One Mile Creek – Monkeybong Creek Corridor	The One Mile – Monkeybong Creek Corridor incorporates both of these waterways and their tributaries in the Woodford area. The corridor, which provides connection with the Beerburum Forest Reserve, incorporates several areas regarded of Regional Significance.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
Peachester State Forest Corridor	Peachester State Forest Corridor establishes a connection east from the Stanley River Corridor, through Peachester State Forest into the Landsborough Corridor (major corridor as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City. The corridor runs part of the way along Sandy Creek through woody vegetation into the Flooded Gum Open Forest on Alluvial Plains (12.3.2) of Peachester State Forest.	Priority 1 (350m wide).
Petrie Corridor	The Petrie Corridor follows a tributary of the North Pine River. This short corridor links Yebri Creek Corridor to the north with the North Pine River and includes a portion of State and Regionally Significant remnant vegetation.	Priority 3 (100m wide).
Quarry Corridor	This corridor passes between two areas of extraction in the Whiteside area. A purpose fitted underpass for Koalas is located where this corridor crosses Dayboro Road.	Priority 1 (350m wide).
Raynbird Creek Corridor	The Raynbird Creek Corridor provides an additional link of the Laceys Creek Corridor with the D'Aguilar National Park through areas of remnant 12.3.7, 12.11.3 and 12.11.5.	Priority 1 (350m wide).
Rocksberg Corridor	While primarily a land based linkage the Rocksberg Corridor also incorporates some areas of the Of Concern riparian regional ecosystem 12.3.11. Most of the corridor is located within broad remnant stands of regional ecosystem 12.11.3.	Priority 1 (350m wide).
Rothwell Corridor	The Rothwell Corridor links Saltwater Creek with coastal wetlands of Deception Bay via cleared lands and non-remnant vegetation that form open space within this largely developed part of the landscape. Although it is unlikely that a continuous wooded corridor can be established along its length, the enhancement of open space through restoration plantings will assist in creating a stepping stone link.	Priority 3 (100m wide).

Saltwater Creek Corridor	Saltwater Creek includes many tributaries that make up the Saltwater Creek Corridor. The corridor consists of large patches of State Significant Scribbly Gum Open Forest (12.5.3) and smaller Locally Significant patches of Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6) and Melaleuca Open Forest (12.3.5). The corridor is linked by many patches of mapped regrowth and woody regrowth. The link connects Freshwater National Park in the north to via broad areas of State significant bushland to habitat areas in both Redcliffe City and the Lake Kurwongbah region of Pine Rivers Shire. Known koala activity in the area has been recognised by the Department of Main Roads by incorporating koala protection features in future upgrades to the Bruce Highway.	Priority 1 (350m wide).
Samford Conservation Park Corridor	Incorporating mapped regrowth and areas of remnant regional ecosystems 12.11.3 and 12.11.5, the Samford Conservation Park Corridor connects the Samford Conservation Park with the North Pine River.	Priority 1 (350m wide).
Samford Conservation Park to D'Aguilar Corridor	While portions of this corridor are not mapped as supporting remnant or regrowth vegetation, all portions support some level of woody vegetation and therefore function as a connection between the Samford Conservation Park and the D'Aguilar National Park.	Priority 1 (350m wide).
Samford Creek and Samford Corridor	The Samford Creek and Samford Corridor links Samford Forest Reserve with the South Pine River (and associated Samford Valley Corridor). The corridor includes locally, Regionally and State Significant remnants. The corridor was identified as Regionally significant by the expert panel.	Priority 1 (350m wide).
Samford Valley Corridor	The Samford Valley corridor aligns the South Pine River where it traverses the Samford Valley. It includes State Significant as well as other remnant vegetation.	Priority 1 (350m wide).
Samson Creek to Lake Samsonvale Corridor	While this corridor is largely devoid of mapped remnant vegetation, the waterway in this location is known to provide habitat for platypus.	Priority 3 (100m wide).
Sandy Creek Corridor	The Sandy Creek forms a tributary of the South Pine River and supports part of the Sandy Creek Corridor. The corridor links Bunyaville Forest Reserve in the south with the South Pine River in the north. The corridor traverses dense development that abuts Bunyaville Forest Reserve until it includes Sandy Creek, which is aligned with parkland areas and open space supporting scattered vegetation, as well as Regionally significant remnant vegetation (12.3.11) near the confluence with the South Pine River.	Priority 3 (100m wide).
Sheep Station Creek Corridor	The Sheep Station Creek Corridor links Sheep Station Creek Environmental Park with the Caboolture River and the Burpengary Creek Corridor. Patches of remnant vegetation along the Corridor consist of mapped Scribbly Gum Open Forest (12.5.3) and Melaleuca/Queensland Blue Gum on Coastal Alluvial Plains (12.3.6), Eucalypt Forest on Alluvial Plains (12.3.11) and Gum Topped Box on sedimentary rocks (12.9-10.3) and the Mixed Eucalypt Forest on Volcanic Rock (12.11.18/12.11.15/12.8.16), some of which are regarded of State significance. Playing an important role in linking remnant areas are patches of regrowth and woody vegetation. The corridor is dissected by the North Coast Railway line and Morayfield Road.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
Sideling Creek Corridor	While portions of the Sideling Creek Corridor are devoid of vegetation its location, and presence of patches of riparian vegetation including regional ecosystems 12.3.11, 12.3.8 and 12.3.7, complements the function of the Mosquito Creek Corridor.	Priority 1 (350m wide).
Six Mile Creek Corridor	The Six Mile Creek Corridor is located in the very north of the Shire passing through Elimbah along Six Mile Creek with links to Beerburum East State Forest, Beerburum West State Forest and the Glass House Mountains National Park. The creek is lined with Melaleuca Open Forest on Coastal Alluvium (12.3.5) and Scribbly Gum Open Forest (12.5.3) linked by woody regrowth vegetation. This corridor is dissected by the North Coast Link railway line, Beerburum Road, Old Gympie Road and the Bruce Highway, therefore fauna crossing structures may be necessary to enhance fauna movement.	Mostly Priority 1 (350m wide), with some areas Priority 2 (200m wide).
South Pine River Corridor	The South Pine River Corridor is extensive, beginning at Clear Mountain in the west and following the course of the river to where it meets the North Pine River at Bald Hills / Strathpine. The river meanders through a largely non-remnant landscape and therefore the corridor includes mainly narrow patches of non-remnant vegetation that align the watercourse. Small patches of State Significant ecosystem 12.3.1 are however included in the corridor where they occur along the watercourse, with some larger patches of remnant vegetation in the Clear Mountain area also	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).

	encompassed.	
South Pine River to Bunyan Creek Corridor	Continuous vegetation associated with the South Pine River to Bunyan Creek Corridor connects Bunyaville Conservation Park with the broader local habitat network incorporating the Bergin Creek Corridor.	Priority 2 (200m wide).
Stanley River Corridor	The Stanley River Corridor extends through Caboolture Shire from the Stanley River Link (environmental link as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City through to the Somerset Dam in Kilcoy Shire. This link is mapped along the Stanley River mostly through woody vegetation.	Priority 1 (350m wide).
Stony Creek Corridor	The Stony Creek Corridor extends north-west from the Stanley River Corridor along Stony Creek. Stony Creek is lined with woody vegetation and passes through some patches of Eucalypt Forest on Alluvial Plains (12.3.11) and Eucalypt Open Forest on Igneous Rocks (12.12.15). The Stony Creek Corridor links the Stanley River Corridor to Bellthorpe Forest Reserve across the D'Aguiar Highway. Fauna crossing structures may be considered at this point of severance at some stage.	Priority 1 (350m wide).
Strathpine – Eatons Hill (east) Corridor	The Strathpine – Eatons Hill (east) Corridor is located in developed lands that include industrial development and support little vegetation (although small patches of Regionally Significant 12.3.11 do occur).	Priority 3 (100m wide).
Strathpine – Eatons Hill (west) Corridor	The Strathpine – Eatons Hill (west) Corridor begins in Clear Mountain, linking remnant patches present there (Locally and Regionally Significant vegetation) with the Strathpine – Eatons Hill (east) Corridor which then connects to the South Pine River. Vegetation in this western arm of the Strathpine – Eatons Hill Corridor is more integral than the eastern portion.	Mostly Priority 2 (200m wide), with some areas Priority 3 (100m wide).
Tea Tree Swamp Corridor	Tea Tree Swamp Corridor connects the Tea Tree Swamp with two areas of Beerburum East State Forest and also meets the King Johns – Lagoon Creek Corridor. These connections are made through areas of Melaleuca Open Forest on Coastal Alluvium (12.3.5), Scribbly Gum Open Forest (12.5.3) and areas of woody vegetation.	Priority 1 (350m wide).
Terrors Creek Corridor	The Terrors Creek Corridor, traversing Kings Scrub and Dayboro, follows the extent of Terrors Creek which outlets to the North Pine River. The watercourse includes State Significant vegetation (12.3.1) and areas of remnant and non remnant vegetation.	Priority 3 (100m wide).
Todds Gully Corridor	While the Todds Gully Corridor includes stands of the Of Concern regional ecosystem 12.3.11 much of it traverses a modified landscape. The area, although disturbed, is known to facilitate local koala movements.	Priority 3 (100m wide).
Tunbuddla Corridor	Tunbuddla Corridor connects through parts of Beerburum West State Forest to the Maleny Plateau cross-link (environmental link as mapped in Overlay map 7.8 of the Caloundra City Plan) in Caloundra City. It passes close to the Tunbuddla Mountains in Beerburum West State Forest. This link is formed mainly through areas mapped as Melaleuca Open Forest on Coastal Alluvium (12.3.5), Scribbly Gum Open Forest (12.5.3), Banksia woodland (12.3.14), Scribbly Gum Woodland on Sedimentary Rocks (12.9-10.4) and Blackbutt Tall Open Forest on Sedimentary Rocks (12.9-10.14).	Priority 1 (350m wide).
Upper Lacey's Creek Corridor	The upper Lacey's Creek Corridor forms a cross valley linkage incorporating remnant patches of regional ecosystems 12.3.7, 12.11.5 and 12.11.3.	Priority 1 (350m wide).
Wararba Creek Corridor	The Wararba Creek Corridor diverges to the north-west from the Caboolture River Corridor in Bellmere and eventually links with State Forest near D'Aguiar. This corridor also links into the Wararba Creek Conservation Park. Mapped regrowth and woody vegetation links patches of State and Regional Significance along the corridor. Patches of remnant vegetation include Banksia Woodlands (12.3.14), Melaleuca Open Forest (12.3.5), Scribbly Gum Open Forest (12.5.3), Eucalypt Open Forest on Metamorphics (12.11.3), Grass Tree Woodland (12.11.5) and Eucalypt Forest on Alluvial Plains (12.3.11).	Priority 1 (350m wide).
Whiteside Corridor	The Whiteside Corridor passes through several heterogeneous patches of vegetation along the northern edge of Lake Samsonvale adding to the network of corridors circling the Lake.	Priority 1 (350m wide).

Wights Mountain (east) Corridor	While no mapped remnant or regrowth vegetation occurs along this corridor there have been restoration efforts in the area. Existing vegetation in the area contributes to the Days Road flying fox colony.	Priority 3 (100m wide).
Wights Mountain (west) Corridor	The Wights Mountain (west) Corridor largely supports Least Concern regional ecosystems on granite, although some Endangered gallery rainforest (12.3.1) is present.	Priority 3 (100m wide).
Wongan Creek Corridor	The Wongan Creek Corridor traverses Regionally Significant and other remnant riparian vegetation present along Wongan Creek to form a link between Bunyaville Forest Reserve and the South Pine River.	Priority 3 (100m wide).
Woodward Corridor	The corridor in this location is surrounded by broad areas of remnant vegetation. It has been mapped to acknowledge the significance of the vegetation in this location in linking disconnected portions of the D'Aguilar National Park.	Priority 1 (350m wide).
Yebri Creek Corridor	The Yebri Creek Corridor links Freshwater Creek to the north with tributaries of the North Pine River to the south. Yebri Creek supports narrow vegetation patches along its length, as well as remnant vegetation that is of Regional Significance.	Priority 3 (100m wide).
Zillman Creek Corridor	In the upper catchment of the Caboolture River the Zillman Creek Corridor supports areas of regrowth in addition to the Least Concern regional ecosystems 12.11.3 and 12.11.10.	Priority 1 (350m wide).

The complete corridor network within the Moreton Bay Regional Council local government area is presented in Appendix A.

3.2 DISCUSSION

As previously noted corridors serve an important role in the maintenance of wildlife populations and the ecological resilience of habitat patches and existing reserves.

The resulting corridor mapping serves as an important tool to assist Council with planning and management decisions. Areas identified within corridors would ideally not be subject to further intensification of development. Although some wildlife can utilise corridors where there is a brief narrowing of vegetation (Sieving *et al.*, 2000), the complete blocking of pathways (e.g. through the installation of fencing, retaining walls or residential development across the entire width of a corridor) will prevent the movement of all but the most mobile of wildlife. Therefore such developments should be discouraged in corridors.

To enhance the long term functionality of corridors, areas that are devoid of vegetation should be targeted for revegetation. Such areas will provide suitable locations to target vegetation offset (see also Section 4).

The corridor network is severed in many locations by infrastructure including services, roads and rail. These breaks can result in major impediments to fauna movement. Despite this, measures can be implemented to reduce road mortality and enhance movement across corridor breaks. The measures that can be utilised to mitigate barriers are variable and are dependent on numerous factors including the target species, width and nature of the break and the surrounding land use.

4. REHABILITATION PRIORITIES

4.1 METHODOLOGY

Within the local government area there are several priorities for rehabilitation including buffers to areas of significance and restoration of degraded wetland environments. However the primary focus of restoration in the current study is the corridor network.

The level of restoration input required at a given site can be broadly seen as a function of existing native vegetation cover, whereby areas supporting remnant vegetation are likely to have low restoration inputs and cleared areas are likely to have high restoration inputs. Areas mapped as regrowth vegetation by DERM (2009) are likely to have relatively moderate restoration inputs as it is presumed that some native vegetation structure is present and therefore management effort, rather than planting, will result in ecosystem restoration.

4.2 RESULTS

Three rehabilitation categories have been mapped, described in Table 4 below and illustrated in Figure 2:

TABLE 4: Restoration Categories within Corridors

Category	Likely Rehabilitation requirements
"Low" restoration input	<i>Remnant regional ecosystems</i> Little rehabilitation input is likely to be required. It is likely that these areas support a native vegetation canopy. Some restoration input is anticipated (e.g. removal of weeds, facilitating recovery of the understory and ground layer).
"Moderate" restoration input	<i>Regrowth vegetation</i> These areas may support scattered canopy trees, dense wattle/sheoak regrowth and/or exotic trees. These areas are likely to require some restoration and weed management to enhance the ecological value and connectivity.
"High" restoration input	<i>No remnant or regrowth vegetation mapped at present</i> These areas support little to no native vegetation and are likely to require mass planting or seeding of vegetation to re-establish a natural ecosystem.

4.3 DISCUSSION

The mapping identifies three restoration categories. A desktop review of pre-clearing Regional Ecosystems within areas of non-remnant (incorporating mapped Regrowth and areas of clearing) indicates that some of these areas may develop into remnant 'Endangered' Regional Ecosystems if managed appropriately. This includes broad areas that could potentially be rehabilitated to 12.5.3 "*Eucalyptus tindaliae* and/or *E. racemosa* open forest on remnant Tertiary surfaces". It is possible that some of these areas could be employed as potential offset sites under DERM's Policy for Vegetation Management Offsets (2011), koala habitat offsets, local offsets directed under the planning scheme or through other offset policies/guidelines.

Areas designated for restoration are likely to require substantial effort. Given the expense of restoration exercises, it is unlikely that the full corridor width of 350m will be attainable in all circumstances. As many corridors are centered on watercourses, restoration should achieve compliance with the relevant waterway code requirements at an absolute minimum. The SEQ Restoration Framework (Cardno Chenoweth and Bushland Restoration Services, 2011) provides sound guidance to approaches to ecological restoration in the region.

REFERENCES

Bavins, M., Couchman, D., and Beumer, J. (2000). *Fish Habitat Guideline FHG 003: Fisheries Guidelines for Fish Habitat Buffer Zones*. Queensland Fisheries Service, Department of Primary Industries and Fisheries, Brisbane.

Bennett, A.F. (2003). *Linkages in the landscape: the role of corridors and connectivity in wildlife conservation*. IUCN, Cambridge.

Bissonette, J.A. (2009). *Decision making in road ecology: Developing the framework*. Presentation given at 'Breaking the Barriers – Engineering Solutions to Ecological Problems' national symposium, Brisbane, May 2009.

Bond, M. (2003). *Principles for wildlife corridor design*. Centre for Biological Diversity, Arizona, USA.

Cardno Chenoweth and Bushland Restoration Services. (2011). *South East Queensland Ecological Restoration Framework*. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.

Chenoweth Environmental Planning & Landscape Architecture. (2008). *DRAFT An investigation of existing and potential ecological linkages within Caboolture Shire*. Prepared for Caboolture Shire Council.

Chenoweth Environmental Planning & Landscape Architecture. (2010). *Conservation Significance and Corridor Mapping for Moreton Bay Regional Council*. Prepared for Moreton Bay Regional Council.

Department of Environment and Conservation (DECC). (2004). *Wildlife Corridors. Natural Resources and Minerals Advisory Series: Note 15*, DECC, NSW.

Department of Environment and Resource Management (DERM). (2009). *High value regrowth vegetation-version 2 GIS Mapping*.

Department of Environment and Resource Management (DERM). (2011). *Policy for vegetation management offsets – Version 3*.

Environmental Protection Agency. (2002). *Biodiversity Assessment and Mapping Methodology*.

Environmental Protection Agency. (2007). *Southeast Queensland Biodiversity Planning Assessment - Version 3.5*.

Lindenmayer, D.B. and Nix, H.A., (1993). *Ecological Principles for the Design of Wildlife Corridors*. Conservation Biology Vol. 7, No. 3 (Sep., 1993), pp. 627-630.

Loney, B. and Hobbs, R.J. (1991). *Management of vegetation corridors: maintenance, rehabilitation and establishment*. Pp. 299-311 in Saunders, D.A., Hobbs, R.J. (Eds.), *Nature Conservation 2: The Role of Corridors*. Surrey Beatty and Sons, Chipping Norton, Australia.

Murcia, C. (1995). *Edge effects in fragmented forests: Implications for conservation*. TREE. 10:58 – 62.

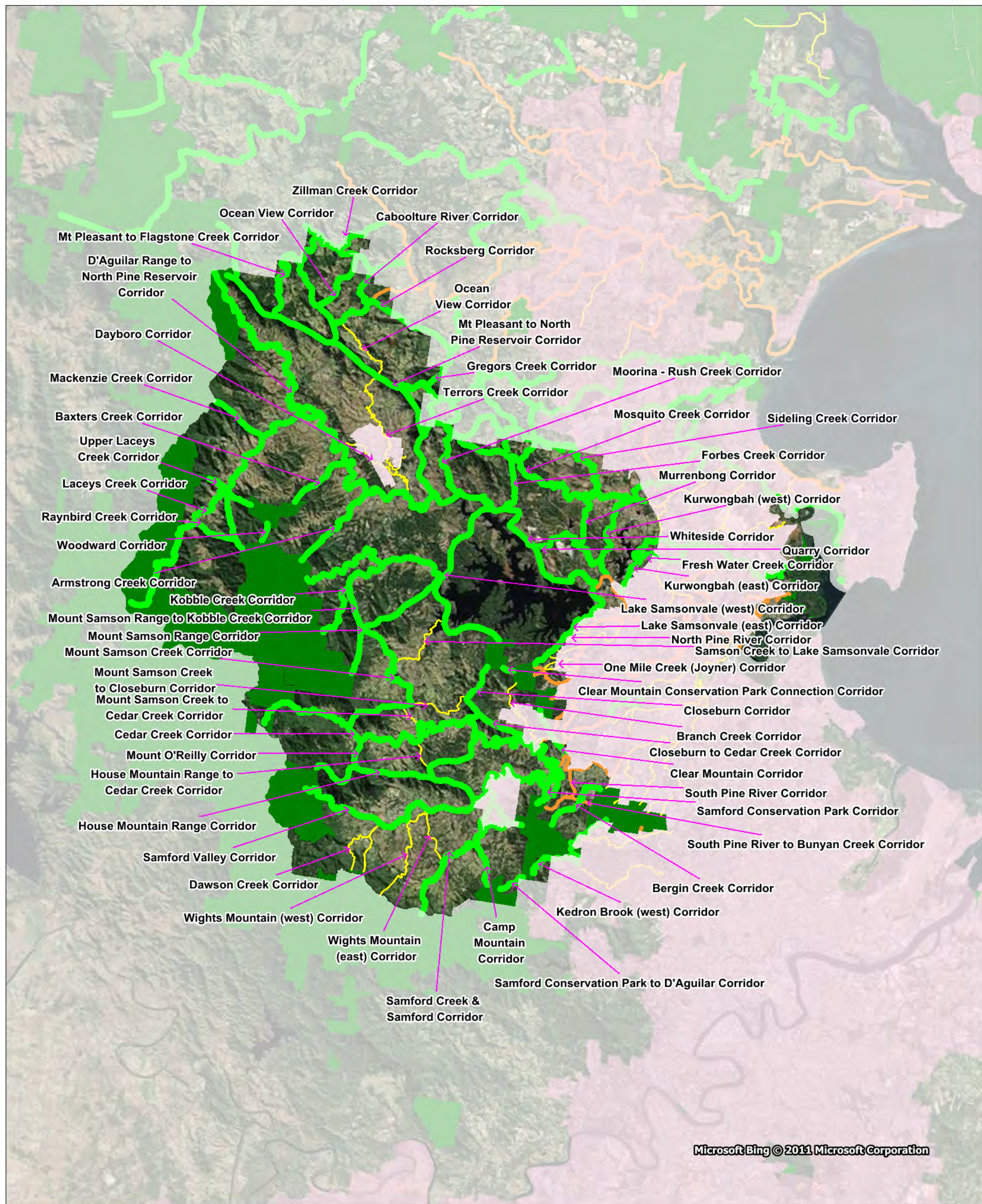
Recher H.F., Shields, J., Kavanagh, R. and Webb, G. (1987). *Retaining Remnant Mature Forest for Nature Conservation at Eden, New South Wales: A Review of Theory and Practice*. Pp. 177-194 in Saunders, D.A., Arnold, G., Burbidge, A., and Hopkins, A. (Eds) *Nature Conservation: the Role of Remnants of Native Vegetation*. Surrey Beatty and Sons: Sydney.

Sieving, K.E., Willson, M.F. and de Santo, T. (2000). *Defining corridor functions for endemic birds in fragmented south-temperate rainforest*. Conservation Biology. Vol. 14, No. 4, pp. 1120-1132.

Tubelis, D.P., Lindenmayer, D.B. and Cowling, A. (2007). *Bird populations in native forest patches in south-eastern Australia: the roles of patch width, matrix type (age) and matrix use*. Landscape Ecology. 22:1045-1058.

Van der Grift, R. (2009). *Wildlife crossing structure: the road to success*. Presentation given at 'Breaking the Barriers – Engineering Solutions to Ecological Problems' national symposium, Brisbane, May 2009.

Van der Ree, R. (2009). *Why do we need mitigation measures?* Presentation given at 'Breaking the Barriers – Engineering Solutions to Ecological Problems' national symposium, Brisbane, May 2009.



LEGEND

- Corridor Rank 1 - 350m wide
- Corridor Rank 2 - 200m wide
- Corridor Rank 3 - 100m wide
- State Conservation Estate

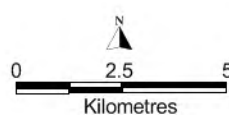


FIGURE 1

Moreton Bay Regional Council
Pine Rivers Rural Corridors



LEGEND

- Low restoration input likely
- Moderation restoration input likely
- High restoration input likely
- State Conservation Estate

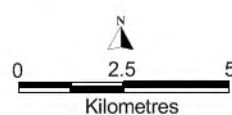


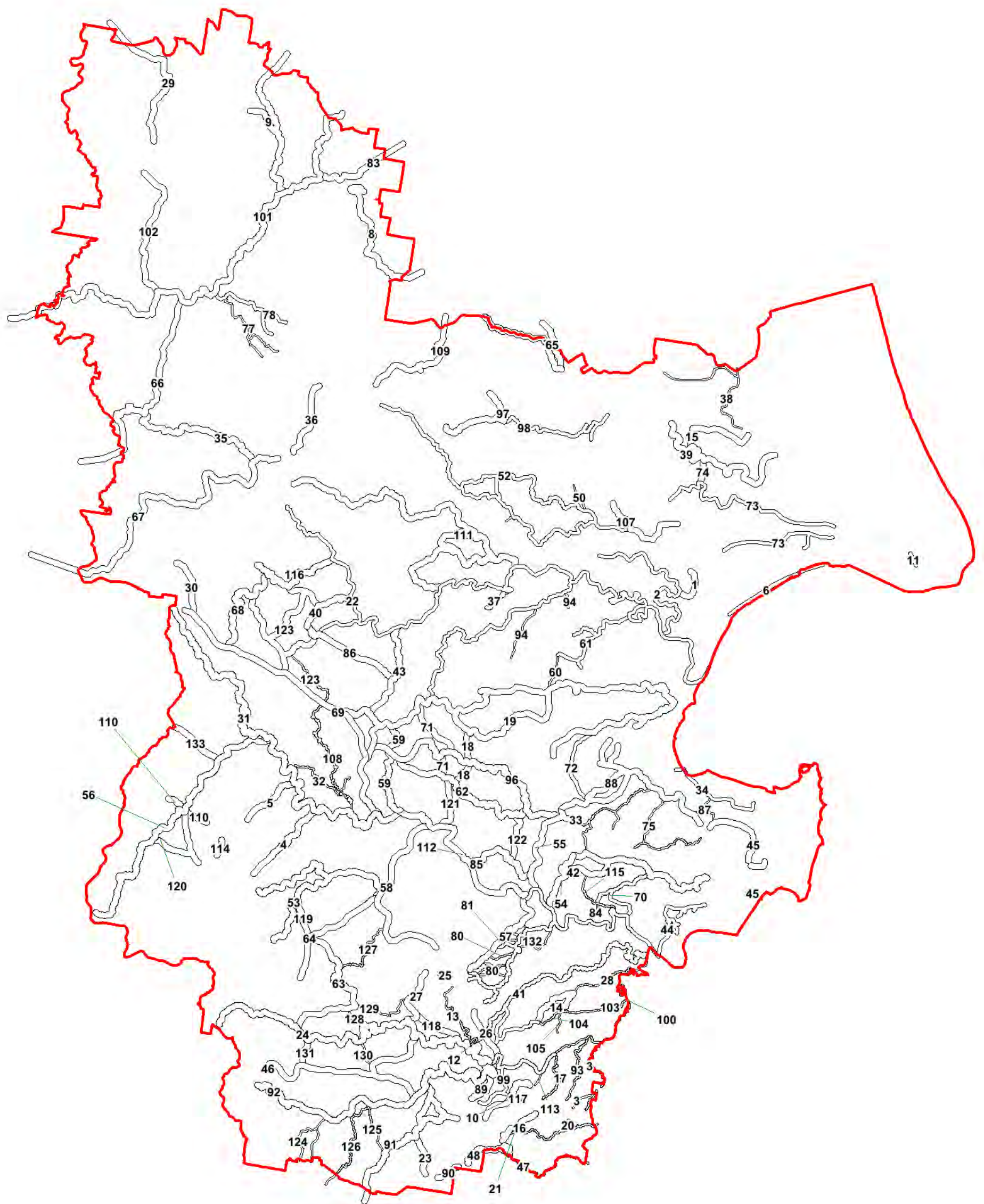
FIGURE 2

Moreton Bay Regional Council
Pine Rivers Rural Corridors - Potential
Restoration Areas

APPENDIX

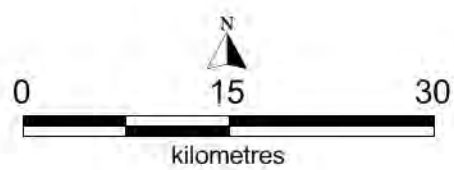
A

*Moreton Bay Regional Council
Corridor Network*



LEGEND

- Council Boundary
- Buffered Corridors



APPENDIX A

Moreton Bay Regional Council
Corridors Network

Numbered list of corridors

ID	Name	Rank
1	Aerodrome - Beerburum East SF Corridor	1
2	Aerodrome Corridor	2
3	Albany Creek Corridor	3
3	Albany Creek Corridor	3
4	Armstrong Creek Corridor	1
5	Baxters Creek Corridor	1
6	Beachmere CP Corridor	2
7	Beerburum Creek Corridor	1
8	Beerburum West SF - Peachester SF Corridor	1
9	Bellthorpe Corridor	1
10	Bergin Creek Corridor	1
11	Bongaree Corridor	2
12	Branch Creek Corridor	2
13	Branch Creek Corridor	3
14	Brendale - Eatons Hill Corridor	1
15	Bullock Creek Corridor	1
16	Bunyaville - Samford SF Corridor	1
17	Bunyaville Corridor	3
18	Burpengary Creek - Pine Rivers North Corridor	1
18	Burpengary Creek - Pine Rivers North Corridor	1
19	Burpengary Creek Corridor	1
20	Cabbage Tree Creek Corridor	2
21	Cabbage Tree Creek Corridor	3
22	Caboolture River Corridor	2
23	Camp Mountain Corridor	1
24	Cedar Creek Corridor	1
25	Clear Mountain Conservation Park Connection Corridor	1
26	Clear Mountain Corridor	1
27	Closeburn Corridor	1
28	Conflagration Creek Corridor	3
29	Conondale Range Crossing Corridor	1
30	D'Aguilar Range Corridor	1
31	D'Aguilar Range to North Pine Reservoir Corridor	1
32	Dayboro Corridor	3
33	Deception Bay - Lakeside Corridor	3
34	Deception Bay Corridor	2
35	Delaney Creek Corridor	1
36	Delaney Creek SF - Beerburum FR Corridor	1
37	Dobson Creek Corridor	2
38	Donnybrook Corridor	3
39	Elimbah Creek Corridor	1

40	Eliza Creek Corridor	1
41	Four Mile Creek Corridor	2
42	Fresh Water Creek Corridor	1
43	Gregors Creek Corridor	1
44	Griffin Corridor	2
45	Hays Inlet Corridor	1
45	Hays Inlet Corridor	1
46	House Mountain Range Corridor	1
47	Kedron Brook (east) Corridor	3
48	Kedron Brook (west) Corridor	1
50	King Johns Creek - Lagoon Creek Corridor	3
52	King Johns Creek - Lagoon Creek Corridor	2
53	Kobble Creek Corridor	1
54	Kurwongbah (east) Corridor	1
55	Kurwongbah (west) Corridor	1
56	Laceys Creek Corridor	1
57	Lake Samsonvale (east) Corridor	1
58	Lake Samsonvale (west) Corridor	1
59	Moorina - Rush Creek Corridor	1
59	Moorina - Rush Creek Corridor	1
60	Morayfield - Burpengary Corridor	3
61	Morayfield - Burpengary Corridor	2
62	Mosquito Creek Corridor	1
63	Mount Samson Creek Corridor	1
64	Mount Samson Range Corridor	1
65	Mt Beerburrum Connection Corridor	1
66	Mt Mee FR - Stanley River Corridor	1
67	Mt Mee SF - Delaney Creek SF Corridor	1
68	Mt Pleasant to Flagstone Creek Corridor	1
69	Mt Pleasant to North Pine Reservoir Corridor	1
70	Murrumba Downs Corridor	2
71	Narangba Corridor	1
71	Narangba Corridor	1
72	Narangba East Corridor	2
73	Ningi Corridor	2
73	Ningi Corridor	2
74	Ningi Creek - Elimbah Creek Corridor	1
75	North Lakes Corridor	3
77	One Mile - Monkeybong Creek Corridor	3
78	One Mile - Monkeybong Creek Corridor	2
80	One Mile Creek (Joyner) Corridor	3
80	One Mile Creek (Joyner) Corridor	3
81	North Pine River Corridor	2
83	Peachester SF Corridor	1

84	Petrie Corridor	3
85	Quarry Corridor	1
86	Rocksberg Corridor	1
87	Rothwell Corridor	3
88	Saltwater Creek Corridor	1
89	Samford Conservation Park Corridor	1
90	Samford Conservation Park to D'Aguilar Corridor	1
91	Samford Creek & Samford Corridor	1
92	Samford Valley Corridor	1
93	Sandy Creek Corridor	3
94	Sheep Station Creek Corridor	3
94	Sheep Station Creek Corridor	3
96	Sideling Creek Corridor	1
97	Six Mile Creek Corridor	1
98	Six Mile Creek Corridor	2
99	South Pine River Corridor	2
100	South Pine River Corridor	3
101	Stanley River Corridor	1
102	Stony Creek Corridor	1
103	Strathpine - Eatons Hill (east) Corridor	3
104	Strathpine - Eatons Hill (west) Corridor	3
105	Strathpine - Eatons Hill (west) Corridor	3
107	Tea Tree Swamp Corridor	1
108	Terrors Creek Corridor	3
109	Tunbubudla Corridor	1
110	Upper Laceys Creek Corridor	1
110	Upper Laceys Creek Corridor	1
111	Wararba Creek Corridor	1
112	Whiteside Corridor	1
113	Wongan Creek Corridor	3
114	Woodward Corridor	1
115	Yebri Creek Corridor	3
116	Zillman Creek Corridor	1
117	South Pine River to Bunyan Creek Corridor	2
118	Closeburn to Cedar Creek Corridor	1
119	Mount Samson Range to Kobble Creek Corridor	1
120	Raynbird Creek Corridor	1
121	Forbes Creek Corridor	1
122	Murrenbong Corridor	1
123	Ocean View Corridor	3
123	Ocean View Corridor	1
124	Dawson Creek Corridor	3
125	Wights Mountain (east) Corridor	3
126	Wights Mountain (west) Corridor	3

127	Samson Creek to Lake Samsonvale Corridor	3
128	Mount Samson Creek to Cedar Creek Corridor	3
129	Mount Samson Creek to Closeburn Corridor	3
130	House Mountain Range to Cedar Creek Corridor	3
131	Mount O'Reilly Corridor	1
132	Todds Gully Corridor	3
133	Mackenzie Creek Corridor	1