

Climate positive
Nature positive
Factsheet

Right place, biggest return

Logan & Albert River catchment

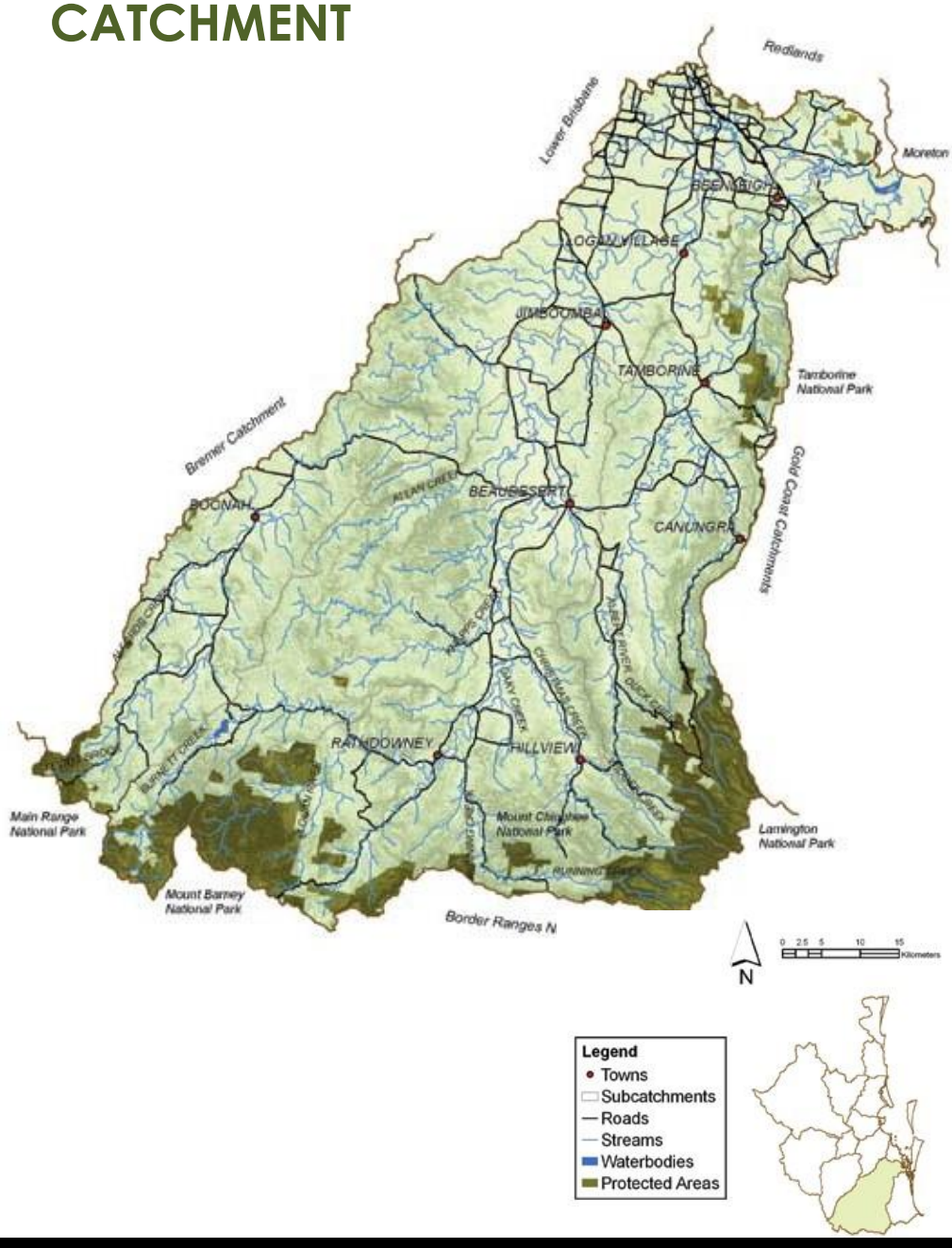
Healthy Land & Water

The Logan and Albert River Catchments cover 3862 km^2. The headwaters lie on the crest of the Border Ranges and are bound by the McPherson Ranges to the east along the Border Ranges linking to the Main Range in the west. Headwater streams pass over waterfalls through sub-tropical rainforests to the fertile valleys below. The creeks and rivers meander along the valley floors to form the Logan and Albert Rivers that later join together to flow into lagoons, tidal wetlands and eventually enter Moreton Bay.[1]

The Upper Catchments incorporate Lamington, Mt Barney and Main Range National Parks.

Healthy Land & Water works in partnership with landholders, government, corporate businesses, Traditional Owners, education and research organisations, schools and community groups to protect, repair and rehabilitate the catchments of South East Queensland. A large proportion of the work on the ground is achieved by landholders and volunteers involved in community groups, such as the Logan-Albert Rivers Catchment Association, Logan and Albert Conservation Association, Tamborine Mountain Landcare, Northeast Albert Landcare Group, Beaudesert Landcare Group and Boonah Landcare Groups.

LOGAN AND ALBERT RIVER CATCHMENT



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Delivering an environment for future generations to thrive

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Feather Tailed Glider



Managing biodiversity

Biodiversity simply means the variety of all life forms (plants, animals and microorganisms) that live in an area. The Logan and Albert Rivers Catchments represent a large range of biodiverse environments and form one of the most species-rich areas in Australia.1 Many native plant species in the catchment are distinctive such as the Antarctic Beech Tree (*Nothofagus moorei*) occuring at its northern distribution in Australia. Large areas of wildlife habitat have been lost or modified due to development and associated pressures from population growth. Protection and restoration of remaining habitats and the linking of fragmented areas through corridors will assist some species to adapt to changed landscapes. Threatened species in the catchment, such as the Eastern Bristlebird (*Dasyornis brachypterus*) and Fleay's Barred Frog (*Mixophyes fleayi*) may require specific additional actions to aid their survival. Habitat infestation by environmental weeds and competition and predation by pest animals causes additional pressure on native flora and fauna, causing local populations to diminish.

Some regional ecosystems in which many of these species live are also under threat and require protection from encroaching weeds and feral animals, changed land uses and mismanaged land. Regional ecosystems are natural communities of vegetation that are consistently associated with a particular combination of geology, landform and soil in a bioregion.[2]

In an effort to protect and restore the important biodiversity and other natural assets, Healthy Land & Water works with Landcare, catchment and conservation groups across the Logan and Albert Rivers Catchments to enhance biodiversity and riparian corridors. This is undertaken by mapping priority management areas, removing weeds such as Lantana, planting native plants, monitoring water quality, creating habitats for native animals and supporting landholders to undertake sustainable land management practices to achieve increased productivity and profitability.

Environmental education programs coordinated by Healthy Land and Water in partnership with schools and youth organisations including Weed Warriors, Toad Busters and others, provide practical, hands-on activities aimed at increasing awareness and understanding of local native species, and impacts of feral animals and weeds on those species.

The voluntary Land for Wildlife program also enhances biodiversity values thanks to landholders who agree to manage their land in ways that protect and enhance wildlife habitat. More than 140 landholders in the catchments currently participate in this program, which is coordinated regionally by Healthy Land & Water and delivered by the Scenic Rim Regional Council.

NATURAL ASSETS

Biodiversity
Productive land
Natural areas
Waterways





Managing the land

The diversity of flora and fauna in the catchments is largely reflected in its vegetation groups including montane heath, rainforests, wet and dry eucalypt forests, freshwater and tidal wetlands. The fertile alluvial flats are utilised for grazing, intensive agriculture such as dairy and poultry production, and horse industries. Other land uses in the area include lifestyle blocks, urban development, industry and regional transport corridors. Natural areas include the National Parks of Mount Tamborine, Mt Barney, Moogerah Peaks, Main Range and Lamington Plateau, and numerous council-owned reserves and conservation areas.

Agricultural and conservation areas face increasing challenges in parts of the catchments due to a multitude of threats. Climate change predictions suggest that impacts over the coming decades are expected to include more intensive storms, and temperature rises leading to habitat loss. Population growth in the region, along with its consequential supply and demand pressure on primary production and natural resources, raises further challenges for land management in the catchment.

Sustainable land management practices can reduce degradation and increase productivity, partially by maximising groundcover to reduce soil erosion from wind and water, and further halt sediment flow into the rivers and Moreton Bay. Healthy Land & Water is coordinating the Sustainable Grazing Program to assist land managers to improve their grazing management practices, achieve sustainable production, and improve social and environmental outcomes. This program provides Property Management Planning (PMP) services, education, training, paddock-based assessments, workshops and field days.

Grazing, forestry, property planning and riparian management programs are being delivered by Healthy Land & Water with partnering stakeholders across the catchment to assist land managers in planning and managing for sustainable production, weeds, fire, biodiversity and water quality.

MAJOR THREATS

Climate change
Population growth and development
Unsustainable land use
Drought and floods
Inappropriate use of fire
Habitat fragmentation
Weeds and pest animals



Managing water quality

The headwaters of the Logan River rise in the Mount Barney National Park; the Albert River has two main tributaries in the Lamington National Park. Downstream, the Logan and Albert Rivers join at Eagleby and pass through mangroves and a number of aquaculture farms before entering Moreton Bay. The catchment has many flowing creeks and water bodies including Maroon Dam, Wyaralong Dam and Cedar Grove Weir.

Healthy water quality is important for maintaining the health of the catchment and all that lives in it. Sustainable land management practices, including the protection of riparian species, play a significant role in stabilising creek and river banks and maintaining waterway health. Healthy land and waterways also help to reduce the effects of high intensity storms, which can generate high rates of sediment runoff. As a result, erosion, flooding and reduced water quality can degrade catchment health, which was the case in 2008 when the Logan and Albert Catchments experienced a one in 50-year flood event.

Efforts to improve water quality in the catchment have been undertaken through the Healthy Country demonstration project, using the best available science to identify ways to reduce rural sediment runoff and pollutant loads entering Moreton Bay. The program involves collaborative research, waterway restoration and sustainable land management, including field trials. This project is a partnership between Healthy Land and Water, the Queensland Government's Department of Environment and Resource Management, the Department of Employment, Economic Development & Innovation, South East Queensland Traditional Owners Alliance and the community.

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World Heritage Area Gondwana Rainforest

CASE STUDY

The Logan and Albert Rivers Catchments are home to World Heritage listed Gondwana Rainforests. Gondwana Rainforests are so-called because of fossil records indicating that when Gondwana, the southern precursor of the ancient supercontinent existed, they were covered by rainforests with the same kinds of species that can still be found today. These forests were selected for their exceptional biodiversity or rarity and extremely high conservation value providing habitat for more than 200 rare or threatened plant and animal species, including 2000 year old Antarctic Beech Trees.[3]





REFERENCES

[1] Leiper G., Glazebrook J., Cox D. & Rathie, K. (2003). Logan River Branch, Native Plants Queensland (Society of Growing Australian Plants). Mangroves to Mountains: A field guide to the native plants of south-east Queensland. Brisbane: Watson Ferguson & Company.

[3] The State of Queensland (Department of Environment and Resource Management) 2010, *Vegetation Communities*, [Internet]. Available at: www.derm.qld.gov.au/vegetation/bioregions.html

[4] World Heritage Information Network 2010, *Introduction to Gondwana Rainforests of Australia* [Internet]. Available at: www.bigvolcano.com.au/natural/whin.htm

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