

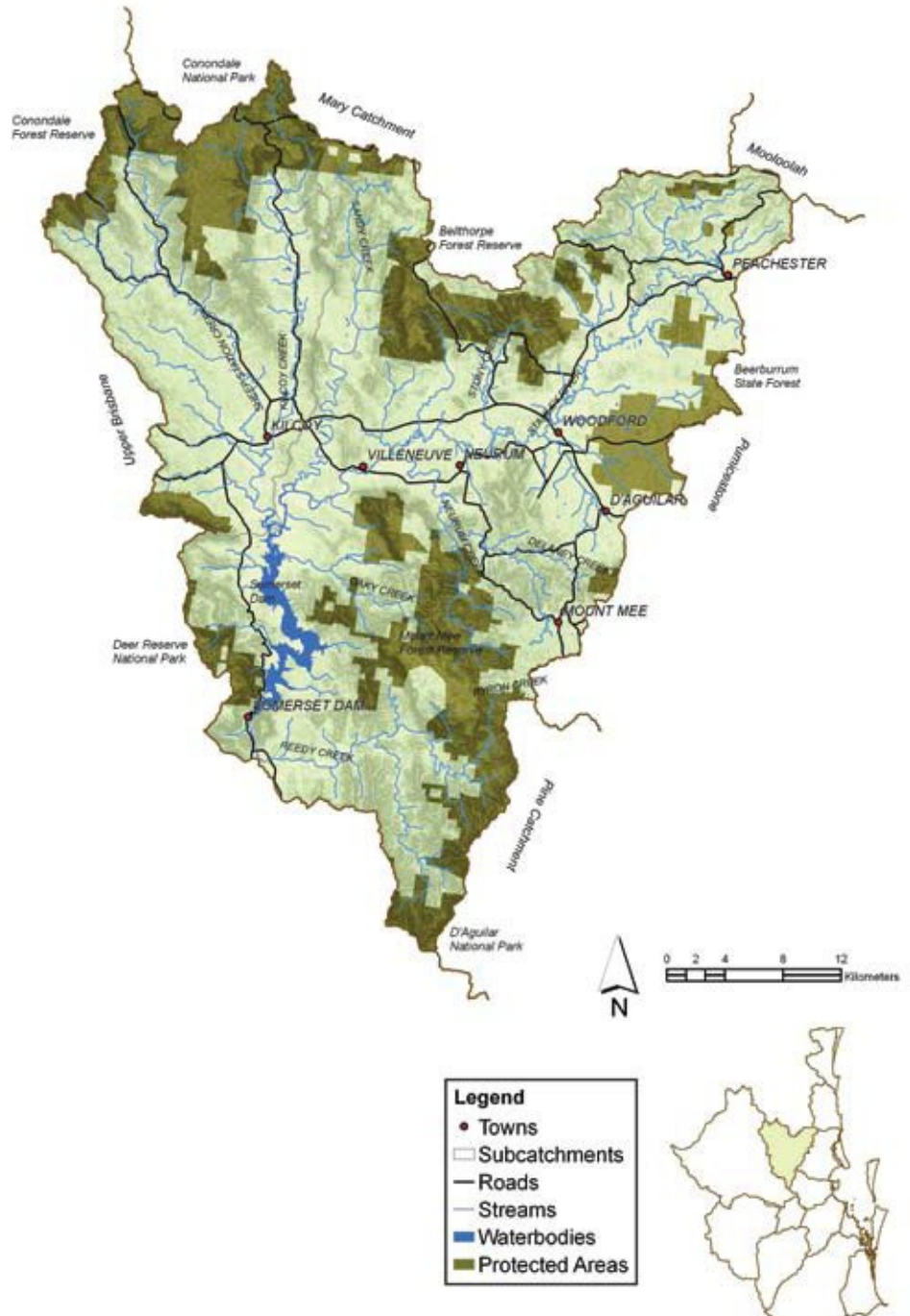
Stanley River catchment



The Stanley River Catchment covers 1535 km² with the Stanley River headwaters flowing South from the Blackall Range across the wide valley floor and its floodplain wetlands, or billabongs, into Somerset Dam. This catchment contains tall eucalypt forests and subtropical rainforests on ranges and hillslopes, with eucalypt forest and woodlands thinned and cleared for pasture on lower slopes and flats with fringing forests and riparian rainforest along waterways.

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 Brisbane Valley-Kilcoy Landcare Group, Barung Landcare, Bellthorpe Environmental Group, Peachester Action Group and local Land for Wildlife networks supported by Sunshine Coast and Moreton Bay Regional Councils. The Upper Brisbane Region Catchment Network provides an overarching forum for these local groups, industry organisations and Regional Councils in the catchment.

STANLEY RIVER CATCHMENT





Stony Creek Road, West Bellthorpe



Dragonfly



Managing biodiversity

Biodiversity refers to the variety of all life forms - the different plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part.¹ Wildlife habitat areas have declined across the catchments as human and climatic pressures have increased. The endangered Richmond Birdwing Butterfly, Coxen's Fig Parrot and vulnerable Yellow-bellied Glider (southern subspecies), amongst others, need their remaining habitat areas to be protected and enhanced while other species require corridors to link fragmented areas to assist them to move and adapt to changing conditions in the landscape. Environmental weeds and pest animals typically outcompete native flora and fauna, causing the native populations to diminish and degradation of ecosystems.

Some regional ecosystems in which many of these species live are also under threat and require protection from encroaching weeds and pest animals, changed land uses and inappropriate management practices. Regional ecosystems are distinct communities of native vegetation that are consistently associated with a particular combination of geology and landform within a bioregion.²

In an effort to protect and enhance priority ecosystems and improve connectivity across the Stanley catchment, Healthy Land and Water works with landholders, Landcare and conservation groups by mapping priority management areas, planning, coordinating and monitoring on-ground works.

Healthy Land & Water is currently working with over 45 landholders involved in conservation networks in the upper Stanley and Pumicestone catchments to enhance biodiversity values and connectivity. Landholders have been supported through Property Management Planning workshops and incentives for fencing and off-stream water points, strategic weed control and revegetation to improve the condition and connectivity of native vegetation and subsequently, the overall health of the catchments.

The voluntary Land for Wildlife program also enhances biodiversity values as landholders agree to manage their land in ways that protect and enhance wildlife habitat. There are approximately 50 landholders in the catchment participating in this program, which is coordinated regionally by Healthy Land and Water and delivered by the Sunshine Coast Regional Council and Moreton Bay Regional Council.

NATURAL ASSETS

- Biodiversity
- Productive land
- Natural areas
- Waterways



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Managing the land

The dominant agricultural land use in the Stanley catchment is the grazing of beef cattle, with intensive agricultural production, including dairying, cropping, turf and horticulture, concentrated along fertile alluvial valleys and basalt uplands. The timber industry remains significant with production from managed native forests and large areas devoted to exotic pine plantations to the North and East of Woodford and some smaller areas in the West planted with Hoop Pine.

Almost one quarter of the catchment is in the protected estate as National Park or Forest Reserves, including parts of the iconic Conondale National Park and Deer Reserve and D'Aguilar Range National Parks and the Neurem Creek Conservation Reserve. Other significant protected areas include State Forest Reserves at Jimna, Bellthorpe, Nonmus, Beerburum, Mount Mee and Mt Byron. The natural and rural landscapes of the Stanley River catchment offer a range of sites with scenic and visual amenities offering outdoor, nature-based and recreational opportunities.

Other main land uses include large areas of natural bushland, water supply dams, including Somerset Dam, expanding rural residential areas around Kilcoy, Woodford, D'Aguilar and Peachester. There are also an increasing number of lifestyle blocks, which support a vast array of alternative agricultural pursuits, nature conservation and traditional farming practices.

Agricultural and conservation land faces increasing challenges in parts of the catchment. Climate change predictions suggest that impacts over the coming decades are expected to include more intensive storms and temperature rises leading to habitat loss and heat stress on livestock. 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.

It is important to adopt sustainable grazing practices to ensure the land is maintained in good condition, comprising healthy diverse pastures and stable soils with high levels of groundcover all year round. Given the highly variable climate, grazing land should be managed and monitored to ensure stocking rates are matched to pasture availability. It is important that grazing systems incorporate regular rest or spelling to enable pastures to rest and recover particularly following major disturbances such as drought and fire, to minimize soil erosion and land degradation. Impacts of poor land condition include loss of productivity, and sediment and nutrient loss from overgrazed areas, gully and streambank erosion, which all have significant impacts on aquatic ecosystems in the Stanley River and downstream water quality entering Somerset and Wivenhoe Dams.

Well-planned fire management regimes can be an effective tool to manage pastures and natural areas by minimising damage to soil structure, habitats, wildlife, native vegetation and pastures. Healthy Land and Water has worked with landholders, local Rural Fire Brigades, Queensland Parks and Wildlife Service and Queensland Fire and Rescue Service to develop a local fire management plan for the Mt. Kilcoy-Sheepstation Creek area. This includes the establishment of infrastructure at priority locations to improve cooperation and coordination of fire management initiatives across the landscape, and protect biodiversity, forest values and grazing land in an identified priority area.

Healthy Land & Water also provide advice, incentives and opportunities for land managers to increase their knowledge and skills in sustainable land management at field days and workshops and offer Property Management Planning services including property maps to assist landholders to better plan and manage their properties, making their enterprise more sustainable and profitable.

Managing water quality

The Stanley River catchment is considered to be in good condition and is one of the healthiest freshwater catchments within South-East Queensland. The headwaters of the Stanley River rise at Maleny then flow southwest into Somerset Dam and eventually into Wivenhoe Dam. The Stanley River tributaries include Ewen, Crohamhurst, London, Running, Blackrock, One Mile, Monkeybong, Delaney's, Neurem, Stony, Marysmokes, Scrubby, Sandy, Kilcoy, Sheepstation, Oaky, Byron and Reedy Creeks.

Maintaining water quality is important for the health of the catchment and all that lives in it. Sustainable management practices prevent land degradation and can increase productivity by improving land condition and soil health, retaining groundwater and minimising soil erosion and nutrient and sediment losses to the waterways. The protection of riparian vegetation plays a significant role in stabilising creek and river banks and maintaining waterway health.



MAJOR THREATS

- Climate change
- Population growth and development
- Unsustainable land use
- Habitat fragmentation
- Weeds and pest animals



Case Study: Koalas under threat

The Giant Barred Frog (*Mixophyes iteratus*), Australia's largest ground-dwelling frog species, is listed as endangered. It occurs from the Conondale Range in South East Queensland to the Blue Mountains, west of Sydney.⁴ It is associated with flowing streams and creeks in wet sclerophyll and rainforest habitats from the coast to the ranges. It reaches a maximum size of about 12cm.

The size and number of these frog populations have severely declined, largely due to human impacts of urbanisation, tourism, inappropriate catchment management, including degraded water quality, land clearing, and other impacts from weeds, pest animals and disease.⁵

Healthy Land and Water and partners are working to protect, reconnect and rehabilitate the degraded and fragmented habitat areas of this endangered frog species by enhancing biodiversity corridors in the Upper Stanley River Catchment and other parts of the South East Queensland region.



REFERENCES

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- ⁵ Frogs Australia Network 2007, *Australian Frog Database*, [Internet]. Available at: www.frogsaustralia.net.au/frogs/display.cfm?frog_id=50



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