

Nature conservation & biodiversity



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Nature conservation is the protection and maintenance of biodiversity and the things it depends on, such as water, soils and food webs. Nature provides benefits such as fresh air, clean water, pollination, healthy soils and wild foods such as fish and other seafood.

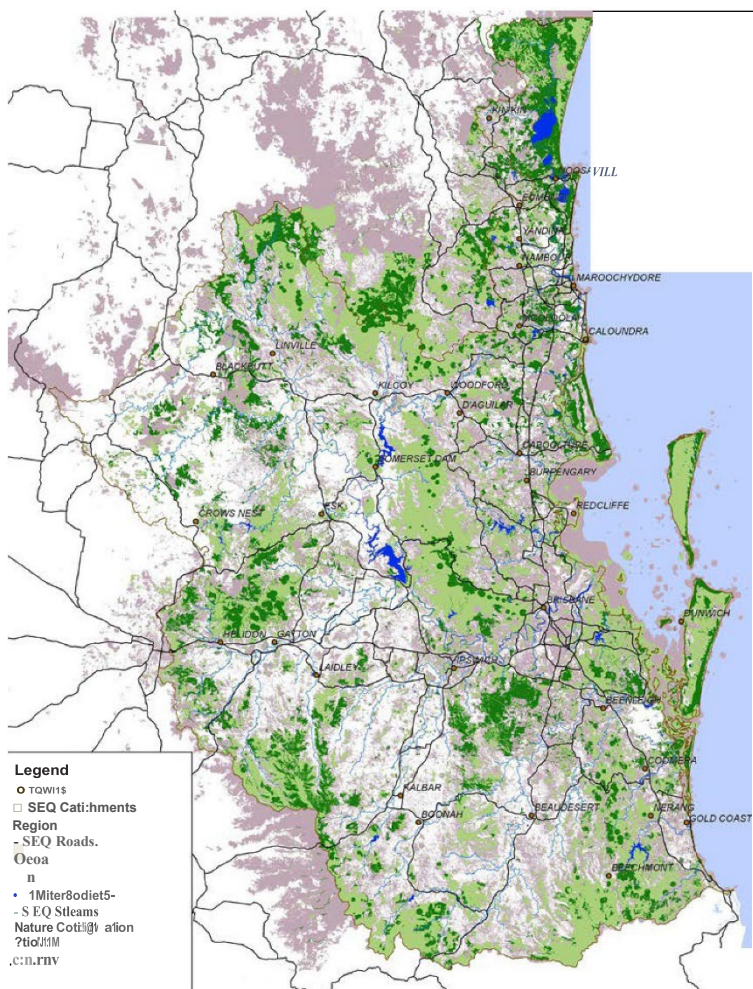
These benefits (often referred to as ecosystem services) are the foundation that our agriculture, fisheries and urban economies rely on for their long-term survival and which we rely on for our health and wellbeing.

Biodiversity simply means the variety of all life forms (plants, animals and microorganisms) that live in an area, their genes and the ecosystems of which they are a part.

South East Queensland is a diverse mosaic of mountain ranges, hills, valleys, rivers, lakes, floodplains, coastal embayments and islands. This variation in landforms, combined with a range of geologies and soil types and rainfall and temperature gradients, has created 154 native plant communities (called regional ecosystems).

Along the coast, muddy flats, sandy beaches, rocky shores, coral reefs, shallow bays and open ocean provide a diverse marine environment. A network of permanent and temporary wetlands and waterways link the coast to the mountains.

The variety of regional ecosystems and aquatic environments support one of the richest diversities of native species in Australia, with 4000 plant species, 800 vertebrates (mammals, birds, reptiles, frogs and fish) and thousands of other species, such as insects, crabs, shellfish, spiders and fungi. Many of these species are found only in South East Queensland.



Map: SEQ Nature Conservation

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Scale 1:100,000

South East Queensland is recognised internationally for its natural values. Along the coast and around Moreton Bay, diverse wetlands provide feeding grounds for migratory birds from as far away as Siberia. Much of this area is included in the Moreton Bay Ramsar Site, listed under the Convention on Wetlands of International Importance. Other wetlands in the region provide nationally important habitat for waterbirds and other species. Regardless of their status, wetlands are the most biodiverse places in the landscape, providing drought refugia and reducing the impact of floods. They are often considered 'nature's kidneys' for their water purification function.

The rainforest and sub-tropical habitats of the Border Ranges contain forest types from at least 100 million years ago. These ancient forests have some of the oldest ferns, pines and flowering plants in the world. The Border Ranges support the highest macropod diversity and one of the highest bird diversities in Australia. This diversity, together with that of other species, the substantial areas of largely intact natural ecosystems and the links to Australia's evolutionary past, have led to much of the area being included in the Gondwana Rainforests of Australia World Heritage Area.

Maintaining and restoring the region's nature conservation and biodiversity values is vital to us all.

Nature under threat

Nature in South East Queensland is under threat. The clearing of 65 percent of the region's vegetation to make way for people, industry and agriculture, has led to fragmentation and isolation of habitats and wildlife populations. Most of the remaining fragmented vegetation is impacted by weeds, pest animals, changed water cycles and fire regimes and human activity. Many species and habitat areas have declined across the region as these pressures have increased, causing loss of biodiversity and reduced ecosystem services.

Of the 154 regional ecosystems that occur in the region over 60% are considered vulnerable to extinction. Eight of these form part of four nationally endangered ecological communities listed by the Commonwealth government: Brigalow (*Acacia harpophylla*) forest, Swamp Tea-tree (*Melaleuca irbyana*) Forest, Box gum grassy woodlands and Littoral Rainforest and Coastal Vine Thicket.

South East Queensland supports 324 species considered threatened or near threatened. Another 19 species are of regional conservation priority, including the koala, and other common animals, such as the echidna and platypus are the verge of being listed.



Grey-headed Flying Fox



Antarctic Beech



Yellow-faced Whip Snake

Conserving nature and biodiversity

Large diverse areas of habitat in good condition and which are well-connected to other areas are critical to nature conservation and to maintaining South East Queensland's unique biodiversity.

On the land, 20% of SEQ is considered protected for nature conservation, including public lands such as National Parks, Conservation Parks, State Forests, and private land under conservation covenants. A legacy of lowland clearing for agriculture and urban development has meant that most protected areas are located at higher altitudes. In more recent times effort is being made to connect these 'mountain islands' through reservation and land acquisition and providing support for private landholders through local government conservation agreement programs, Land for Wildlife and Nature Refuges.

Only six percent of the marine area of SQ is considered protected. Protection of coastal and marine waters provides security for fisheries, critical habitats and sensitive coastal processes.

It is vital that we work together to protect and manage what we've got left and to endeavour to enhance nature conservation values.

The SEQ Natural Resource Management (NRM) Plan contains nature conservation targets to prevent further loss of vegetation, reconnect fragmented vegetation, protect vulnerable ecosystems, maintain or increase the extent and condition of wetlands and to conserve species and habitats. Coastal and marine targets address the condition and extent of seagrass, mangroves, coastal wetlands and key species habitat (dolphins, dugongs, sharks, turtles and wader birds), beach and coral condition, the sustainable management of wild fisheries and the reduction of coastal algal blooms.

Governments, private landholders, business and industry, Traditional Owners, education and research organisations, schools and community groups all have a role in nature conservation. Achieving the targets of the NRM Plan requires a collaborative effort.

Healthy Land & Water is working with the whole South East Queensland community to protect, maintain and restore nature and biodiversity, by influencing planning and policy, improving land management and building knowledge and understanding.





Case Study: Glossy Black Cockatoos

The Glossy Black-Cockatoo (*Calyptorhynchus lathami*) is a threatened species. The birds feed only on the seeds of some she-oak trees and require large tree hollows for breeding. Habitat clearing has reduced its range and substantially decreased overall abundance.

South-eastern Queensland and far north-eastern New South Wales have some of the most significant populations of Glossy Black-Cockatoos in Australia; these areas are also experiencing rapid growth in urban development.

The Glossy Black Conservancy aims to address the lack of integrated protection and to facilitate improved management and conservation of Glossy Black-Cockatoos across the region.

Conservancy members comprise representatives from state and local governments, community groups, research institutions and private industry.

Conservancy activities include improving community awareness, habitat protection and food tree plantings, research into behaviour and habitat, management of a records database and the development of Conservation Guidelines. Healthy Land & Water is an active partner in the Conservancy.

For more information on Glossy Black-Cockatoos and the Conservancy, visit www.glossyblack.org.au.



Glossy Black-Cockatoo

REFERENCES

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⁴ Department of Environment and Resource Management, Draft 2008, Southeast East Queensland NRM Region 'Back on Track' Biodiversity Action Plan, Department of Environment and Resource Management, Brisbane.



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**Delivering an environment
for future generations to thrive**

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