

## REGIONAL ECOSYSTEMS

- vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform & soil.
- The Queensland Herbarium regularly reviews and updates the descriptions and status of regional ecosystems.
- The regional ecosystem classification scheme information and products are used for planning and management by state and local government, business and landholders.

## RE Code Names

Each regional ecosystem is given a three part code number e.g. 12.11.3.

*For example*

# Regional ecosystem classification

**BIOREGION (11)**      **LAND ZONE (4)**      **VEGETATION (3)**

The diagram illustrates the three components of a regional ecosystem code. On the left, a map of Queensland shows the bioregion 11 highlighted in red. In the center, a list of six land zones is shown with corresponding cross-sectional diagrams: 1. Marine tidal clay plains, 2. Coastal sand dunes and swales, 3. Near-level alluvial plains with riverine patterns, wetlands and lakeside dunes, 4. Gently undulating clay downs, 5. Near-level uniform sand plains, and 6. Inland dunefields. On the right, a photograph of a forest is shown with a blue arrow pointing to the vegetation. The forest consists of tall, thin trees with dense foliage, typical of a brigalow-belah shrubby open forest.

**RE 11.4.3 Brigalow-belah shrubby open forest on clay plains**

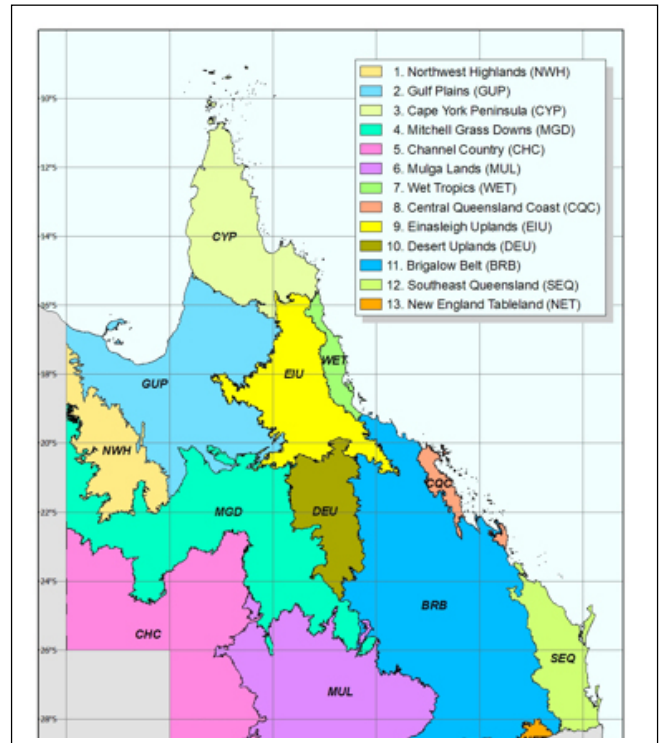
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**Bioregion:** The first part of the code number refers to the bioregion - considered the primary level of biodiversity classification in Queensland.

Gympie is in the SE Queensland bioregion so all RE's start with the number 12.


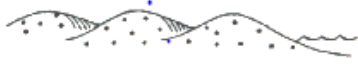




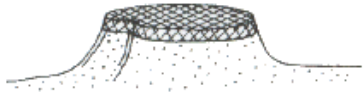
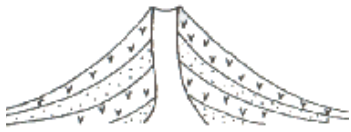

The 13 bioregions recognised in Queensland:

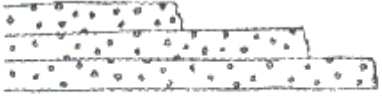


1. Northwest Highlands (NWH)
2. Gulf Plains (GUP)
3. Cape York Peninsula (CYP)
4. Mitchell Grass Downs (MGD)
5. Channel Country (CHC)
6. Mulga Lands (MUL)
7. Wet Tropics (WET)
8. Central Queensland Coast (CQC)
9. Einasleigh Uplands (EIU)
10. Desert Uplands (DEU)
11. Brigalow Belt (BRB)
12. South East Queensland (SEQ)
13. New England Tableland (NET)



**Land Zone:** The second part of the code number refers to the land zone that the ecosystem occurs on. There are 12 land zones, many of these present in the Gympie Region.

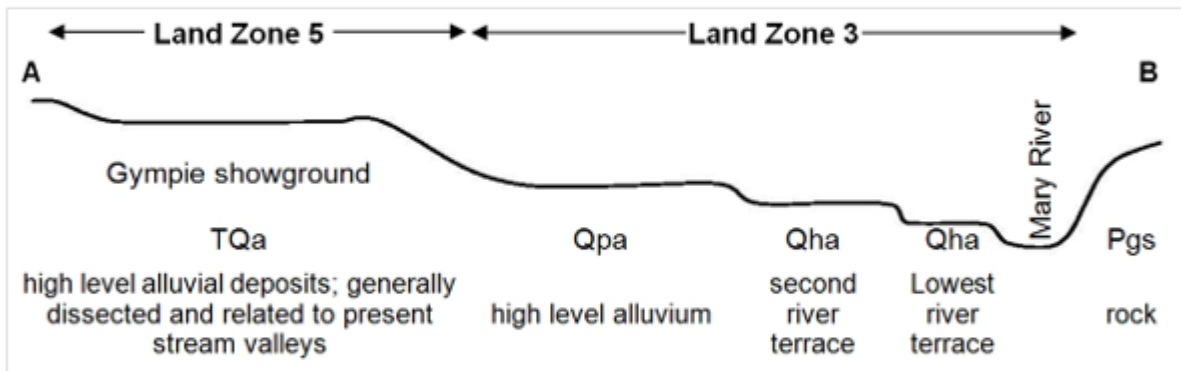
*Wilson, P.R. and Taylor, P.M. (2012) Land Zones of Queensland. Queensland Herbarium, Queensland Department of Science, Information Technology, Innovation and the Arts, Brisbane.*

Land Zone	General term:	Short description:	
1	tidal flats and beaches	deposits subject to periodic tidal inundation	
2	coastal dunes	Quaternary coastal sand deposits	
3	alluvial river and creek flats	Recent Quaternary alluvial systems	
4	clay plains	Tertiary-early Quaternary clay plains	
5	old loamy and sandy plains	Tertiary-early Quaternary loamy and sandy plains and plateaus	
6	inland dunefields	inland dunefields, interdune areas, and associated sandplains.	
7	ironstone jump-ups	Associated with mesas and scarps and associated pediments and plateau margins.	
8	basalt plains and hills	Cainozoic igneous rocks, forming extensive plains and occasional low scarps. Includes hills, cones and plugs.	
9	undulating country on fine grained sedimentary rocks	fine grained sedimentary rocks	

10	sandstone ranges	Medium to coarse grained sedimentary rocks, with little or no deformation, forming plateaus, benches and scarps.	
11	hills and lowlands on metamorphic rocks	Metamorphosed rocks, forming ranges, hills and lowlands.	
12	hills and lowlands on granitic rocks	Mesozoic to Proterozoic igneous rocks, forming ranges, hills and lowlands	

Example

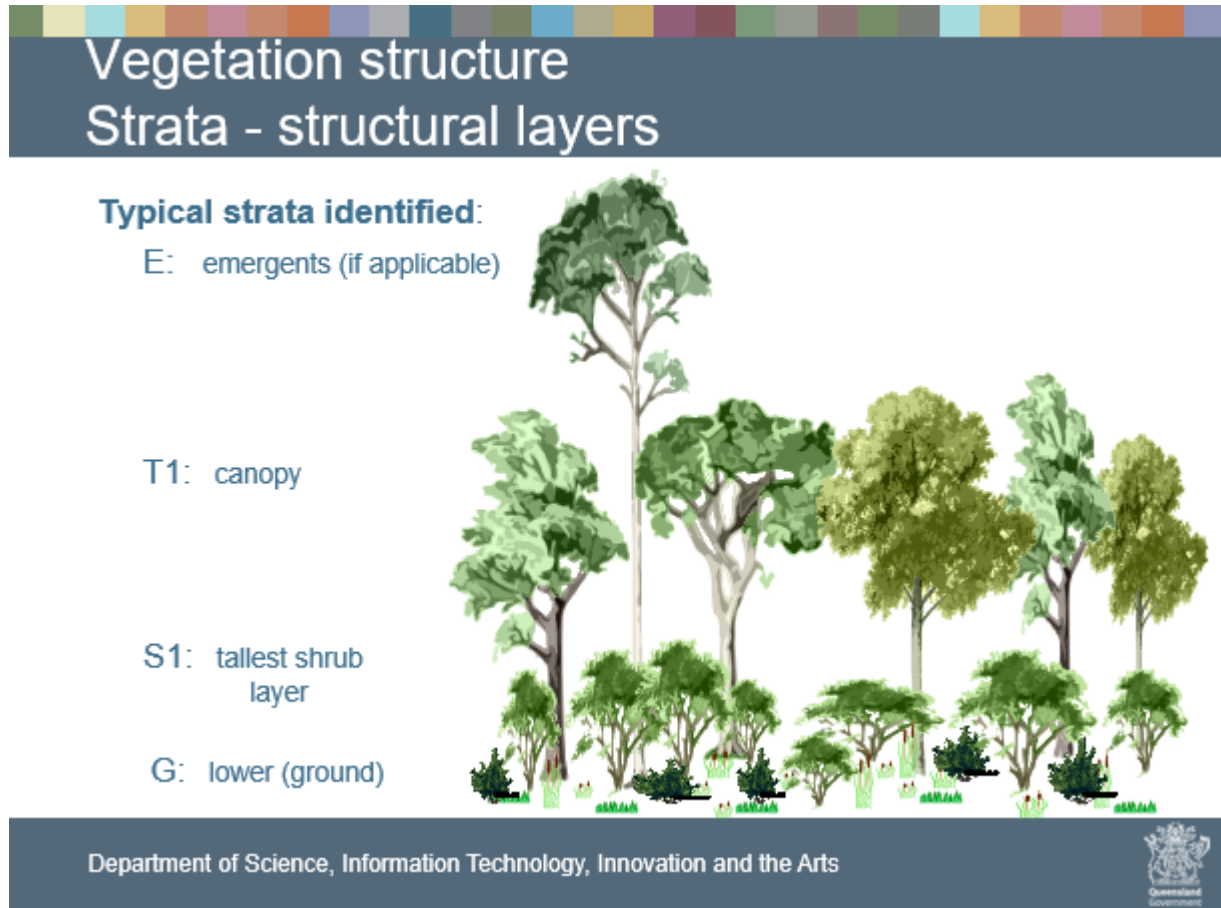
## Landform identification – a broader perspective



**Cross-section (A-B) across the Mary River to Gympie showground**

**Vegetation** The third part of the code describes the vegetation.

Vegetation is classified on the basis of *structure* (the vertical and horizontal distribution of vegetation: its growth form, height, cover and strata) and *floristics* (the dominant genera or species in various strata and characteristic plant species).



Key considerations in describing vegetation

- What is the dominant strata: – the strata that contributes the most above ground biomass.
- Is it Remnant or Regrowth?
- What are the main species present and their growth form.
- Areas of regrowth vegetation, identified on the map as **high value regrowth** vegetation
  - (i) are any of the following-
    - (a) an **endangered** regional ecosystem;
    - (b) an **of concern** regional ecosystem;
    - (c) a **least concern** regional ecosystem; and
  - (ii) have not been cleared since 31 December 1989;

## EPBC ecological communities (July 2013)

Brigalow (*Acacia harpophylla* dominant and co-dominant)

Broad leaf tea-tree (*Melaleuca viridiflora*) woodlands in high rainfall coastal north Queensland

Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions

Littoral Rainforest and Coastal Vine Thickets of Eastern Australia

Lowland Rainforest of Subtropical Australia

Mabi Forest (Complex Notophyll Vine Forest 5b)

Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin

Natural grasslands on basalt and fine-textured alluvial plains of northern NSW and southern Queensland

New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodlands

Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions

Swamp Tea-tree (*Melaleuca irbyana*) Forest of Southeast Queensland

The community of native species dependent on natural discharge of groundwater from the GAB

Weeping Myall Woodlands

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

## Vegetation Management Class

<b>Endangered</b>	<10% remains of pre-clearing extent
<b>Of concern</b>	10-30%
<b>Least concern</b>	>30% of pre-clearing extent remaining

### 'Endangered' regional ecosystems:

- the remnant vegetation is less than 10 per cent of its pre-clearing extent across the bioregion; or 10–30% of its pre-clearing extent remains and the remnant vegetation is less than 10,000 hectares.

### 'Of concern' regional ecosystems:

- remnant vegetation is 10–30 per cent of its pre-clearing extent across the bioregion; or more than 30 per cent of its pre-clearing extent remains and the remnant extent is less than 10,000 hectares.

### 'Least concern' regional ecosystems:

- remnant vegetation is over 30 per cent of its pre-clearing extent across the bioregion, and the remnant area is greater than 10,000 hectares.

### For more information:

<http://www.ehp.qld.gov.au/ecosystems/biodiversity/regional-ecosystems/status.html>

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## STEP 1 Obtain existing RE map for area of interest

- <http://www.ehp.qld.gov.au/ecosystems/biodiversity/regional-ecosystems/maps/>

# Biodiversity status regional ecosystem and BVG maps

The **biodiversity status** listed on this database is based on an assessment of the condition of remnant vegetation in addition to the pre-clearing and remnant extent of a regional ecosystem (RE).

## BioCondition benchmarks

[BioCondition](#) assessment provides a measure of vegetation condition from an ecological perspective to show how well a terrestrial ecosystem is functioning for the maintenance of biodiversity values at a local or property scale.

BioCondition involves the assessment of a range of attributes known to be important surrogates of biodiversity.

[BioCondition benchmarks](#) facilitate the comparison of biodiversity condition within and across a regional ecosystem.

They are quantitative values for each attribute that is assessed in BioCondition and are based on the average or median values of these attributes sourced from mature and long undisturbed 'reference' site.

Benchmarks are available for a subset of regional ecosystems, with their development ongoing and are subject to review based on additional data and expert opinion. Benchmarks are based on a combination of quantitative and qualitative information.

## Definitions

**Pre-clearing vegetation** is the vegetation present before clearing.

**Remnant woody vegetation** is vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has greater than 70% of the height and greater than 50% of the cover relative to the undisturbed height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy. View the Queensland Herbarium [mapping methodology](#) for further clarification of the definition and mapping methods of remnant vegetation.

- **Land types for grazing land management**—Regional ecosystems have been broadly equated with [grazing land types](#) across 16 grazing land management regions in

Queensland. These land types describe areas of land with characteristic patterns of soil, vegetation, and landform to be used for grazing land management.

- ***Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)***— Fifteen ecological communities listed under this Act occur in Queensland. The [Regional ecosystems corresponding to ecological communities listed under the Commonwealth EPBC Act](#) provides guidance to those regional ecosystems that best correspond to the national listed ecological communities. For each community the link to the specific details on the [Species Profile and Threats Database](#) should be consulted for a fuller definition of the ecological community, key diagnostic characteristics, condition thresholds and aspects for additional consideration.