EUCALYPT

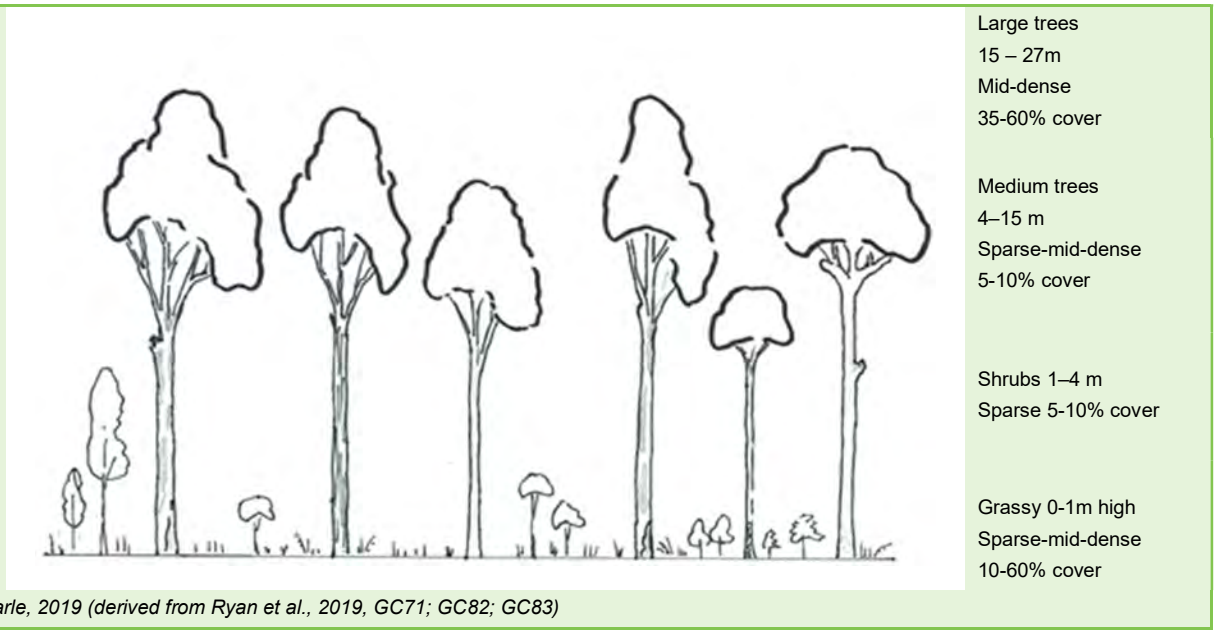
VEGETATION TYPE 6a

Regional Ecosystem: 12.11.9

Forest Red Gum - Narrow-leaved Ironbark /Grey Ironbark (*Eucalyptus tereticornis - E. crebra/E. siderophloia*) Woodland to Open Forest on Metasediments

COMMUNITY STRUCTURE

Vegetation type (VT) 6a has an open canopy layer providing 35% to 60% canopy cover (shading to understorey plants). Forest Red Gum (*Eucalyptus tereticornis*) is the most common and characteristic canopy species, together with Pink Bloodwood (*Corymbia intermedia*) and Narrow-leaved and Grey Ironbarks (*E. crebra*, *E. siderophloia*), from 15m to 27m in height. A sparse lower layer of trees, including Brush Box and Swamp Box (*Lophostemon suaveolens*, *L. confertus*) and/or other smaller trees may also occur.



Source: Searle, 2019 (derived from Ryan et al., 2019, GC71; GC82; GC83)

The shrub layer is typically sparse but may include moderate densities of shrubs to small trees, particularly Hickory Wattle (*Acacia disparrima*). Ground cover may be dense and includes a mixture of grasses and other native plants, although weeds are also often common.

Characteristic plant species

Approximately **115 native plants** species have been recorded for this vegetation type. Characteristic plant species for this vegetation type are listed below. Dominant (most numerous) species are shaded.

Indicates species is a preferred koala food tree*

GBC Indicates species is a Glossy Black-Cockatoo feed tree species

CWS Indicates species is a City-wide significant species

* It is noted that in addition to preferred food trees, koalas utilise a range of eucalypt and non-eucalypt tree species for supplemental feeding and other uses such as shelter. These other species are also important and necessary features of koala habitat.

CANOPY

Upper layer of vegetation exposed to sunlight which creates a canopy that shades lower layers

Forest Red Gum

Eucalyptus tereticornis

Narrow-leaved Ironbark

Eucalyptus crebra

Photo needed

Grey Ironbark

Eucalyptus siderophloia

Pink Bloodwood

Corymbia intermedia

Photo needed

Broad-leaved White Mahogany

Eucalyptus carnea

Yellow Box

Eucalyptus melliodora

SUB-CANOPY

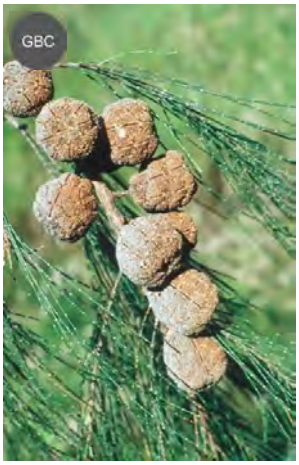
Tree layer below canopy

Hickory Wattle

Acacia disparrima subsp. disparrima

Brush Box

Lophostemon confertus



Forest She-Oak

Allocasuarina torulosa

Batswing Coral Tree

Erythrina vespertilio

Swamp Box

Lophostemon suaveolens

SHRUB LAYER

Middle layer of vegetation usually made up of small trees and woody shrubs

Red Ash/Soap Tree

Alphitonia excelsa

Chain Fruit

Alyxia ruscifolia

Black Wattle

Acacia concurrens

GROUND LAYER AND VINES

Lowest layer of vegetation. Plant types can include grasses; graminoids (non-woody plants with a grass-like morphology); ferns; forbs (non-woody, broad-leaved, flowering plants) and vines (where present) may extend upwards into the canopy.

Kangaroo Grass

Themeda triandra

TUSSOCK GRASS

Rainforest Grass

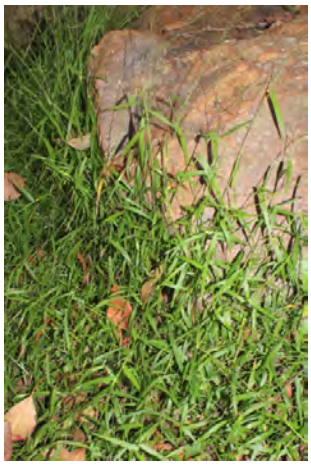
Oplismenus aemulus

GRASS

Tall Sedge

Carex appressa

GRASS



Graceful / Pademelon Grass

Ottochloa gracillima

GRASS

GROUND LAYER AND VINES

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Blady Grass
Imperata cylindrica
GRASS

Hairy Oxalis
Oxalis chnoodes
FORB

City-wide significant plant species

CWS

The City of Gold Coast recognises species which are locally significant as City-wide significant (CWS) species. These species are important because they may be threatened, restricted to the Gold Coast, or at the edge of their geographic range. In addition to characteristic species identified above as CWS species, the following CWS plant species may also be present in this vegetation type.

Anisomeles
Anisomeles moschate
(Formerly *Anisomeles malabarica)*
FORB

Broad-leaved Pink Tongues
Rostellularia obtusa
FORB

Canary Beech
Polyalthia nitidissima
TREE

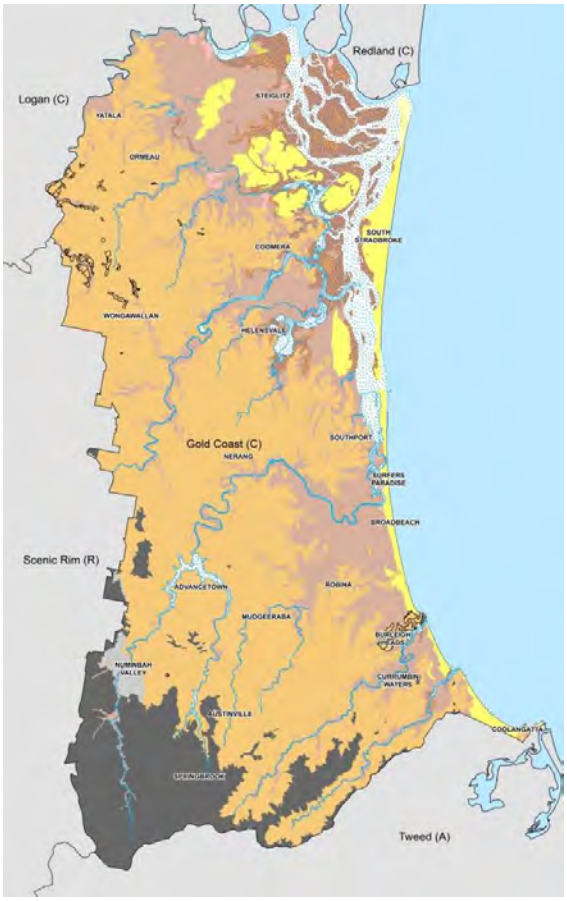
CITY OF GOLDCOAST.

OCCURRENCE

Native plants occur in vegetation communities, which are consistently associated with a particular soil type, landform (shape of the land, e.g. hills or plains) aspect (position on a slope in relation to the sun) and climate.

This vegetation type is occurs on lower slopes and foothills across the Gold Coast, particularly on more fertile soils with good moisture and organic content, including areas which are enriched with weathered basalt (such as the ridge of parkland behind Burleigh Head). It often adjoins or transitions into VT4/4b (Spotted Gum or Broad-leaved Spotted Gum woodland to open forest on metasediments) further upslope on less fertile areas. Common localities where larger patches of this vegetation type still remain include, Guanaba, Mt Nathan, Nerang, Gaven, Helensvale, Gilston, Mudgeeraba, Burleigh and Reedy Creek.

Historic distribution of Vegetation Type 6a



LEGEND

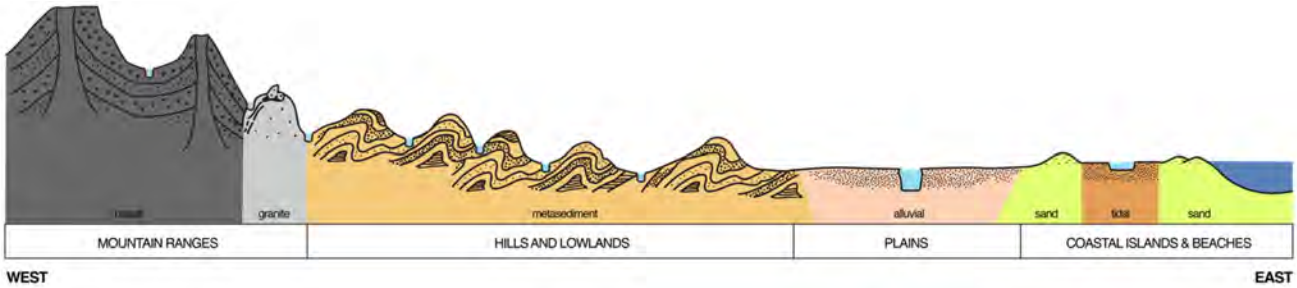
Vegetation Type 6a | Ocean | Major Waterways

COMMON LANDFORMS AND GEOLOGY OF THE GOLD COAST

	LAND FORM	GEOLOGY (soils and rocks)	AGE
	Tidal flats and beaches (subject to tidal inundation)	Water logged, saline muds, clays and sands	Youngest
	Coastal dunes (not subject to tidal inundation)	Sand	
	Flood plains, river and creek flats	Alluvial soils (soils moved or shaped by water)	
	Level or gently undulating plains	Sandy or loamy soils	
	Mountain ranges, hills, lowlands and coastal headlands	Basalt (volcanic) rocks	
	Undulating	Sedimentary rocks	
	Mountain ranges, hills and lowlands	**Metasediment rocks***	
	Mountain ranges, hills, lowlands and coastal headlands	Granite (volcanic) rocks	Oldest

Conceptual cross section of Gold Coast

Showing typical location of most common geology and land forms (concept only, not to scale)



*** Metasediment rocks**

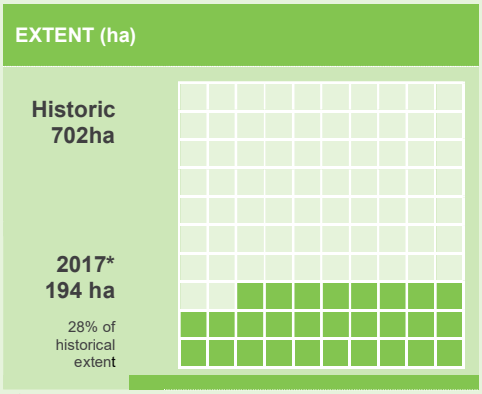
The most common underlying geology on the Gold Coast is metasediment rocks. Metasediment rocks are a type of metamorphic rock (rock transformed by heat and pressure). Originally these rocks were sedimentary rocks which were formed on the ocean floor through the deposition and solidification of sediment. These sedimentary rocks were subsequently buried underneath other rocks and subjected to high pressures and temperatures, causing the rock to recrystallize. This recrystallization process is known as metamorphosis, hence the term metamorphic rocks. About 300 million years ago these metamorphic rocks were pushed upward by geologic processes, creating much of the ranges, hills and lowlands on the Gold Coast.

2017 EXTENT AND CONSERVATION STATUS

Gold Coast

The current extent* of this vegetation type on the Gold Coast is 194 hectares.

1 HECTARE (HA) = 2.46 ACRES ≅ THE SIZE OF AN INTERNATIONAL RUGBY FIELD

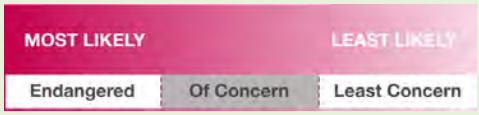


* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth

Queensland

The conservation status of vegetation in Queensland is specified under the *Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.11.9) as being of 'Of Concern'.

LIKELIHOOD OF BECOMING EXTINCT (in QLD) due to biodiversity loss/degradation



USEFUL RESOURCES

City of Gold Coast website: Environmental weeds and invasive plants.

Find out more about regional ecosystems at the Queensland Government Regional Ecosystems webpage.

CREDITS

Content – ngh Environmental and Jason Searle.
Vegetation Type Photo – Lui Weber ©
Unless otherwise noted all other photos – Glenn Leiper ©

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THREATS

Forest Red Gum/Ironbark woodland on metasediments occurs on fertile soils, and consequently this previously widespread vegetation type has been extensively cleared, and is subject to ongoing pressure for clearing for urban and semi-rural development, and is also often fragmented by development and land clearing. It is subject to infestation from weeds, including Lantana, Easter Cassia, Corky Passionflower, Camphor Laurel and Guinea Grass, especially in areas where disturbance or fragmentation have opened up the canopy layer.

Common threats to all vegetation types

Clearing
Native vegetation is protected by Federal, State and local legislation. However, with increasing population growth in the region, Southeast Queensland is experiencing large amounts of vegetation clearing, particularly in areas designated for urban development. Protecting native vegetation on your property is one of the most beneficial things you can do to protect wildlife and the natural environment.

Weeds
Environmental weeds are the second biggest threat to our natural environment after land clearing. Environmental weeds (introduced plants that have naturalised and are invading our bushland) degrade our natural environment by:

- out competing native plant species for available nutrients and light,
- taking over and transforming native landscapes often leading to local plant or animal extinctions and loss of biodiversity,
- reducing the availability of food and other resources for many native animals whilst sometimes benefiting pest animals,
- increasing the risk of destructive wildfire,
- often being toxic to people and animals.

Fire
Very broadly, vegetation types are either adapted to fire or fire sensitive. Fire can become a threat if:

- it extends into vegetation types which should not be burnt e.g. rainforest,
- the frequency and/or intensity of the fire is too high,
- the area burnt is too large.

Grazing
The grazing of animals like cattle, horses, goats and feral animals such as deer can cause trampling or loss of diversity of seedlings and compact soil, preventing natural regeneration.

Collecting
Unethical and illegal collection of plant specimens in the wild poses a serious threat to some species, particularly orchids, grass trees and epiphytes.

Climate change
Changes in temperature and rainfall can have significant effects on our city's vegetation. For example, without consistent rainfall, areas become drier, potentially resulting in higher fire frequency and/or intensity, which some plants and vegetation communities won't be able to tolerate. Plants (and animals) need available space to migrate as conditions change, with high altitude species at the greatest risk as there is nowhere suitable for them to go. Warmer conditions may also provide the right habitat for a greater variety of weeds. As sea levels rise, salt water moves further upstream and vegetation also becomes inundated.