

Protected Coastal wallum heathland



VEGETATION TYPE 25

Regional Ecosystem: 12.2.9

Wallum Banksia (*Banksia aemula*) Open Woodland on Coastal Sand

COMMUNITY STRUCTURE

Vegetation Type (VT) 25 is an open to closed shrubland up to 6m in height. It varies greatly in cover from 5% to 90% depending on location. Wallum Banksia (*Banksia aemula*) is the dominant and diagnostic tree, often with *Leptospermum polygalifolium* and/or *Melaleuca nodosa*.



The shrub and ground layer also vary greatly in cover depending on location, and with small, prickly-leaved shrubs (*Baeckea frutescens*, *Leptospermum whitei*, *L. trinervium*, *Monotoca* sp. etc) and Swamp Grasstree (*Xanthorrhoea fulva*) often present.

Characteristic plant species

Approximately **45 native plants species** have been recorded for this vegetation type. Characteristic plant species are listed below. Dominant (most numerous) species are shaded.



Indicates species is a preferred koala food tree*



Indicates species is a Glossy Black-Cockatoo feed tree species



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.

EMERGENT

Tallest trees or plants that grow above other vegetation layers.



Wallum Banksia
Banksia aemula



Bill O'Donnell ©



Swamp Mahogany
Eucalyptus robusta



City of Gold Coast ©

SHRUB LAYER

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



Weeping Coast Myrtle
Baeckea frutescens



Common Aotus
Aotus ericoides



Paperbark Tea Tree
Leptospermum trinervium

SHRUB LAYER

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



White's Tea Tree
Leptospermum whitei



Wild May
Leptospermum polygalifolium



Fraser Island Broom Heath
Monotoca sp. (Fraser Island)



Blueberry Ash
Elaeocarpus reticulatis

GROUND LAYER AND VINES

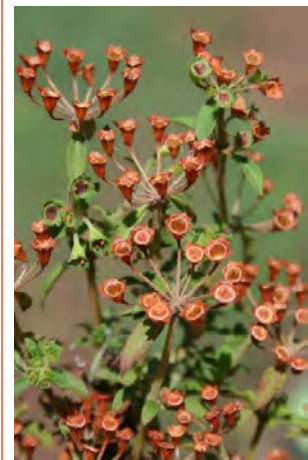
Lowest layer of vegetation. Plant types can include grasses; graminoids (non-woody plants with a grass-like morphology); ferns; and forbs (non-woody, broad-leaved, flowering plants) and vines (where present) may extend upwards into the canopy.



Tall Saw-Sedge
Gahnia clarkei
GRAMINOID (SEDGE)



Curly Sedge
Caustis recurvata
GRAMINOID (SEDGE)



Pomax
Pomax umbellata
FORB

GROUND LAYER AND VINES

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



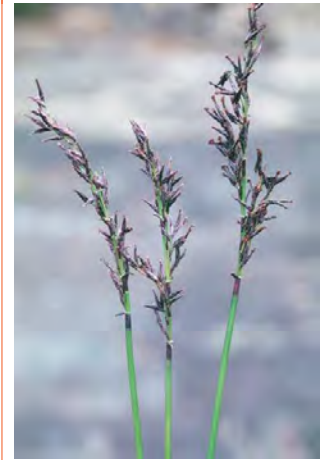
Heath Platysace
Platysace ericoides
LOW SHRUB



Grey Guinea-flower
Hibbertia linearis var.
obtusifolia
LOW SHRUB



Swamp Grasstree
Xanthorrhoea fulva
GRASSTREE



Black Bog-rush
Schoenus melanostachys
GRAMINOID (SEDGE)



Midyim Berry
Austromyrtus dulcis
LOW SHRUB



Downy Devil's Twine
Cassytha pubescens
VINE (PARASITIC)



Common Aotus
Aotus ericoides
SHRUB (JUVENILE)

City-wide significant plant species



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.



Leafless Milkwort
Comespermum defoliatum
SHRUB



Wallum Heath
Epacris pulchella
HEATH SHRUB



Dwarf Banksia
Banksia oblongifolia
SHRUB



White-flowering Sundew
Drosera burmanni
FORB



Strangea linearis
SHRUB

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.

Wallum Banksia woodland on coastal sand deposits typically occurs on very infertile sands derived from older sand dunes near the coast. This vegetation type has been extensively cleared for coastal development, and previously was more common on old sand dune areas at Jacobs Well, Pine Ridge and Coolangatta.









Historic distribution of Vegetation Type 25



LEGEND

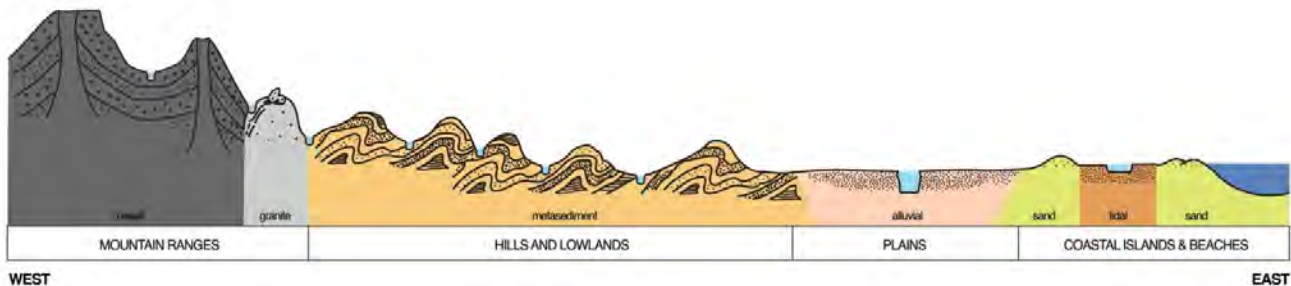
- Vegetation Type 25
- Ocean
- Major Waterways

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 and beach ridges (not subject to tidal inundation)	Coastal sands	
	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 metamorphism, 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

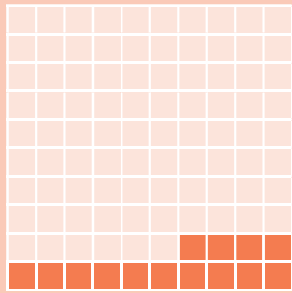
The current extent* of this vegetation type on the Gold Coast is 70 hectares, just 14% of its historical extent.

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

EXTENT (ha)

Historic
514ha

2017*
70 ha
14% of
historical
extent



* 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 12.2.9) as being 'Least 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

Vegetation type 25 occurs in urban areas and is highly threatened by clearing for coastal development. The area at Pine Ridge Environmental Park is also threatened by the expansion of roads and sporting fields in this highly urbanised area. The remaining areas at Jacobs Well were previously subject to sand mining. Other small remaining patches such as those at Coolangatta are highly threatened with ongoing urban development.

About common threats

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 is 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.