Vegetated Wetland

heath

VEGETATION TYPE 25c

Regional Ecosystem: 12.3.13

Closed or Wet Heath on Alluvium

COMMUNITY STRUCTURE

Closed or wet heath on alluvium forms an open to closed low shrubland up to 3m in height, and varies greatly in cover from 10% to 80% depending on location.

Common and characteristic shrubs include Swamp and Dwarf Banksia (*Banksia robur, B. oblongifolia*), Prickly-leaved Paperbark (*Melaleuca nodosa*) and the tea-trees *Baeckea frutescens* and *Leptospermum liversidgei.*

Source: Ryan *et al.* 2019.

The ground layer is dominated by Swamp Grasstree (*Xanthorrhoea fulva*) and the rushes *Gahnia aspera, Baloskion pallens and B. tetraphyllus*, and the fern *Blechnum indicum* is often also characteristically present.

Characteristic plant species

Approximately **10 native plants species** have been recorded for this vegetation type. Characteristic plant species are listed below. Dominant (most numerous) species are shaded. Plants in blue text are listed as Wetland Indicator Species in DES Flora Wetland Indicator Species List and are adapted to and dependent on wetlands.

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.

SHRUB LAYER

Characteristic layer of vegetation made up of small trees and woody shrubs.

Swamp Banksia
Banksia robur

Dwarf Banksia
Banksia oblongifolia

Olive Tea-Tree
Leptospermum liversidgei

Weeping Baeckea
Baeckea frutescens

Prickly-leaved Paperbark
Melaleuca nodosa

GROUND LAYER

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). Vines are absent.

Swamp Grasstree
Xanthorrhoea fulva
GRASSTREE

Pale Cordrush
Baloskion pallens
GRAMINOID

Large-fruited Saw Sedge
Gahnia aspera
GRAMINOID(SEDGE)

Lui Weber

Tassel Cordrush
Baloskion tetraphyllus
GRAMINOID

Strangea
Strangea linearis
SUBSHRUB

Swamp Triggerplant
Stylidium tenerum
FORB

Swamp Water Fern
Blechnum indicum
FERN

Pouched Coral Fern
Gleichenia dicarpa
FERN

Coastal Coral Fern
Gleichenia mendellii
FERN

Scrambling Club Moss
Lycopodiella cernua
FERN

CITY OF GOLDCOAST.

GROUND LAYER

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). Vines are absent.

Curly Sedge

Caustis recurvata

GRAMINOID (SEDGE)

Bog Club Moss

Lycopodiella serpentina

FERN

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. A number of characteristic species are identified above as CWS species. There are no other City-wide significant plant species identified in this vegetation type.

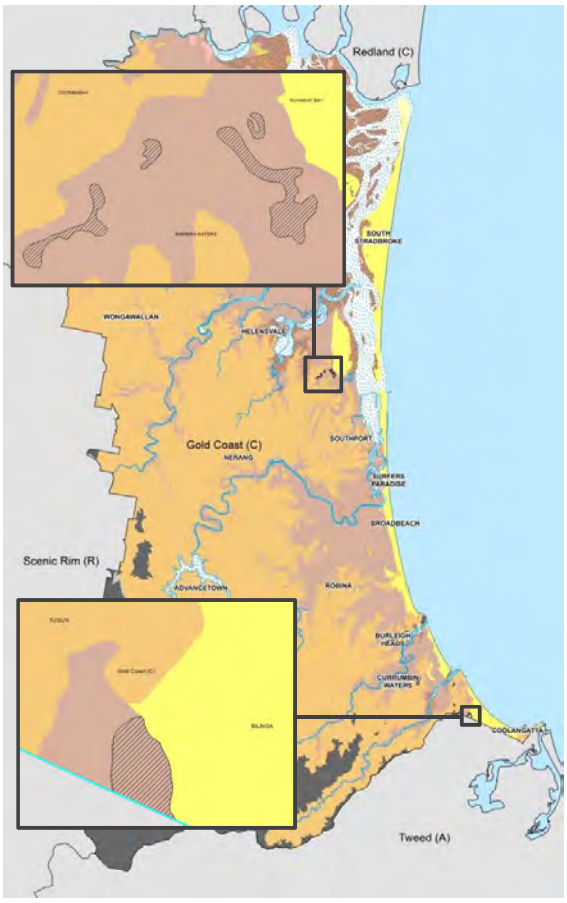
CITY OF GOLDCOAST.

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.

Closed or wet heath on alluvium is restricted to alluvial soils, adjoining areas on old sand dunes. It occurred in areas with deep acid soils and with a water table close to the surface for much of the year. Always restricted to small areas within Gold Coast City, these sites occurred around dense urban development and are now largely cleared. It is now limited to tiny fragments at Runaway Bay and Coolangatta within the Gold Coast, but is more common along the Tweed coast.

Historic distribution of Vegetation Type 25c



LEGEND

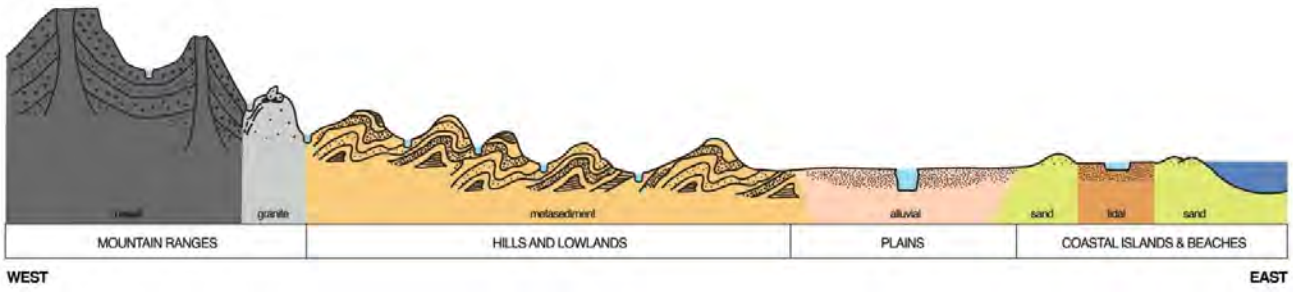
Vegetation Type 25c | Ocean | Major Waterways

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**

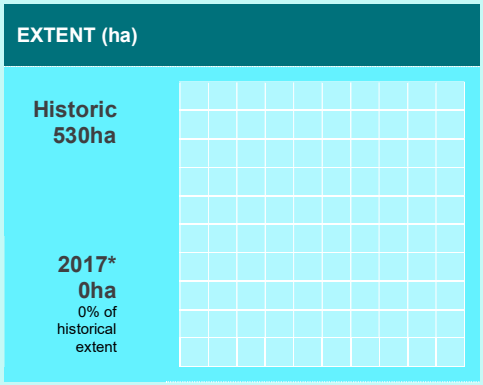
The most common underlying geology on the Gold Coast is metasediment rocks. Metasediment rocks are a type of metamorphic rock (rock transformed by heat and pressure). Originally these rocks were sedimentary rocks which were formed on the ocean floor through the deposition and solidification of sediment. 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 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

Historically, this vegetation type was the second most common type of coastal vegetation on the Gold Coast. The current extent* of this vegetation type on the Gold Coast is 0 hectares.

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

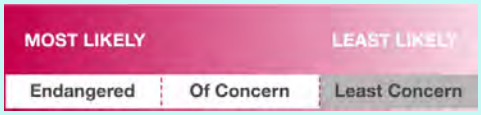


* Extent as mapped in 2017. Includes remnant vegetation only. Does not include disturbed remnant or regrowth.

Queensland

The conservation status of vegetation in Queensland is specified under *the Vegetation Management Act 1999*, which lists this regional ecosystem (RE 12.3.13) 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 ©

Version 3, November 2020

THREATS

There may be some small patches of this lovely vegetation type on the Gold Coast, but not of a size that is sufficient to be mapped (as the other vegetation types are). It can therefore be stated that closed or wet heath on alluvium has been totally cleared in the city. Any small patches that may remain are subject to great threat by changes to the water table on, and adjoining, the sites on which it occurs.

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.