

# Exposed Coastal dune



## VEGETATION TYPE 26a

RE: 12.2.16

Sandblows

### COMMUNITY STRUCTURE

Sandblows are bare, open areas which develop at isolated locations along the coastline as a result of large amounts of loose beach sand being blown into a large dune or series of dunes, on and/or behind the coastal foredune strip. Sandblows can form large patches many hectares in area and are dynamic in response to episodic and/or seasonal wind and weather events. They can engulf adjoining coastal heath and/or woodland, either gradually or in single major weather event. They are largely devoid of any vegetation and may have isolated patches of Banksia and/or Corymbia woodland either at the back of the dune or in low places where sand is not as thickly deposited. Some coastal foredune vegetation (i.e. *Spinifex sericeus*, *Ipomoea pes-caprae*) may colonise the front edge of this community.

Canopy



Ground

Isolated medium trees in adjoining vegetation type 8-16m high

Sparse foredune vegetation 0 - 0.5 m high

Source: Searle, 2019 (VT26a has been inferred from local knowledge of sandblows on South Stradbroke Island)

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## Characteristic plant species

This vegetation type is largely devoid of vegetation.

## City-wide significant plant species



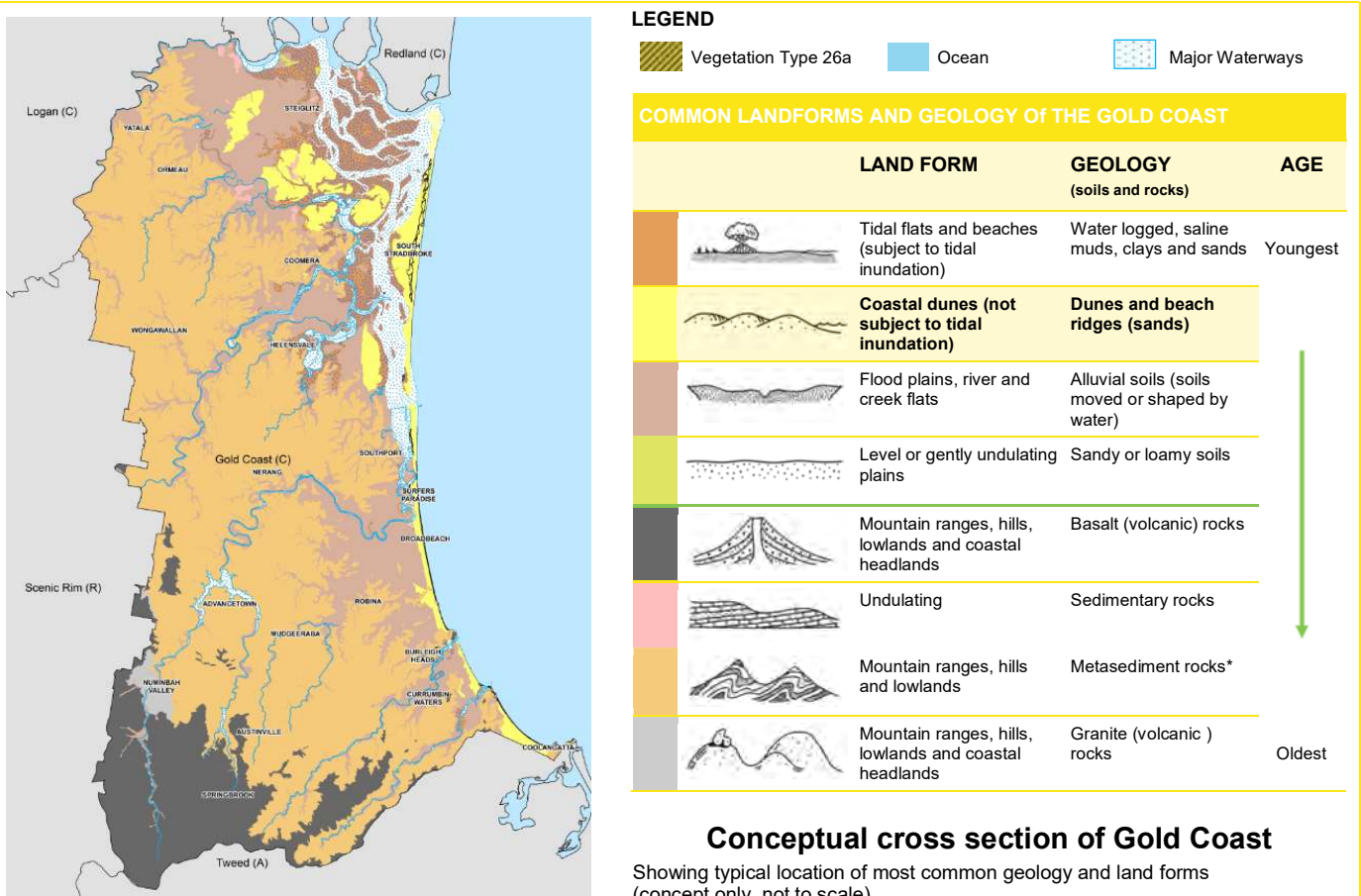
The City of Gold Coast recognises species which are locally significant as City-wide significant (CWS) species. These species are important because they may be threatened, restricted to the Gold Coast, or at the edge of their geographic range. There are no CWS plant species listed for this vegetation type.

## 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.

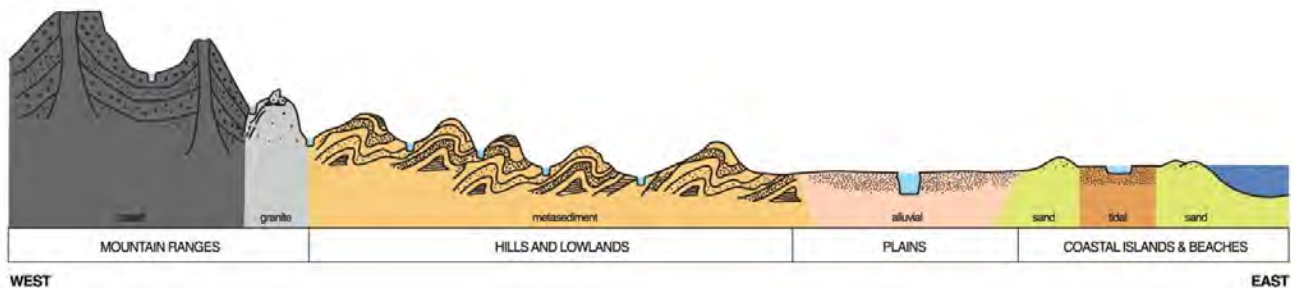
Sandblows occur mainly on coastal sand islands, or associated areas of the mainland with a broad, exposed dune structure such as the coastline of Cooloola National Park in northern South-east Queensland. Within the Gold Coast, a few small sandblows occur the coastal side of the more exposed northern end of South Stradbroke Island, where they have broken thru VT 23 (Foredune strand vegetation) and engulfed the surrounding VT39 (Bloodwood woodland on coastal sands). Other open sand areas devoid of vegetation have been created within the Gold Coast, due to land reclamation (Southport Spit and Southern South Stradbroke Island), and as a consequence of historical sand mining.

## Historic distribution of Vegetation Type 26a



### 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

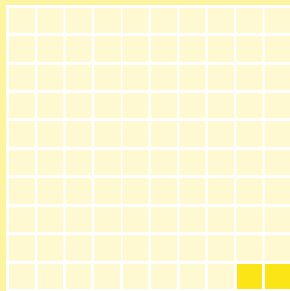
Historically, this vegetation type was one of the least common vegetation types. The 2017 extent\* of this vegetation type on the Gold Coast was 9 hectares which is 2% of its historical extent.

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

#### EXTENT (ha)

Historic  
487ha

2017\*  
9ha  
2% 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 12.2.16) as being 'of Concern'.

#### LIKELIHOOD OF BECOMING EXTINCT due to biodiversity loss/ degradation



## USEFUL RESOURCES

Links to the following are provided at:  
City of Gold Coast website: Environmental Weeds of the Gold Coast

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

Sandblows are dynamic, eroding and accumulating as a result of wind and weather events. They consequently provide the threat of erosion and destabilisation of existing dune profiles, especially on South Stradbroke Island and at The Spit where they could become eroded away and provide a new opening between the Broadwater and the exposed Ocean. The effects of this could be wide ranging, affecting currents and flow patterns within the Broadwater. Resulting exposed dunes, particularly those left from sand mining in the past, have been revegetated and stabilised using both native and exotic species, in an effort to maintain the stability of the coastal foreshore. Man-made sand areas should ideally be revegetated as naturally as possible to protect against erosion, coastal instability, and invasion by exotic weed species.

### Other 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.