

## WHAT IS IT?

The Northern Gold Coast Beach Protection Strategy has been developed to

- widen the beach and dunes
- improve surfing conditions

# the search for the perfect wave

Gold Coast  
Beach  
Protection  
Northern Strategy



As part of the Northern Gold Coast Beach Protection Strategy an artificial reef - to be built midway between Surfers Paradise and Main Beach - will not only contribute to the protection of the northern beaches from storm erosion, but will also improve surfing conditions.

The artificial reef, located a couple of hundred metres offshore, will cause the waves to break sooner and peel off consistently to both the left and the right.

Many of the top surfing areas have resulted from abrupt natural seabed features such as reefs, headlands and sandspits.

The reef will mimic naturally occurring seabed features which enhance wave formation.

Considerable research is underway to determine what makes that "perfect wave". With the introduction of the artificial reef, the Gold Coast may one day be home to some of the best surfing conditions in the world.

## THE BEACHES

The Northern Gold Coast beaches are highly vulnerable to erosion. Home to a dynamic beach system - high, powerful waves on a very exposed coastline - beach erosion is an ongoing concern.

During cyclones the beaches are dramatically exposed to large and powerful waves which can move huge quantities of sand from the beaches and dunes. A large cyclone or a series of cyclones could literally leave the Gold Coast without its famous beaches.

The impact to locals and tourists would obviously be dramatic. It takes considerable time for the beaches to recover from such events, during which time the Gold Coast economy could be severely affected.

As part of the protection strategy sand will be pumped to the beaches between Northcliffe and Narrowneck. This will provide the additional sand for the storm buffer, while also increasing the open space on the beach along the Surfers Paradise Esplanade.

## BREAKING WAVES

Top surfing conditions are dependant on many factors - seabed slope and shape, swell height, period and direction, and wind strength and direction.

Spilling and mildly plunging waves which break progressively along the crest - peeling - are preferred for surfing.



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## ANALYSING ENVIRONMENTAL IMPACT

There are many cases where surfing conditions have been unintentionally improved by coastal engineering structures such as Kirra Point, Currumbin Point and Stradbroke's North Wall.

Unfortunately, there have probably been an equal number of unintentionally degraded surfing breaks.

Extensive research is being undertaken to ensure surfing quality is considered in the design of this project.

During Stage Two of the Northern Gold Coast Beach Protection Strategy, a team of internationally-renowned coastal engineering and environmental consultants have been commissioned to assess the impact of the proposed works.

A strict set of criteria would be met before the design and construction of the reef is finalised.

These criteria would safeguard against the creation of hazardous conditions, minimise aesthetic impact and ensure pedestrian flow would not be restricted.

## WHO BENEFITS?

The artificial reef will be specifically designed to optimise surfing conditions. It could raise the Gold Coast's reputation within the international surfing community, potentially making Narrowneck a more suitable site to stage international surfing competitions.

Economic and recreational benefits from this unique tourist attraction would be felt throughout the entire Gold Coast region.

### THE REEF

By causing waves to break at the reef rather than the shore, the reef would play a key role in stabilising the widened beaches.

The reef would be constructed from hundreds of seven to fifteen tonne sandbags placed below water level, to ensure our beaches maintain their beauty.

The sand bags would most likely be made of 'soft' materials such as geotextiles and sand, to avoid any adverse impact on the area's sea life and vegetation.

### TELL US WHAT YOU THINK...

The Gold Coast City Council is keen to hear what the public have to say about the Northern Gold Coast Beach Protection Strategy.

To put forward your opinion or to obtain more information on any aspect of the project, phone the hotline or visit our web site.

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