Gold Coast Dive Attraction

A world-class, cost-effective and innovative approach to develop Australia’s first purpose-built reef dive attraction is a long-held catalyst project to diversify the City’s tourism offering, increase market share and boost tourism jobs. It’s being delivered by the City with $2.5 million in matched funding under the Queensland Government’s Growing Tourism Infrastructure Fund.

A primary goal of the Gold Coast Dive Attraction is to deliver an iconic, off-shore reef dive site, eco-engineered to attract bio-diverse marine life. This unique underwater journey will offer a distinct experience aimed at raising the profile of the Gold Coast and Queensland as a premier, unique and innovative nature-based dive destination.

The site is 3.5 kilometres south-east of the seaway and 2.5 kilometres offshore from Philip Park, Main Beach, at a depth of 30 metres. It will be less than 20 minutes from dock to dive and will provide at least three return dive charters per day. With an average of 220 diving days per year, the attraction will be a welcome addition to the City’s tourism activities.

Project scope

The Gold Coast Dive Attraction will include a purpose-built reef, moorings and navigational markers to:

- complement the Gold Coast’s visitor appeal, adding an iconic and innovative nature-based tourism experience
- create a unique and interesting dive experience encouraging repeat visitation
- attract and sustain a wide variety of marine life
- deliver a dive experience for a range of dive certification levels
- deliver a new ‘wow’ factor eco-tourism experience that contributes positively to the Gold Coast as a world-class tourism destination
- offer an element of ‘Fun’ interaction that incorporates a distinctly Gold Coast experience that the diver can share post dive trip.

Economic benefits

The dive attraction will inject an estimated $32.8 million into the region’s economy (including investment costs, regional flow on and tourism benefit) during the first 10 years of operation. This will be achieved through the generation of 166,543 new overnight visitors to the Gold Coast with the specific intention of diving and/or snorkelling. These visitors will generate an additional 133,940 visitor nights that would not otherwise exist.

Jobs

The investment cost, regional value added and tourism expenditure will support 80.8 full-time equivalent (FTE) jobs by year 10. The dive attraction project will generate an estimated 18.3 construction FTE's during the two-year construction period.

Project timeline

The dive attraction is being delivered under joint funding by the City and the Queensland Government. The City secured $2.5 million in matched funding under the Queensland Government’s Growing Tourism Infrastructure Fund.

The City has awarded a contract to design, manufacture and deploy the dive attraction including the reef, moorings and navigational markers to Australian company Subcon Technologies Pty Ltd. The City aims to have the dive attraction operational by June 2021.

Contractor information

Subcon Technologies are leaders in offshore marine structures and have delivered many complex purpose-built reefs around Australia and internationally.

They have delivered more than 20 industrial scale engineered reefs in Australia and internationally, primarily for habitat restoration, diving and recreational fishing. This will be their largest artistic reef combining innovative and robust technology and engineering methods to create a thriving ecosystem in a harsh marine environment.

Other purpose-built reefs delivered by Subcon Technologies include Simpson and Hardy reefs in Hervey Bay, Turner reef off Scarborough and multiple installations off New South Wales, Darwin, Perth, Exmouth and Mauritius.

Concept design

The reef sculptures are the work of renowned Queensland artist Daniel Templeman who has brought his creative interpretation to the marine engineering capabilities offered by Subcon Technologies.

The design will undergo further design development in consultation with the dive industry reference group.

The concept design comprises a series of buoyant ‘sculptural reef flutes’ gravity anchored to the sea floor by pyramid-shaped foundations.

The sculptural reef flutes will stand up to 20 metres above the ocean floor.

The steel reef flutes and foundations are designed to attract fish and serve as sustainable habitats for a diverse range of marine flora and fauna.

View an animation of the Gold Coast Dive Attraction concept design

Image gallery
Project enquiries

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Key information

External links
City of Gold Coast dive attraction - YouTube

31 October 2019 Media release - World-first floating design for Gold Coast dive attraction

8 May 2019 Media release - State and council to build dive site without the federal government

15 March 2019 Media release - City dive attraction moves to next stage

Frequently asked questions

What is the Gold Coast Dive Attraction?

The dive attraction includes a purpose-built reef, moorings and navigational markers specifically designed to attract and sustain a wide diversity of marine life, in turn providing a world-class diving experience.

When will the Gold Coast Dive Attraction be operational?

The City aims to have the dive attraction operational by June 2021, ready to welcome divers from around the globe.

How did you select the site?

Site selection has been informed by extensive research, consultation and monitoring. This includes a 12-month monitoring study by International Coastal Management, in partnership with the Griffith Centre for Coastal Management. The majority of the seabed in the selected area was found to be predominantly barren with limited features, devoid of vegetation and generally consisting of medium to coarse sand.

Site access was also a consideration in site selection. The location is easily accessible at least 205 days a year via the Gold Coast Seaway, with at least 30 per cent of these days being 'calm' conditions. The short trip from the Seaway will enable operators to schedule at least three return dive charters per day.

How is the dive attraction funded?

The dive attraction is jointly funded by the City and the Queensland Government, with the City securing $2.5 million in matched funding under the Queensland Government’s Growing Tourism Industry Infrastructure Fund.

What are the economic benefits of the dive attraction?

Australia has seen enormous growth in the coastal and aquatic activities market and the Gold Coast is well placed to harness the untapped potential of the local dive tourism market. It is estimated that in its first 10 years of operation the dive attraction will:

- inject $12.8 million into the region’s economy (including investment costs, regional flow on and tourism benefit) during the first 10 years of operation
- generate 166,143 new overnight visitors to the Gold Coast with the specific intention of diving and/or snorkelling
- support 86.6 full time jobs by year 10 of operations
- generate an estimated 18.3 full time positions during the two year construction period.
What is a purpose-built reef?

A purpose-built reef is a man-made structure that mimics the characteristics of a natural reef. Purpose-built reefs are typically constructed for:

- increasing or concentrating populations of marine plants and animals
- coastal protection (e.g., controlling beach erosion)
- recreational use (e.g., fishing, diving).

The City has constructed two purpose-built reefs to protect the Gold Coast’s most vulnerable beaches to the threat of coastal erosion, including the Mantra Artificial Reef and most recently the Palm Beach Artificial Reef.

The Gold Coast Dive Attraction will be Australia’s first reef specifically built for recreational diving. It will be purpose-built to attract a diverse range of marine life and maximise diver experience and safety.

What will the reef be created from?

The materials used to create the artificial reef will be clean, non-polluting and durable. Materials used to construct the reef include steel and reinforced concrete.

Subsea Technologies, who have been appointed to deliver the reef, has extensive experience in the design, manufacture, and deployment of long-lasting artificial reefs.

All components will be designed for long-term stability and be suitably weighted secured so they cannot move around on the sea floor.

What will it look like?

The Gold Coast dive attraction will be a world-first floating reef. The concept design comprises a series of buoyant, sculptural reef flutes anchored to the seafloor by pyramidal shaped foundations.

The steel reef flutes will create living spaces, standing up to 20 metres above the ocean floor. They are designed to create a new ecosystem to recrout fish and serve as sustainable habitats for a diverse range of marine flora and fauna.

The adoption of best practice and an innovative balance between engineering/technical design, architectural intent and ecological benefit will ensure a world-class outcome is achieved.

How high is it?

The artificial reef will be located in water at a depth of 30 metres. The sculptural reef flutes will stand 16 to 20 metres above the ocean floor.

This will ensure that divers of all certification levels are catered for—from eight metres below the surface for resort divers, down to 30 metres for advanced open water divers.

What are the environmental benefits of the artificial reef?

The artificial reef is expected to transform an area of limited biodiversity into an ecological hub by providing complex habitats for a diverse range of marine organisms, flora, fish populations and other marine creatures. Offering protection from predators, shelter from ocean currents, breeding opportunities and a supply of rich food sources, marine life is typically quick to adapt to artificial reefs.

The artificial reef may divers some pressure away from our natural reefs while still allowing visitors to enjoy diverse marine life.

It will also maximise the values of the ocean, provide educational opportunities and foster greater appreciation of marine life and the natural environment.

How will the reef be protected?

The City is currently exploring options with the Queensland Government on how best to protect the reef from incompatible activities such as fishing, general boating and other watercraft. A similar approach to other government-owned dive attractions such as ex-HMAS Brisbane is envisaged.

How will the dive attraction be built?

The construction methodology will be confirmed as design development is finalised. Construction will occur offshore with the structure(s) transported to the site for installation.

When will the dive attraction be installed?

The installation timeframe will be confirmed through final design development. The aim is for installation to occur by June 2022 during the calmer sea months around winter.

What can I expect during installation?

The deployment and installation methodology will be verified once final design is confirmed.

For safety, an exclusion zone is proposed to be established around the site during installation. The exclusion zone will be marked with navigational markers and will prohibit fishing, watercraft and other unauthorised activity.

The City wants to continue the exclusion zone during the ongoing operation to provide diver safety and to protect the marine life, similar to that of other government-owned dive attractions such as the ex-HMAS Brisbane.

We want to deliver a high-quality, socio-tourist experience that fosters a greater appreciation of the natural environment and contributes positively to the Gold Coast as a world-class tourist destination.

When can I finally Gold Coast Diving?
The aim is for the Gold Coast Dive Attraction to provide an engaging and enjoyable diving opportunity for divers of all levels of experience and certification – from eight metres below the surface to advanced divers at 30 metres.

While the operational model is still being investigated, it is proposed there will be meetings suitable for dive tour operators and public meetings for private and club divers.

**Will there be a fee to dive to Gold Coast Dive Attraction?**

It is proposed that all vessels and divers entering the site will be required to obtain a permit for a small fee, similar to other government-owned dive attractions in the region such as the HMAS Tobruk.

**Can I provide input into the design?**

Many people are excited about the new dive attraction and have already volunteered suggestions, ranging from a flexible statue to a fixed sculpture. However, there are many complex and technical factors to be considered.

The City has been consulting with the community since 2010 and has established a Dive Industry Reference Group of local divers and dive tour operators. The group’s preference is for a purpose-built structure. Further, a community consultation survey in 2013 showed the most important features of a dive attraction are marine life and accessibility.

It is important that the Gold Coast Dive Attraction is designed by suitably qualified experts to ensure it provides an innovative balance between architectural/artistic intent, ecological benefits and engineering efficiency and fully complies with all applicable codes, standards and legislative requirements.

**Can we scuttle a decommissioned navy ship?**

There are many decommissioned navy ships already sunk along the east coast of Australia for dive adventures. The City had applied for the HMAS Tobruk, but was not successful in securing the vessel for scuttling. Community engagement in 2013 showed overwhelming support (75 per cent of respondents) for a purpose-built structure, if the City could not secure a navy vessel.

An eco-engineered and purpose-built dive attraction is far more cost effective. It also allows the City to deliver on its objective to create a memorable dive experience that is iconic and distinctly Gold Coast.

It will offer a new ‘must’ factor eco-tourism experience that will elevate the Gold Coast’s reputation as a world-class tourism destination, grow the region’s dive market, and attract divers and their travel parties from Australia and around the world.