

Yorke Peninsula Shellfish Reef

The Yorke Peninsula Shellfish Reef aims to restore shellfish reef habitat in the region, providing new habitat for marine life and helping to enhance recreational fishing experiences in the region.

In June 2016, north-west Gulf St Vincent was announced as the location of South Australia's first trial shellfish reef as part of the State Government's \$3.25 million commitment to enhancing recreational fishing experiences. This trial shellfish reef will be the first of two construction phases, trialing the best method for building a living shellfish reef.

Why is shellfish reef restoration important?

Globally 85% of shellfish reefs have been lost from coastal areas, with a loss of 99% of shellfish reefs from Australia's coastal waters. Historically, shellfish reefs were prevalent in the Yorke Peninsula region.

Shellfish reefs made up of oysters and mussels provide important food and habitat for marine life. Working like coral reefs, they support the growth of important fish species like Snapper and King George Whiting while also helping to improve water quality, reduce coastal erosion and increase biodiversity.

How does shellfish restoration work?

Shellfish reef restoration can take many forms and typically includes the creation of habitat, made from environmentally friendly materials (e.g. limestone) deployed onto the seafloor using barges.

These materials are then layered with juvenile shellfish so they can attach to the materials and the new habitat can grow to become a living shellfish reef. See Figure 1.

What is the Yorke Peninsula Shellfish Reef project?

A shellfish reef restoration project is now underway 7 km south of Ardrossan in north west Gulf St Vincent and in a water depth of approximately 8 to 10 metres. See Figure 2.

It will predominantly be made from locally sourced limestone rock layered with Pacific Oyster shells covered in juvenile native oysters. Custom made concrete structures will also make up part of the reef design. This is the first shellfish restoration project of its kind in South Australia.

How was the reef site chosen?

Two rounds of public consultation were undertaken to allow for community input on the reef site location, with broad support received for the north west Gulf St Vincent region.

Finer scale site selection was based on underwater surveys and marine engineering reports, which demonstrated that the area south of Ardrossan supported environmental conditions suitable for the development of a shellfish reef.

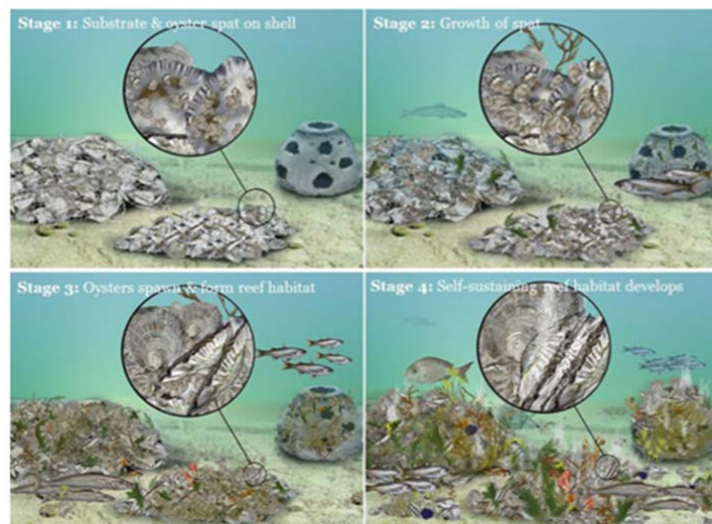


Figure 1: The four key stages of oyster reef establishment after deployment. Stage 1: The reef structures are deployed with seeded-on-shell native oyster spat released amongst the limestone pieces of plot 1; stage 2: oyster spat continue to grow and increase the shellfish profile of the reef; stage 3: native oysters mature and reproduce, from which the new spat settle on nearby artificial reef structures and continue growing and increasing the reef profile, and; stage 4: the oyster reef reaches a self-sustaining point producing oysters and habitat for fish as well as providing various ecosystem services.

When will the reef be built? And how big is the area?

- *Phase one* will commence in 2017 and includes construction of a trial shellfish reef of up to four hectares.
- *Phase two* will be completed by the end of 2018 with up to 20 hectares of shellfish reef expansion.

Who is responsible for building the reef?

The South Australian Government, The Nature Conservancy and Yorke Peninsula Council are working in partnership to deliver both phases of construction.

Who is The Nature Conservancy?

The Nature Conservancy is a leading non-for-profit conservation organisation which has over 15 years of experience in shellfish reef restoration.

When is an increase in fish presence expected at the reef site?

Within the first few months but it will take at least two years before the reef starts becoming a complex habitat that supports fish production.

Will the reef be open to recreational fishers?

While short term restrictions may be required during the initial settlement process following construction to avoid any damage, once settled recreational fishers will have access to the reef. A guide to fishing at the reef will also be made available closer to the opening of the reef.

What economic benefits does shellfish restoration provide?

The reef will create construction jobs, and over time, is expected to enhance recreational fishing experiences and associated tourism activity and boost ecotourism opportunities. In the long term, it is expected the reef's new marine habitat will increase fish production in Gulf St Vincent, thereby enhancing both recreational and commercial fishing opportunities more broadly.

What opportunities are there for locals to be involved?

Local businesses may be engaged during the construction process for the provision of services required during fabrication and deployment of the reef. Once the reef site is open there will be opportunities for volunteers to become involved in monitoring different aspects of the reef.

More information:

Shellfish reef restoration www.pir.sa.gov.au/habitatenhancement

The Nature Conservancy: www.natureaustralia.org.au

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Figure 2. Approximate location of the trial Yorke Peninsula Shellfish Reef.