



Australian Government
Great Barrier Reef
Marine Park Authority



Shen Neng 1 aground on Douglas Shoal (2010)

Douglas Shoal Remediation Project

Remediation contractor procurement

Project background

In April 2010, the fully-laden bulk coal carrier *Shen Neng 1* ran aground on Douglas Shoal, off central Queensland. Douglas Shoal sits within the Great Barrier Reef Marine Park.

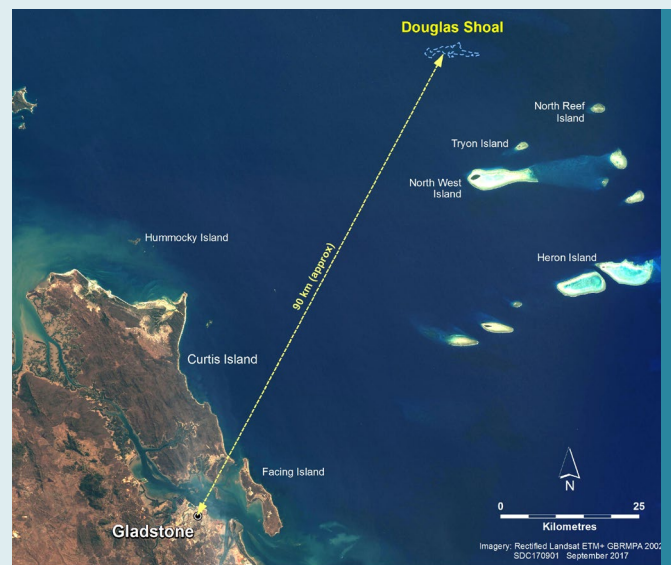
The grounded vessel remained on Douglas Shoal for 10 days, shifting position with the tides, until it was refloated and towed away. With an impact area of approximately 42 hectares, it left the largest ship grounding scar known on the Great Barrier Reef, and possibly in the world.

While the grounding caused physical damage to the shoal, it also introduced chemical contamination from the ship's anti-fouling paint.

Remediation project

In late 2016, the Great Barrier Reef Marine Park Authority established the Douglas Shoal Remediation Project, with funds from an out-of-court settlement associated with the grounding incident. The primary objective of the project is to support the natural recovery of Douglas Shoal by addressing the following key concerns:

- Contamination caused by the ship's anti-fouling paint
- Rubble created as the ship ground across the shoal
- The flattening of the shoal's natural bumps and crevices that are habitat for plants and animals.



Douglas Shoal facts

- A large, flat topped ridge rising close to the ocean surface.
- Sits at depths of 10-15 metres, rising from surrounding water depth of 40-45 metres.
- Located in the sea country of the Gooreng Gooreng, Gurang, Byellee and Tarebilang Bunda people.
- Has important environmental values, supporting abundant fish life and protected species such as sea snakes and marine turtles.



Undamaged underwater life at Douglas Shoal (2010)



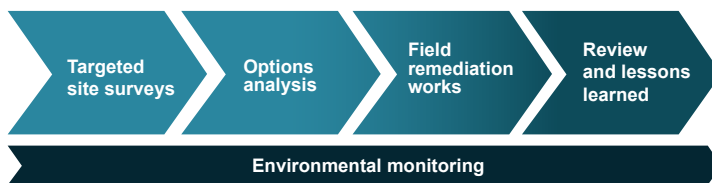
Example of damage caused by the grounding (2010)



Examples of damage caused by the grounding (2010 and 2011)

Remediation contractor procurement

Key phases of the project are shown below.



Two major contracts have already been awarded through open tender processes:

- Advisian is delivering remediation planning and advisory services (from October 2018 to October 2022)
- BMT is delivering environmental monitoring services (from May 2019 to December 2022).

Site surveys are nearing completion to fill critical knowledge gaps about the nature and extent of damage and contamination. Based on the findings of the site surveys, the options analysis will review and analyse potential methods for remediation. Areas of priority will be identified to focus remediation efforts, and broad remediation objectives will be established.

The project is currently preparing for the procurement of the remediation works, with formal procurement likely to commence in early 2020. The options analysis may indicate a variety of remediation methods are feasible. Therefore, as part of the procurement process, a collaborative approach to developing a remediation plan may be adopted.

It is intended that the remediation works will commence during 2021 with a target completion date in 2022, though this timeframe will be shaped by the options analysis and market response.

Remediation works preliminary considerations

- Douglas Shoal is a relatively remote and exposed environment for field activities. It experiences changeable weather, strong tidal currents and an abundance of fauna. The shoal is commonly affected by both significant weather systems (such as cyclones) and local rapidly changing conditions.
- Site surveys indicate that constituents of anti-fouling paint including tributyltin (TBT) persist in sediments and pore water at levels above relevant guidelines, mostly confined to scattered locations where the ship first hit the shoal.
- The seafloor is mostly hard limestone pavement with gutters and holes that are filled with gravel and sand (including rubble from the incident).
- The depth of sediment appears to average less than 10 centimetres, although this varies across the shoal.
- Given the remediation works will be occurring in the Great Barrier Reef Marine Park, a World Heritage Area, remediation works will need to be undertaken in a way that respects these values.
- Sea rangers from Gidarjil Development Corporation have been supporting project activities, bringing their broader experience and connection to sea country. This ensures the project understands and respects the Traditional Owner values of the area. A core objective of the project is to contribute to meaningful opportunities for Indigenous participation (employment, training, business and procurement) in all stages.

More information:

- More information on the grounding incident and the remediation project can be found [here](#).
- Any future commercial opportunities associated with the project will be listed on AusTender at www.tenders.gov.au.
- For more general information about the project, please contact the Great Barrier Reef Marine Park Authority at douglas.shoal@gbbrmpa.gov.au.