

Water quality

Why does water quality need to be monitored?

To allow cruise ships to berth at the new Breakwater Wharf, up to 231,500 cubic metres of material must be dredged from the seabed in Snug Cove and Twofold Bay. During dredging, sediments are disturbed and can become suspended in the water, which can impact the living conditions of native marine flora and fauna.

Turbidity is a measure of the cloudiness of water and will be used to determine water quality during the project. Turbidity measures the amount of tiny particles, such as silt and clay, organic matter and microscopic plants and animals suspended or floating in the water.

The water quality in Snug Cove and Twofold Bay will be monitored to ensure dredging the seabed does not have an adverse impact native marine flora and fauna.

Sediments can also contain naturally occurring contaminants such as nitrogen, phosphorous and mercury. Previous testing of the sediments has shown that the levels of contaminants in Snug Cove and Twofold Bay are not above limiting thresholds.



Will specific habitats be monitored during construction?

Water quality will be monitored near the following habitats:

- the seagrasses within Cattle Bay
- rocky reef habitats near Shelly's Beach
- the Eden mussel aquaculture farm adjacent to Cocora Beach.

How will water quality levels be monitored?

Purpose-built water quality monitoring instruments mounted on buoys will measure turbidity. The buoys have been installed in Snug Cove and Twofold Bay. Sensors continually monitor water quality and the buoys transmit the data to an online monitoring system.

Continuous monitoring of turbidity acts as an early-warning system and allows the dredging contractor to take actions to ensure water quality is not significantly degraded during operations.

How long will water quality be monitored?

Water quality will be monitored for the duration of dredging activities.

Will there be any impact on seafood in Snug Cove and Twofold Bay?

We don't expect fish, mussels and other marine species in Snug Cove and Twofold Bay to be affected by dredging activities. The mussel farm will continue to undertake water-quality and product sampling when harvesting mussels, as required by the NSW Food Authority and in accordance with statutory requirements.

What legislation and guidelines cover water quality?

Relevant legislation and standards governing the management of water quality are:

- National Assessment Guidelines for Dredging 2009
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality
- NSW Water Quality Guidelines
- NSW Water Quality Objectives
- National Water Quality Management Strategy
- *Protection of the Environmental Operations Act 1997*
- *Protection of the Seas (Prevention of Pollution from Ships) Act 1983*.

The project's environment protection licence and its state significant infrastructure approval detail the conditions under which the project must operate, including the management of water quality.

In addition, the environmental impact assessment for the project addressed the requirements of the above.

Will there be a noticeable discolouration of the water during dredging?

There will be discolouration of the water around the dredge and at the offshore disposal site caused by the materials being excavated from the seabed. This is not harmful and will not impact marine life, recreational and commercial fishing, and people swimming at nearby Corcora Beach and Shelly Beach.

How can I found out more about the project?

To get more information about the project, contact us by:

- T: 1800 960 877
- E: eden.wharf@industry.nsw.gov.au
- M: PO Box 343 Eden NSW 2551
- W: www.crownland.nsw.gov.au