

# Maintenance Dredging Project

## What is maintenance dredging?

March 2019



**Maintenance dredging is the removal and placement of accumulated material from existing ship navigation areas to an approved placement area.**

When you look out at a port, you'll see the ships, ocean, the wharves and maybe some loading machinery.

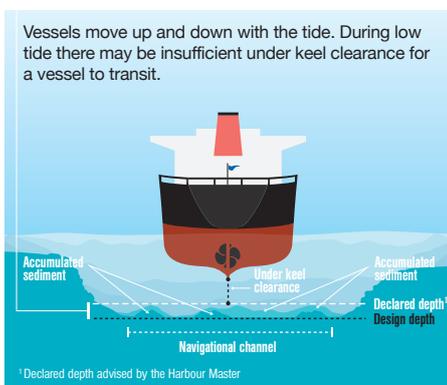
What you won't see is the infrastructure beneath the surface. This underwater infrastructure includes a shipping channel, apron and berthing pockets. These are often man-made depressions in the seabed that allow a ship to manoeuvre within the port.

Over time, natural forces like tides, storms and cyclones cause some of the sediment that is constantly shifting through the ocean to settle into these channels and pockets.

This natural accumulation reduces the depth of these navigational areas which have a design depth and a declared depth.

- Design depth is the original construction depth that port engineers consider ideal for operating safely and efficiently at both high tide and low tide.
- Declared depth is designated by the Harbour Master acknowledging this sediment build-up.

If maintenance dredging does not take place, the channels, aprons and pockets get shallower – illustrated below.



The depth necessary for efficient loading, manoeuvring and transit of ships is impacted. This can cause shipping delays that have significant flow-on effects for businesses and the broader economy.

### How is maintenance dredging performed?

North Queensland Bulk Ports Corporation (NQBPC) will be using a Trailing Suction Hopper Dredge (TSHD) to undertake maintenance dredging at the Port of Hay Point.

This vessel has equipment and technology specifically designed to reduce impacts on the environment.

Like an underwater vacuum cleaner, suction tubes equipped with a drag head are lowered on the seabed and trailed over the seafloor.

A suction pump system vacuums a mixture of sands, silts or clay and water, into the vessel's hold, or 'hopper'. Once fully loaded, the vessel sails to the approved placement area.

The material is then placed at the approved area through bottom doors or valves. This approved area is about 6 kilometres north of the Port and within defined port limits.

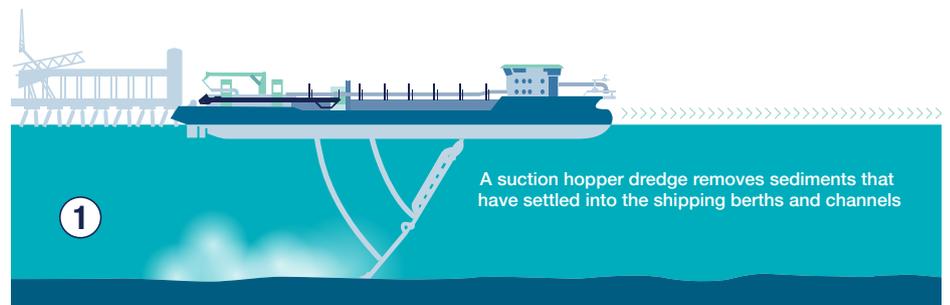
Environmental monitoring and management measures will be implemented throughout the maintenance dredging program to minimise the impact on the marine environment including ensuring water clarity remains within the natural conditions of the Hay Point area.

Information is gathered from water logger sites at Round Top Island, Victor Island, Slade Island and Freshwater Point.

You can access this real-time water quality information on a live dashboard on our website.

### What is maintenance dredging?

Maintenance dredging involves relocating sediment which travels along the coast and naturally accumulates over the years where our shipping operation occurs.



Trailing Suction Hopper Dredger undertaking maintenance dredging



Trailing Suction Hopper Dredger placing material

For more about this maintenance dredging program contact: North Queensland Bulk Ports

P 1300 129 255 | E [communications@nqbp.com.au](mailto:communications@nqbp.com.au)

HAY POINT • MACKAY • ABBOT POINT • WEIPA

[nqbp.com.au](http://nqbp.com.au)