

# Why Queensland ports need to dredge

Queensland Ports Association | Fact Sheet

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- *Dredging is the term given to removing material from waterways to deepen channels, create harbours, and keep channels and approaches to ports at defined depths.*
- *Dredging is a vital part of operating a safe and efficient port.*
- *Dredging can either be **capital** dredging (new channels and berths) or **maintenance** dredging (necessary to maintain existing and approved dredging areas).*
- *Dredging is highly regulated and is subject to strict State and Commonwealth legislation.*
- *Contaminated material is not allowed to be placed at sea. All material for ocean relocation is tested under rigorous requirements set out in the National Australian Guidelines for Dredging (NAGD) using accredited laboratories.*
- *The Commonwealth Government also engages independent experts to review applications to place material at sea.*



## What is dredging?

Dredging is the term given to digging, excavating or removing material from waterways to deepen channels, create harbours, and keep channels and approaches to ports at defined depths. The type of material removed during dredging can vary greatly, however in Queensland most material removed is silt, clay or sand.

## Why do ports need to dredge?

Australia is an island nation and almost all goods are imported or exported by ships that require ports to load and unload cargo. Efficient ports are heavily relied on for export of our agricultural and mineral commodities and the import of manufactured goods, vehicles and fuel to maintain and grow the Australian economy. Our quality of life depends on ports and maritime trade.

Dredging is a vital part of operating a port as it is needed to:

- create new or deeper channels and berths for ships (termed **capital** dredging). In most cases, capital dredging involves larger dredges excavating larger volumes from the seabed for a longer time than maintenance dredging.

*(Capital dredging is needed periodically to ensure navigation channels are deep enough for the increasingly larger modern ships used by the global shipping industry. Larger ships are preferred as relying on smaller ships would lead to increased import/export costs and more shipping traffic. New larger ships offer advancements in safety and operational features and have environmental benefits such as reduced and cleaner emissions)*

- maintain the depth in channels, berths and harbours to allow ships efficient and safe passage (termed **maintenance** dredging). Maintenance dredging involves the removal of sediments naturally transported, by waves or currents, into the deeper channels or berths. In most Queensland ports, maintenance dredging is needed in certain areas each year and generally occurs after the wet season.

*(Without maintenance dredging, channels would silt up and commercial ships could not carry full loads. The cost of importing and exporting goods would increase and eventually the additional costs would be borne by the community. If shipping channels were not deep enough, other risks would increase such as those relating to ship safety and environment incidents such as groundings and oil spills)*



## Are there regulations for dredging?

Dredging is highly regulated and is subject to strict State and Commonwealth legislation. Special guidelines and requirements apply to dredging in areas of high conservation value such as the Great Barrier Reef Marine Park and World Heritage Area.

The Queensland Government requires a permit to be obtained for all dredging and dredge material disposal in Queensland waters. The Commonwealth Government also requires a permit to be obtained for dredging if it is in Commonwealth waters or areas overseen by the Commonwealth (e.g. the Great Barrier Reef Marine Park or World Heritage Area).

## Can contaminated material be placed at sea?

No, contaminated material is not allowed to be placed at sea. All material for ocean relocation is tested under rigorous requirements set out in the National Australian Guidelines for Dredging (NAGD) using accredited laboratories. These guidelines are internationally considered to be of a world leading standard.

Australia is a signatory to an international agreement ensuring dredge material placed at sea is not contaminated and does not lead to unplanned environmental impacts.

The Guidelines require a detailed evaluation of alternatives to sea placement to be undertaken, which includes assessment of environmental, social and economic impacts. The marine site selected for placement of dredge material is determined based on the best outcome for the environment. Generally, offshore placement of dredge material has temporary impact, with recovery within a relatively short period.

## What environmental assessments are required for dredging permits?

Government agencies require all potential environmental impacts to be investigated before any permits are granted. There are National Ocean Disposal Guidelines that describe what information is required to accompany an application for a dredging permit. Applications must include:

- a description of why dredging is required and how it could be minimised;
- a review of other options available (e.g. on land, reuse, other sea locations);
- environmental impact assessments (e.g. effects to any nearby sensitive environmental habitats such as coral and seagrasses);
- sediment contamination testing; and
- consultation with potentially affected stakeholders.

If a permit is granted, it will have detailed conditions which describe how the dredge is to be operated, where material is placed, environmental monitoring and reporting requirements.

Larger capital dredging operations associated with port projects are required to go through a rigorous environmental impact assessment process at both State and Commonwealth levels. This process allows the Government to assess whether the proposed activity will have acceptable impacts on the environment.

Environmental assessments associated with dredging approvals are generally undertaken by consulting companies that have scientific expertise in dredging and environmental impact assessment.

The Commonwealth Government also engages independent experts to review applications for dredging and to place material at sea. This includes determining what conditions need to be placed on the dredging project including strict monitoring and reporting requirements.