

Dredging



Australia has more than 70 ports which support trade with every region of the world. Gladstone Ports Corporation (GPC) manage and operate three of these ports, the Port of Bundaberg, Port of Gladstone and Port of Rockhampton.

Shipping is the most sustainable and cost effective method of transport of products and materials around the world.

As vessels and trade increases, shipping channels need to be developed and maintained.

If you were to liken the shipping channels to a road it is important that we undertake routine maintenance dredging to ensure no potholes and capital dredging projects to add passing or overtaking lanes.

What is dredging?

Dredging involves the digging, excavating or removal of material from waterways to deepen channels, create harbours and maintain navigation channels and approaches to ports, to allow the safe passage of vessels. The type of material removed during dredging can vary greatly, however in Gladstone most material removed is silt, clay, sand and gravel. Dredging can either be capital dredging associated with new navigation channels or maintenance dredging that is necessary to maintain existing and approved seafloor profiles. If you were to liken the shipping channels to a road it is important that we undertake routine maintenance dredging to ensure no potholes and capital dredging projects to add passing or overtaking lanes.

What is Capital dredging?

Capital dredging is an essential part of port operation and is required to create new, or to improve existing, navigation channels for a vessel to safely transit through the area. Capital dredging at Queensland ports is regulated by a comprehensive regulatory approval system at both the Commonwealth and State Government levels.

What is maintenance dredging?

Maintenance dredging involves dredging carried out for the purposes of removing sediments that have accumulated in the existing navigation channels and berth pockets to maintain an existing approved capital dredging seafloor profile. Like capital dredging, maintenance dredging is also regulated by a comprehensive regulatory approval system at both the Commonwealth and State Government levels.





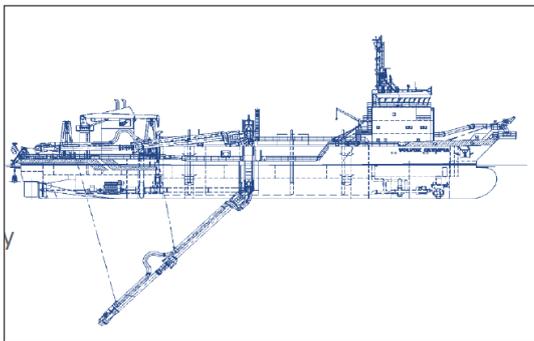
Are there regulations for dredging?

Dredging is highly regulated and is subject to strict Commonwealth and State 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 dredged material placement 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). Government agencies require all potential environmental impacts to be investigated and mitigation measures identified before any permits are granted.

Conventional dredging equipment

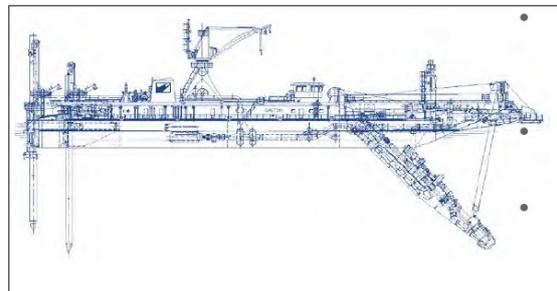
Trailer suction hopper dredger (TSHD)

Dredger is self contained with material dredged into hopper and transferred to placement site.



Cutter Suction Dredger (CSD)

Dredging by pumping material direct from dredging site into placement area.



Reclamation

Through dredging GPC has been able to provide the community with unprecedented access to the water front through the provision of parklands. Spinnaker Park, the Marina Parklands and East Shores are all the result of reclamation activities from various dredging campaigns over a course of many years.



IMAGE LEFT: Spinnaker Park in 1976. IMAGE RIGHT: Spinnaker Park now in 2018.