

Dredging fact sheet

What is dredging?

Dredging is the term used for excavating or removing materials from the bottom of waterways including shipping channels, ports, rivers and lakes. The process involves three steps: excavation/collection of material including silt, sand, clay and rock; transportation of the dredged material; and its safe unloading at an approved disposal site.

Types of dredging include:

Maintenance dredging -- the name given to works that remove siltation and ensure that shipping channels, berths and harbours remain at defined nautical depths so ships can carry maximum loads and don't run aground.

Capital dredging - the creation of new work carried out in virgin soils to improve shipping channels and berths, deepen them or create new ones.

Why dredge?

Dredging is a vital activity for ports and harbours across the globe and plays a major part in ensuring they remain productive and competitive as the global shipping industry turns to increasingly larger ships to achieve economies of scale. Without periodic dredging -- both maintenance and capital -- port and channel authorities cannot assure the next generation of larger ships safe and efficient passage into berth.

With the bulk of Australia's imports and exports travelling by ship, ports are a crucial cog in the transport network as a base for commercial vessels to receive and offload cargo including grain, minerals and fuel. Efficient ports play an important role in keeping Australia's economy healthy.

Dredging in Corio Bay

Dredging in Geelong waters to aid navigation of ships has occurred periodically for about 150 years. While it is not new, it is important. Victorian Regional Channels Authority, which manages the shipping lanes in and around Corio Bay, has a responsibility under legislation to ensure the channels are safe for ships. Major capital dredging work was last carried out in Geelong's shipping lanes in 1997 with no long-term health effect to the marine environment. In 2014 and 2015, minor capital dredging was undertaken in City Bend, Corio Quay No 4 berth and Refinery Pier No 4 berth. Again no lasting impacts on the marine environment were detected.

Dredging in 2015

The Geelong Dredging Program 2016 is scheduled to start in late October 2017 and will take up to 7 weeks to complete. The \$4 million dredging project will deliver safer passage for increasingly larger ships, boost port productivity and efficiency and better position the Port of Geelong to capitalise on future trade opportunities including a projected doubling of trade by 2030.

The Geelong Dredging Program 2016 involves:

- Capital dredging in a small area on the eastern side of Corio Channel, to bring its depth in line with the main channels (12.3 metres deep). This will assist larger vessels in their transit to Refinery Pier and Lascelles Wharf.

The dredging contractor

NZ-based Heron Construction Company will carry out the dredging works in 2017. The civil engineering contractors, which have half a century of experience in dredging and marine construction work, will remove about 160,000 cubic metres of mainly soft material during the project. There will be no hard rock removed.

How will the dredging occur?

Heron Construction will use its backhoe dredger, *Machiavelli*, to excavate the material from Corio Bay's seabed. The backhoe dredger is similar to a large land-based excavator mounted on one end of a barge and relies on tugs to manoeuvre it into place.

Two split-hopper barges, propelled by tugs, will deliver the dredged material to an existing dredge material ground, about six kilometres east of Point Wilson.

The same dredge material ground was used for the major capital dredging program in 1997 and the Geelong Dredging Programs in 2014 and 2015.

Heron will also use a Sea Cat to transport crew between shore and its vessels.

Is dredging regulated?

Dredging activities are highly regulated and cannot be carried out unless they comply with stringent government legislation. The Geelong Dredging Program 2016 works are governed by an approved Environmental Management Plan. Contractors have to comply with a strict set of rules and there are independent audits.

Will shipping be disrupted?

The dredging work in Corio Bay will not impact on shipping activities or port operations. About 650 ships call into the Port of Geelong each year and it is crucial their access is not hindered.

Ancillary works during the project will consist of the removal of an existing navigation beacon, and its temporary replacement with a floating buoy. This specialist work, together with critical alterations to navigation lights will be carried out by P W Johnson Constructions Pty Ltd with assistance from local contractor Elstone Diving Services.