



Fact sheet

Project overview

The key driver for the Outer Harbor Channel Widening Project is the width required to enable today's wider vessels to safely navigate along the channel and then be turned around on arrival or departure.

Flinders Ports needs to widen the Outer Harbor channel to maintain competitiveness with other capital city ports.

Unlike Adelaide, most Australian container ports can accommodate the wider Post Panamax vessels without restrictions.

The larger vessels are more economical and container line owners are looking to place these larger vessels on the Australian trade route to increase vessel capacity and productivity.

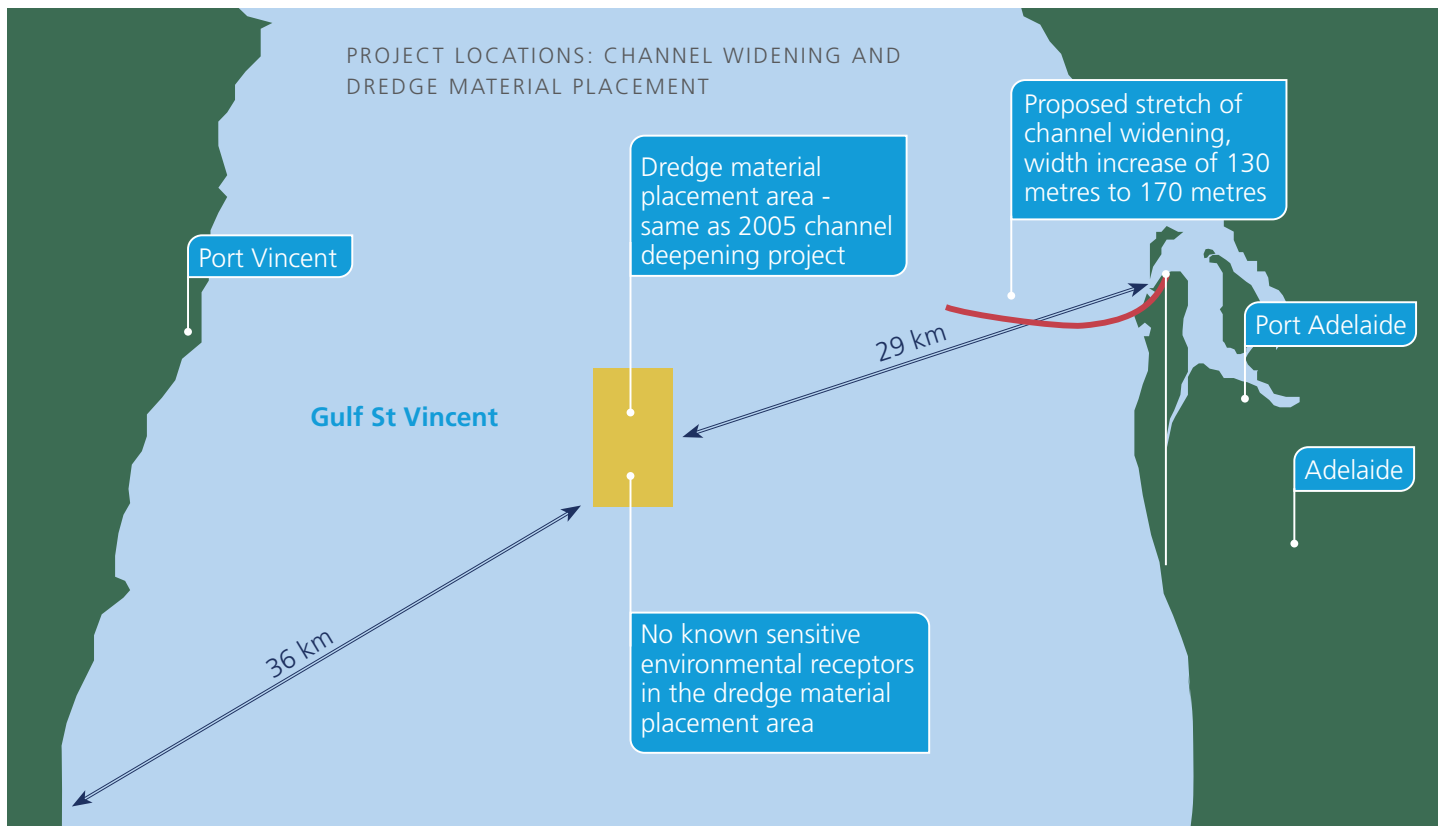
Currently, Outer Harbor can only accommodate vessels up to a maximum width of 42.2 metres with operational restrictions in place.

The Outer Harbor Channel Widening Project will enable the Port to accommodate container ships and cruise ships with a maximum width of 49 metres, without operational restrictions.

If the Project is not undertaken, there is a risk that containerised trade and cruise shipping may “skip” Adelaide and utilise alternative ports that can operate more efficiently and without restrictions.

This would create a negative impact upon the South Australian economy due to the increased cost of transporting imports and exports and reduced income from cruise liners.

- Flinders Ports commissioned a study to assess the appropriate channel width to safely operate the channel and swing basin (turning area for ships within the port) for increased vessel sizes.
- This study recommended the channel width increase from 130 metres to 170 metres wide and the swing basin increase from 505 metres to 560 metres.
- The channel will be dredged to achieve the increased channel width.
- The channel depth will remain unchanged.
- The dredging program is expected to take 4 - 6 months.
- The dredged material is proposed to be placed approximately 30 km off-shore in Gulf St Vincent.
- In total, approximately 1.55 million metres³ of material will be removed from the channel and swing basin.
- The material to be dredged consists primarily of shelly sand and silt, with some clays and limestone.



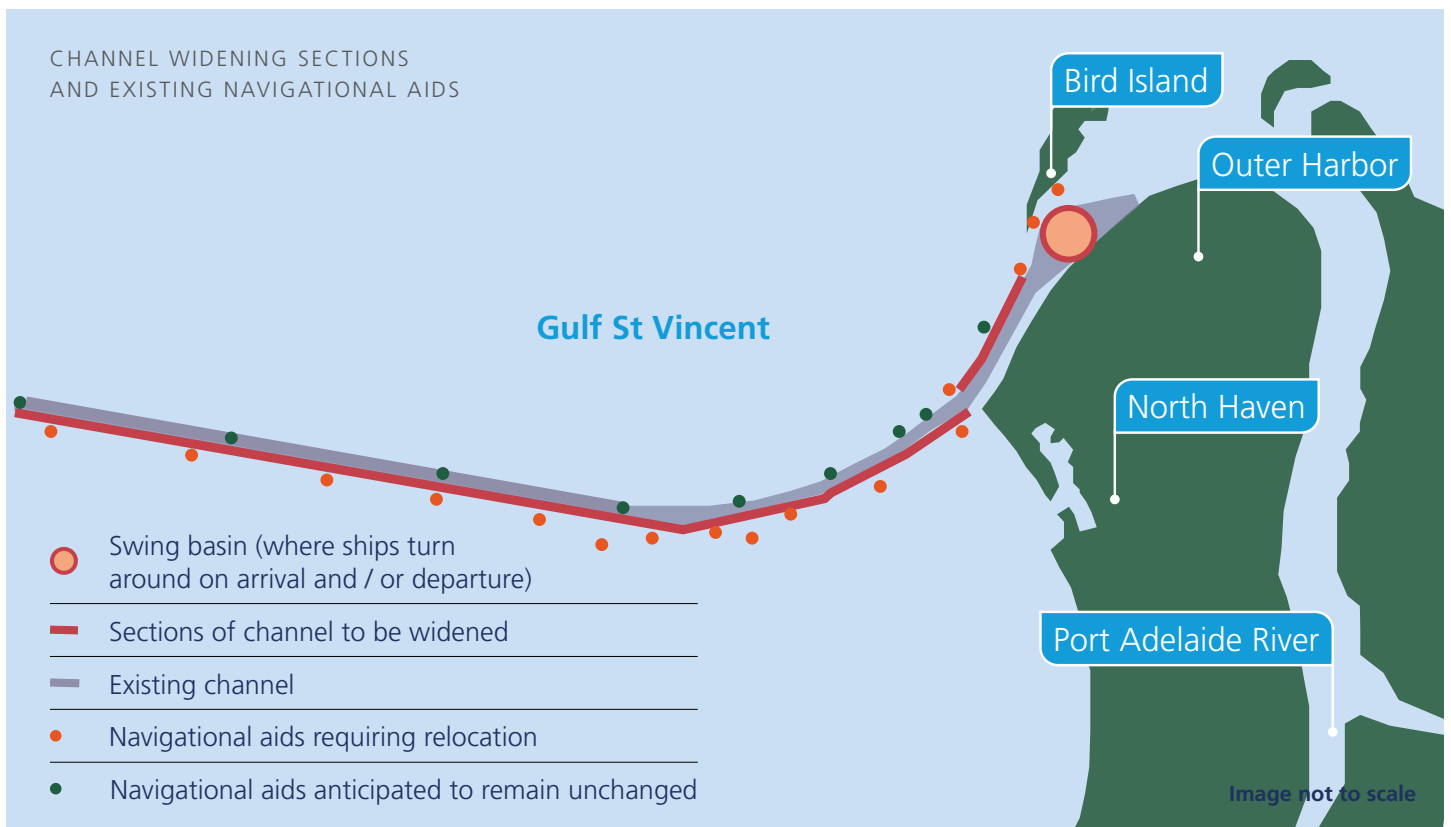
2005 CHANNEL WIDENING

In 2005 Flinders Ports completed the Outer Harbor Channel Deepening Project which deepened the current channel from 12.2 metres at low tide to the current depth of 14.2 metres.

The project driver for the 2005 deepening project was also vessel size - the emergence of the Panamax class vessels. The Panamax vessels are now being superseded by the wider Post Panamax vessels triggering the outer channel widening. The 2005 deepening involved the dredging of approximately 2.7 million metres³ of material to create a 130 metre wide, deeper channel. It also included the deepening of the swing basin (the area where ships are turned around within the harbor).



- The materials to be dredged have been identified as below the guideline values of the National Assessment Guidelines for Dredging (Commonwealth of Australia, 2009), meaning they are suitable for placement at sea.
- As the channel is being widened, there is a need to relocate existing navigational aids (beacons and leads) to reflect the new alignment of the channel.
- Eleven navigational aids are identified as requiring relocation prior to any dredging starting.
- A further five navigation aids may require relocation or adjustment during the course of the project.
- The navigational aids are single pile structures, which will be moved where required. Temporary buoys (pictured to the left) will be used until after the dredging has been completed.



ENVIRONMENTAL COMMITMENT

Flinders Ports recognises its responsibility as an environmental custodian of the State's coastal waterways and strives to uphold the highest environmental standards.

Holding a globally recognised ISO accreditation in Environmental Management, the company is committed to compliance with stringent environmental management practices and assurance.

There are no known sensitive environmental receptors in the dredge material placement area.

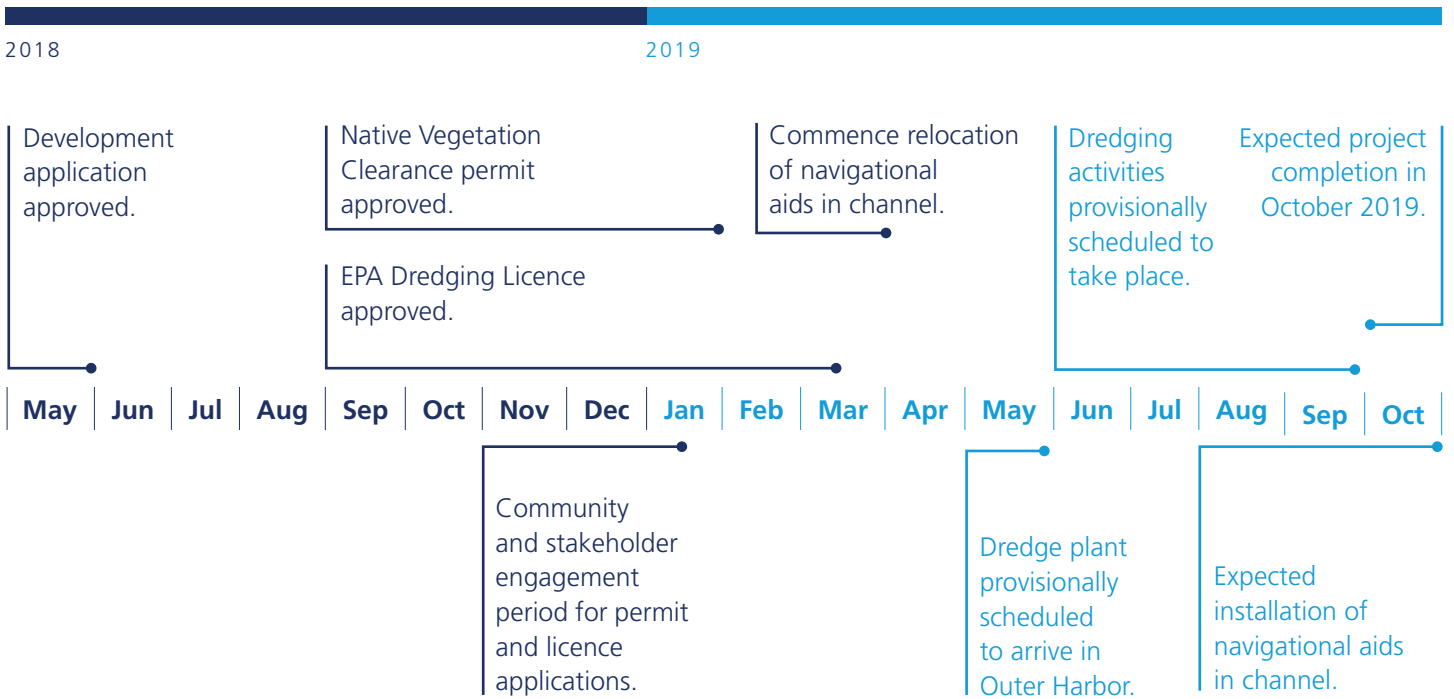
However, seagrass meadows occur within Gulf St Vincent, including in areas within or adjoining Outer Harbor and the Outer Harbor Channel. These are a food source for marine fauna such as dolphins as well as providing a habitat for fish species. Other important environmental locations within the Outer Harbor area include resident and migratory shorebird habitats on Bird Island and the Adelaide Dolphin Sanctuary. Commercial and recreational fishing and boating also occurs between the river and Gulf St Vincent.

These sensitive environmental areas and issues have been considered when deciding upon the dredging methodology and determining development approval conditions. Comprehensive mitigation measures will be in place including a strict monitoring regime throughout the duration of dredging works.

Since the Development Application was approved, Flinders Ports has worked closely with community and stakeholders including government agencies to ensure environmental and regulatory objectives have been met.

Government agencies include:

- The Environment Protection Authority (EPA)
- The Department of Environment and Water (DEW)
- The Department of Planning, Transport and Infrastructure (DPTI)
- Primary Industries and Regions South Australia (PIRSA)



PROJECT LONGEVITY

Upon completion, the Outer Harbor Channel Widening Project is anticipated to satisfy the forecast requirements for larger vessels well into the future (more than 10 years based upon current estimates).

The channel design width of 170 metres is anticipated to remain sufficient and appropriate due to the constraints of the recently upgraded Panama Canal and its influence on global shipping design.

The Panama Canal is vital link in global shipping movements and has recently been upgraded to accommodate larger vessels. If ship designs become wider than the current Post Panamax designs, they will no longer be able to pass through the Panama Canal and will therefore incur greater costs due to increased travel distances and travel time. Therefore unless another major upgrade is commissioned for the Panama Canal there will be little or no requirement for further channel widening.