



**Figure 11:** View of the existing berths at the Iron Ore Terminal

## Berths

An additional berth is required in order to support the proposed increase in export capacity as well as to then maintain the system for longer term refurbishment outage periods.

Transnet chose the location of the berth in Small Bay close to the existing iron ore berths as their preferred option. Their selection was made after the consideration of a number of alternatives, as part of the proposed project's pre-feasibility stage.

Various alternative structures of the berth are being considered. Engineering prefeasibility studies favour a piled steel structure with a full concrete deck. However, alternatives such as a caisson structure (similar to the current berth structure) will be considered based on further geotechnical investigations and engineering considerations.

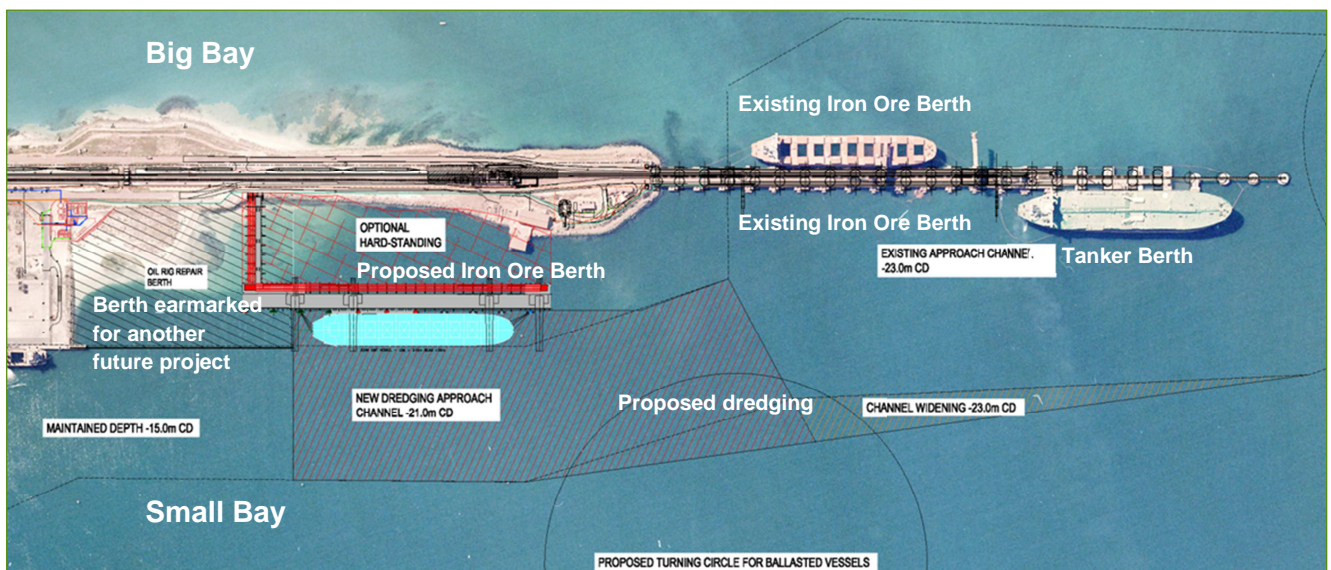
## Dredging

Dredging will be required in the new berth area in order to facilitate the navigation and loading of the various ship sizes (Figure 12). Some hard rock may potentially require blasting to allow for the required deepening. The total estimated dredge area is about 23 hectares. This will result in about 1.8 million m<sup>3</sup> of dredge material. The dredged material will be used as in-fill material.

## Shiploaders

Two new shiploaders are proposed to be located on the new berth.

The system will be designed so that loading will be as continuous as possible and ship-waiting time will be minimised.



**Figure 12:** Layout of proposed new berth and dredging areas (Source: Aurecon. April 2013)

