

# MARINA AND BREAKWATER DESIGN



**A comprehensive study has been completed on the breakwater and marina design.**

A solid breakwater design has been selected and two alternative designs are proposed. Both designs rely on a steel pile structure to support precast concrete units. The solid breakwater design will:

- give the best results in terms of coastal processes and sedimentation levels
- provide the best results in terms of wave attenuation
- protect the southern and eastern sides of the marina
- accommodate a navigational opening on the north east approximately 40m wide

Maintenance dredge spoil will be handled on site using “geo-bag” technology eliminating the need for holding ponds.

Dried maintenance spoil will be trucked to land based disposal.

The marina design provides for up to 669 berths to accommodate a range of vessels, including multi-hulls.

The marina basin will be dredged to -3.3 metres at LAT (lowest astronomical tide).

Scientific studies and modelling results show the requirements for maintenance dredging will be minimal on a long term basis.

