

PROJECT MANAGEMENT

Project Management

International

Bathymetric survey for Lambert's Bay desalination project

Client: Element Consulting Engineers
Location: Lambert's Bay, South Africa
Period: April 2010

Bathymetric survey for Lambert's Bay desalination project

Project Management International (PMI) was contracted to conduct a bathymetrical survey for Element Consulting Engineers for the proposed Lambert's Bay Desalination facility.

The survey area consisted of a 180 meter wide half-moon shaped sandy bay with exposed rock cropping to the north and south. The survey area started from the beach and extended 500m offshore to -15m contour.

The objectives of the bathymetric survey was to accurately map the depth of the seafloor in the proposed survey areas, using an appropriate echo sounder system, applied tide and heave corrections and calibration instrumentation.



The Works

The PMI personnel and vessel "Sea Queen" were mobilised to the Lambert's Bay harbour after the contract was awarded. The GPS, Navigation Computer and Echosounder were mounted inside the cabin of the survey vessel. The transducers were fitted to the over the side mounted pole and submerged about a meter under the water surface. The GPS antenna was mounted on top of the echosounder transducer pole.

A GPS Base Station was set up on a published benchmark at the beach and differential corrections were sent

from here by radio modem to the vessel Differential Global Positioning System (DGPS) system.

All data were recorded instantly during the survey and processed after completion of the entire survey. The full handover report to the Client included a detailed description of the surveyed area and benchmarks used. Full A0 size layout drawings of the bathymetry and a 3D surface depth chart of the survey area were included.

The scope of works was completed within the scheduled period and budget and to the Client's satisfaction.