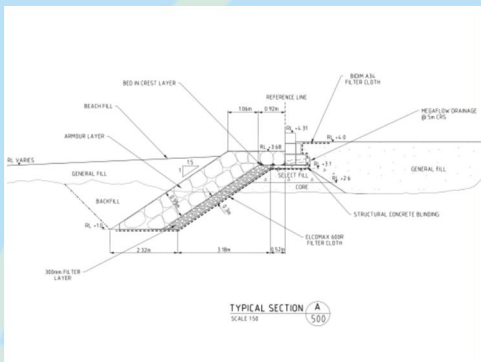


“Where will our knowledge take you?”

# Koombana North Development—Coastal Vulnerability Assessment

TABEC



## Location

Bunbury, Western Australia

## Date

2013

“ **BMT JFA undertook assessment to identify necessary setbacks and coastal protection requirements for the Koombana North Development and also were engaged for detailed design of the seawall and blockwall protection.** ”

Koombana North Project is located at Bunbury at the west side of the Leschenault Inlet entrance. The project is fronted on the western side of the bay, by what is locally known as Ski Beach, an artificial beach which was constructed as a part of changes to the inlet entrance location to incorporate a surge barrier.

In the coastal planning study BMT JFA reviewed the available wave data and determined the design wave conditions at the project site. The beach response was simulated using SBEACH model in accordance with the proposed method in the State Coastal Planning Policy. Recommendations were provided for setback including sufficient allowance for storm erosion, shoreline trends and future sea level rise.

As a result of the coastal planning stage BMT JFA recommended the following protection measures :

- Implementing a buried seawall in front of or as part of the

pedestrian path at the rear of the beach.

- Increasing the buffer sand storage at the top of the profile by filling in the area between the foreshore dune and the proposed seawall.

BMT JFA were subsequently engaged for the detailed design of the seawall and landscape blockwall structures and developed the Specification for Construction, BMT JFA also assisted the civil consultants in providing site supervision during construction.

## BMT JFA Role

- Coastal Planning Study
- Setback assessment
- Detailed design of coastal and landscape protection structures
- Provided detailed design drawings and specification.

## Services & Expertise Provided

- Data and information review
- Coastal processes assessment
- Coastal hazard identification
- Numerical modelling
- Risk management and adaption planning
- Coastal protection structure design
- Landscape retaining structure design
- Specification Development
- Contract Management
- Site Supervision