

“Where will our knowledge take you?”

Coastal and Maritime Structures

Breakwaters and Seawalls



“ The inherently complex and aggressive nature of the marine environment requires a thorough understanding of the external conditions to ensure that the structures will be designed to provide the required level of protection and remain functional throughout the design life. ”

Breakwaters and seawall structures are key components of many coastal, port and harbour developments. BMT JFA has extensive experience in the design and construction of these structures and applies the latest advances in technology and research to provide innovative and cost effective designs. Depending on the site, conditions may dictate the use of a variety of armouring techniques, including rock armour materials and/or concrete armour units. BMT JFA provides a full range of services, ranging from planning, conceptual and preliminary design phases to support feasibility studies, through to detailed design and construction phases.

Key Capabilities

- Development of conceptual, preliminary and detailed designs
- Quarry assessments
- Tender preparation, management and evaluation
- Construction management and site supervision
- Conditions assessments and asset management.

Related Projects

- Oakajee Port Development

- Cape Lambert 320 Mtpa Upgrade
- Albany Port Expansion Project
- Esperance Port Development
- Port Geographe Reconfiguration Protect Management

Services Offered

- Development of conceptual designs, layouts and cost estimates
- Defining design criteria and design wave and water level conditions
- Determination of crest levels and setback distances
- Determination of armour, filter and core requirements
- Development of preliminary and detailed designs
- Rock armour quarry inspection and assessments
- Management of geotechnical stability assessments
- Management and supervision of physical modelling studies
- Development of construction methodology and construction methodology assessments
- Calculation of construction material quantities and construction cost estimates
- Preparation of 'Request for Quotation' documentation and submission evaluation
- Preparation of construction specifications and scope of work documents.
- Tender preparation, management and evaluation
- Construction management and site supervision
- Condition assessments and asset management