

## Future Expansion Master Planning

### Esperance Port Authority



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The total trade through the Port of Esperance almost doubled since its previous major expansion in 2001/02 and consequently the Esperance Port Authority was assessing its options for future expansion of the port facility to cope with increased trade. The Port Authority requested BMT JFA Consultants (BMT JFA) to investigate conceptual layouts and order of magnitude construction program and cost estimates for the further development of the port to deal with the export of primarily bulk based materials.

Development of a draft port development concept plan included a review of the existing infrastructure and port capacity as well as an assessment of the type and volume of current and future trades at the port.

A port Masterplan was developed that allowed for the future expansion of the port as and when the predicted trades were realised. BMT JFA identified the optimal layout, detailed road and rail networks, dredging and reclamation requirements and numerical wave modelling of the

preferred concepts in order to develop detailed cost and program estimates for future expansion.

In addition, two alternative greenfield port locations relatively close to the existing port had historically been considered as potential port development locations. BMT JFA also considered these options based on the relocation of all bulk based products to these new locations, with the traditional trades from the port (grain, fertilizer, break bulk, fuel) remaining at their current location.

#### BMT JFA Role

- Provided assistance to the Port in drawing up a port development Masterplan identifying future development options for the port
- Worked closely with the client, specialist consultants and stakeholders to develop engineering design concepts
- Developed order of magnitude construction program and cost estimates
- Reviewed preliminary data including wave modelling to assess the extent of any necessary breakwater protection for the port concepts.

#### Services & Expertise Provided

- Port development concept
- Cost estimates
- Review of preliminary data
- Investigate conceptual layouts.



#### Location

Esperance, Western Australia

#### Date

2005 - 2007