



engenium
 smart project delivery

Demonstrated Capabilities

- Civil engineering
- Mechanical engineering
- Pilbara based operations
- Scoping and feasibility study management.

BSIA Pipeline and Conveyor Routes Study Scoping and Feasibility Study Management

Client DevelopmentWA

Project Location Burrup, Pilbara, Western Australia

Scope

The project involved a high level study into the feasibility of two proponents utilising the Burrup East West Services Corridor (EWSC), within the Burrup Strategic Industrial Area (BSIA), to transport their products to the Dampier Bulk Liquids Berth (BLB). One proponent intended to transport using a product conveyor and the other proponent a product pipeline. The optimised alignments for these two proponents were documented as part of the study.

Engenium assessed the proponents as separate scenarios when positioned alongside the existing Yara Pilbara Fertiliser (YPF) pipeline with the intention to minimise the footprint occupied within the EWSC lease boundary, allowing for maximum development potential for future proponents.

Business Objective

The project was commissioned to determine the feasibility of two proponent's products being transported through the existing EWSC in the BSIA as separate scenarios. The client was looking to assess the possibility of locating an additional conveyor and pipeline which could transport products from the BSIA to the BLB at required rates through the EWSC.

If the two scenarios were possible, the difficulties, issues and concerns associated with these alignments would need to be documented.

Challenges to Overcome

The two alignments were challenging based on the requirement for the products to be aligned within the EWSC lease boundary whilst not impacting on the existing Yara pipeline sub-lease. The steep natural terrain also added difficulty, especially when considering the conveyor alignment.

Due to the horizontal bends in the EWSC, an unconventional conveyor (pipe conveyor) was proposed to be able to handle the curved lease boundary in certain areas. This required liaison with specialist pipe conveyor manufacturers.

Another constraint was the lack of area available for product storage along the conveyor alignment, requiring the conveyor to transport product to the BLB at a higher rate and therefore requiring a wider and/or faster running conveyor.

Smarts

Liaison with relevant stakeholders including Main Roads Western Australia (MRWA) and the Pilbara Ports Authority (PPA). Providing a cost effective alignment for each of the proponent products, which optimised footprints within the EWSC lease area. Research into innovative conveyor technologies.

Project Outcome

The project was delivered on time and under budget.

Delivering Value. Delivering Results.