

Improved Plant Availability and Reliability provides platform for growth at CQPA



Background

Central Queensland Ports Authority, formed in 2005, operates three ports in Gladstone making Gladstone the largest multi-cargo Port and, overall, the 5th largest Port in Australia. The Gladstone facilities handle exports from the minerals, minerals processing and agricultural industry in the central Queensland region with rail links from and to the hinterland. Gladstone is recognised globally as one of the 6 to 8 most efficient places for siting future major industry and is vital to the Australian economy.

The RG Tanna Coal Terminal is the largest facility managed by CQPA, currently handling approximately 40 million tonnes of coal from numerous clients in the Queensland coal fields.

Pressure from customers and government is requiring the Authority to increase coal loading capacity to 70 million tonnes over the next 2 to 3 years. A significant expansion of capacity was agreed with the Queensland Government and is now underway. However, in order to meet short term demand, significantly improved throughput was also required from the existing asset base. By the time the expansion is complete, coal exports will have increased by over

Need

The increase in throughput and additional plant raised short and long term issues for CQPA:

- Could higher availability and reliability be achieved from the existing plant whilst the expansion is underway and bedded down?
- Could existing plant be kept running with fewer maintenance windows available?
- How can a 75% increase in throughput be accommodated without a major increase in support personnel at a time when resources are scarce and expensive?

Following a short review of RG Tanna operations and maintenance activities, The Asset Partnership was invited to work with CQPA to achieve a step change in terminal efficiency.

Approach

The project to improve performance involved two main streams of activity:

- Implementing downtime measurement and reporting across the plant
- Developing and implementing a new maintenance programme to support the new operating regime.

ASSET MANAGEMENT MATTERS

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THE ASSET PARTNERSHIP is an Australian based consulting organisation which works with clients to assist them achieve substantially higher and sustainable value from investment in physical assets.

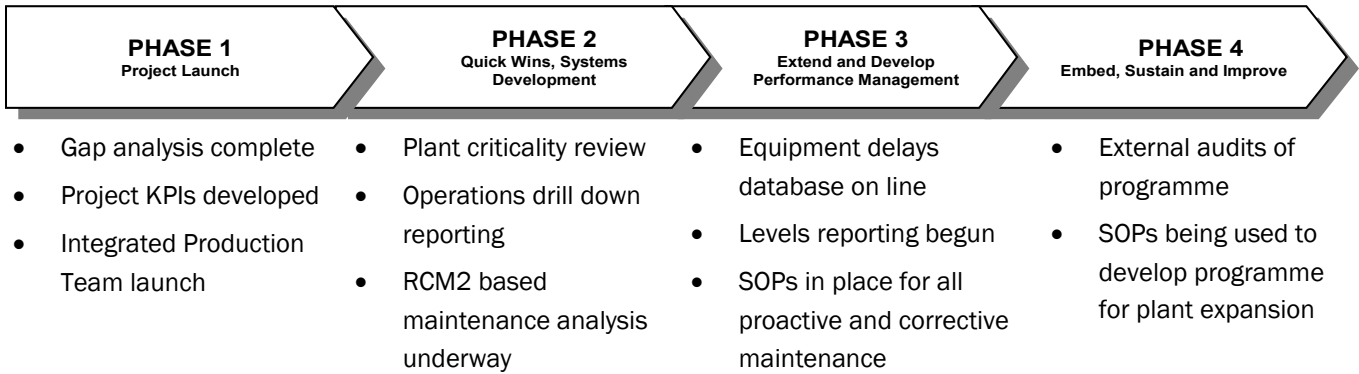
THE ASSET PARTNERSHIP's value propositions are to provide clients with:

- *Rapid, measurable and significant increases in asset productive capability*
- *Reductions in asset ownership costs and operating risks*
- *Optimised capital outlay*



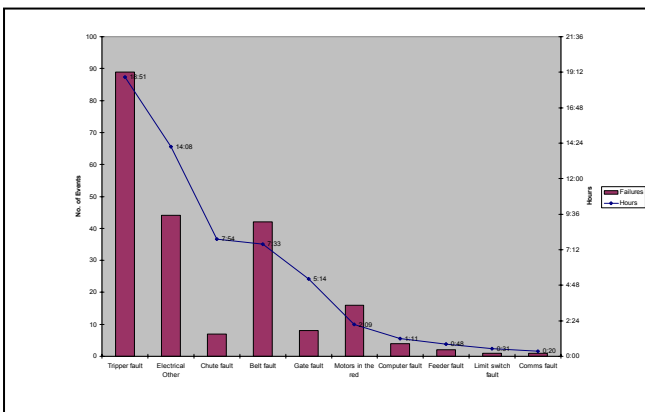
Project structure

The implementation project consisted of four phases, each with a specific set of deliverables.

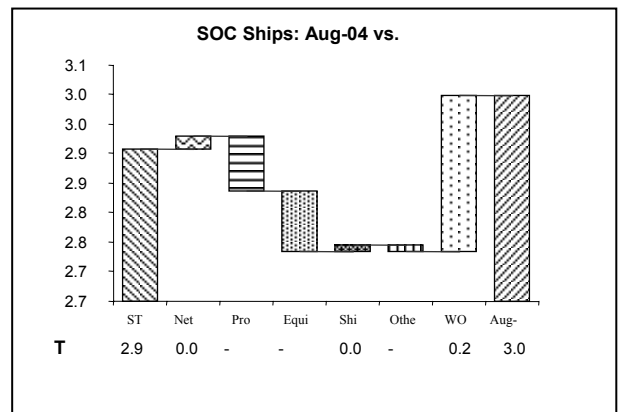


Outcomes

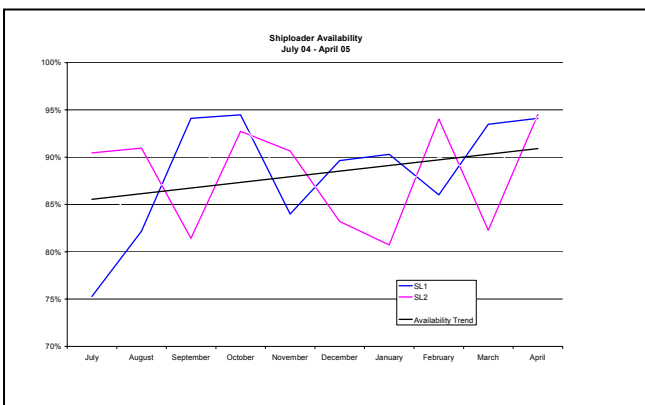
These were achieved through training and facilitation of CQPA operations and maintenance staff, as well as hands on assistance to the various project teams.



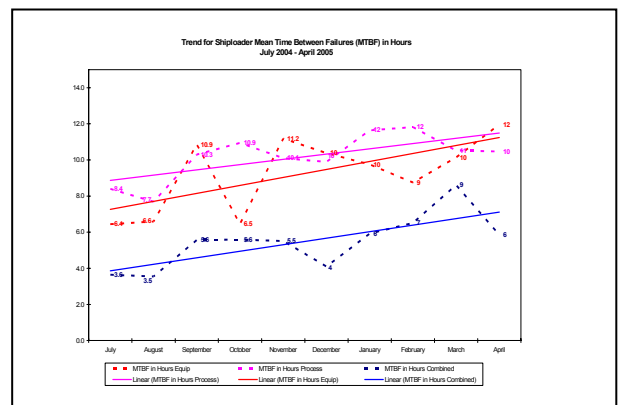
- Site wide drill down reporting mechanism in place for Process and Equipment Failures
- Root cause analysis of high downtime items being conducted through process team activity



- Automated operations and maintenance Levels reporting from CEO to Superintendent
- Sources of change identified against historic trends



- 7% Availability improvement over project lifetime (\$7M revenue improvement p.a)
- RCM2 based maintenance programme in place for all inloading and outloading plant items
- Project payback in approx 2 months



- 45% Reliability improvement over project lifetime
- Plant modifications identified to increase reliability further (being actioned with plant expansion)