

CASE STUDY / MURRUMBA DOWNS – WASTE WATER TREATMENT PLANT UPGRADE /

FAST FACTS /

- / Advanced Water Treatment Plant (AWTP) phase designed, constructed and commissioned in 12 Months
- / Sub alliance partner to John Holland Water
- / Works carried out under 'brownfield' site conditions
- / 22ML/day WWTP with Odor Control Unit
- / 4ML/day reclamation plant consisting of micro-filtration, reverse osmosis and CIP systems



CLIENT /

Moreton Bay Water

DESCRIPTION /

Murrumba Downs Wastewater Treatment Plant (WWTP) and Advanced Water Treatment Plant (AWTP)

TIMELINE /

September 2007 – June 2010

LOCATION /

Murrumba Downs, Brisbane

CONTRACT VALUE /

\$21 million

The Murrumba Downs Alliance is an alliance formed by Moreton Bay Shire Council and John Holland Water.

Its purpose is to upgrade the existing Waste Water Treatment Plant and thus improve the quality of effluent as well as the capacity of the plant to cater to the increased population demand up to 2016. The upgrade also incorporates master planning for future expansion to meet 2042 flows.

The Murrumba Downs Wastewater Treatment Plant project utilises the latest technology in bio nutrient removal and odour control, and meets rigorous environmental standards. The new odour control system will reduce the impact of the plant to the surrounding community.

A detailed design for the plant was derived from the Drive Schedule, Instrument Schedule, Valve Schedule, IO Schedule and Process Functional Description.

As electrical contractors for the project, PSG Richard Flanagan was commissioned to supply, install and pre-commission 6 major Motor Control Centres (MCCs) and associated LV Drives, Control and ELV instrumentation. All of this communicating via Foundation Fieldbus and Delta V DCS system complete with integration on an existing brownfield site.

The Advanced Water Treatment Plant Phase 1 is a 4ML/day reclamation plant consisting of Micro-Filtration, Reverse Osmosis and CIP Systems. Feedwater is provided from the Murrumba Downs WWTP and the water is to be supplied to the Amcor Paper Mill at Petrie.