



case study:

Brushy Creek

Brushy Creek Class A Recycled Water Treatment Plant is a state of the art water reuse plant, featuring ultra filtration membrane technology. Designed and delivered by Tenix within 16 weeks project delivery was the outcome of close collaboration between Tenix and Yarra Valley Water.

Key Features & Outcomes

This project demonstrated Tenix's capability to design, build and commission a 1.8ML/day Class A plant, within an existing operating plant, in a very short timeframe.

The condition of parks and sporting fields in Melbourne's eastern suburbs severely deteriorated following the introduction of Stage 3A water restrictions. City councils requested that the State Government and Yarra Valley Water provide an alternative water source for the watering of open public spaces. Yarra Valley Water appointed Tenix to upgrade the existing Brushy Creek Wastewater Treatment Plant to a 'Class A' standard, within a 16-week fast track timeframe. Key Outcomes included:

Performance - The plant is performing as designed, producing 1.8ML of Class A Recycled Water each day, to the approval of Department of Human Services and the EPA.

Community Satisfaction - The project achieved a high level of support and commendation from the community, stakeholders and State Government.

Schedule - The plant was opened on schedule by the Victorian Water Minister, Tim Holding and Yarra Valley Water Managing Director, Tony Kelly. The fast track schedule was only possible because of close collaboration between Yarra Valley Water and Tenix. A committed team, aligned on delivery requirements, delivered gamebreaking outcomes.

Safety – the project was delivered with zero safety incidents. chemical leak that occurred, due to a faulty valve, was contained within a bunded area, as designed contained within a bunded area, as designed.

Value – the plant was delivered for under \$4M - a gamebreaking outcome. The appointment of a trusted and proven set of local subcontractors (Ladd Electrical, Fitzroy Construction) enabled fast tracked delivery, without compromising quality. Self-performing mechanical installation and SCADA / PLC programming & installation provided significant cost and schedule benefits, compared to outsourcing.



Tenix[®]



Field Services

- Preventative Maintenance
- Corrective Maintenance
- Fault Services (24/7)
- ✓ Asset Replacement
- ✓ New Build
- Connection services

Management Services

- ✓ Design
- ✓ Project Management & Systems
- ✓ Quality Management & Systems
- ✓ HR & IR Management
- ✓ Construction Management
- ✓ Procurement Management
- ✓ Subcontractor Management
- ✓ Cost Planning & Estimation
- Planning Approvals
- Stakeholder Management



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Tenix identified a company in Malaysia to fabricate the UF Membrane Skids. This significantly reduced cost and schedule. Stringent QA processes, frequent factory visits and co-ordination with the UF membrane suppliers (Norit) ensured quality in production.

The selection of pre-validated equipment (e.g. UV disinfection) allowed the fast tracking of DHS approvals, allowing the schedule to be met.

Our Role

Tenix provided 'cradle to grave' services, undertaking design, construction, commissioning and performance testing of the plant. As well as managing civil and electrical subcontracts, Tenix self-performed mechanical installation of all pipework and treatment processes and designed and installed SCADA/PLC, compatible with Yarra Valley Water's existing control systems. Yarra Valley Water led the acquisition of DHS/EPA approvals, with technical input, as required, from Tenix.

The plant was commissioned in December 2007 and now provides an additional 1.8 million litres of recycled water for the irrigation of sports grounds, parks, fire fighting and other qualified uses.

Resources and Skills

As well as managing all design and construction works, Tenix also designed the automated control system ie. SCADA, PLC and Telemetry. Brushy Creek is an example of a fully automated plant with 24/7 remote monitoring.

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Asset Type:

Wastewater treatment

Duration:

16 weeks

Client:

Yarra Valley Water

Value:

\$4 million

Location:

Brushy Creek, Eastern Melbourne

Scope:

Design, Construction and Commissioning

Contracting Style:

Open Book

Contract Secured:

September 2007

