



Reduced energy consumption for recycled water production by 80%

First private recycled water scheme approved by NSW Health under new guidelines

Overview 4

Recycled Water Management Scheme

BACKGROUND

Less than 3 hours from Sydney, along Australia's Great Dividing Range, lies Emirates Wolgan Valley. Bound by the Blue Mountains World Heritage Site, Emirates Wolgan Valley Resort & Spa offers a range of activities to provide guests with an unsurpassed wildlife retreat experience.

Under Emirates conservation management the resort & spa will remain secluded and visitors are strictly limited to reduce the environmental impact.

SSI'S ROLE

SSI conducted the following works:

- Conducted initial feasibility investigation for the scheme;
- Designed a Wastewater Treatment Plant (WWTP);
- Provided quarterly maintenance and asset management for the WWTP, drinking water plant and irrigation system;
- Designed and managed the construction of the paddock irrigation scheme for disposal of treated effluent;
- Prepared an overall sustainable water and wastewater management plan for the Resort and Spa; and
- Developed Drinking Water Quality, Recycled Water and Environmental Management Plans for the resort development.



SSI'S ACHIEVEMENTS

SSI designed a wastewater treatment recycling plant using innovative packed bed reactor technology that produced recycled water with 80% less energy consumption compared to conventional activated sludge processes. Under a tight deadline the SSI team worked tirelessly to insure that the Resort opened its doors as scheduled.



SSI SERVICES PROVIDED

Asset & Maintenance Management

Design Construction Management & Commissioning

Efficiency Audits & Cleaner Production

Environmental Compliance & Licensing

Master Planning

Plant Assessment & Optimisation

Sustainable Resource Management

ENVIRONMENTAL LEADERSHIP

The recycled water scheme at Emirates was the first Private Recycle Water Scheme approved by NSW Health under the new recycle water guidelines. Emirates Resort Wolgan Valley achieved the worlds first CarboNZero certification in part due to SSI's innovative scheme.



Asset & Maintenance Management

Design Construction Management & Commissioning

Efficiency Audits & Cleaner Production

Environmental Compliance & Licensing

Master Planning

Plant Assessment & Optimisation

Sustainable Resource Management

Risk Assessments (HACCP & HAZOP)



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