

**CLIENT:**

Coffs Harbour City Council

**LOCATION:**

Coffs Harbour NSW

**SERVICE:**

Brownfield Upgrade

**CONTACT:**

Paul Kwong

**ISSUES:**

In order to pass and process the maximum design flow, the Coffs Harbour inlet works required an inlet channel that challenged the capacity of conventional grit systems. The necessary inlet channel geometry required deeper than normal inlet channels, with a deeper grit chamber. These depth conditions stress the ability for conventional grit lift systems.

**SOLUTIONS:**

Aquatec Maxcon optimised an air lift pumping system with sufficient head and velocity capacity to raise the collected grit effectively out of the grit chamber collector for carriage and processing in a separate grit classifier.

**BENEFITS:**

Reduced maintenance, wear and tear of the equipment

**COMPLETION DATE:**

2002

## Coffs Harbour Water Reclamation Plant

Aquatec Maxcon provided all mechanical works for the complete Water Reclamation Plant (WRP), comprising of the following main elements:

- Inlet works including fine screens, grit removal and washing
- Anaerobic selector mixers
- Surface aerators and scum harvesting for oxidation ditches
- Secondary clarifiers
- High efficiency RAS pumping
- Innovative low head disc filters
- Trojan UV effluent disinfection

The new Coffs Harbour WRP also treats wastewater from the nearby Sawtell Township. It provides Coffs Harbour City Council with an up-to-date sewage treatment plant capable of producing reclaimed water suitable for irrigation reuse and has enabled 100% re-use for extended periods. Excess is discharged via the Deep Sea Release outfall which extends 1.5km into Solitary Islands Marine Park.

The inlet works included an Aquaswirl Vortex Grit Removal System in a 3200mm dia concrete chamber. Consisting of an AquaSwirl Grit Mixer, Air Lift Pump and Grit Washer.



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