

Nightcap WTP

Process upgrade - O₃/BAC System

Key Elements

- Ozonation and Biologically Activated Carbon Treatment.
- Limited space design.
- WTP Control System upgrade.



Ozone Generator

Background

The existing 70ML/d Nightcap WTP utilised six dissolved air floatation and filtration (DAFF) units to treat water taken from Rocky Creek Dam, supplying Lismore, Byron Bay, Ballina and Richmond Valley. With the addition of 30 ML/day of raw water from Wilsons River, additional treatment was required to produce water at a suitable quality.

Project Scope

The project involved the design and construction of a new Ozone (O₃) and Biologically Activated Carbon (BAC) Treatment system which would produce water suitable for drinking.

Additionally, the entire WTP Control system was to be upgraded

Our Role

Water Services provided the concept and detailed designs and documentation, preparation, review and management of tenders, construction supervision, and testing and commissioning of the water treatment plant.

Outcomes

The Nightcap WTP upgrade was successfully designed, constructed and commissioned in 2007. The plant continues to produce water at 70 ML/d, treating water from both Rocky Creek Dam and Wilsons River.

Location: **Nightcap WTP, NSW**

Client: **Rous Water**

Project Description: **Addition of O₃/BAC to existing 70ML/d plant**

Total Project Value: **\$ 14 M**

Consultancy Fees: **\$ 1 M**

Year Completed: **2007**



BAC Filters

Water Services

Principal Engineer

Kamal Fernando

(02) 9372 7869

Kamal.Fernando@services.nsw.gov.au



Public Works
NSW Water Solutions