

# Royal National Park Wattamolla Public Toilets, *A Solar Powered Treatment Solution*

Wattamolla lagoon and surf beach is a picturesque and popular swimming spot, nestled amongst rugged cliffs. Less than an hour south of Sydney, and also part of the network of bushwalks through the Royal National Park, the picnicking area is heavily used in the summer.

The old wastewater treatment system and land application area had seen better days and it was time to upgrade with the key criteria for selection being:

- A low energy system to run on solar
- A system that can handle the seasonality
- A low maintenance, hassle free system

“The system has to be robust enough to cope with low to no flows in the winter through to peaks of 8000 litres a day for up to six weeks in summer”, Damien Dubrowin, National Parks and Wildlife

SEEC designed a system utilising Orenco's AdvanTex® recirculating textile filter. It is an attached growth technology using low power and achieving very high levels of treatment. Once treated the effluent is stored in an effluent storage tank and then pumped to absorption trenches in non trafficable areas.



The InnoFlow/Orenco fibreglass primary and recirculation tanks being installed in June 2010 by Kerry Flanagan Wastewater

The truly picturesque Wattamolla.



The other low energy option considered was a sand filter – also a recirculating media filter. It was discounted due to the space it required – 130m<sup>2</sup> vs the textile filters which require 6.6m<sup>2</sup> of treatment area.

The AdvanTex® was also selected due to its low odour/noise, given the pristine setting, and in particular as it is in close proximity to a kiosk.

Initially the maintenance program will see a 4 monthly service technician visit, but it is expected the length between services will extend, especially as we start to measure the actual performance of the system. Initial turbidity reading after 2 weeks of operation was 9.6 NTU.

“The system was a breeze to install, and I was amazed how fast the treatment kicked in, with extremely clear effluent visible after only days.”

Kerry Flanagan, Project Manager

<b>Designed By</b>	Strategic Environmental & Engineering Consulting (SEEC)
<b>Design Flow</b>	8,000 litres per day (peak)
<b>Installed By</b>	Kerry Flanagan Wastewater
<b>Client</b>	National Parks & Wildlife
<b>Commissioned</b>	July, 2010