# **Bowral Sewage Treatment Plant Upgrade Review of Environmental Factors (REF)**



REF Publicly Displayed for Community Information



Essential Upgrading of Bowral STP to Protect Public Health



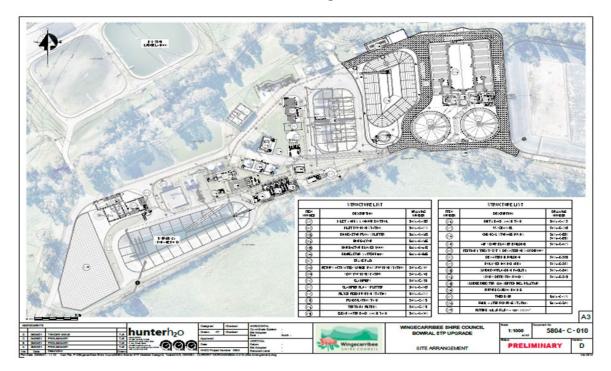
Improved Water
Quality in
Wingecarribee River







This fact sheet outlines the upgrade works proposed for the Bowral Sewage Treatment Plant and the environmental investigations undertaken.



Sewage generated within Bowral, East Bowral and Burradoo is transferred through a combination of gravity sewers and sewage pump stations to the Bowral Sewage Treatment Plant (STP). Although the STP is operating well and the quality of the effluent discharged to the Wingecarribee River within its Environment Protection Licence, the plant is now operating at near its design capacity. A further upgrade of the STP is required to:

- improve process and operational performance;
- provide treatment infrastructure to meet environmental objectives from the regulator the NSW Environmental Protection Agency (EPA); and
- protect the sensitive environment the STP discharges into which is part of the Sydney Drinking Water Catchment.

# **Investigations**

It has been necessary to undertake the environmental investigations and the detailed design of the STP Upgrade concurrently.

As endorsed at the Council meeting of 13<sup>th</sup> October 2021, the (final) draft of the REF is being publicly displayed on Council's website – for the community's information. The REF is a comprehensive document required to identify and assess potential impacts of the project. It includes extensive studies with modelling on areas including catchment water quality and effluent discharge impact assessment, and air quality impacts.





#### Design

The design of the STP Upgrade is significantly completed. In order to accommodate future growth, a design horizon of up to the year 2046 (which equates to a forecast equivalent population of 21,000) has been adopted for the development of the upgrade. The upgraded facility will serve our community well into the future providing resilience and a robust and reliable service.

The STP Upgrade will use proven technology that creates an opportunity to enhance water quality in the Wingecarribee River. Together with designing for key attributes such as hydraulic requirements and reliable and efficient operations, the design will ensure that there are 'neutral or beneficial effects' to the receiving waters that the STP discharges to.

The STP Upgrade design provides improvements to each step within the STP treatment process as well as further treatment steps, from the receival and screening of raw sewage to the discharge of high quality effluent off site, and the handling and disposal of sludge/biosolids from the site.

The design has been undertaken in a way to balance stringent water quality (effluent discharge) requirements, construction and operational cost factors (i.e. whole of life costs).

#### **Key Findings of the REF**

The necessary investigations to allow for the environmental assessment of the project been undertaken over several years, liaising with regulatory stakeholders whose requirements have influenced key decisions in the design development. Information regarding regulatory requirements and their associated influence on key decisions is shared in the (final draft) REF.

The REF has been prepared in two parts – with the main document being for the proposed STP upgrades on the existing site, plus an addendum for the upsizing of the incoming main (where it crosses Mittagong Creek prior to entering the STP site).

The key findings of the REF is that it is unlikely that there would be significant adverse environmental impacts associated with the Bowral STP Upgrade project.

Although there is a focus on effluent discharge catchment impacts, as the STP is in close proximity to residential areas another project priority is reducing the risk of odour emanating from the STP. The design has addressed this issue by several operational changes, and the incorporation covers and odour control biofilters to the inlet works. The Odour Impact Assessment modelling indicates that odour concentrations are predicted to decrease by an average of 62% across the sensitive receptors under normal operations – therefore providing a healthier and cleaner environment for our neighbouring residents.

## **Project Timeframes**

In conjunction with publicly displaying the (final draft) REF, the EPA will also be reviewing the document for their final concurrence. This concurrence is necessary given that the Bowral STP operates under an Environmental Protection Licence (EPL) granted to Council from the EPA, and prior to commissioning the new upgrade works the EPL will need to be amended in accordance with the EPA's new effluent discharge requirements.

Subject to receipt of the necessary statutory and regulatory approvals, including gaining EPA concurrence, it is suggested that the project will be tendered for construction in early 2022, with the view to award the contract for construction by mid-2022.

Construction of the proposed upgrade works on this 'brownfields' site whilst maintaining operation of the existing treatment infrastructure presents unique challenges, including the careful management of interfaces. Given the scope and complexity of the project, construction phase timeframes are expected to extend for 18 months to 2 years.

The community will be provided with updates throughout the project. As with most construction projects of this scale there will be impacts to the local community during the works. We will communicate with potentially impacted community members, with the aim to mitigate or minimise the impacts they may be subject to.

### **More Information**

For more information and to stay updated on this project please visit Council's website at <a href="www.wsc.nsw.gov.au/projects">www.wsc.nsw.gov.au/projects</a>. Should you wish to receive to emailed project updates (including notice of any information sessions to be held), please provide your contact details to the Capital Project team at <a href="mailto:capital.projects@wsc.nsw.gov.au">capital.projects@wsc.nsw.gov.au</a>.

# **Connecting with Council**



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