INFORMATION SHEET

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Warrnambool Sewage Treatment Plant Upgrade
Project Update 2 - June 2017

Wannon Water is increasing the capacity of its Warrnambool Sewage Treatment Plant to cater for future investment and growth across the district.

Two new intermittendly decanted extended aeration (IDEA) tanks will be constructed on the northern side of the facility to supplement the four existing tanks.

The project, estimated to cost $30-$40 million, is the largest ever single project undertaken by Wannon Water. It will ensure the plant has sufficient capacity for a projected increase in sewage volumes while continuing to protect the environment.

The project

The plant currently treats sewage from 13,900 properties in Warrnambool, 300 in Allansford and 700 in Koroit. Demand is growing by 225 additional lots each year, with residential growth in Warrnambool alone anticipated to increase by 81 per cent to 25,000 properties in the next 50 years.

The upgrade will allow Wannon Water to support residential development and the economic growth of local industries. We will continue to maintain sustainable sewage and trade waste treatment practices and ensure our precious environment continues to be protected.

The construction of new IDEA tanks was the recommended option selected from a short-list of four different processes. It was endorsed by the Wannon Water Board in May.

IDEA tanks have been in use at the plant for more than 20 years. The treatment process is a robust and proven technology, both at the site and throughout the water industry.
See explanation of the process overleaf.

Community engagement

A Stakeholder Reference Group was established to help determine the best upgrade option for the community and the region as a whole. It comprised residents, customers, and representatives of key interest groups and major customers. The group met over two evenings in March and April to learn more about the background to the project, consider the four short-listed options and help prioritise the most important issues.

Wannon Water also conducted a community information session for people wanting to learn more about the upgrade and provided opportunities for one-on-one briefings with the local community, key groups and stakeholders.

The recommended option for additional IDEA tanks was based on balancing capital and operational costs, technical considerations, and environmental and social impacts.

Timeline

May 2017: Wannon Water Board approval received.

September 2017: Funding listed in Wannon Water's five-year Pricing Submission to the Essential Services Commission (2018-2023).

2017-2019: Design and approvals process.

2019-2021: Construction and commissioning.

Wannon Water will be keeping the community informed about the project through regular updates on our website at
www.wannonwater.com.au
and on our Facebook page
@wannonwater

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How does the IDEA process work?

The Warrnambool Sewage Treatment Plant currently has four intermittently decanted extended aeration (IDEA) tanks in place to treat sewage. Two additional tanks will be built to increase capacity by around 40 per cent.

The typical IDEA cycle consists of three phases : react, settle and decant ***(refer photo right)***.

1. In the react phase, screened sewage is fed to the tank as it is mixed with activated sludge (in which micro-organisms flourish) and aerated.
2. During the settle phase, the mixing and aeration is stopped, so that the activated sludge solids settle in the tank.
3. After a period of settling, the decant phase starts to skim the clear treated water from the surface of the tank where it is released to the ocean under licence conditions set by the Environment Protection Authority. The remaining sludge is then filtered, dried and stored at a biosolids facility for reuse as a soil conditioner on nearby farms.
4. More than 17,000 fine bubble diffusers are installed at the Warrnambool plant. In this image, tank 4 has been drained to allow for the diffuser system to be replaced.