TasWater is planning to upgrade the Blackmans Bay Sewage Treatment Plant (STP) as part of a $44 million investment in the Kingborough Sewerage System.

This strategy has two parts: the Blackmans Bay Sewage Treatment Plant Upgrade and the North West Bay Sewage Pipeline.

The project is part of TasWater’s commitment to investigate new and improved infrastructure projects across Tasmania and improve public health and environmental compliance, as well as ensuring our assets deliver reliable service for future generations.

The proposed $27 million Blackmans Bay STP upgrade will require approval from the Kingborough Council and the Environmental Protection Authority (EPA).

The proposed Blackmans Bay STP upgrade has been designed to minimise issues on the local community, improve the STP’s performance and meet all regulatory requirements.

**WHY IS THE PLANT BEING UPGRADED?**

The existing Blackmans Bay STP has been operating for 30 years and is nearing the end of its service life. It uses an activated sludge process, where organic solids are removed, digested anaerobically, dewatered and carted from site. It treats an average flow of 4.1 megalitres (ML)/day.

In the past, residents have reported noise and odour issues and the effluent discharged to the River Derwent has not always fully complied with EPA requirements.

Treatment plant outflows at Margate and Electrona exceed their capacity and do not provide satisfactory dispersion in the receiving waters of North West Bay and D’Entrecasteaux Channel.

The proposed upgrade will involve:

- Increasing capacity at the Blackmans Bay Plant STP to 8.5ML/day to cater for population growth and future demand
- Installing a membrane bioreactor (MBR) process to significantly reduce the organic solids and nutrients discharged to the River Derwent.

The design for the extended plant includes an MBR treatment process with two stages of screening and grit removal in pre-treatment, and then further filtration through the membrane screening process. This will result in better effluent quality, a smaller footprint compared to alternative technologies and improved automation at the plant. The digested sludge will be dewatered and removed from site daily.
The proposed Blackmans Bay STP upgrade has been designed to minimise issues on the local community, improve the plants performance and meet all regulatory requirements.

**IMPROVED TREATMENT PROCESS**

The new MBR process combines an activated sludge process with a submerged, fine-screen membrane separation process. This means that the effluent is filtered to a high quality. Currently, the sewage is treated using a biological process only.

**REDUCED ODOUR AND NOISE**

While the treatment capacity of the upgraded plant will almost double, the new technology will result in reduced noise and odour that is significantly less than the existing plant.

The existing anaerobic digester will be replaced with an aerated digester so there will be less odour at the STP. The liquid in the aeration tanks will be removed daily and the organic solids (sludge) separated and transferred to aerated digesters for stabilisation, which will also improve odour issues. The new aerated tanks will be covered and captured air treated with a new odour filtering system.

The new sewage tanks will be located on the southern side of the existing treatment plant, away from residential properties along Suncoast Drive and Tinderbox Road East. This will help minimise any potential construction and noise impacts and reduce odour issues.

**IMPROVED ENVIRONMENTAL HEALTH**

The new MBR process will mean that the quality of the effluent discharged to the River Derwent will be improved and that the amount of nitrogen and residual organics discharged will decrease.

**REMOVAL OF VEGETATION AT THE EXISTING STP**

As the proposed upgraded plant will extend into council-owned property, TasWater is applying to purchase land surrounding the existing site. If approved, a number of trees on the vacant land and along the access road will need to be removed. TasWater will replace each tree with three new ones and they will be located to screen the plant from public view.

**CONSTRUCTION**

Subject to approvals, construction is expected to start in early 2016. This will involve excavating, building the new tanks and then installing, fitting and testing the specialist equipment. Hours of work are expected to be from 7am to 5pm, Monday to Saturday.

ABOVE (L TO R): The existing Blackmans Bay STP
The map shows the location of the proposed pipeline corridor (exact route yet to be determined) along with the site of the existing Blackmans Bay STP.

Planning for the NW Bay pump stations and rising mains are currently in progress to allow TasWater to tender for design and construction in mid 2015.

**PLANNING APPROVALS**

As part of the development application approval and review process, TasWater will submit its Development Proposal and Environmental Management Plan (DP&EMP) to Kingborough Council.

This plan will provide an overview of the project, potential impacts on the environment and how they will be managed.

Council will:

- Refer this plan to the Environment Protection Authority (EPA). The EPA makes decisions about the conditions required to manage the environmental impacts of a proposed development.
- Advertise the DP&EMP in local newspapers and make copies of the plan available for the public to read and provide comment. This 28 day public advertising and comment period is expected to commence later in 2015.

If approved, TasWater anticipates that construction work on the Blackmans Bay STP will commence in 2016 and be completed in 2016/17.
HAVE YOUR SAY

TasWater will work with local communities to ensure those who are interested have the opportunity to provide feedback on the plant upgrade and pipeline corridor.

Once the DP&EMP for the proposed plant upgrade has been submitted to the Kingborough Council for approval later this year, it will be available for public comment for 28 days.

Copies of the DP&EMP will be available for review at the Kingborough Council office and notices will be placed in local newspapers and on the council website www.kingborough.tas.gov.au.

MORE INFORMATION

For more information, or to have your say about the Blackmans Bay STP upgrade:

- Write to TasWater, GPO Box 1393, Hobart TAS 7001
- Contact our Customer Service team on 13 6992 or email enquiries@taswater.com.au
- Contact our Community Engagement Officer on 6237 8852 or email miriam.rule@taswater.com.au