



TasWater improvements

Improving effluent quality in the TEER catchment

TasWater’s Long Term Strategic Plan identifies their promise to responsibly manage wastewater, the outcome being that sewage is treated and disposed of with minimal impact to the environment and its users. In order to reduce the impact on the environment, TasWater have undertaken ambient monitoring programs to better understand the receiving environment and mixing zones around Sewage Treatment Plant (STP) outfalls.

TEER catchment STPs

TasWater manage 18 ‘Level 2’ STPs in the Tamar estuary and Esk rivers catchment. Eleven of those are in close proximity to the kanamaluka/Tamar estuary, and five are reuse schemes, where effluent is reused on land rather than disposed of to surface waters.

Sewage System Optimisation

TasWater have implemented a sewage system optimisation (SSO) project to improve STP effluent quality and compliance. The SSO have introduced operational control points which have resulted in greater control and have identified minor capital improvements.

The main outcomes of the sewage system optimisation project were to:

- almost eliminate dry weather bypasses at Ti Tree Bend STP;
- achieve a 75 percent reduction in effluent nitrogen at Norwood and Longford STPs; and
- achieve a 15 percent increase in statewide effluent volume compliance.

Dry weather bypasses at Ti Tree Bend STP

The Ti Tree Bend STP has a combined sewage and stormwater catchment. In order to protect the secondary treatment process during large rain events where greater than usual volumes of stormwater are received at the plant over short periods of time, a bypass has been designed into the STP. Dry weather bypass events were occurring, however changes to control of pump stations and some process design improvements have significantly reduced these bypass events.



Bypass at Ti Tree Bend

Effluent nitrogen at Longford and Norwood STPs

Norwood and Longford STPs have activated sludge secondary treatment processes. By implementing better dissolved oxygen control and initiating on-site testing, TasWater were able to better understand the treatment process and use timely accurate data to make onsite changes which optimise nitrogen removal. Improvements in the control of flow

rates also played a vital part in maintaining steady state treatment. Norwood and Hoblers Bridge STPs share a pump station, so controls were put in place to allow flow to go to both STPs at the same time which significantly changed the daily flow pattern. This allowed greater control and operability at both sites, significantly reducing the discharge of nutrients from both plants.



TEER Program
(03) 6333 7777
nrmnorth.org.au
admin@nrmnorth.org.au