



Case study 7

A sewage treatment plant for all

Maleny Sewage Treatment Plant upgrade

Unitywater

This case study showcases

customer and community working with water businesses to define broader value

Problem

The Maleny Sewage Treatment Plant (STP) needed a capacity upgrade to cater for increased population growth in the region and improve treatment standards. In addition, the plant was discharging into the nearby Obi Obi Creek, which was a sensitive issue in the local community.

Solution

In addition to a treatment plant upgrade, Unitywater planted an adjacent forest and wetland on a former dairy farm site which acts to further treat the water from the STP.

From the STP, Class A effluent is pumped 1.4 kilometres to the Maleny Community Precinct where it irrigates 13.8 hectares of revegetated native forest. Any treated effluent that isn't used by the irrigated forest seeps through the soil profile into three hectares of wetlands. Incorporating the irrigation and wetlands as part of the sewage treatment process takes up residual nutrients, naturalising the water before it is released into the Obi Obi Creek and hence back into the water cycle.

The forest and wetlands have transformed a section of an old dairy farm into an important habitat for flora and fauna. Unitywater worked hand-in-hand with Sunshine Coast Council, local bushcare groups and the community to develop parts of the forest and wetlands system and align them with the Maleny Community Precinct Master Plan. This includes walking tracks and planting zones for the community to enjoy.

Business case

The business case put the preferred option (STP upgrade with a membrane bioreactor plus discharge to forest and wetlands) ahead on both cost and non-cost criteria, compared to six other options. Compared to other options, the \$17 million innovative approach of combining membrane bioreactor technology with natural processes saves up to \$18 million over the service life of the plant.

Key drivers

The Maleny community is well known in the region for being a passionate and tight knit community who is interested in preserving and enhancing the town. Unitywater was therefore well aware that the successful delivery of the upgraded

sewage treatment plant would require taking a partnership approach with the Sunshine Coast Council, the Maleny community and local indigenous groups, and involve close consultation and collaboration over several years.

Benefit/outcome

STP upgraded to meet needs of future growth in the region

Reputational benefits for Unitywater stemming from positive community engagement

Positive impact on health and water quality of Obi Obi Creek

Community spaces such as walking tracks and planting zones

Biodiversity benefits

Indigenous heritage protection

Recycled water provision to local organisations

Improved energy efficiency.