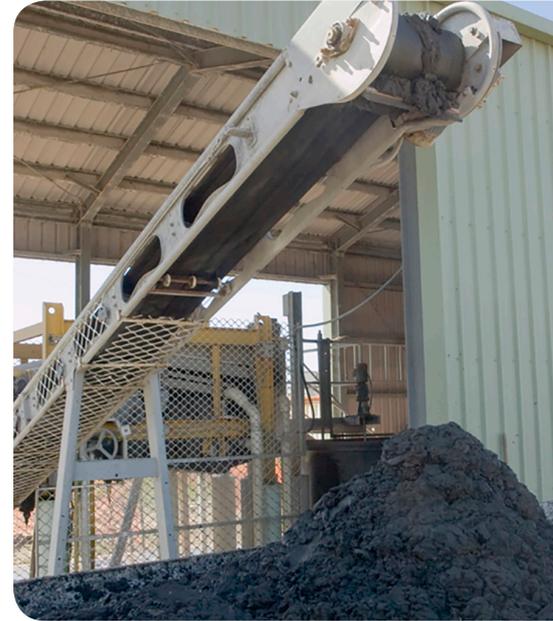


Mackay South Water Recycling Facility



The Mackay South Water Recycling Facility (MSWRF) is one of the largest regional reuse schemes of its type in Australia.

The MSWRF is located at Bakers Creek and serves 63,000 people from the Mackay golf course in the north to the Bakers Creek township in the south.

During dry weather the facility provides local cane growers with quality recycled water for irrigation purposes. The cane growers access the water via a number of reuse storage dams built on nearby properties. During the wet the facility discharges to Bakers Creek.

The MSWRF has a number of environmental benefits including:

- The provision of recycled water to the growers reduces the need to draw from underground water supplies, assisting in the prevention of salinity problems

by maintaining adequate water table levels

- Reduction in the nutrient load being discharged to rivers and the ocean
- The recycled water that leaves the facility complies with stringent quality standards set by Queensland Water Recycling Guidelines ensuring it is safe for human contact.

The MSWRF operates four sequence batch reactors (SBRs) (processing tanks) to treat the wastewater. The SBRs are aerated by racks of pipe mounted diffusers as part of the treatment process. Each SBR runs a four-hour cycle consisting of two hours of filling and aerating, one-hour settling and one-hour decanting.

Prior to discharge for reuse the final effluent is filtered through sand filters then disinfected using sodium hypochlorite. If the final effluent is being discharged to Bakers Creek, it is disinfected

using ultraviolet light.

Waste activated sludge (WAS) is transferred from the SBRs to aerated digesters during the settling period. Decanting of excess water occurs in the digesters and thickened sludge is delivered to the centrifuge for final dewatering.

Centrifuge cake is taken by truck to AJK Contracting; Mackay Landscape Supplies, to be turned into nutrient rich compost for local farmers to use on their crops.

For more information phone council on 1300 MACKAY (1300 622 529) or visit the website mackay.qld.gov.au