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OUTSTANDING SLUDGE DEWATERING PERFORMANCE FOR MARGARET RIVER WWTP

CASE STUDY

THE CLIENT

Water Corporation's Margaret River WWTP was recently upgraded to a new Biological Nutrient Removal process to increase capacity and produce higher quality effluent for discharge.

OVERVIEW

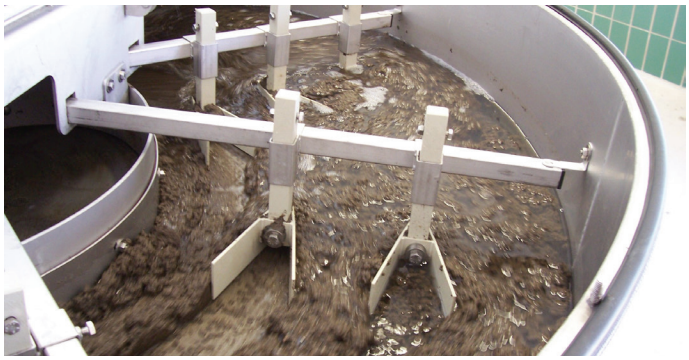
The upgrade included a new sludge facility to thicken and dewater the waste activated sludge produced from the process.

Hydroflux provided the sludge treatment equipment which consisted of:

- HUBER SDSIC Sludge Thickener
- Transfer Pumping
- HUBER QPRESS Rotary Screw Press

Waste Activated Sludge (WAS) is pumped to the SDISC and flocculated using a cationic polymer. The SDISC thickens the WAS from 0.3 to 4% dry solids.

Item	Value
Thickener Type	HUBER SDISC
Capacity	10—40m3/h
Output Thickness	4—5%DS
Dewatering Type	HUBER QPRESS
Capacity	2—8m3/h
Output Cake Solids	18—20%DS



The thickened sludge is stored in a fully mixed short span retention tank and then is dosed with a polymer and is dewatered in a HUBER QPRESS.

The two stage process results in an optimum operating regime for the QPRESS in that a high dry solids load is sent to the QPRESS which maximises the output cake solids.

Whilst the QPRESS can be fed with raw mixed liquor the pre-thickening stage does provide for a high cake solids and hence volume reduction. This installation has mirrored the outstanding performance of the HUBER QPRESS at other Water Corporation sites in terms of solids capture and cake solids. HUBER QPRESS is sized to achieve a capture rate of greater than 95% without the need for downstream filtration.

The entire machine including the main case and legs is fabricated from 316L stainless steel which provides superior resistance to corrosion.