

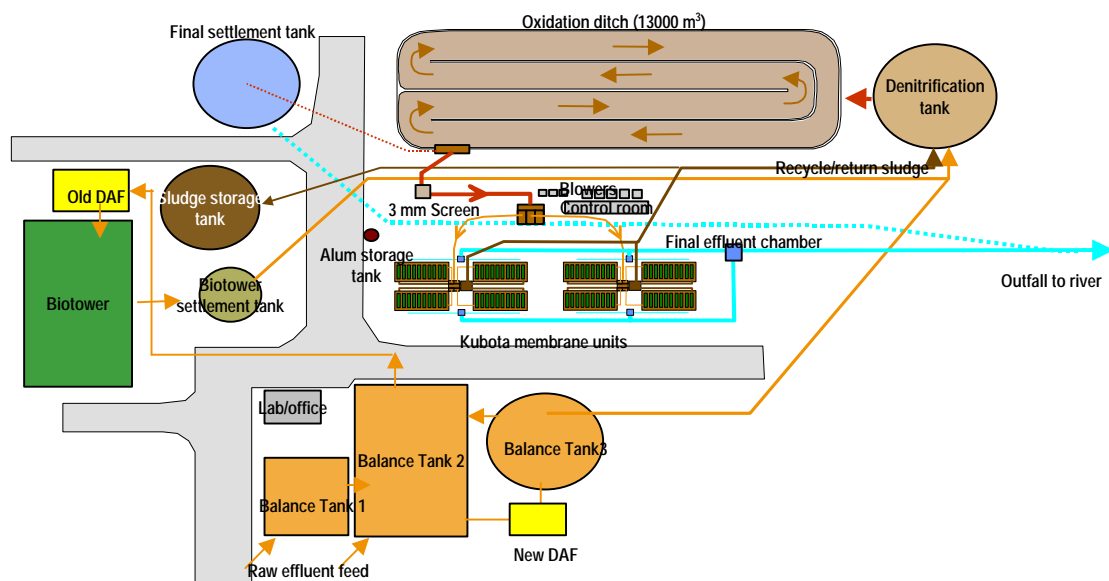
Ballyragget Effluent Treatment Plant (Glanbia)



- Upgrade of existing industrial effluent treatment plant
- Supply and delivery of 74 membrane units
- Effluent quality to be high for discharge to salmonoid river
- Additional services were provided in the nature of design assistance, inspections during installation, assistance to start-up, commissioning and membrane cleaning

Current Status:	Operational since May 1999
Client:	Avonmore Waterford Group (Glanbia)
Contract award:	December 1998
Consent:	10:5 BOD:SS
Brief Description:	Membrane bioreactor system used to upgrade existing industrial effluent treatment plant

Ballyragget Effluent Treatment Plant (Glanbia)



Process Description

The existing dairy effluent treatment plant in Kilkenny, Ireland has been upgraded by the installation of a Kubota submerged membrane plant.

The overall effluent treatment plant is designed to treat approximately 9,000m³/d. The MBR Technology® plant has been initially designed to treat up to 7,100m³/d of effluent taken from the existing oxidation ditch. This allows the MLSS and loading on the oxidation ditch to be increased while retaining the existing settlement tanks operating at a much reduced up-flow rate.

Design Data

Membrane aeration tank volume	900m ³
MLSS	12,000-18,000mg/l
No. of membrane units	74 x 150 panels
Membrane surface area	8,880m ²
Maximum overall plant loading	16t/d BOD

The plant design incorporates 74 Kubota membrane treatment units within a modular arrangement of eight steel aeration tanks, operated in two groups of four tanks at a time.

There are no buildings or tank covers and plant control is achieved by allowing the level to vary within the aeration tanks in proportion to the incoming flow. There is no odour.

Each steel tank is 10 x 3 x 4m high and the plan area of the membrane plant is approximately 50 x 10m.

Plant Data

Flow to Full Treatment	7,100m ³ /d
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