



Case Study

Food & Beverage Industry -
Effluent Treatment Plant
2KL/H



**GLOBAL
MACADAMIAS**
(Pty) Ltd



Problem Statement

Our client expanded with a new macadamia nut processing factory. The processing of macadamia nuts generates an effluent which is high in oil, fatty nut fragments and shell fragments. This effluent does not meet discharge specifications and needs to be treated before disposal.

Solution

Watericon designed, built, installed and commissioned an effluent treatment plant which consistently produces an in-spec effluent, suitable for irrigation. The sludge passes through a filter press which delivers low moisture cake which is easily disposed of. Dewatering drastically reduces the volume and weight of waste requiring disposal.



Typical plant feed

- Nut processing effluent with oil
- COD > 11000mg/L
 - High organic TSS



Performance Target

- Effluent within general authorization limits for irrigation
- Dry sludge cake <60% moisture which is easily handled and disposed of



Process

- Oil Separation
- pH Adjustment
- Coagulation and Flocculation
- Settling
- Filtration
- Ozone Oxidation
- Sludge dewatering – Filter Press



Innovation

Watericon made on-site disposal possible for our client, saving time and money associated with third party effluent disposal or facing fines for discharging water which does not meet requirements.