

## COMPLETE BIOCAP® SLUDGE DIGESTION EQUIPMENT FOR CESSNOCK STP

### CASE STUDY



#### THE CLIENT

Hunter Water's Cessnock STP serves the communities of Cessnock, Abergare, Bellbird and Nulkaba. The plant can treat 5.8MLD and provides treatment for up to 32,000 EP.

#### OVERVIEW

Hydroflux Epco, a Hydroflux Group member, provided a turnkey package for the digester as follows:

- 1x BioCap® Floating Gas Cover
- 1 x LanceMix® Sequential Gas Lance Mixing System
- Sludge Recirculation Pump Station
- Sludge Heater Process
- 1 x FlareWell® Gas Flare

Anaerobic digestion is a key part of the wastewater treatment process as it allows for the destruction of

volatiles in the sludge, provides pathogen removal within the sludge and generates biogas which is rich in methane.

#### Key Benefits:

- Extensive expertise in sludge digestion equipment with over 80 references.
- Robust design and construction of the floating gas cover with heavy duty roller assembly.
- Fully insulated gas cover.
- Incorporation of ancillaries such as pressure relief/vacuum relief valves, site glasses, level probes and sample hatches.
- Fully mixed conditions due to the sequential lance mixing system.
- No moving parts on gas lance mixing system.
- Externally mounted sludge heaters.



Item	Value
Gas Cover Diameter	13.5m
Cover Type	Floating
No. of Sludge Heaters	2 x 150 kW
No. of Gas Compressor	2 x 350 cum/h
No. of Gas Flares	1
Year Completed	2006