awma Water Control Solutions NEWS

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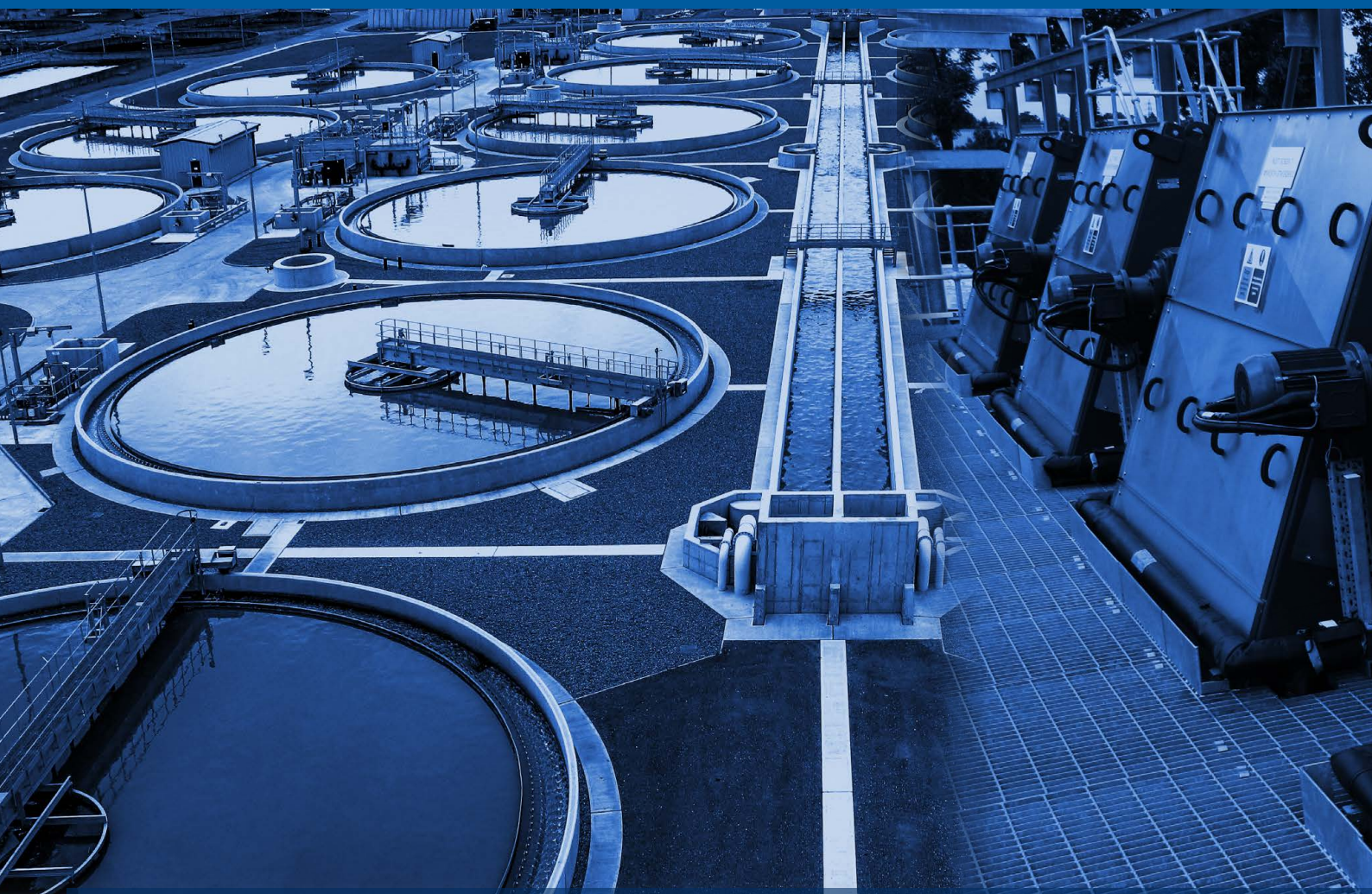


WASTE WATER PROCESS EQUIPMENT

AWMA have been designing and manufacturing innovative water and wastewater control equipment for almost 20 years. Specialised manufacturing capabilities has led AWMA to offer an extended range of products including screens, screenings handling equipment and grit removal systems to the Australian waste water industry.

A strategic partnership with the global organisation Ham Baker Group provides an opportunity for AWMA clients to access internationally proven processing equipment for waste water inlet works manufactured locally in Australia.

AWMA's Process Equipment Division was launched at the recent Ozwater'17 conference and exhibition in Sydney. Division General Manager Peter Ebenwaldner has over 10 years' experience in the water industry.

Peter states "clients benefit from single procurement, especially when that option includes stakeholder design input and reduced lead times. AWMA will continue to provide locally manufactured and supported products of high international standard".

Further information, including the product catalogue and Peter's contact details, are available on the website.

GENERALLY SPEAKING

I read the other day experts are predicting that by 2030 there will be a 40% greater demand for water than the supply of water available.

If not already, water security and management will quickly become a high priority for every government globally.

Continually assessing and improving the way water is managed is becoming a critical mission.

AWMA work across all industry sectors, developing innovative solutions to improve water management, control and delivery.

We are proud to be able to actively contribute to improving the sustainability of the global water supply.

I would like to welcome Peter Ebenwaldner to AWMA. Peter will be developing and managing our new Process Equipment Division.

It was great to catch up with so many of you at Ozwater'17 in May and look forward to our upcoming participation at WaterNZ Conference and Expo (September), WIOA Victorian Conference and Exhibition (September) and the ANCOLD Conference (October).

Pictured AWMA's Peter Ebenwaldner (left) with Ham Baker's Group Export Director Julian Lowe.

Brett Kelly
Managing Director

AUTOMATED GATES FOR WETLAND RESTORATION

Robson Civil Projects engaged AWMA to restore a tidal habitat for endangered migratory shorebirds at Kooragang Wetland, Hunter Wetlands National Park, Ash Island, NSW.

An improved water management system as well as vegetation control is required to achieve ideal conditions for the ecological values inside the wetland. Early contractor involvement provided an opportunity for the development of a suitable solution, to the benefit of all interested parties.

The custom designed water control infrastructure incorporates two stainless steel ULF undershot gates, an automated actuation system, level sensors, control cabinet, solar power, webcam and associated systems.

The gates were manufactured from grade 2507 super duplex to ensure a long service life in the harsh marine environment.

Automation of the regulators is via AWMA's gate control software. AWMA can integrate product automation into any industry standard control and monitoring package. Extensive program features include independent gate operation, SMS alarm systems, automatic level and flow management as well as audio and visual warning devices.

The Kooragang regulator will manage real-time flood and tidal waters to either reduce water flow into the wetland or to withold the maximum amount of water possible, creating suitable conditions for the shorebirds.

CUSTOM WEIR AND FISH LOCK SOLUTION

AWMA were engaged to supply water control gates and fish lock solution for Goulburn-Murray Water's Box Creek Weir in Victoria.

Box Creek Weir acts as the flood outlet for Kow Swamp and provides releases to Box Creek, supplying water to the Torrumbarry Irrigation Area.

Four AWMA Combination Gates were incorporated into the new weir with eight stopboard frames for emergency isolation if required. The 'Combination' or 'Split Leaf Gates' (as referred to for this project) allow for both overshot and undershot flow management, as well as removal of both gate leaves from the waterway entirely, during a flood event. The gates measuring 2.5m wide and 4.8m high are operated manually or via a portable actuator.

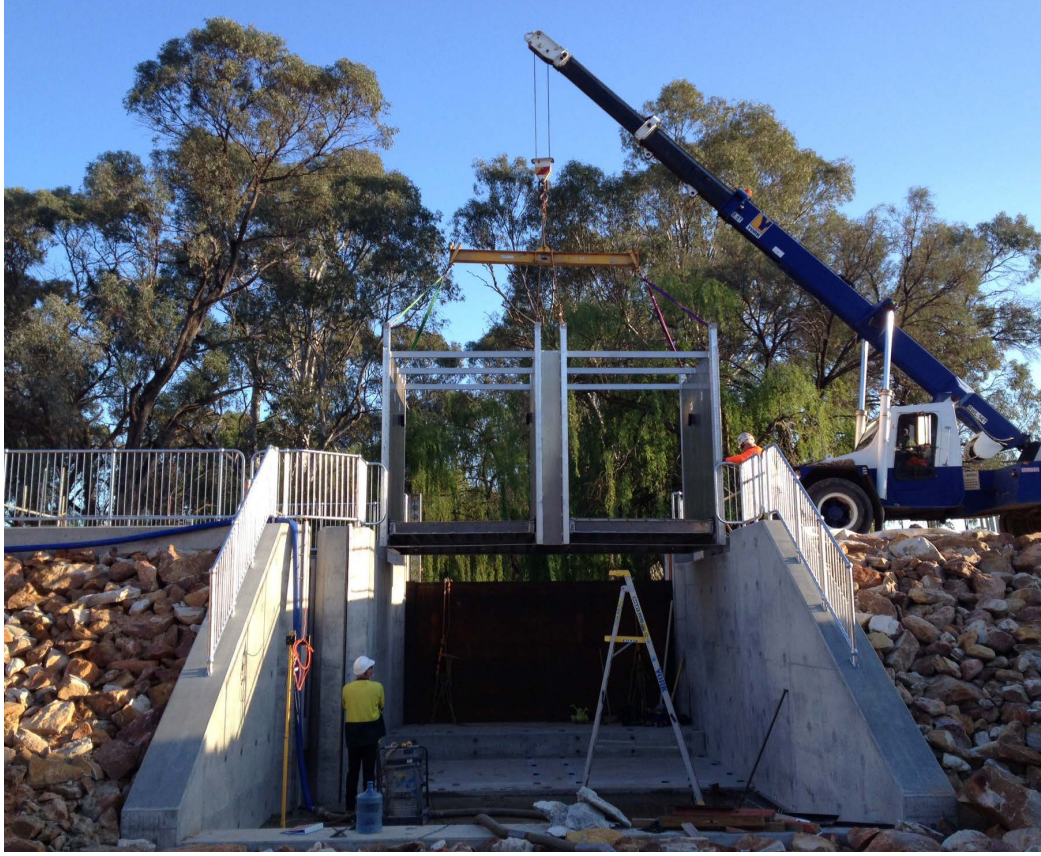
Sidewinding gates designed for the fish lock entry point are 4m high with a rack and pinion automated drive system to accommodate a 6.5m head pressure. The sidewinders are remotely monitored and controlled via G-MW's SCADA system.

The fish lock exit gate utilises a DLF penstock with modulating cable drive system, designed to eliminate drive nut wear common in high-frequency automated applications.

Isolating stopboards were also supplied for the fish lock, measuring 8m high. They are manually inserted and retrieved with a self-engaging AWMA Stopboard Lifting Frame.

The fish lock is protected with a fish friendly aluminium trash screen designed in accordance with USBR / AS5100 for debris loading.

ENVIRONMENTAL FLOW REGULATOR AND FISHWAY



The Margaret Dowling Regulator and Fishway structure was installed in Bert Dix Memorial Park, Paringa SA.

Managed by the Department of Environment, Water and Natural Resources (DEWNR) as well as SA Water, the project was designed to enhance and where possible restore biodiversity and ecological values through improved water management within Margaret Dowling Creek and the Pike Floodplain, an anabranch of the River Murray.

Active management of the frequency, magnitude and duration of environmental flows through the new structure was the primary focus of the project.

York Civil engaged AWMA to supply a double bay regulator, fish way, control cabinet, access platforms and associated electrical equipment.

The gate structure comprised of a 2-in-1 multi-bay tilting LayFlat gate, measuring 5.3m wide and 3m high. Fixed wheel roller bulkheads were also provided with associated lifting frame and storage racks. The bulkhead design allows insertion during flow conditions, for emergency isolation and maintenance purposes.

The AWMA LayFlat gates were fitted with electric actuators for automatic flow rate control. They have full remote monitoring and control capabilities with integrated SMS alarms. This solution allows operators to control and monitor the site via their mobile phone or tablet, anywhere that they have internet access. This design is similar to the regulator and fishway solution implemented at Deep Creek (SA).

Independent testing and commissioning of this site found the AWMA flow calculation algorithm to be accurate to 6% of the gauging results.

The new fishway will allow for safe fish passage. Segmented Stopboards 0.8m wide and 3.7m high allow isolation of the fishway entry point, with another set of stopboards 3.4m high utilised for the fishway exit. The fishway is managed via an AWMA Lifting Ladder for manual insertion and removal of the 100mm segments. A storage rack was also supplied for the fishway stopboards and lifting device.

Pictured is AWMA's rack and pinion Sidewinder Gates (left) as well as a concept design of the AWMA Combination Gates installed at Box Creek Weir

RECENT PROJECT GALLERY

INNOVATIVE - CUSTOMISED - SUSTAINABLE

FLOOD | ENVIRONMENTAL | IRRIGATION | WATER TREATMENT | DAMS | ENERGY & RESOURCES

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