awma Water Control Solutions

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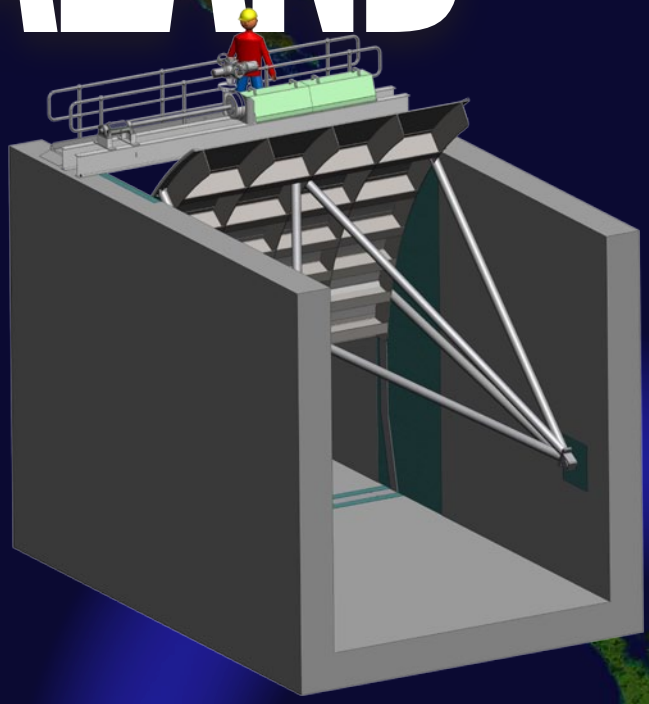
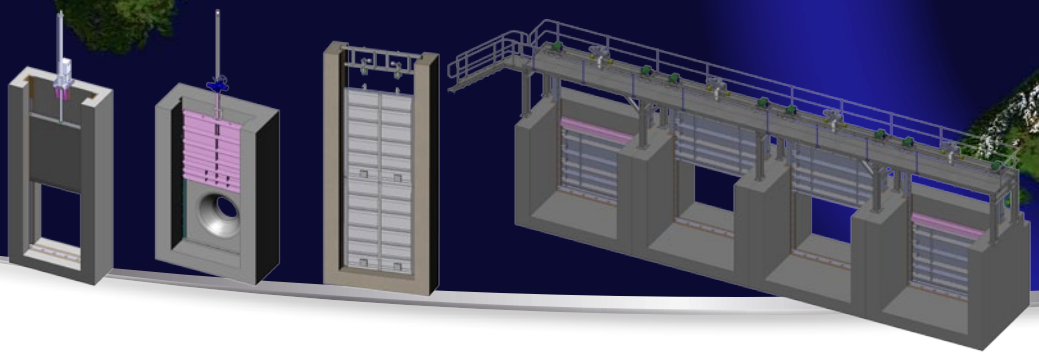
NEWS

# NEW ZEALAND BOUND



**New Zealand's Central Plains Water Limited have engaged AWMA to design, manufacture, supply, install and commission water control gates, stopboards and electrical equipment for the Rakaia River Intake Gates Project.**

Design considerations include low whole of life costs during the 50 year design life, gate loadings (debris, wind and mud), flow velocities, earthquake compliance to NZ1170.5, material selection, isolation of dissimilar metals, reduced maintenance requirements, inclusion of self-engaging lifting frames to minimise operator risks, SCADA integration and operational flexibility.



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# GENERALLY SPEAKING

# ENVIRONMENT TO INDUSTRY

AWMA develop water management systems to measure, monitor, isolate, regulate and manage flows, across all industry sectors.

We're committed to improving water use and operational efficiencies for asset owners, landowners and environmental stewards. Every project incorporates customised water control equipment to accommodate site conditions and client specifications.

Our website features projects successfully delivered over the past decade that reflect innovative solutions across a range of applications. These include flood mitigation, desalination, sewage treatment, irrigation delivery, wetland management, stormwater harvesting, dam storage, weir regulation, fish ways and even on-farm metering.

AWMA's expertise was recently recognised by the IPWEA through the Innovative Practice/Service Delivery award presented to the Gannawarra Shire for the Quambatook Weir Refurbishment Project.

It's been great catching up with so many of you during the recent expos and events. We look forward to doing it all again soon!

**Brett Kelly**
Managing Director

# PENSTOCKS SPLIT FLOWS

**AWMA have supplied stainless steel penstocks to the Mount Hotham Waste Water Treatment Plant.**

Manual stainless steel ULF undershot penstocks were required for an existing flow splitter chamber within the resorts commercial wastewater management system.

Specifications included a wall mounted, pedestal design with self contained frame and non-rising spindle. The penstocks will be manually actuated via a removable handle. This arrangement allows for a 'hidden', safe and secure system that is easily operated via an access hole in the pit cover.

The penstocks are located in the main splitter pit at the head of the Mt Hotham Wastewater Treatment System and enable flows to be diverted to either, tanks 1 and 2 or to tanks 4 and 5. Either set of tanks may then be emptied for operation or maintenance purposes. Previously, this was not possible without substantial use of resources.

Another function of the penstocks is to be able to split the flows evenly to both tanks 1 and 2 and tanks 4 and 5 enabling operators to take tank 3 offline and turn it into sludge storage in a big ski season, once other sludge storage tanks have been filled to capacity.

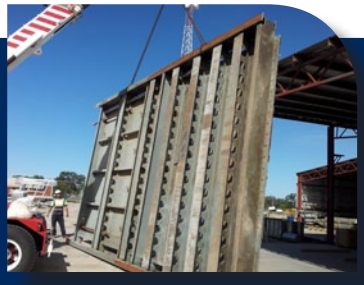
**"Installation of the AWMA penstocks makes what was a hard job, easy and streamlined" says Mr Kewish of the Mount Hotham Resort Management Board.**

# SALES ENGINEER

AWMA would like to welcome Jack Masi to the role of Sales Engineer. A hands on Mechanical Engineering graduate from the University of Sydney, Jack brings with him a desire to develop sustainable solutions for the benefit of the water industry.

Jack enjoyed meeting many of our clients and industry partners at OzWater and the Floodplain Management Association Conference in Deniliquin. He will also be attending the WIOA expo in Bendigo. Jack's contact details are 0414296679 and email jack@awmawatercontrol.com.au

# DID YOU KNOW?



**AWMA can facilitate the refurbishment of aging water control infrastructure, of any design, in any location.**

The first of three mild steel water control gates has just been extracted, modified and refurbished for SA Water's Lake Victoria Regulator. The 9 tonne gate leaf measures 9m x 5m. Once extracted it was bought to the AWMA manufacturing plant where it was modified, reinforced, repaired and repainted.

# AUTOMATED IRRIGATION DELIVERY SOLUTIONS

**AWMA provided infrastructure and automation solutions for the $37million Tenandra Irrigation Scheme Modernisation Program.**

More than 40 sites have been commissioned with fully automated water management equipment. All gates are solar powered including regulators up to 2m wide x 4m high.

Over 100km of channel has been remodelled, requiring 24 farm off takes (with new automated gates and flow meters), as well as 18 channel regulator sites (automated gates with level control). Some water control gates have been retrofitted to existing structures whilst others were installed on new structures.

Each site was individually assessed to ensure the most appropriate water control gate and operational solution was implemented at every location. Water control structures include both overshot and undershot gate designs. The SCADA system features UHF radio for long haul telemetry to multiple Next G hubs. All control and monitoring is cloud based, accessible from a dedicated website via secure access.

The SCADA system can be supported remotely to provide fast, efficient and comprehensive customer service.

Over a 12 month period, AWMA managed the water control infrastructure component through all stages of design, manufacture, installation and commissioning.

The project has provided significant water savings through new clay lined channels, channel rationalisation, innovative structures, accurate metering and improved channel control through remote monitoring and scheduling. The SCADA system has significantly reduced vehicle costs and travel times traditionally involved in operating such a large system. The data collected and available via the SCADA system allows accurate record keeping and reporting through data export capability.

This project was federally funded through the Private Irrigation Infrastructure Operators Program (PIIOP) and delivered by the AIM (Advanced Irrigation Management) Alliance, resulting in a modernised channel system which is far safer, economical and efficient to operate.

# ENGINEERING AWARD FOR FLOOD MITIGATION INFRASTRUCTURE

Congratulations to the Gannawarra Shire for receiving the Innovative Practice/Service Delivery Award for the Quambatook Weir Refurbishment Project at the 2014 Institute of Public Works Engineering Australia Awards.
The project was completed in October 2013, following structural damage caused by the 2011 flood event.
The unique air operated actuation system developed by AWMA raises a single piece gate leaf from the base of the structure to allow unimpeded flows. This innovative design eliminates the need for overhead equipment, significantly reducing debris entrapment and infrastructure damage during flood events.
See video and more @
/awmawatercontrol

**Gannawarra Shire Council Mayor Neville Goulding congratulated the AWMA team on their innovative design and manufacture of the weir gate.**

**"Their design utilised a pneumatic air operated water control gate system to lower the gate in a tilting lay flat design. The system is controlled from a panel on the bank and eliminates the manual handling gauge boards and the need to gain access to the wall structure," said Cr Goulding.**

# COOLUM STP INLET WORKS

**Construction of the new inlet works at the Coolum Sewage Treatment Plant (STP) required 18 AWMA water control structures including a range of topsealing penstocks, undershot penstocks, overshot penstocks, bulkheads, stopboards and actuation systems. Stainless steel materials were predominantly used in the manufacturing of these control structures to ensure a long design life in the harsh corrosive environment.**

As pictured, a customised actuation system was developed to bring all handwheels down to an accessible height from the platform, eliminating the need for elevated walkways and safety rails. See more on the AWMA project page.

# BIG
# OR SMALL
## AWMA DO IT ALL



WASTEWATER DESALINATION FLOOD MITIGATION ENVIRONMENTAL IRRIGATION

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