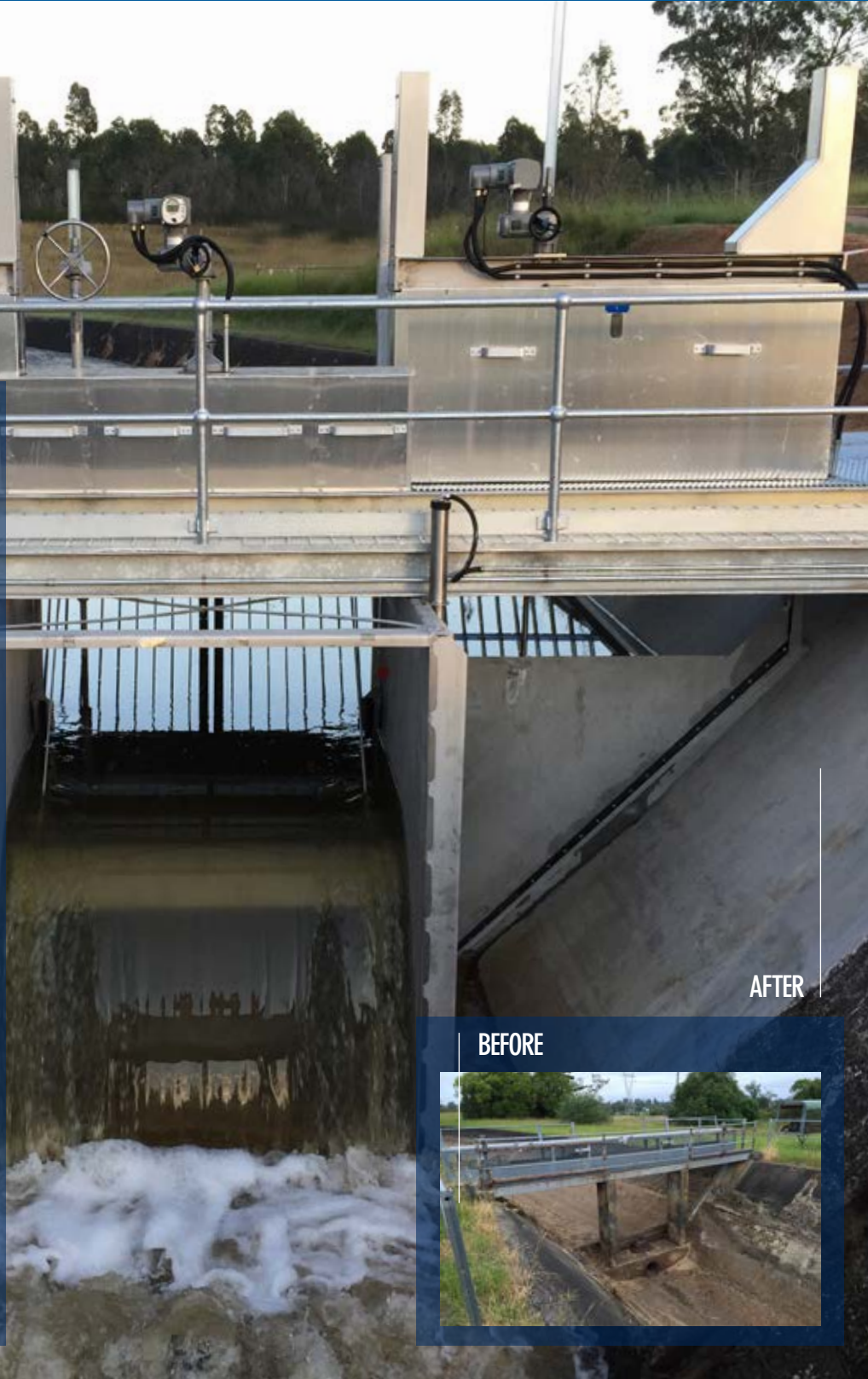


## UPPER CANAL CONTROL GATES

Improved safety features, increased canal efficiencies and enhanced management tools, are the key benefits of new water control infrastructure installed for WaterNSW.

This multi-million dollar project was required to upgrade the Upper Canal which delivers up to 40% of Sydney's drinking water. The Upper Nepean Scheme was established more than 125 years ago and includes a 64km canal which is comprised of 19kms of tunnels, 1km of pipe aqueducts and 44km of open canal, much of which is protected due to its historical value.

Continued on Page 2



AFTER

BEFORE

# GENERALLY SPEAKING

AWMA is well known for our ability to design, manufacture and install a wide range of water control solutions. What you might not be aware of, is that we also design and manufacture a comprehensive range of screens, both static and mechanised.

Like our gates, screens are custom designed to deliver practical solutions within an economically viable package.

We have developed innovative ways to address the many challenges that screening applications present. Our fully automated screens withstand all types of debris and contaminants including sticks, leaves, rubbish, animals, weed and algae.

AWMA screens are designed to reduce the WHS risks associated with cleaning static screens and mitigate the traditionally high maintenance costs on operating automated systems.

Often screens are required to be retrofitted to existing structures. Our designs aim to reduce the civil modifications required, subsequently reducing project costs.

AWMA's screens complement our water control gates and allow AWMA to provide holistic solutions for our clients.



**Brett Kelly**  
Managing Director

# UPPER CANAL CONTROL GATES

AWMA was engaged by Zinfra to design, manufacture and install a number of water control structures along the length of the Upper Canal. The upgraded sites include motorised water control gates with associated equipment i.e. trash racks, safety rails and access walkways. AWMA worked with project partners to ensure the upgraded infrastructure will deliver project objectives whilst protecting the heritage listed canal. AWMA's customised gate solutions included rectangular and trapezoidal designs, stainless steel materials and numerous safety features.

The customised water control structures include:

- scour valves to drain the section upstream of the gate for maintenance work;
- trash racks to capture debris;
- safety features i.e. fall arrest system handrailing;
- access platforms to facilitate inspection, operation and maintenance of the gates;
- control systems including associated equipment

The new water control structures will regulate water levels in the canal to cater for varying flow rates and significantly improve the safe working environment for WaterNSW operators.



# NEW TILTING FLOOD BARRIER

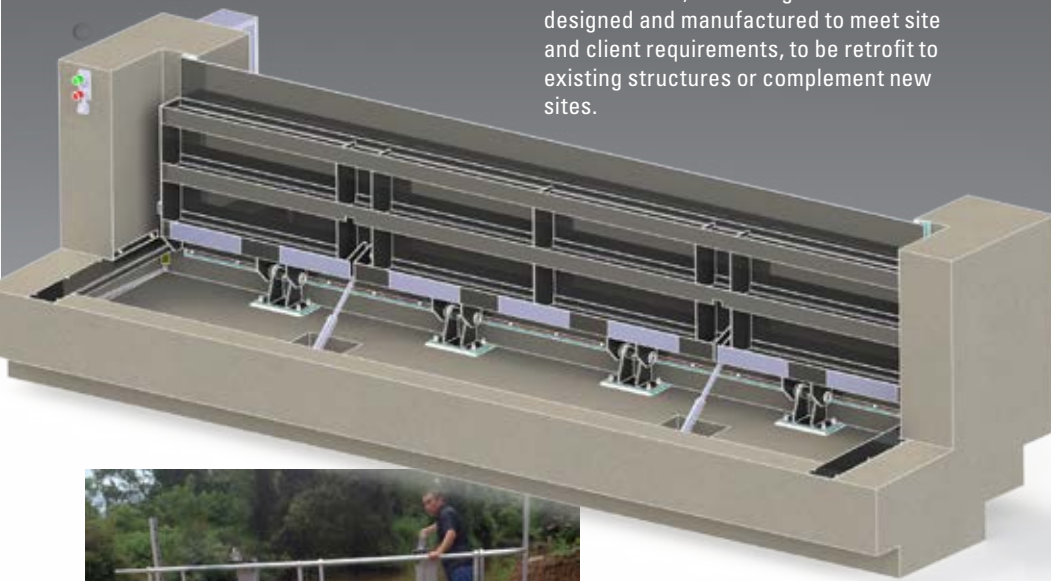
AWMA have developed a Tilting Flood Barrier that can be manually or automatically operated to provide floodwater protection for residential, commercial or industrial properties.

The Tilting Flood Barrier was designed specifically as a flood water protection barrier for access ways such as underground car parks, driveways, shopping centres, sporting stadiums etc.

When open the gate is trafficable and unobtrusive. Once activated the hydraulic actuation raises the gate leaf to provide a secure barrier, with excellent sealing, suitable for long term immersion in floodwaters.

AWMA's designs ensure activation even if the power is out, with provisions for warning signals, alarms and SMS status updates.

As with all AWMA Water Control infrastructure, the Tilting Flood Barrier is designed and manufactured to meet site and client requirements, to be retrofit to existing structures or complement new sites.



## "EXPERT EFFORTS, PATIENCE AND PROFESSIONALISM" - DR CRAIG BOYS

Fisheries Scientist Dr Craig Boys of NSW Department of Industry, Department of Primary Industries and DPI Fisheries has praised AWMA for successfully installing the MultiBay LayFlat Gate in Laos.

Pak Peung now has a safe and effective, upstream and downstream fish passage.

AWMA found it very gratifying to work on such an important international project and are thrilled it has been so well received.

We trust that ACIAR can use the project information and findings to assist many others during the regional fish passage conference later in the year, where AWMA will be presenting.

## NEW RESEARCH TOOL

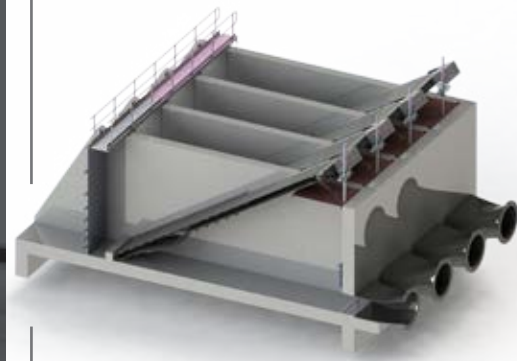
AWMA specialise in developing water control solutions for unique and challenging applications.

In July, AWMA launched a new website at [www.awmawatercontrol.com.au](http://www.awmawatercontrol.com.au) which aims to provide information and insight into water control structures that have unique requirements.

Bespoke engineering for site specific water control solutions provides an opportunity to customise gate materials, actuation, operation and management options to best suit project objectives.

AWMA's extensive research, development, testing and operational experience results in proven designs that can assist projects within all industry sectors.

To explore a range of successfully delivered projects or gain assistance with early contractor involvement please view our website or call to discuss.

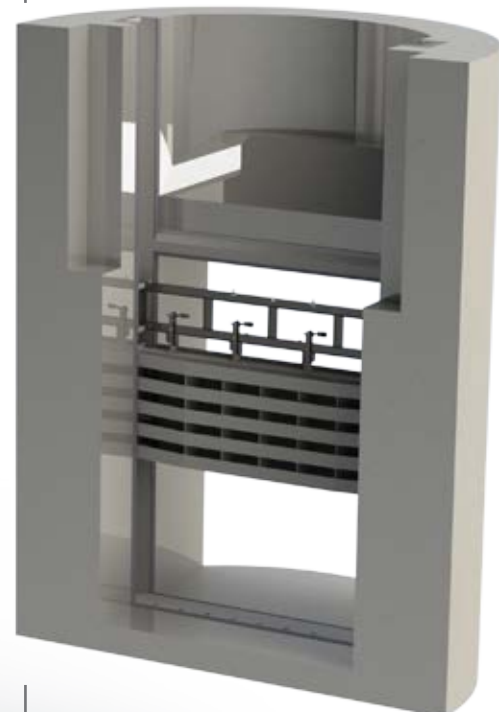


## DESIGN SERVICES

AWMA have extended our in-house design department to offer independent specialist consultancy, design and drafting services. With extensive experience analysing site characteristics, restrictions and conditions AWMA gather project information first-hand before consulting with invested partners. SOLIDWORKS 3D imagery then allows AWMA to demonstrate appropriate options. Staff are accustomed to the logistics of operating on a global scale.

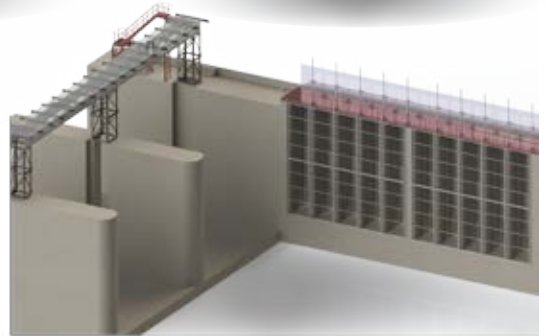
Due to the extensive level of risk management involved in the safety of critical water control infrastructure, it is imperative the structures are specifically designed to exceed all specifications.

The drawing above illustrates gates and fish screens protecting a large pump station. Pictured below is a concept design for 10tn 50m head modular stoplogs for an international sewer tunnel project with a design load of 6.4Mn (642 tn).



# RECENT PROJECT GALLERY

INNOVATIVE - CUSTOMISED - SUSTAINABLE



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



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