

BOERA DAM UPGRADE

Located in remote north-west New South Wales, Boera Dam is the major structure regulating the flow of water through Toorale National Park and downstream into the Darling River.

In August 2021 AWMA were engaged by Pensar to design, manufacture, supply and install a series of actuated water control gates for the Boera Dam Upgrade, as part of The New South Wales Government's \$7.9m Toorale Water Infrastructure Project.

This project involved replacing 130 year-old dam pipes with a modern, automated gate system that encourages safe fish passage and allows the isolation and regulation of flows through the Toorale National Park.

The new three-bay regulator and vertical slot fishway was designed in collaboration with project partners to allow safe, two-way fish passage and improved management of environmental flows.

The regulator structure consists of three aluminium LayFlat Gates, each measuring 2.4m wide x 3.0m high. A set of Segmented Stoplogs were also supplied to allow safe isolation of the LayFlat Gates for inspection and maintenance purposes. AWMA Sidewinder Gates control the bypass channel and fishway exit, whilst an AWMA ULF Penstock manages the fishway exit.

Given the site's geographical isolation, a solar emplacement was installed to enable web-based remote operation of the gate actuators. The on-site, solar powered 'control hub', allows flow rates, along with upstream and downstream water levels to be electronically gathered, monitored and managed remotely.

Pensar Construction Manager, Jeremy Goodacre comments

"Pensar choosing to engage with AWMA to undertake design, manufacture, supply and install of a series of actuated water control gates for the Boera Dam Upgrade, provided the Project with a wealth of knowledge and expertise in this area. AWMA's design and manufacture all completed during Victoria's Covid-19 lockdown periods were completed professionally and on time, with AWMA providing Pensar constant assurance that works were progressing and being completed to a high standard of quality. This was then proven, during the installation and water trials, in an extremely remote location where the gates fitted the cast insitu structure and operated immediately to meet the maximum operating parameters required by the system. The AWMA Team provided Pensar with exceptional support and high-quality workmanship throughout the project to deliver one of the project's key elements."

In November 2022, Toorale Water Infrastructure Project won the award for Outstanding Waterway Management Project at the RBMS (River Basin Management Society) Awards.

Congratulations to project partners NSW Department of Planning and Environment, NSW Public Works, Toorale Joint Management Committee (which includes the NSW National Park and Wildlife Service and the Kurnu-Baakandji People), NSW Department of Primary Industries (Fisheries) and Alluvium Consulting.



GENERALLY SPEAKING

It is in the long history of humankind (and animal kind, too) that those who learned to collaborate and improvise most effectively have prevailed.— Charles Darwin

'To collaborate and improvise' is the cornerstone of AWMA's culture and success.

AWMA's unique point of difference is our ability to collaborate with project partners, to develop a solution that delivers the most beneficial outcome for the client, the end user and the environment.

The metric we use to measure overall success, is customer satisfaction. The method we use to achieve that outcome, is the creation and empowerment of an exceptional team, focused on customer service.

Over the last 22 years, we have developed a strong team with experience and capability. In recent years, our focus on innovation and market diversification has resulted in significant growth for the company. Many new members have been brought into the team and I am very proud to say they are making significant contributions, not just to our capacity but also our culture.

AWMA focuses on solution development, not just product supply. Often, we are working on projects with very little precedent and there are steep learning curves for all involved, internally and externally. We enjoy this type of project; it challenges us to partner with our clients to solve problems with innovation.

Project development and delivery always works best when using a genuine approach. Our team is committed to facilitating and contributing to an authentic partnership relationship.

We look forward to the opportunity to partner with you.



Brett Kelly
Managing Director

awma
Water Control Solutions

TICK OF APPROVAL



Quality
ISO 9001
SAI GLOBAL



Environment
ISO 14001
SAI GLOBAL



OHS
ISO 45001
SAI GLOBAL

AWMA have added accreditation for Safety and Environment to our list of certifications. This will complement our existing ISO 9001 Quality Management System certification.

ISO 14001 certifies AWMA for our Environmental Management System, and ISO 45001 for AWMA's Occupational Health and Safety Management Systems.

AWMA's commitment to triple certification ensures a structured approach to maintain safe, successful and environmentally sustainable solutions that exceed the expectations of customers, project stakeholders and our staff.

SCREENS FOR HORTICULTURE

Duxton Vineyards is a large-scale vineyard and winemaking business in the Murray Darling region of NSW, with approximately 2500Ha of planted vineyard area. It is also currently the largest vineyard in Australia to be certified as sustainable under Freshcare's Sustainable Winegrowing Australia's certification.

Sustainability is the cornerstone of the Duxton Vineyards culture, as Environmental Manager Dylan Klingbiel explains;

"We irrigate at approximately 120 L/s direct from the Darling River. We rely on this waterway, so it only makes sense that our water extraction systems need to protect the river, protect native fish and protect our pumping infrastructure. Australian rivers are renowned for poor water quality, especially the Darling, even more so now, during and following flood events. In April 2022, we installed AWMA Fish Screens on two of our pumping stations. The screens are self-cleaning, so suddenly, we significantly reduced our need to backflush the system. Early analysis of performance has shown that we will save approximately 15 million litres of water a year (1.3% reduction of total water volume), in reduced water use from what was normally required for backflushing and the subsequent energy savings for not having to pump that water."

This translates to a reduction in approximately two tonnes of CO₂ equivalents of emissions through the reduction in energy usage. Also, labour savings, prior to installing AWMA Fish Screens, cleaning of field filters was required on a regular basis, now, it's rarely required at all. Our key driver was to protect fish and the waterways we rely upon. Now, having proven that fish screens are a 'win for the environment AND a win for us' we are in the process of ordering more!"

Duxton Vineyard retrofitted AWMA's self-propelled, self-cleaning cylinder screens with 2mm aperture onto existing pump retrieval systems. AWMA's self-propelled model uses the velocity of the pump flow to drive the mechanical, brush cleaning system. This operation ensures the screen surface remains clear of debris for increased efficiencies, pump and filtration protection and delivery of a higher water quality, while protecting aquatic life. Automated models are also available for powered sites.



COMMUNITY FLOOD PROTECTION

AWMA are continually working with project partners to supply Flood Barriers for community flood protection.

AWMA is an Australian owned and operated company. The FloodFree range of barriers are designed and manufactured in northern Victoria, servicing the Australian, New Zealand and Asia Pacific regions.

FloodFree barriers are currently being installed Australia-wide to protect levee access points where there are breaks in levees for roads, footpaths, rail crossings etc. These barriers increase the towns flood resilience, providing protection for residential, commercial and community areas.

As pictured, demountable flood barriers have end posts and in-ground footings permanently installed. Upon the threat of a flood event, storage racks of barrier segments and posts are deployed to site and manually installed, to protect levee access points.

In addition to the manual demountable barriers, the FloodFree range includes self-deploying Concealed (pop-up) Barriers, Tilting Barriers (self-actuating or automated), Swing Barriers and Flood Doors. This range of solutions complements flood mitigation plans, to provide temporary or permanent barriers that protect property, assets and townships from water inundation.

AUSTRALIAN FISH SCREEN GUIDES

Did you know the NSW Department of Primary Industries (Fisheries) have developed and published Fish Screen Guidelines to assist irrigators in selecting appropriate Fish Protection Screens, or Intake Screens, for their pumps or diversions.

The guidelines are based on the latest available science (best practice) and cover content such as: Screen types, selection, performance and operation.

These Guidelines comprise of; 'The practical guide to modern fish protection screening in Australia' and 'Design specifications for fish protection screens in Australia'. Both can be viewed or downloaded from the Fish Screens Australia, and AWMA websites, or for future assistance contact our Screen Team.

The AWMA Screen team are conversant in these guidelines and can support you directly with your specific screen application.



RECENT PROJECT GALLERY

INNOVATIVE - CUSTOMISED - SUSTAINABLE



Environmental Regulation



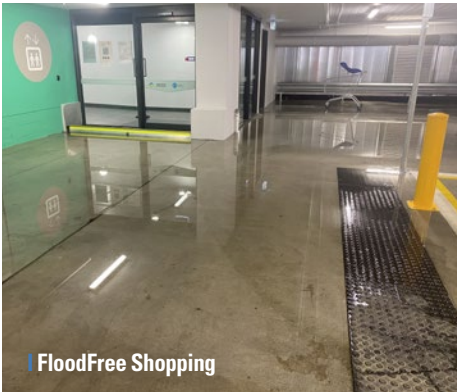
ANCOLD 2022



Client Inspections



FloodFree Communities



FloodFree Shopping



Factory Acceptance Testing



Irrigation Australia 2022



In-House Manufacturing



FloodFree Entrance



Backflow Prevention

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



HEAD OFFICE

Phone +61 3 5456 3331 Email info@awmawatercontrol.com.au
118 Roviras Road, PO Box 433, Cohuna, Victoria 3568, Australia.

www.awmawatercontrol.com

