awma Water Control Solutions NEWS
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Edition 61

CELEBRATING 25 YEARS OF AWMA!

In July 2025, AWMA Water Control Solutions proudly celebrated 25 years in business.

What began in the year 2000 as a small team with big ideas has grown into an internationally recognised company, leading the industry in purpose-engineered water control and screening infrastructure.

Over the past two and a half decades, we've adapted alongside a changing industry, continuously evolving to meet the needs of our project partners while delivering smarter, safer, and more efficient outcomes across every stage of design, manufacturing and installation.

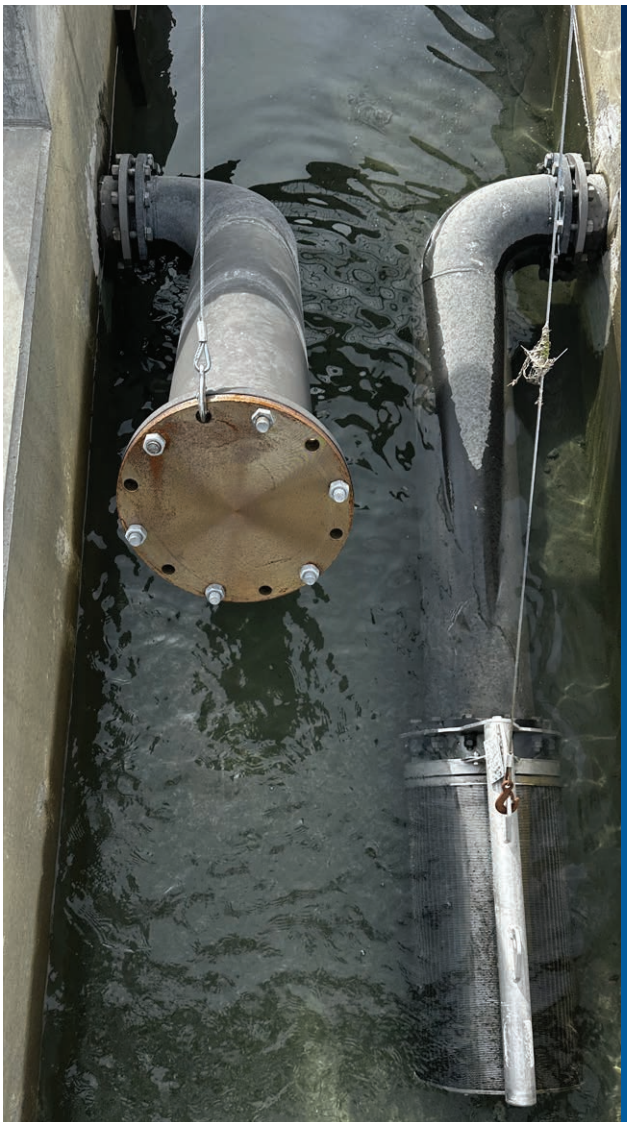
Our success has always been driven by collaboration. We've had the privilege of working closely with clients, suppliers and stakeholders on some of the most challenging and rewarding infrastructure projects across Australasia. It's through these successful projects and partnerships that we have built a reputation for engineering excellence and innovative, customised solutions that include water control gates, intake screen solutions to flood mitigation systems.

While most of our infrastructure remains out of sight, its impact is far-reaching. The majority of water control infrastructure and screening solutions adopted for the Murray-Darling Basin was delivered by our team. Most of the water and wastewater processed in all major cities passes through AWMA infrastructure. Australian Desalination Plants contain many of our most highly specified water control gates. AWMA's FloodFree Barriers are protecting communities, hospitals, shopping centres, police stations, aged care facilities and hundreds of commercial properties.

What sets AWMA apart is not just what we deliver, but how we deliver it, with integrity, technical expertise, and a deep commitment to quality and sustainability. Above all, it's the people, our passionate team, long-standing partners, and loyal supporters who make it all possible.

Thank you for being part of our journey. We look forward to the next chapter as we continue to grow, innovate, and make a lasting impact to process and protect our valuable water resources.

Brett Kelly
Managing Director



SUSTAINABLE SCREENING SOLUTIONS FOR THE NZ HIGH COUNTRY

AWMA has delivered low-flow, water-driven, self-cleaning intake screens to support a remote irrigation system in New Zealand's Canterbury High Country.

These screens play a critical role in providing clean, reliable water for irrigation, livestock, and homestead use. The property operates under seasonal water consents, requiring flexibility in water extraction throughout the year. To meet site requirements, AWMA supplied a self-cleaning, water-driven intake screen, two years ago, with another scheduled for installation later this year.

Mounted on a 'Hockey Stick' arm with a hand winch, this manual, retrieval design enhances operational flexibility, allowing operators to easily raise and lower the screen for inspection or maintenance if required.

As part of AWMA's commitment to continued client support, a recent site visit was conducted in collaboration with consulting engineers to review screen performance, assess installation quality, and ensure ongoing operational functionality. The visit also assisted in planning for the second screen installation, part of a broader intake system upgrade that includes a fish bypass and additional water delivery infrastructure.

The site's challenging conditions include frequent flood events and snow-fed waterways that result in the presence of an extremely fine glacial sediment. AWMA partnered with local consultants and landowners to work through these issues, resulting in successful outcomes. The visit reinforced the importance of collaborative problem-solving, hands-on support, and robust designs to achieve successful, long-term results.

With the system operational and delivering clean, screened water, the project reflects AWMA's commitment to delivering fit-for-purpose, sustainable infrastructure that assists clients within irrigation-based industries achieve environmental compliance as well as sustainable water management systems.

COMPLETE FLOOD MITIGATION SOLUTIONS FOR SHOPPING CENTRES

There is a growing demand to safeguard public infrastructure from flood events, as communities expect greater resilience and protection for people, property and essential services. Among the most challenging environments to protect are shopping centres; large, high-traffic facilities with diverse and complex access points that require comprehensive and tailored flood mitigation strategies.

The access points include pedestrian walkways, emergency exits, lift wells, and loading docks each presenting distinct challenges when it comes to isolating a site from water ingress. These aren't independent issues, they form part of a broader flood risk profile that demands an integrated, engineered response. AWMA's FloodFree team delivers exactly that: a full suite of purpose-designed flood protection systems, tailored to meet the specific operational and structural requirements of commercial facilities.

Whether passive, automated, or manually operated, AWMA designs prioritise practical performance, end-user functionality, safety and operational preferences. Key design considerations include high traffic loads, emergency access, back-ups, manual overrides, integrated alarm systems, fast deployment and reset capabilities to minimise downtime post flood event.

Pictured is a metropolitan shopping centre that has experienced repeated flooding during major storm events. Sites like this cannot rely on off-the-shelf solutions, they require engineered systems that perform when required, deploy quickly, reduce flood impact, and support rapid recovery. Whether standard or bespoke, FloodFree solutions are tailored to your flood risk profile.

REGULATOR GATES ENHANCE WETLAND RESTORATION IN LAKE HAWDON NORTH

A custom-designed water regulation structure is at the centre of one of South Australia's most significant wetland restoration projects; the Lake Hawdon North Regulator, part of the Healthy Coorong, Healthy Basin program. This $11.69 million initiative, jointly funded by the Australian and South Australian governments, aims to restore hydrological function, enhance biodiversity, and improve habitat for migratory shorebirds in the Limestone Coast region.

Installed within Drain L, the newly commissioned regulator includes a suite of purpose-engineered water control structures including two LayFlat Regulator Gates, four Dual Leaf Isolation Gates, and three ULF Penstocks acting as fishway gates. Together, these components are tailored to deliver precise water management while supporting key environmental outcomes.

The LayFlat Gates, equipped with solar-powered automation, are designed to operate year-round, maintaining shallow inundation of the wetland during dry periods and creating optimal habitat conditions through late summer and autumn. This seasonal regulation supports species such as the curlew sandpiper, sharp-tailed sandpiper, common greenshank, and red-necked stint.

Lake Hawdon North Regulator

To maintain aquatic connectivity, one fishway gate remains open during regulation periods, enabling upstream fish passage. During high-flow periods in winter, the structure allows for passive discharge, reducing flood risk, while isolation gates enable controlled diversion over the LayFlat regulators as seasonal conditions shift.

Beyond environmental outcomes, the project revives a culturally significant landscape in collaboration with the First Nations of the South East, supporting both ecological resilience and cultural heritage.

The Lake Hawdon North Regulator demonstrates how innovative, site-specific infrastructure can enable long-term ecological restoration and efficient water management, tailored to the unique operational challenges of sensitive wetland environments.

DUAL-PUMP SCREENING SOLUTIONS

The Macquarie Fish Screen Program is a government initiative supporting sustainable water extraction while enhancing protection for native fish populations in the Macquarie Valley region of New South Wales.

As part of this program, the Tenandra Top Pump Station has been upgraded to feature a 1.35m diameter x 2.03m wide T-Screen mounted on a single manifold servicing a dual-pump system, with each pump capable of delivering 120ML/day.

Due to the close proximity of the pumps at Tenandra Top, it was not feasible to fit an individual T-screen to each pump. To address this, the AWMA screen team worked closely with project partners to custom-design a self-cleaning cylinder screen solution capable of effectively screening water extracted by both pumps. The resulting design incorporates a single retrieval system encompassing both pumps, leading to one manifold that houses a T-screen capable of screening up to 240ML/day.

Previously, operators were required to backflush the pumps every six hours to keep the intakes debris-free and operating at optimal capacity, a particularly demanding task during high-demand, overnight periods. With AWMA's automated self-cleaning technology now in place, the pumps remain clear and the flow of water is consistent and reliable. AWMA intake screens are engineered to reduce manual cleaning and maintenance, effectively eliminating the need to backflush pumps, resulting in a significant reduction in labour, power consumption, and water wastage.

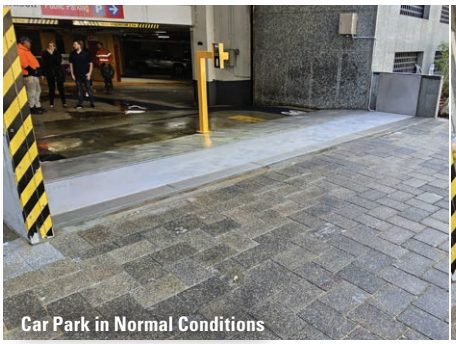
To further support operational efficiency and safety, remote monitoring was added at the site. This enhancement improves occupational health and safety and reduces time and labour on site, a key consideration for operators managing multiple, 24-hour pumping assets across the region.

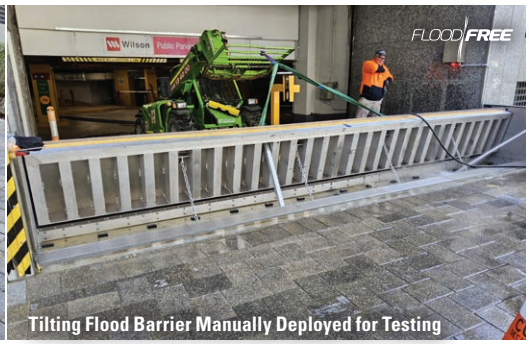
The solution developed for Tenandra Top not only supports aquatic biodiversity but also improves the performance, reliability, and longevity of critical water delivery infrastructure. In doing so, it strengthens the sustainability of local industries and contributes to cleaner, healthier waterways, providing valuable socio-economic benefits to the region.

AWMA Group July 2025

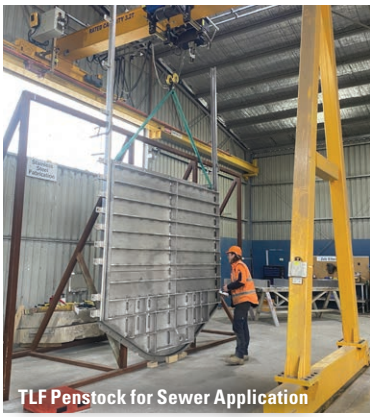
RECENT PROJECT GALLERY

INNOVATIVE - CUSTOMISED - SUSTAINABLE


Car Park in Normal Conditions



Tilting Flood Barrier Manually Deployed for Testing


TLF Penstock for Sewer Application


Pump Install for Intake Screen Upgrade

Concealed Flood Barrier in Manufacture


Self-cleaning Screen and Retrieval System FAT

FloodFree Solution for Railway Corridors through Levee Systems

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

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