



# ADHERING WITH FISH SCREENING GUIDELINES

**AWMA Water Control Solutions in collaboration with NSW DPIRD have adapted international fish screening technology for water extraction intakes to protect native fish species across Australia and New Zealand.**

Through extensive laboratory testing, field trials, and exploration, fish screening guidelines have been developed that align with the swimming capabilities of native fish species.

**The new guidelines nominate the implementation of modern fish-protection screens to conserve aquatic ecosystems. The resource assists water users and design consultants in understanding why modern fish protection screens are essential, how they operate and the site-specific considerations required to achieve effective fish protection.**

Modern fish screens not only protect native fish but also offer water users benefits including:

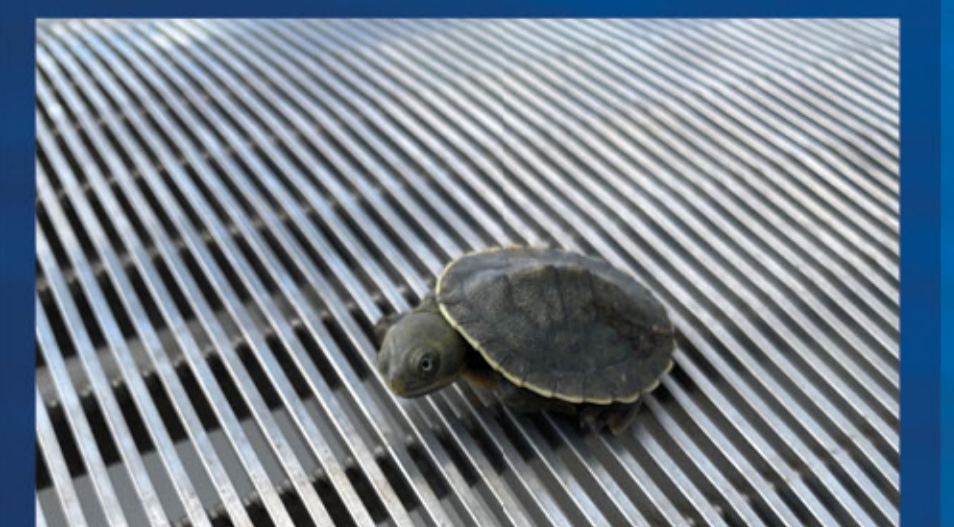
- CapEx and OpEx savings
- Improved water quality to farms
- Maximised water extraction (no backflushing)
- Eliminating damage to water infrastructure caused by debris
- Reduced labour requirements
- Less energy costs
- Minimal water wastage
- Lower maintenance requirements
- An investment in environmental, social, and governance (ESG)

AWMA leads the industry in the design, manufacture and installation of modern fish protection screens, providing sustainable site-specific intake screening solutions for both pump and gravity diversion offtakes.

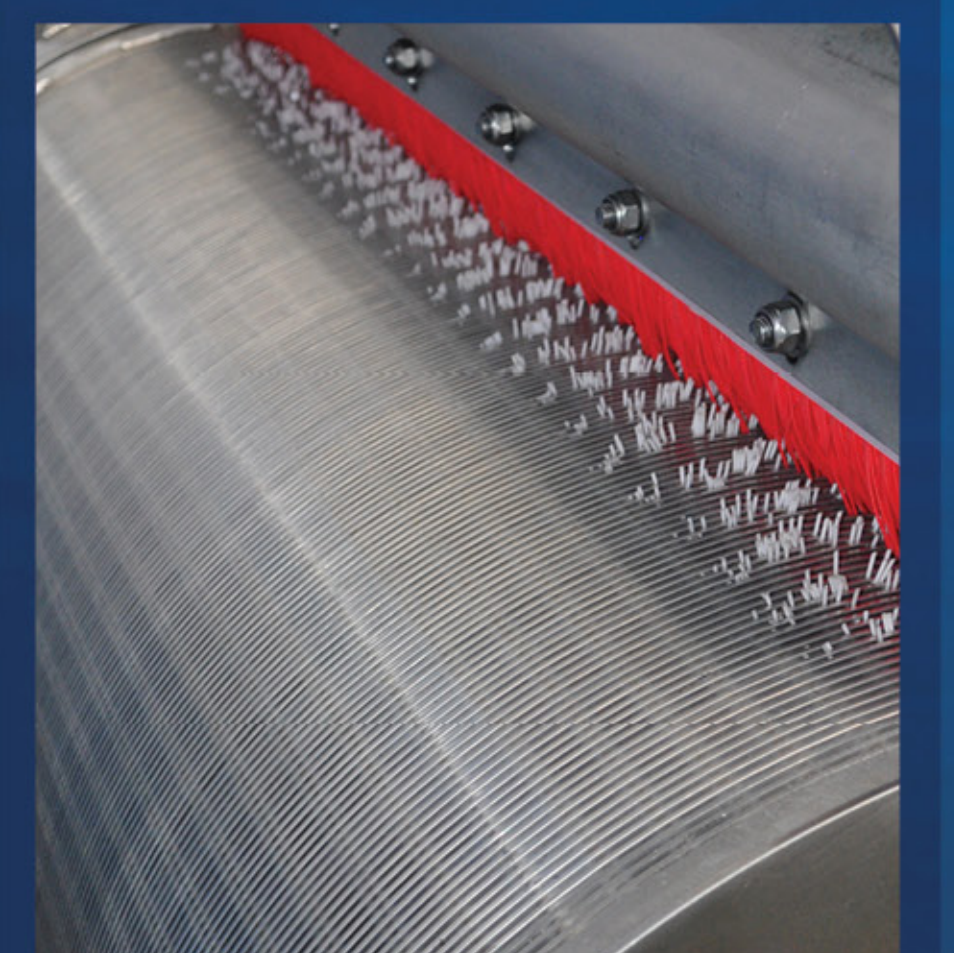
## ~ TRADITIONAL INTAKE SCREENS



## ~ MODERN FISH PROTECTION SCREEN



## ~ SELF-CLEANING INTAKE SCREEN



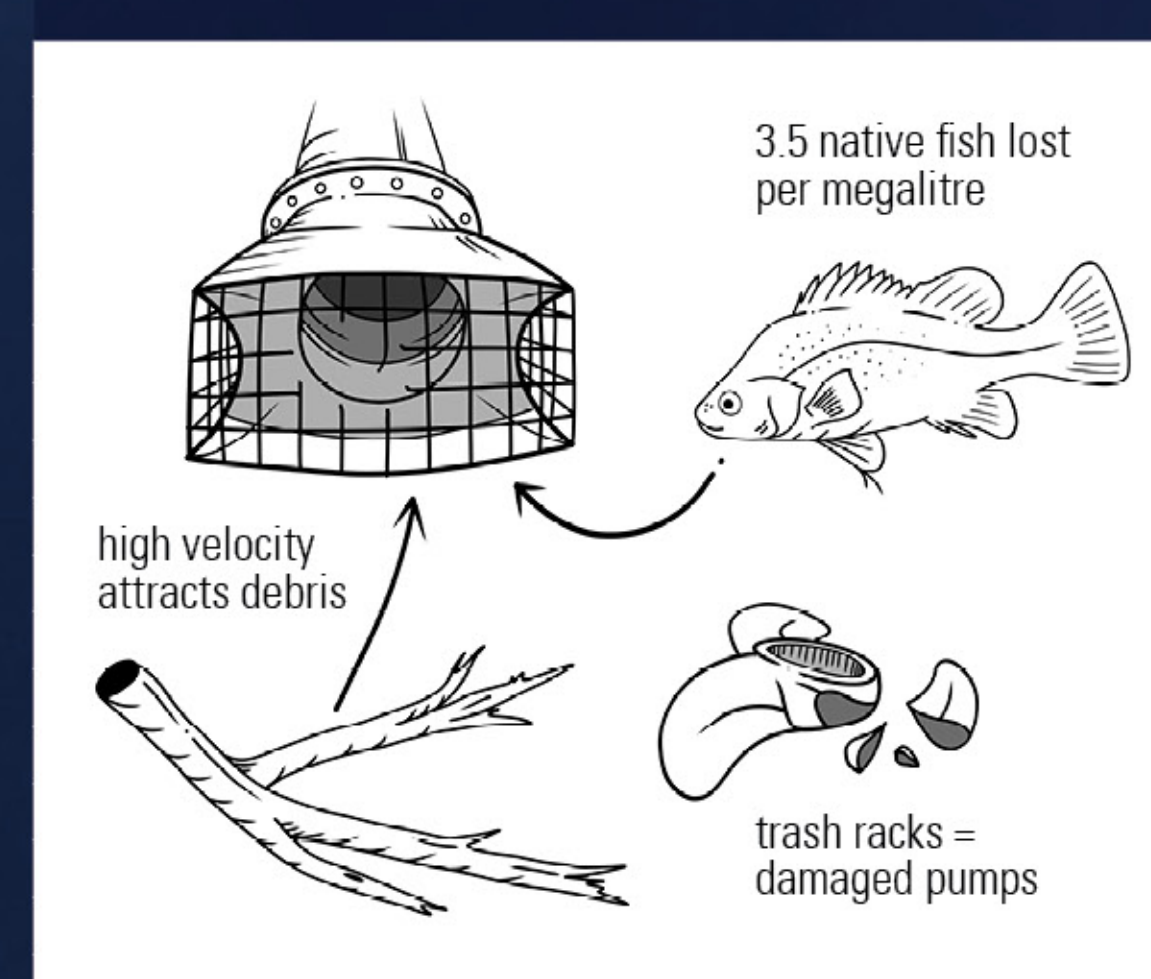
## ~ FISH SCREEN GUIDELINES



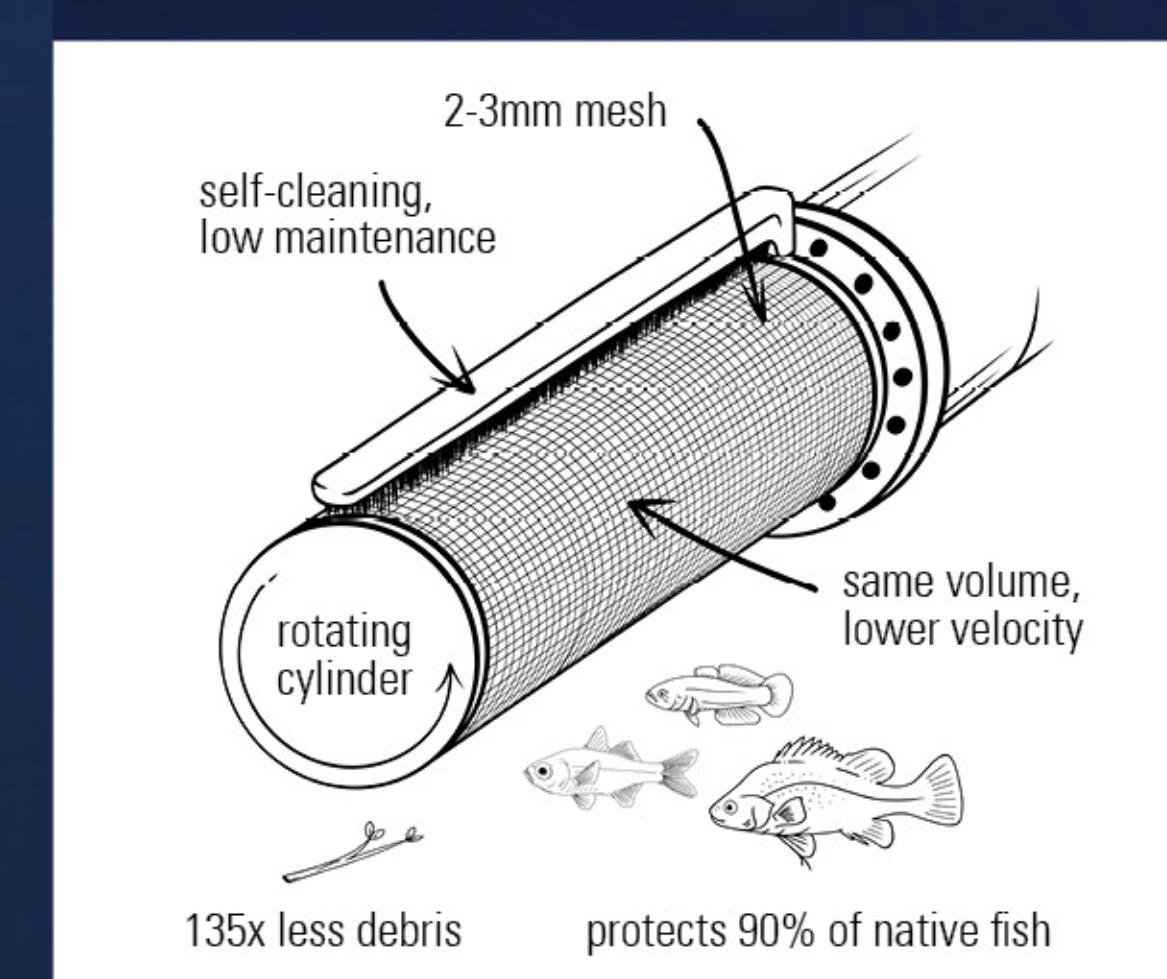
## WHAT DEFINES A MODERN FISH SCREEN?

1. **WEDGE WIRE SCREEN MEDIUM**
2. **EFFECTIVE SCREEN SURFACE AREA**
3. **< 2mm APERTURE SIZE**
4. **LOW APPROACH VELOCITY**
5. **FLOW DISTRIBUTION**
6. **SCREEN CLEANING SYSTEM**

### TRASH RACK



### MODERN SCREEN



Traditional screens have large apertures with significantly higher water intake velocities, resulting in the impingement and entrainment of fish and debris onto the intake screen, in the pipeline and throughout the downstream system.

AWMA fish screens utilise a stainless steel wedge wire with 2mm aperture (slot width). An increased screen size combined with an internal diffuser contributes to the lower approach velocities that allow aquatic life and debris to easily bypass the intake without affect. Additionally, integrated mechanical self-cleaning systems prevent biofouling from forming on either side of the screen surface.

Modern screening solutions are currently available in Australia including a turn-key service for design, manufacture and installation. Bespoke-engineered options allow for retro-fit designs that reduce civil and install costs. A range of retrieval systems and operational considerations are also available.

AWMA Modern Fish Screens satisfy NSW DPIRD's 'Guide to Modern Fish-Protection Screening in Australia', 'NIWA Fish Screening: good practice guidelines for Canterbury' and the 'USEPA 316 (b)' compliant design requirements. Contact the AWMA Screen Team for your site-specific screening solution.



SCAN FOR FISH SCREENS

[www.awmawatercontrol.com.au](http://www.awmawatercontrol.com.au)