Dams

The Water Research Laboratory (WRL) provides specialist services to dam engineering at its laboratory facilities in Manly Vale, Sydney. It provides both fundamental research of flow dynamics on spillways, and commercial large-scale physical modelling of hydraulic structures.

Competitive advantage

- Largest and most comprehensive hydraulic laboratories in Australia with over 5,000m2 of floor space, as well as high flow-rate flumes
- Extensive experience in conducting performance assessment of hydraulic structures such as dam outlet works, spillways and hydro power stations

Impact

- Provides an internationally renowned, integrated approach to hydraulic engineering problems and world-class solutions.

Successful applications

- World’s first application of Lidar for the measurement of aerated surfaces to assist in dissipator design
- Development of a miniature, neutrally-buoyant accelerometer and pressure transducer device to assess fish passage
- Increased flow capacity with a 1,000 L/s pump
- Scour assessment of rip-rap using a 3D terrestrial scanner

Capabilities and facilities

- 5 fully-equipped physical laboratories
- 1.5 m3/s flows
- Large spillway flume
- Extensive suite of laboratory sensors including wave probes, current meters, LIDAR, 3D FARO, submersible load cells and pressure sensors

Our partners

- GoldWind Wind Farm
- CSIRO
- Ausgrid
- Aurecon

More Information

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