

Water Research Lab Open Day



Welcome to the UNSW Water Research Laboratory (WRL)! We are one of the biggest scientific and engineering facilities in Australia, and part of the School of Civil and Environmental Engineering.

We hope you enjoy your tour today of our unique, world-class research laboratory, our large models and our state-of-the-art equipment. All of the staff and students of WRL will be wearing name badges, and are ready to answer any questions you can think of. Please follow the clearly marked path around the site, using the map on the back of this page.



Coastal, ocean
and estuarine
engineering and
management



River flow,
floodplain
management and
catchment
hydrology



Eco engineering,
wetland restoration,
environmental studies,
and climate change
adaptation



Groundwater
research and
management



Hydraulic
engineering and
environmental fluid
mechanics

Tour displays

1. Project Halo

Learn about the importance of mangroves, nature's superheroes, that provide coastal protection, waste treatment and habitat biodiversity.

2. Prop-wash basin

See how we model the effects of ships' powerful propellers on port and coastal structures, and scour protection works.

3. Somerset Dam hydraulic model

This is a massive 1:50 scale model of Somerset Dam. The model was built to help make sure the dam stays safe in the most extreme flood events.

4. 1.2 m wave flume

Our 1.2 m flume is our flagship physical modelling facility which is used to design coastal structures around the world, like breakwaters, seawalls and nature-based solutions.

5. Fish shed

How can fish swim up a river when a dam is blocking the way? We've been looking into a tube fishway that relies on the energy that is already in the water.

6. Specialist field equipment

Gear and gadgets to measure groundwater, water depths, currents, chemistry, wetlands, moving beaches and more!

7. 0.4 m tilting flume

Our newest flume! This little flume can be tilted to test the effect of both slope and flow rate on stability, sedimentation and erosion.

8. Washing machines

What comes out of your clothes when you wash them? Hopefully the dirt, but what else is going down the drain?

9. CoastSnap

A innovative community beach monitoring system designed to capture and measure our dynamic coastline. Have you seen them around the Northern Beaches?

10. Interactive models

Especially for the kids (and adults!) - make your own rainbow water, learn about groundwater and see our community education models to demonstrate river flow and water circulation.

11. Green wall

The WRL green wall is dedicated to uncovering just how effective this innovative infrastructure is at treating greywater, removing environmental contaminants and cooling our cities!

12. BBQ fundraiser

Run by the Friends of the Mermaid Pool, a conservation group restoring the Mermaid Pool to its former glory.

13. The large wave basin

The grand finale of our tour - this impressive wave basin is our largest facility where we do coastal research looking at breakwalls, beaches, harbours and waves.

