

Environmental Data

Background

NSW Public Works Manly Hydraulics Laboratory (MHL) provides environmental information from hundreds of field sensors to clients and the public (via the Internet) enabling:

- natural resource managers to make timely informed decisions based on real-time quality data
- agencies and the community to be abreast of current environmental conditions under normal, adverse and emergency conditions.

Project Scope

Primarily based on a NSW government program of collecting environment data, NSW Public Works MHL operates a network of field stations that transmit information to the laboratory typically via the digital mobile telephone network. The near real-time information is processed and presented on a web site for easy accessibility by clients and the public. Systems have been extended to provide a range of alarm messaging services to clients and emergency services when threshold levels are exceeded.

Our Role

The network presently includes:

- 200 rainfall gauges
- 3 anemometers
- 7 ocean wave buoys
- 19 tide gauges
- 250 estuary and river water level gauges
- 220 water flow monitoring devices

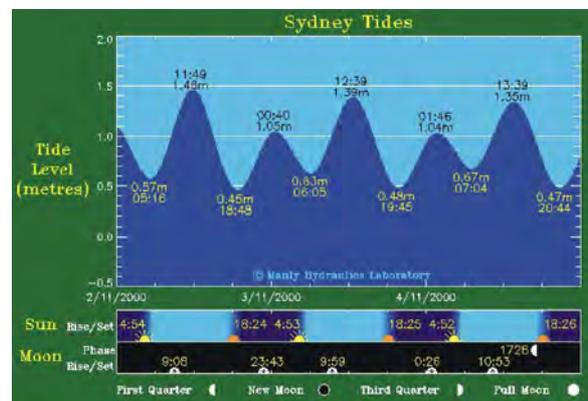
Some specialist NSW Public Works MHL instrumentation is also in place in other areas of Australia, particularly in WA where instrumentation is used in under-keel clearance systems for ships leaving many of the north-west resource ports.

Outcomes

One of our specialties is providing quality 'water' data using existing telephony infrastructure and presenting the information on the Internet where users only need common browser tools to view the latest water environment information. The data collected by NSW Public Works MHL can be used to identify and monitor long-term trends, which will be particularly relevant for climate change-driven effects on sea level rise and other environmental impacts.



Some of the field sensors operated by NSW Public Works MHL



Daily predicted tides provided on www.mhl.nsw.gov.au



Typical tide and wave pole sensor with telemetry housing