

## WATER DATA SERVICES: 1996



Bruce Nicholson and Lynda Bailey



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**DESALINATION PLANTS**, dams, weirs and wetlands are freely discussed around office water coolers as potential solutions to Australia's water crisis. But determining which, if any, of these plans will work and the subsequent impact they have requires an immense amount of background information.

Obtaining this is the work of Adelaide hydrography consultancy Water Data Services. Founded in 1996, the company, based at Edwardstown, is co-owned by Adelaide hydrographer Bruce Nicholson and former systems analyst Lynda Bailey.

Mr Nicholson has qualifications in hydrography and hydrology from New South Wales TAFE and the University of NSW, while co-director Miss Bailey was a systems analyst and computer software developer.

The company has 11 full-time and one part-time employee and provides services across SA and into Victoria, where it has conducted water monitoring on the Glenelg River from the Grampians to Dartmoor; to assess environmental flow releases.

The company is always on the look out for good staff and trainees as it continues to win more work.

Water Data Services is involved in hydrographic monitoring – the discipline of measuring water quality and quantity in rivers, lakes and streams.

The information is required by governments and government agencies, local councils, water catchment boards, quarries, mines and companies ranging from wineries to manufacturers for strategic planning, risk management and environmental monitoring.

Mr Nicholson, the company's managing director, says

the information obtained by his company is used to develop water plans for rivers and waterways as well as to monitor their success.

Water Data Services can place monitoring stations along a waterway to measure and monitor the quality of the water that flows downstream.

The information these stations gather is either recorded on site for later collection or sent to WDS via telemetry, providing an enormous amount of information which is then computer processed.

The data gleaned from this information can be used to determine a range of issues, such as identifying where the main pollution loads enter a waterway and the best location for pollution reduction programs.

One example of how the information can be used has been the construction of a wetland in Cox Creek, at Woodhouse in the Adelaide Hills. Information from Water Data Services proved that construction of the wetland would have a significant impact on reducing sediment runoff into the Mount Bold Reservoir.

The information also determined the optimum location for establishing the wetland, which acts as a natural filter. Since being established, the wetland has been very successful in reducing sediment build-up in Mount Bold, saving about \$70,000 a year in silt removal costs.

Other projects involving Water Data Services include the monitoring of ocean movements at Port Bonython in the upper Spencer Gulf to determine the best location for a desalination plant.

The company was also called on to monitor the lower