



Media Statement

4 June, 2008

Report highlights options to ensure quality of Mundaring Reservoir water

The work of West Australian engineering pioneer C Y O'Connor and one of his assistant engineers benefited a report that outlines the salinity status of the Helena River, and provides options and recommendations to lower salt levels of water in Mundaring Reservoir.

Launching the Helena Salinity Situation Statement today, Department of Water Director of Water Resource Management, John Ruprecht said the report compilation was assisted by the availability of reliable records stretching back to when C Y O'Connor built Mundaring Weir in the early 1900s.

Mr Ruprecht said that at this time, hydrography – the science of measuring water, was thought to have commenced in Western Australia with the installation of two staff gauges.

He particularly singled out the role of assistant engineer W C Reynoldson who realised that there was a link between forests, land clearing, and rising salinity back in 1908.

Mr Ruprecht said the Salinity Situation Statement outlined several recommendations involving management options and further monitoring and evaluation for the Helena River which feeds into Mundaring Reservoir - a key source of public drinking water for the Goldfields and part of Perth.

These included maintaining clearing controls; retaining options for silviculture (thinning) on government freehold land and areas of wandoo; and managing the remaining three per cent of cleared land in the catchment.

“In seven of the ten years up to 2002, the average salinity in the Mundaring Reservoir was 510 milligrams per litre – just slightly higher than the desired potable level of 500 milligrams per litre.

“The report indicates that land clearing remains the major risk to the reservoir’s water quality, and as a result, the catchment requires ongoing management to ensure that stream salinity levels do not increase.

“Even though 97 per cent of the catchment is forested, the salinity of runoff into the reservoir is very dependent on the remaining three per cent of cleared land.

“If the remaining 30 square kilometres of private freehold land were cleared, the report indicates this would push salinity levels towards 600 mg/l.

“Modelling indicates that if cleared areas were completely reforested, this could lower the inflow salinity to 230 mg/l, which is less than levels recorded in the early 1900s by Reynoldson.



“In those early days, Reynoldson noticed a big increase in salinity in the Helena River compared to the Darkin River, and he realised this was because the Helena subcatchment had been ringbarked, cleared and cultivated.

“Reynoldson came up with a series of recommendations to manage the high salinities in the Mundaring catchment – such as stopping ringbarking, replanting trees in cleared and resumed land, and land resumptions – which are still the key to understanding the role of forests in determining salt levels and water quality.

“He also discussed the use of scouring and saline diversions as used in the Collie catchment today.

“He was clearly ahead of his time in this respect, and he and C Y O’Connor, deserve recognition. Now, with pressing issues such as climate change, hydrography is probably even more important.”

The Salinity Situation Statement is one part of the Department of Water’s ongoing salinity management program.

The report provides a scientific basis for controlling salinity levels in the catchment. The next stages involve consulting with stakeholders to evaluate the suggested management options, and then implementation of a salinity recovery plan.

Copies of the Helena River Salinity Situation Statement are available from the Department of Water website:

<http://portal.water.wa.gov.au/portal/page/portal/WaterManagement/Publications/SalinityPublications/SalinitySituationStatements/>

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