

Wastewater to rejuvenate aquatic reserve in Perth

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CSIRO research on managed aquifer recharge will be put to use in an innovative project aimed at rejuvenating Perth's ailing Perry Lakes Reserve.



Credit: Anne McKenzie, CSIRO

Groundwater levels have been gradually falling under large areas of Perth for years. This has caused shallow lakes – such as Perry Lakes, which is home to long-necked tortoises and wildfowl – to dry up.

The Perry Lakes project will use a technique called managed aquifer recharge (MAR), which involves adding a water source, such as recycled water, to underground aquifers under controlled conditions.

Each year, two billion litres of treated wastewater will be directed into one kilometre of underground trenches to be built in the Perry Lakes Reserve. Modelling by CSIRO's Land and Water (CLW) has shown that groundwater will back up behind the mound created by the infiltrated water, creating a dam-like effect to gradually raise lake levels.

The project will draw on a CLW three-year pilot research project that trialled the infiltration of recycled water to Perth's Superficial Aquifer. Based at CSIRO's Floreat Park site, the project used infiltration galleries and treated wastewater supplied from the Water Corporation's Subiaco Wastewater Treatment Plant.

The federal government has announced it will provide \$2.6 million for the project as part of its Regional and Local Community Infrastructure Program, which is delivering \$1 billion for nearly 5000 projects across the nation.

More information:

www.csiro.au/science/Managed-Aquifer-Recharge.html

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