

Managed *Aquifer* Recharge



SUSTAINABLE SALISBURY | WETLANDS SERIES
Salisbury, the sustainable city



The Managed Aquifer Recharge process

The City of Salisbury is internationally recognised for the way it harvests and purifies urban stormwater run-off and improves local environment using wetlands and several processes known as Managed Aquifer Recharge (MAR) to store the water for later re-use in the community.

1. Groundwater is recharged in natural systems when rainwater filters through the soil profile in permeable rock below, where it sits underground as an aquifer. Where possible, the City of Salisbury establish weirs and soakage basins to enhance this natural process and improve the groundwater storage in the aquifer. This groundwater is recovered in summer via community wells located next to schools and sports grounds and used to irrigate the playing fields.
2. Aquifer Storage (AS) aims to mimic the natural recharge process. Excess stormwater from winter rainfall that has been filtered and cleaned by the wetlands is pumped (injected) down into the aquifer. The injection 'credits' are transferred under a water licence to enable extraction by the community bores described in section 1.
3. Another MAR technique is Aquifer Storage and Recovery (ASR). Excess urban stormwater is harvested from the wetlands and pumped down directly into the aquifer via wells drilled several hundred meters deep. In summer, the water is extracted out of the same well and pumped through a network of purple pipes to numerous customers including schools, golf courses and industry.

City of Salisbury Aquifer Storage and Recovery (ASR)

