



**WATER PROOFING MARION**  
A WATER SENSITIVE CITY

The City of Marion has an overarching objective of becoming a “Water Sensitive City” and to minimize flooding. We will seek to harness the potential of storm water to overcome water shortages, reduce urban temperatures and improve waterway health and the landscape of our City. Water Sensitive Urban Design is the main process that will lead to a Water Sensitive City

[marion.sa.gov.au](http://marion.sa.gov.au)

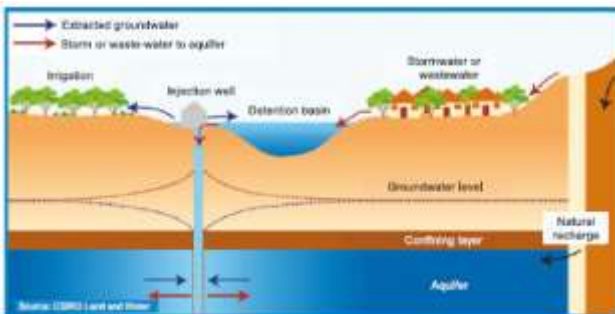
The slide has a blue background with a white header area. The header contains the title 'WATER PROOFING MARION' and the subtitle 'A WATER SENSITIVE CITY'. The City of Marion logo is in the top right corner. The main text is in a white, sans-serif font. The footer contains the website address 'marion.sa.gov.au'.

**Oaklands Wetland Stormwater Reuse Scheme**

Regional  
Wastewater & Resource  
Catchment Network

## Managed Aquifer Recharge

- Capture and treat stormwater
- Inject into aquifer
- Extract from aquifer

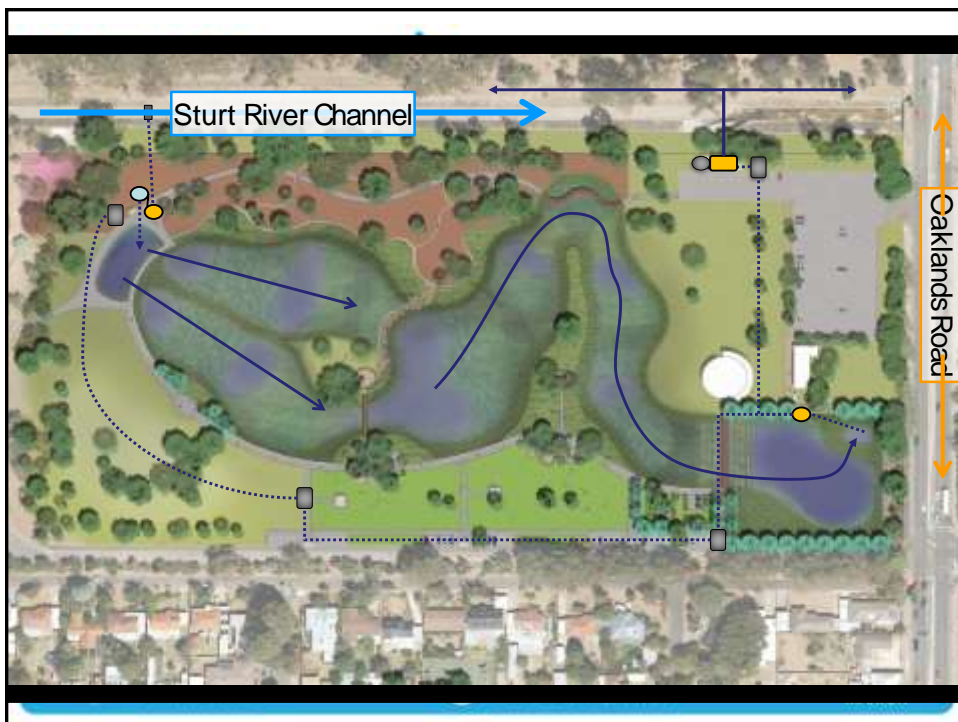


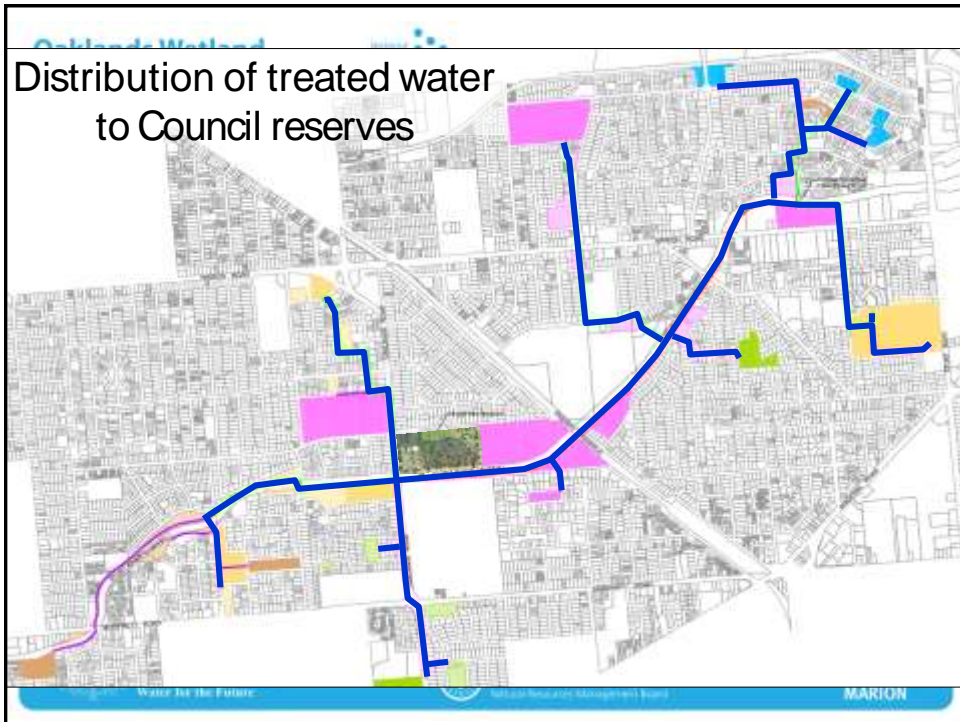
The diagram illustrates the Managed Aquifer Recharge (MAR) process. It shows a cross-section of the ground with several layers: the surface, a topsoil layer, a groundwater level, a confining layer, and an aquifer. The process involves capturing stormwater or wastewater in a detention basin. This water is then pumped through an injection well into the aquifer. Simultaneously, groundwater is extracted from the aquifer through another well and used for irrigation. The diagram also shows natural recharge occurring from the surface. Labels include: Extracted groundwater, Storm or waste-water to equaliser, Irrigation, Injection well, Detention basin, Stormwater or wastewater, Groundwater level, Confining layer, Natural recharge, and Aquifer. Source: (2002) Lee and Stone.

Australian Government  
Water for the Future

Government of South Australia  
Irrigation and Water Supply, Energy  
and Local Resources Management Board

MARION









## Oaklands Wetland Stormwater Reuse Scheme

Wetland  
As a Water Storage & Recovery  
Drought-Resilient Network

### Considerations

- Gifted assets onto our balance sheet
- How much to operate
- How much would the water costs
- Additional costs for connections/irrigation upgrades
- Regulatory uncertainty and compliance issues
- Pollution of G/W and Artesian Conditions




**Oaklands Wetland**  
Stormwater Reuse Scheme

Regional  
Water Services & Recovery  
Civil Engage Network

## Considerations

- Future proofed/modular
- Where would the demand come from
- Water quality objectives (irrigation or internal?)
- Backflow prevention devices
- Health risks (perceived and real)
- Skills and expertise



Australian Government  
Water for the Future

Government of South Australia  
Irrigation and Mount Lofty Ranges  
Soil Conservation Management Fund

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