

### Education and Community Awareness

The Waterproofing Northern Adelaide project has a sustained focus on broadening community awareness and action about the precious nature of water, and innovative ways to utilise this natural resource.

A special facility, to be known as the Boat Deck Water Resource Centre, will be established to showcase innovative water and environmental management in the region.

The interpretive centre is a collaborative project involving the Cities of Salisbury, Playford and Tea Tree Gully, the South Australian Government and Delfin Lend Lease. It has the backing of the National Water Commission as part of the Commonwealth Government's National Water Smart initiative.

It will be located adjacent to the picturesque and functioning Greenfields wetlands at the southern gateway to the City of Salisbury.

The Boat Deck Water Resource Centre will be a monument to local achievement in water management, and serve as an interactive centre promoting systems and concepts that can be adopted by other communities to waterproof their future.

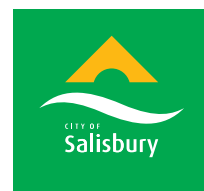
Exhibition areas in the centre will feature interactive displays and teaching tools illustrating how wetlands and aquifers perform to naturally cleanse stormwater of heavy metals and organic pollutants while enhancing urban form, contributing to community amenity and providing a natural habitat for native birds, plants and fish.

Visitors to the centre will understand how engineering innovation is delivering positive environmental outcomes through less reliance on the already hard-pressed resources of the River Murray.

The Boat Deck Water Resource Centre will also incorporate office areas to support the project teams for the Waterproofing of Northern Adelaide scheme and other water recycling projects, along with a theatre and conference area.

It will feature a viewing platform and linked boardwalks through Greenfield wetlands, including the site where cleansed stormwater and treated waste water is mixed before being pumped to Mawson Lakes for residential use.

Rising from the Greenfields wetlands, the Boat Deck Water Resource Centre will welcome people to a region that is transforming itself. It will be a workplace, while educating and inspiring new concepts and directions in managing water, our most precious resource.



City of Salisbury

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Salisbury is South Australia's economic heartland and a national centre for electronics, defence industries and advanced manufacturing.

The City of Salisbury is a Council area of 161 square kilometres extending from the Para escarpment and the foothills of the Mount Lofty Ranges in the east to the shores of Gulf St. Vincent in the west.

Salisbury is a truly dynamic City prospering on a diverse array of industrial and commercial enterprises, including some of the world's most advanced technological research and development organisations. Australia's extensive Defence Science and Technology Organisation (DSTO) is based in Salisbury where scientists and engineers work on concepts to deliver capability to the Australian Defence Force and to protect our national interests.

It is estimated that 70 per cent of the State's manufacturing capacity is located in the Salisbury region, and it is a major hub for export businesses.

Salisbury is a strong educational City boasting a university, a TAFE College and an internationally-acclaimed pilot training facility at its airport, which is one of the busiest general aviation airports in the Southern Hemisphere.

# Salisbury, sustaining its future: economically, socially and environmentally.



Some of South Australia's finest residential developments now exist and continue to expand in Salisbury with wonderful new synergies between environmental planning and housing developments, together supporting healthy recreational, social and learning activities. Salisbury is vibrant in its community art and rich in its cultural mix.

This change has nurtured a new generation of pride and identity in the people who live and work in the region.

These defining qualities have developed and prospered under environmental management strategies and projects that set Salisbury apart. Indeed, the primary business of the City of Salisbury is the environment with vision, expertise and energy that carries its commitment way beyond good intentions. Every engineering and development project is – from start to finish – an environmental project.

The City of Salisbury recognised long ago that no community can grow or reach its potential without caring for its biggest asset – a healthy environment that allows families to thrive and enjoy quality of life. Its outstanding record of good planning, responsible management, leadership and innovation can be sourced at every turn to environmental care. Nothing demonstrates this more than its vision and commitment to stormwater management to halt the flow of pollution into Gulf St. Vincent and to recharge underground aquifers.

On Salisbury's western edge is the Barker Inlet, which is an important breeding ground and nursery for commercial and recreational fishing, and it is also the home of a diverse range of flora and fauna. A decade ago, the City of Salisbury declared it would halt the flow of polluted water into the Barker Inlet from its own catchment and reduce reliance on traditional sources of water. Its achievements in this regard have won national and international acclaim with stormwater harvesting projects that have served as blueprints for governments and businesses in other places.



Not that long ago, things were vastly different. Over the past 20 years, Salisbury has undergone quite dramatic change environmentally, economically and socially.

Once considered a struggling socio-economic area, it had a high proportion of public housing and, for many residents, it was a place of low esteem. In summer, it sweltered as hot northerly winds whipped up dust from the surrounding paddocks, while in winter it could be flood prone with some of the creeks struggling to cope with stormwater flowing with pollutant loads into the sea.

Today, Salisbury has been transformed. With a population of around 120,000 people, the City of Salisbury is growing at a faster rate than any other region in South Australia and this trend is expected to continue for the next decade and beyond.

Once a depressed area, Salisbury has become a by-word for urban regeneration.



## From dust-blown plains to shimmering wetlands

Most Salisbury residents, and a good proportion of people across metropolitan Adelaide, are aware of aspects of the City of Salisbury's environmental management. The major showcase is the network of wetlands that filter and cleanse storm water, in many cases for aquifer storage and recovery (ASR), while enhancing urban landscapes, creating habitat diversity and recreational amenity.

There is so much more to tell and celebrate about the healthy environment of Salisbury. Milestones in recent years include:

- maintenance and expansion of Salisbury's wetland developments;
- stormwater harvesting and treatment with associated aquifer storage and recovery at Parafield Airport, a project that has attracted government and industry delegates from around the world;
- reticulation of recycled water to local industries at cheaper costs than mains water; and
- development of the Mawson Lakes Reclaimed Water Scheme mixing treated effluent from the SA Water Bolivar Sewage Treatment Works and cleansed stormwater from the Parafield Airport catchment, adjacent to Mawson Lakes.

Water from the Parafield Stormwater Harvesting scheme is pumped to a large tank at Greenfields, where it is mixed with treated waste water. From the mixing tank, it is pumped to Mawson Lakes via a separate reticulation system, defined by lilac coloured pipes.

The majority of recycled water usage at Mawson Lakes is primarily for community facilities, such as parks and ovals.

Residents in the suburb are using the recycled water for irrigating their gardens, flushing toilets and washing cars. The partnership approach has been vital in delivering a resource that will reduce potable water use in Mawson Lakes by 50 per cent, significantly easing pressure on water sourced from the River Murray.

There are more exciting initiatives for the City of Salisbury, including a joint venture with United Water, CSIRO, Catchment Water Management Boards, SA Water and the State Government Department of Water, Land and Biodiversity Conservation (DWLBC) in a visionary research project that aims to convert stormwater from the Parafield catchment into potable water suitable for human consumption.

Water used in ASR is described as fit-for-purpose. In other words, it is suitable for industrial use or irrigation.

The process of converting treated stormwater into drinking quality water, in a trial known as aquifer storage transfer and recovery, or ASTR, is an exciting new dimension. The objective is to determine the practicality of injecting cleansed stormwater into the aquifer, where through natural processes in the prolonged absence of light, the water becomes potable over time.

## Waterproofing Northern Adelaide

All of these strategies have been embraced under Australia's first totally integrated water management plan to efficiently harness and manage systems for rainwater, stormwater, groundwater, recycled waste water and potable water.

It is an integral part of the Waterproofing Northern Adelaide Plan developed by the City of Salisbury and its neighbouring Councils – the City of Playford and the City of Tea Tree Gully.

It is a visionary, whole-of-catchment plan for the benefit of 300,000 people who live, learn and work in the three Council areas. The main thrust of the Waterproofing Northern Adelaide Plan is to ensure that future growth is sustainable and that the most valuable resource of all – water – is treated as liquid gold.

The plan will deliver greater water efficiencies along with environmental, social and commercial benefits through:

- flood protection while ensuring sustainable environmental flows and enhanced bio-diversity along creeks and rivers;
- harnessing and natural treatment of stormwater, along with aquifer storage and recovery, to provide fit-for-purpose water to industry, community and residential developments;
- opportunities for education and community awareness about the environmental benefits of converting stormwater into a valuable resource;
- a reduced reliance on potable water sourced from the River Murray;
- a reduction of ocean discharge of stormwater pollutants that can harm the marine environment; and
- development of a system that will recover costs to maintain urban stormwater and catchment management systems in addition to meeting operational expenses.

It is a model for other Councils and communities to become self-sustaining in their water needs.



Bolivar Treatment Plant