WATER FOR GOOD

Annual Report 2012

Government of South Australia

Water is our most valuable resource.

It's fundamental to our health, our way of life, our economy and our environment.

Tracking the implementation of **Water for Good** is vital to its success.

This report aligns with the requirement of section 6(9) of the *Water Industry Act 2012* that the Minister prepare a report that relates to the *State Water Demand and Supply Statement* and that it:

- provides information about the water demand and supply status of the various regions of the State;
- identifies and analyses the impacts of any emerging risks or significant issues associated with the State's water supplies; and
- reports on such other matters as the Minister thinks fit.

DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES

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FIS92177 | Printed May 2013

MESSAGE FROM THE MINISTER FOR WATER AND THE RIVER MURRAY

Water is one of South Australia's most valuable natural resources. Access to a sustainable, safe and reliable water supply supports healthy living, our premium food and wine industries, mining activity and advanced manufacturing.

It is therefore vital that the State Government continues to ensure security of our water supplies.

In response to the recent millennium drought across the State, which saw the rapid deterioration of the South Australian stretches of the River Murray and Lower Lakes, the Government developed a comprehensive water security plan, **Water for Good**. The plan, released in 2009, outlines 94 actions to help diversify our water sources, improve the way we allocate and use water and to modernise the water industry.

Through the continued implementation of **Water for Good**, our community can feel confident that even in the driest years, there will always be enough water.

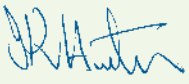
Three years on from the release of the plan, significant progress has been made on most of its commitments, demonstrating how collaboration and partnerships between community, industry and Government contribute to water security.

A number of major milestones have been achieved in the past year:

- The adoption of the *Water Act 2007* – Basin Plan 2012 on 22 November 2012 was an historic milestone for the River Murray and the communities and industries which rely upon it. South Australia successfully achieved a water recovery target of 3,200 gigalitres through the plan, which will address over-allocation of water resources, the management of salinity issues and restore the health of the River Murray;
- The Adelaide Desalination Plant is now producing desalinated water and was fully commissioned in November 2012;
- The construction of stormwater harvesting and re-use projects in Adelaide has continued and will ensure that we remain a national leader in stormwater recycling. By June 2013 we will have the capacity to harvest 23 gigalitres a year, on top of significant wastewater recycling;
- Regional demand and supply statements continue to be developed across the State to account for available drinking and non-drinking water supplies and future demand and supply requirements. Two new statements are in the process of finalisation for the South Australian Arid Lands and Alinytjara Wilurara natural resources management regions;
- The passing of the South Australian *Water Industry Act 201*2 in April 2012, enshrining an open, transparent and collaborative approach to water demand and supply planning and a more contemporary regulatory system; and
- The *Safe Drinking Water Regulations 2012* were adopted and came into operation on 1 March 2013.

I would like to congratulate all involved in the implementation of **Water for Good**. We are truly leading by example when it comes to sustainable water resource management and smart water use – and it is vital that we continue this leadership.

By continuing to work together to achieve the targets in **Water for Good**, we will all enjoy the benefits of a sustainable water supply for our health, our economy, our environment and our lifestyle.



Hon Ian Hunter MLC
Minister for Water and the River Murray

Water for Good Annual Report 2012

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INTRODUCTION

Water security remains a key challenge for South Australia. The State Government, in collaboration with industry and the community, will always need to be vigilant in the management of our water resources.

In June 2009, the South Australian Government released **Water for Good**, a plan to ensure the State's water security to 2050. **Water for Good** outlines 94 actions to help diversify our water sources, improve the way we allocate and use water and to modernise our water industry.

Water for Good is recognised nationally and internationally as an innovative approach to water security, providing a foundation for South Australia to be recognised as a 'water sensitive state'.

The Government tracks the implementation of **Water for Good** on an annual basis. This Annual Report for 2012 is the third such annual report, which has been prepared against the following criteria:

- Assessment of progress and identification of any risks or issues;
- Evaluation and confirmation of water security standards for the next review period;
- Provision of demand and supply status information about Greater Adelaide and other natural resources management (NRM) regions; and
- Identification and analysis of the impacts of emerging issues.

The 2012 Annual Report highlights that most **Water for Good** actions are well progressed, being implemented collaboratively across Government and with other levels of government, the private sector and the broader community.

A further 14 actions were completed in 2012. Of the 94 Actions listed within **Water for Good**, 30 have been completed, 50 are on track, 13 are experiencing some minor delays and one action has a rating of not applicable (Action 57, construction of a temporary weir at Pomanda Island). No actions are significantly behind schedule.

While work on most actions is on schedule, it will continue to be a challenge to meet all the targets in the Plan as the State's water environment changes. It is essential that we remain flexible and apply an adaptive approach to the management of our precious water resources.

It is important to note that **Water for Good** was developed during an unprecedented drought across South Australia and in an environment where the Government was required to make important decisions to secure our water supplies and to protect the River Murray system.

Water for Good and each Annual Report include projections for water demand and supply under both 'moderate dry-year' and 'extreme dry-year scenarios'.

The assessments of demand and supply for Greater Adelaide and the Eyre Peninsula and Northern and Yorke NRM regions for 2011–12 confirm that no major assumptions have changed.

The *Water Industry Act 2012* enshrines in legislation a requirement for ongoing annual reporting of the State's water security status.

While South Australia's water supply situation has improved dramatically since the release of **Water for Good** as a result of improved rainfall and inflows to the River Murray system, there is still a need to continue with its implementation, the diversification of the State's water supplies and the wise use of our precious water resources.

In addition, it is becoming increasingly apparent that water is no longer solely a natural resources issue. Adelaide is only one of a few cities in the world with access to six water resources, these being desalinated water, water from the River Murray, water from our catchments in the Mount Lofty Ranges and Adelaide Plains, groundwater, stormwater and recycled wastewater. Managing these resources in an integrated manner not only ensures security of future supply, but also delivers significant other social, environmental and economic benefits.

PROGRESS HIGHLIGHTS

Three years after the release of **Water for Good**, significant progress has been made on most of the commitments, with the State on track to achieve all of the Plan's targets.

This section provides an overview of the key achievements during 2012. A comprehensive assessment of all of the Plan's 94 actions is provided in the Report Card, which is available on the **Water for Good** website; www.waterforgood.sa.gov.au.

ADAPTABILITY, MONITORING AND EVALUATION

The Government continues to monitor progress of all actions contained in **Water for Good**. Underpinning the actions in **Water for Good** is an adaptive management framework, based on a formal approach to monitoring, which allows for water management responses to adapt to changes in the policy environment and resource conditions.

A key element of this approach is the ongoing development and annual review of the demand and supply of water for Greater Adelaide and across the State's eight NRM regions through Regional Demand and Supply Statements.

These Statements provide a long-term overview (to 2050) of the likely demand and supply of drinking and non-drinking quality water within regions, under scenarios of both high and low climate change impact and population growth. They provide the opportunity to identify when demand for water may exceed supply and act as a trigger for Government to work with local communities to ensure future security of supply.

Under the arrangements specified in **Water for Good**, where a Regional Demand and Supply Statement projects that demand will exceed supply, an Independent Planning Process will be established five years prior to this 'trigger point' to assess future options to address the emerging imbalance. The Independent Planning Process will consider possible demand management and supply augmentation options for the region and propose recommendations on the most cost effective solution to the Minister for Water and the River Murray.

DESALINATION

In the ongoing context of climate change and variability, non-rainfall dependent desalination water supply options are essential. The construction of the Adelaide Desalination Plant reached a significant milestone in November 2012 when it was fully commissioned.

With the completion of the Clapham pump station, the first of three stations for the North South Interconnection System Project, SA Water is now able to deliver desalinated water from the Happy Valley drinking water storages to the northern suburbs.

SA Water continues to assess the need for desalination plants for regional locations where salinity is an issue. Investigations into the provision of a groundwater desalination plant for the township of Hawker have been undertaken and SA Water has submitted a proposal to the Essential Services Commission of South Australia (ESCOSA) to develop a small scale inland desalination plant.

STORMWATER RECYCLING

South Australia continues to be a national leader in respect to stormwater harvesting and re-use. By mid 2013, Adelaide will have the capacity to harvest approximately 23 gigalitres per annum from stormwater infrastructure, more than the 20 gigalitre target set in **Water for Good**.

In 2012, the Government continued to facilitate the construction of eight key new stormwater harvesting schemes in Adelaide, through the investment of $48.6 million in conjunction with significant funding by the Australian Government and local government. These projects are:

- Adelaide Airport Stormwater Scheme;
- Adelaide Botanic Gardens Aquifer Storage and Recovery Scheme;
- Barker Inlet Stormwater Re-use Scheme;
- Oaklands Park Stormwater Harvesting and Re-use Scheme;
- Unity Park Biofiltration;
- Water for the Future;
- Water Proofing the West Stage 1; and
- Water Proofing the South Stage 2.

Over the longer term, **Water for Good** sets a target for the development of stormwater schemes in Adelaide to have a capacity to harvest 60 gigalitres of stormwater by 2050. A roadmap to deliver on this target and other stormwater related commitments in **Water for Good** was released in 2011 (The Stormwater Strategy – The Future of Stormwater Management). The implementation of the Strategy has continued in 2012, with initial work being undertaken on the development of a Blueprint for Urban Water for Greater Adelaide and a State-wide water sensitive urban design policy (WSUD).

Broad local government and industry consultation on the Blueprint will start in mid 2013, while the WSUD policy will also be released by mid 2013.

Significant progress has also been made with the drafting of a new State and Local Government Stormwater Management Agreement between the State Government and the Local Government Association. It proposes a range of actions to improve collaboration between the two spheres of government on stormwater matters and will outline a more strategic role for the Stormwater Management Authority. It is expected that a final agreement will be signed by the Minister for Water and the River Murray and the President of the Local Government Association by mid 2013.

WASTEWATER RECYCLING

As with stormwater, South Australia is the national leader in regard to wastewater recycling, with approximately 22 per cent of the wastewater from SA Water plants re-used each year for a range of fit-for-purpose activities.

The 2010 and 2011 Annual Reports identified a number of new recycling schemes being established in line with the **Water for Good** target. These included the Glenelg to Adelaide Park Lands Recycled Water Project and the Southern Urban Re-use Project, which have now been completed.

The installation of upgraded infrastructure (for existing community wastewater management systems) to increase wastewater recycling by councils through the State-wide Wastewater Recycling Project was substantially completed by June 2012. This will add approximately eight gigalitres per year to South Australia's water supply when all projects reach full capacity. In addition, 30 projects funded through the Australian Government's Cities and Towns Project were completed, adding an additional estimated 1.4 GL per year of recycled wastewater and stormwater.

Supporting such initiatives, **Water for Good** also includes a commitment to develop a wastewater masterplan. Following the release of the Stormwater Strategy, this masterplan will now be progressed as part of the Blueprint for Urban Water to ensure an integrated approach to stormwater, wastewater and other water resources across Greater Adelaide.

The South Australian Recycled Water Guidelines were published on the SA Health website in October 2012. The Guidelines provide information and advice for proponents seeking approval to use recycled water in South Australia from sources including treated sewage, stormwater and grey water. It is intended that the new guidelines be used in conjunction with the Australian Guidelines for Water Recycling, which provide the scientific guidance for water recycling.

USING AND SAVING WATER

In 2012 South Australians have continued to show a commitment to water use efficiency.

Water Wise Measures for all SA Water Customers remain in place across the State. They allow for watering of gardens and lawns at any time by hand (through a hand-held hose fitted with a trigger nozzle, a watering can or bucket) or through a drip-feed irrigation system. Sprinklers can be used on any day after 5.00pm and before 10.00am. Children can play under the sprinkler or use water toys that attach to a hose at any time of the day as long as the sprinkler or toy is located on a grassed area or garden and is turned off when children are not playing under it. Other arrangements are also in place for washing of cars, construction and home pools.

A moratorium for new bores remains in place for the Central Adelaide Prescribed Wells Area.

Subsidies for stand-alone rainwater tanks continue to be offered to the community and are due to end on 11 March 2014, unless fully subscribed earlier. More than $49 million has been provided to the community through the H_2OME scheme since it was established in 2007.

In November 2011 the Commonwealth and all States and Territories approved the *WELS*[1] *Strategic Plan 2012 to 15*, setting in place new arrangements for the scheme's operation and funding. It also includes provisions to consider the potential for expanding product coverage and for the possible introduction or revision of minimum water efficiency standards to new or existing products. Supporting State legislation has been progressed in 2012 to deliver on our requirement to update legislation to ensure consistency with the *Water Efficiency Labelling and Standards Act 2005* (Cwlth).

SA Water continues to deliver workshops and forums to commercial and industrial customers aimed at achieving further water efficiency in their operations. This program is closely linked to cleaner production and wastewater minimisation programs. In addition, a 'Leak Analysis and Water Profiling Service' has been developed and is now available to customers. An information sheet on the service is available on the SA Water website.

During 2012, SA Water also continued to refine the quality and coverage of its leakage measurement methodology and commenced a partnering research project with the University of Adelaide and the Goyder Institute for Water Research to assess the contribution of on-property leakage to the overall water balance calculation.

The **Water for Good** website continues to be used as an effective means of updating the community on water management issues, while the WaterConnect website provides important information and data on matters such as the state of surface and groundwater systems. It also provides information about irrigator licences and water levels for recreational use.

Work is under way with the Australian Water Association on a national project to develop water education resources in collaboration with government agencies and water businesses. The SA Water Brainwave program, which provides a series of free events and learning resources on water and water related issues, is also being delivered in collaboration with the Department for Education and Child Development.

1. Water Efficiency, Labelling and Standards (Scheme) - A national regulatory scheme administered by the Commonwealth on behalf of the participating States and Territories that applies national water efficiency labelling and minimum performance standards to specified water-use and water-saving products, such as plumbing products, sanitary ware and whitegoods.

RAIN, RIVERS, RESERVOIRS AND AQUIFERS

The adoption of the *Water Act 2007* – Basin Plan 2012 on 22 November 2012 by the Commonwealth Minster, and the completion of the period of disallowance in the Federal Parliament on 19 March 2013, are historic milestones for the River Murray and the communities and industries which rely upon it.

South Australia's engagement in the Basin Plan process was based on the best available science, expert policy analysis and community input. As a result of our efforts, important changes were made to the final Basin Plan consistent with Action 53 in **Water for Good**.

The Government's proactive stance, along with strong community support, resulted in key improvements to the Basin Plan, as well as associated commitments critical for a health river system. These included:

- The volume of environmental water to be returned to the River has increased from 2750 gigalitres (GL) to 3200 GL;
- Associated Commonwealth Government funding of $1.77 billion to recover the additional 450 GL and address constraints impeding environmental water delivery;
- 'End of system' management objectives, targets and actions in the Basin Plan including salinity targets, targets for having the Murray Mouth open and water level objectives for the Coorong, Lower Lakes and the River below Lock 1;
- Improved provisions to address over-allocation, deliver environmental flows and manage water quality and salinity;
- Improved provisions for future reviews of the Basin Plan so that they must specifically consider climate change risks and better information on groundwater-surface water connectivity;
- Improved arrangements for supporting the delivery of critical human water needs, including the establishment of a conveyance water reserve that will improve water security for South Australia; and
- Commitment to $420 million in funding for water recovery, industry regeneration, regional development and environmental works and measures projects in South Australia.

The South Australian Government will now work to ensure that the Basin Plan is implemented successfully and ensures a long term sustainable environment across the Basin.

South Australia is committed to ongoing salinity management and the delivery of its responsibilities under the Basin Plan and Schedule B of the Murray-Darling Basin Agreement. The State continues to work with key stakeholders including the MDBA to manage both short term and long term salinity risks to ensure that water quality remains suitable for ecosystems, irrigation and drinking water. Key actions completed in 2012 include the upgrading of groundwater models to support the update of salinity registers and the construction of the Murtho Salt Interception Scheme.

Work is also continuing on the implementation of the Murray Futures program, with a number of key infrastructure projects completed in 2012, including the final phase of the removal of the Clayton regulator and Narrung bund, completion of irrigation pipelines to Langhorne and Currency Creeks, and potable pipelines to Narrung/Poltalloch, Langhorne Creek, Point Sturt and Hindmarsh Island. Implementation of the Riverine Recovery Project has commenced and the project has returned 2.7 gigalitres of water to the environment.

The $137 million Coorong, Lower Lakes and Murray Mouth (CLLMM) Recovery Project continues to be implemented to secure the region as a healthy, productive and resilient wetland system that maintains its international importance.

Ecological monitoring throughout 2012 indicated that the CLLMM ecosystem is slowly recovering from the extended period of drought and low inflows. Investigations into the feasibility of diverting additional water from the South East into the Coorong South Lagoon were completed in 2012. A business case has been prepared for consideration by the Australian Government for funding through the Murray Futures program.

In April 2012 the department and the Ngarrindjeri Regional Authority (NRA) entered into a long-term service agreement to support the delivery of the CLLMM Ngarrindjeri Partnerships project. This project seeks to support Ngarrindjeri participation in natural and cultural resource management. Consultation and negotiation between the department and the NRA regarding the project occurs primarily through the Kungun Ngarrindjeri Yunnan Agreement (KNYA – listening to Ngarrindjeri people talking).

The Water Allocation Plans for the Tintinara Coonalpyn and Mallee Prescribed Wells Areas were adopted on 23 April and 2 May 2012 respectively. Consultation on the draft Water Allocation Plans for the Western and Eastern Mount Lofty Ranges is complete. The Adelaide and Mount Lofty Ranges and SA Murray-Darling Basin NRM Boards finalised these plans by the end of 2012 and provided them to the Minister for Water and the River Murray for consideration.

The *Natural Resources Management (Commercial Forests) Amendment Act 2011* was passed by the South Australian Parliament in November 2011 and provides for a forest water licensing and permit system – a first in Australia. A state-wide policy framework, supported by the legislation, was implemented in 2012 by including it in relevant regional NRM and water allocation plans. Work has progressed on the Lower Limestone Coast Water Allocation Plan and the South East NRM Board released a draft plan for community consultation on 4 March 2013.

PLANNING

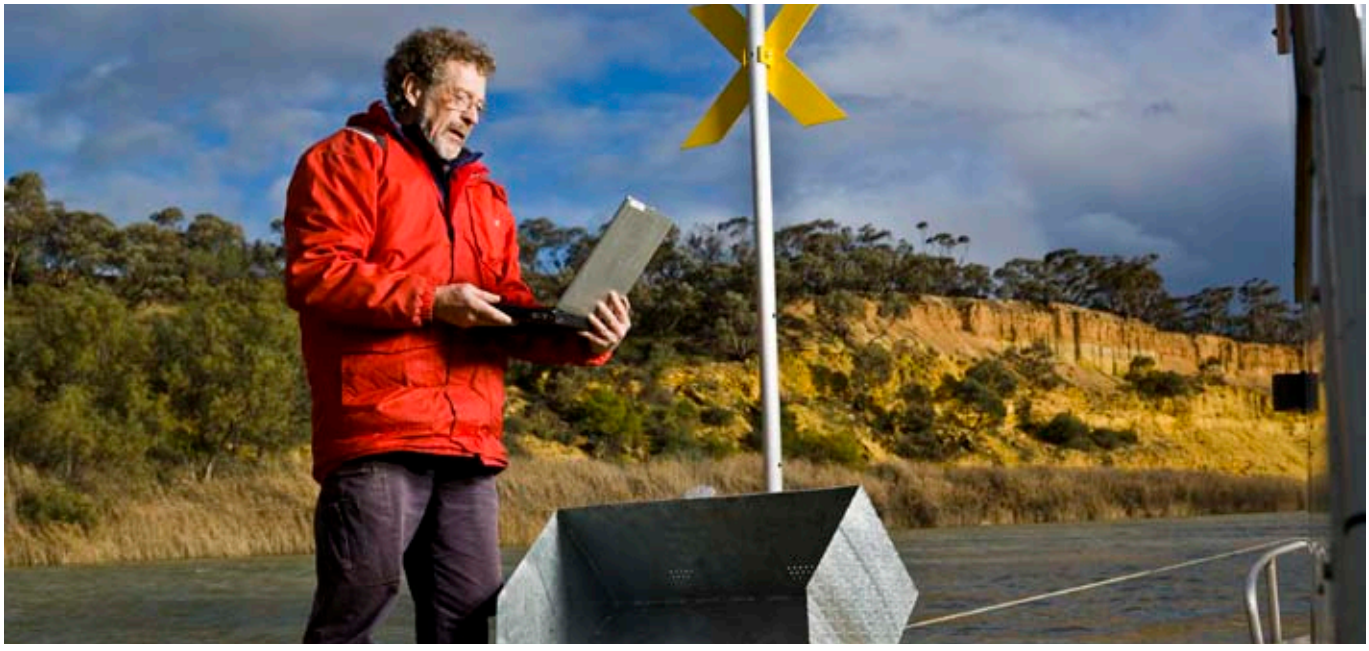
Regional Demand and Supply Statements are an essential component of the adaptive management approach supported in **Water for Good**. The statements provide an overview of likely demand and supply to 2050 across the State's eight NRM regions and are reviewed annually.

The Eyre Peninsula Demand and Supply Statement released in April 2011 originally projected that under a worst-case scenario of high population growth and climate change impact, demand for drinking quality water was projected to exceed supply in 2017–18. Based on a review of the data and assumptions for 2010–11, this was revised to 2023–24. The current review of the data and assumptions for 2011–12 has resulted in a revised projection for drinking-quality water demand and supply. The new projections suggest that demand is anticipated to exceed supply slightly earlier at 2020–21, under the worst case scenario.

The Northern and Yorke Demand and Supply Statement, released in December 2011, originally projected that under a worst-case scenario of high population growth, demand for drinking-quality water was not anticipated to exceed supply until 2044–45. A review of the data and assumptions for 2011–12 has resulted in a revised projection for drinking-quality water demand and supply, with the new projections suggesting that demand is not anticipated to exceed supply before 2050.

To continue addressing urban water policy matters, the Department of Environment, Water and Natural Resources has been finalising a state-wide WSUD policy, through consultation with relevant stakeholders. This policy will be released by mid 2013.

During 2012, the Government continued to implement the Amata and Mimili water infrastructure and water conservation initiative. In Amata, $3.445 million in funding has been provided for the fitting out of a new bore and approach mains and a replacement stand for the elevated tank. In Mimili, $1.995 million has been provided for a new reverse osmosis plant to treat groundwater to potable standard. Funding from both programs also ensured the metering of existing houses, the provision of training courses and a community water conservation program which will maximise the water security benefits of the upgraded infrastructure in these communities. This initiative will be completed by the end of 2013.



FOSTERING INNOVATION AND EFFICIENCY

The South Australian Government maintains that good science must underpin its future policy directions in water management. Improving the interface between science and policy has remained a key focus in 2012.

South Australia has a national and international reputation in regard to the quality of its science and research used in water planning and policy. Adelaide is home to four important research and training initiatives, these being the Goyder Institute for Water Research, the International Centre of Excellence in Water Resources Management, the SA Water Centre for Water Management and Reuse and the National Centre for Groundwater Research and Training.

The Goyder Institute for Water Research, established in 2010, coordinates research on key policy questions in water management. It has four primary thematic areas: urban water, water for industry, environmental water and climate change.

Key achievements by the Goyder Institute for 2012 include:

- Establishment of an independent expert panel to conduct a review of the hydrological and ecological analyses of the draft Basin Plan's 2750 GL water recovery scenario and provision of expert opinion on the hydrological and ecological consequences of the proposed water recovery scenario;
- Approval of the development of the Lower South East Groundwater model to support eco-hydrological response of South East wetlands to support wetlands management in accordance with the *South East Drainage System Operation and Management (SEDSOM) Bill 2012*;
- Approval of a project for eco-hydrological response of wetlands and catchment hydrology modelling to support water allocation planning and water quality improvement focused in the Mount Lofty Ranges;
- Support to the Torrens Lake water quality improvement field trial, which has provided valuable information on the potential effectiveness of amenity flows to control cyanobacteria algal outbreaks in the lake;
- Collaboration with Dutch flood information experts to trial flood intelligence capabilities in two flash flooding-prone urban areas to mitigate flood risks; and
- Approval of a project to research the failure mechanisms for riverbank collapse on the Lower River Murray in South Australia and to develop predictive tools for riverbank collapse to support risk management strategies.

On 22 March 2012, South Australia signed the National Partnership Agreement (NPA) on Coal Seam Gas and Large Coal Mining. Under this agreement, South Australia is required to refer applications for coal seam gas and large coal developments to the Commonwealth Independent Expert Scientific Committee to review assessment of water related impacts. In addition, the Department of Environment, Water and Natural Resources commenced preliminary work for bioregional assessments in the Arckaringa and Pedirka Basins and enhanced monitoring and analysis within the Lake Eyre Basin to support the implementation of the NPA.

Negotiations were undertaken with the International Centre of Excellence in Water Resources Management (ICEWaRM) for a range of opportunities for exchanges with the University of Adelaide regarding improved water research alignment, including arrangements with Manitoba in Canada. A number of presentations were given to international delegations including representatives from China, Spain, Japan, India, Chile and Cambodia.

South Australia continues to engage in other related research activities, including the new Cooperative Research Centre (CRC) for Water Sensitive Cities announced by the Australian Government in early 2012. Participation by South Australia in this CRC will further strengthen the State's policy response to water management issues and provide an opportunity to develop links between the CRC and the Goyder Institute.

The Department of Environment, Water and Natural Resources also continues to build strong links with the National Centre for Groundwater Research and Training and provided logistical support with the establishment of the Super Science site at McLaren Vale.

LEGISLATIVE AND REGULATORY CHANGE

Two important pieces of legislation were progressed in 2012 providing a framework to ensure safe drinking water and a competitive water industry.

The *Safe Drinking Water Act 2011* was enacted on 26 May 2011. The Act provides for the delivery of safe drinking water by delivering greater clarity and direction to drinking water providers on how safety can be achieved and measured. The main requirements of the Act include the registration of drinking water providers, implementation of risk management plans, inspection/audit of providers, monitoring of water quality and the provision of results to consumers.

Regulations under the Act are required for effective implementation by providing further clarity and detail on how certain provisions are to be achieved. Draft regulations were released for two months of public consultation on 31 July 2012. Responses to the proposed regulations were consistently supportive. The *Safe Drinking Water Act 2011* and *Safe Drinking Water Regulations 2012* came into operation on 1 March 2013 with a transitional period of up to 12 months.

The *Water Industry Bill 2011* was introduced in the South Australian Parliament in July 2011 and passed the Parliament on 5 April 2012. The Act commenced operation on 1 July 2012.

The *Water Industry Act 2012* provides a modern legislative framework for the water and wastewater service industries in the State. It repealed the *Waterworks Act 1932*, *Water Conservation Act 1936* and the *Sewerage Act 1929* and complements other existing water, environmental and public health legislation.

The *Water Industry Act 2012* provides a legislative basis for an open, transparent and collaborative approach to water demand and supply planning, providing for:

- an assessment of South Australia's water resources;
- an assessment of current and future demand for water, including for the environment; and
- policies, plans and strategies to ensure the State's water supplies are secure, reliable and sustainable.

It also establishes independent economic regulation of the water and wastewater industry, with Essential Services Commission of South Australia serving as the independent regulator. Among other things, ESCOSA is now responsible for making revenue determinations for SA Water from 1 July 2013.

In addition to this:

- Water industry entities will be afforded new powers to access land and protect infrastructure (powers traditionally provided only to SA Water);
- An independent technical regulator has been established for the water industry;
- A water industry ombudsman will be established;
- Concession arrangements will be retained; and
- A proposal for a third-party access regime will be brought before the Parliament.

A discussion paper on third party access arrangements for water infrastructure was released by the Government for public consultation in February 2013. Following the completion of this consultation in April 2013, the Government will be moving to establish an appropriate legislative scheme for third party access to drive increased competition in the water and wastewater services industry.

PRICING AND MARKET INSTRUMENTS

Alongside community education and water demand management measures, pricing is a critical mechanism in ensuring the efficient use of water and maximising the value of its use for economic, environmental and social benefits.

Under the *Water Industry Act 2012*, ESCOSA is nominated as the independent economic regulator for monopoly suppliers of urban and regional water and wastewater services in South Australia. Under the pricing order issued by the Treasurer in September 2012, ESCOSA has prepared a draft determination of SA Water's regulatory revenue requirement, which has been out for public consultation in early 2013. Following the Final Determination, SA Water will set prices in accordance with the National Water Initiative pricing principles.

ESCOSA is also developing state-based recycled water pricing principles for relevant water industry entities under the Act.

In mid-2012 the Government announced the introduction of a one-off Water Security Rebate to be provided to customers in early 2013. The rebate will be based on consumption billed for the 2012 calendar year and will help alleviate the cost of increased water prices for more than 600 000 residential customers. Households using up to and including 120 kilolitres per year will receive a one-off rebate of $45, while those using more than 120 kilolitres – typically a larger family – will receive a $75 rebate.

ASSESSMENT OF SOUTH AUSTRALIA'S WATER SUPPLIES

Rainfall conditions have a large influence on South Australia's available water supply. South Australia had its fifth-wettest year on record in 2011, with the state-wide area averaging, in total, more than one and a half times the long-term annual average rainfall [Bureau of Meteorology (BoM), 2012]. During the second half of 2011, however, most months tended to be below average (BOM, 2012). Rainfall for South Australia as a whole in 2012 was 77 per cent of the long-term annual average (i.e. 23 per cent below normal) – the lowest since 2006. The start of 2012, however, saw cooler and wetter-than-usual conditions for South Australia (BOM, 2013a).

The wetter-than-usual start of 2012 in South Australia was consistent across the Murray-Darling Basin. For the Basin as a whole, 27 February 2012 to 4 March 2012 was the wettest seven-day period on record for any month since at least 1900 (BOM, 2013b).

These conditions influenced the supply of water to the Greater Adelaide, Eyre Peninsula and Northern and Yorke regions, as discussed below.

GREATER ADELAIDE DEMAND AND SUPPLY

Water for Good developed demand-supply projections to 2050 based on two scenarios – moderate dry-year and extreme dry-year.

They illustrate the possible water demand and supply levels in any given year, depending on population, climate change, the state of the Mount Lofty Ranges storages, River Murray inflows and the impacts of mitigation measures. Moderate and extreme dry-year scenarios were considered the most useful and sensible for long-term planning for the security of supply in worst-case conditions.

Greater Adelaide 2011–12 Supply and Demand

The wet start of 2012 in the Murray-Darling Basin resulted in River Murray inflows being well above the long-term average for the end of the 2011–12 water year (see Figure 1). Overall, inflows to the River Murray system decreased 33.5 per cent, from 17 120 gigalitres in 2010–11 to 11 389 gigalitres in 2011–12. The 2011–12 volume of 11 389 gigalitres is, however, still slightly greater than the long-term average inflow of 11 275 gigalitres (see Figure 2).

Figure 1: River Murray system inflows (excluding Menindee inflows and Snowy releases)

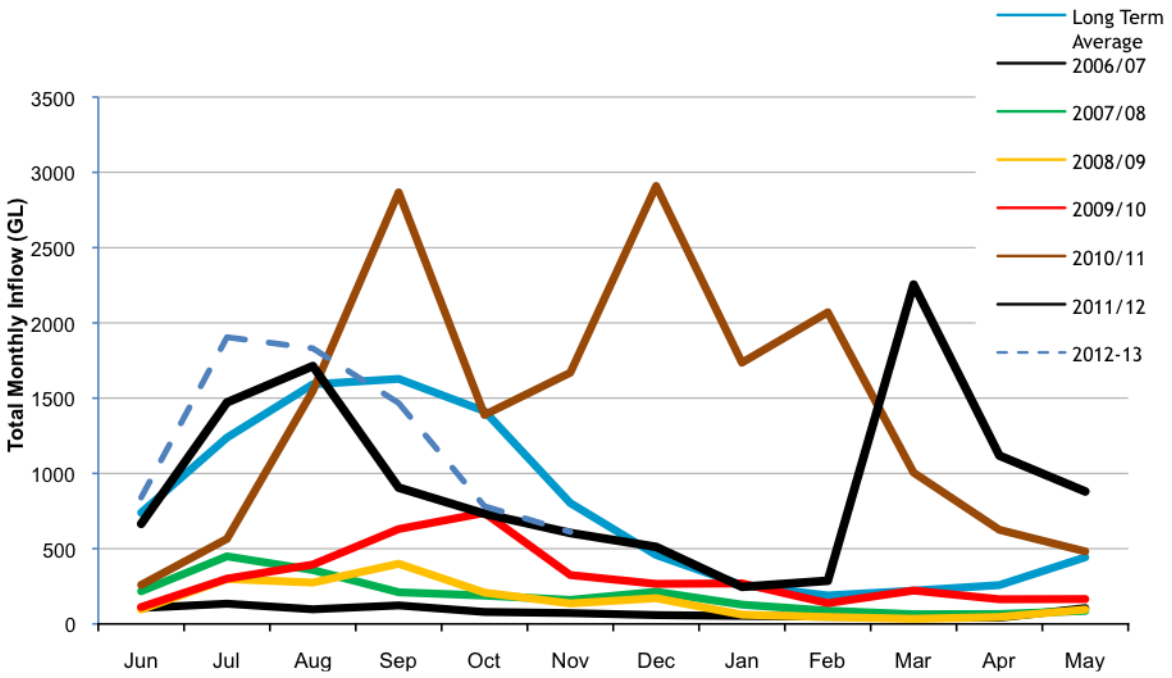
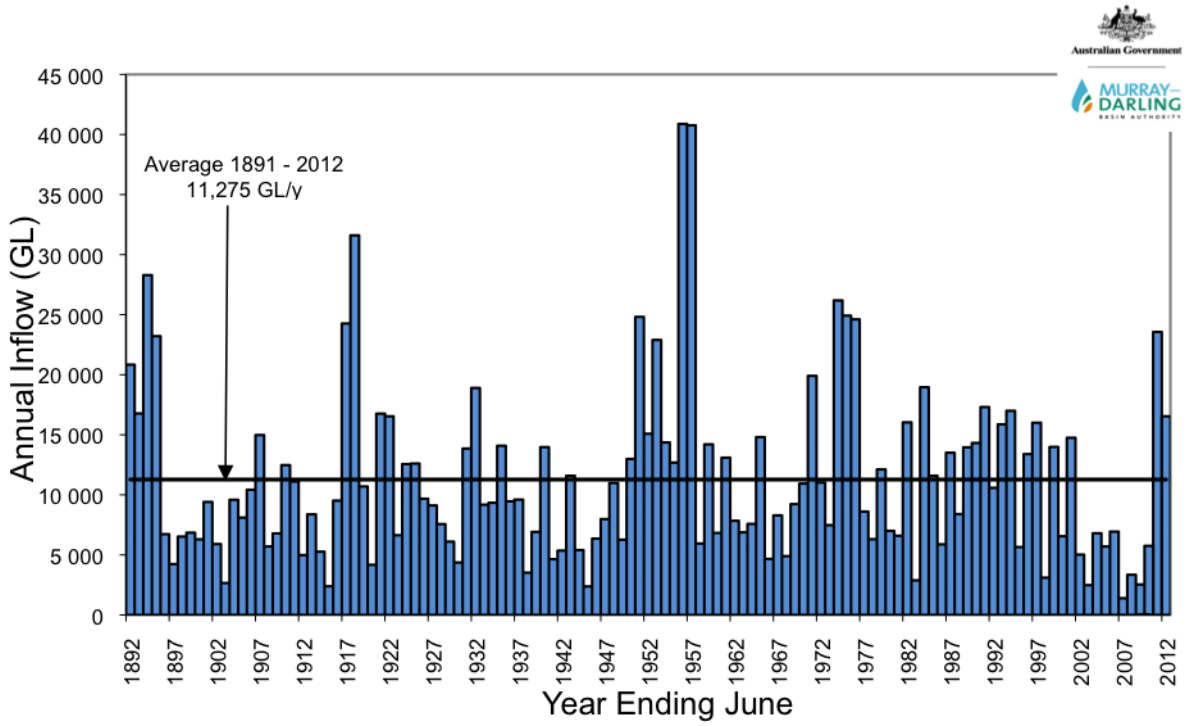
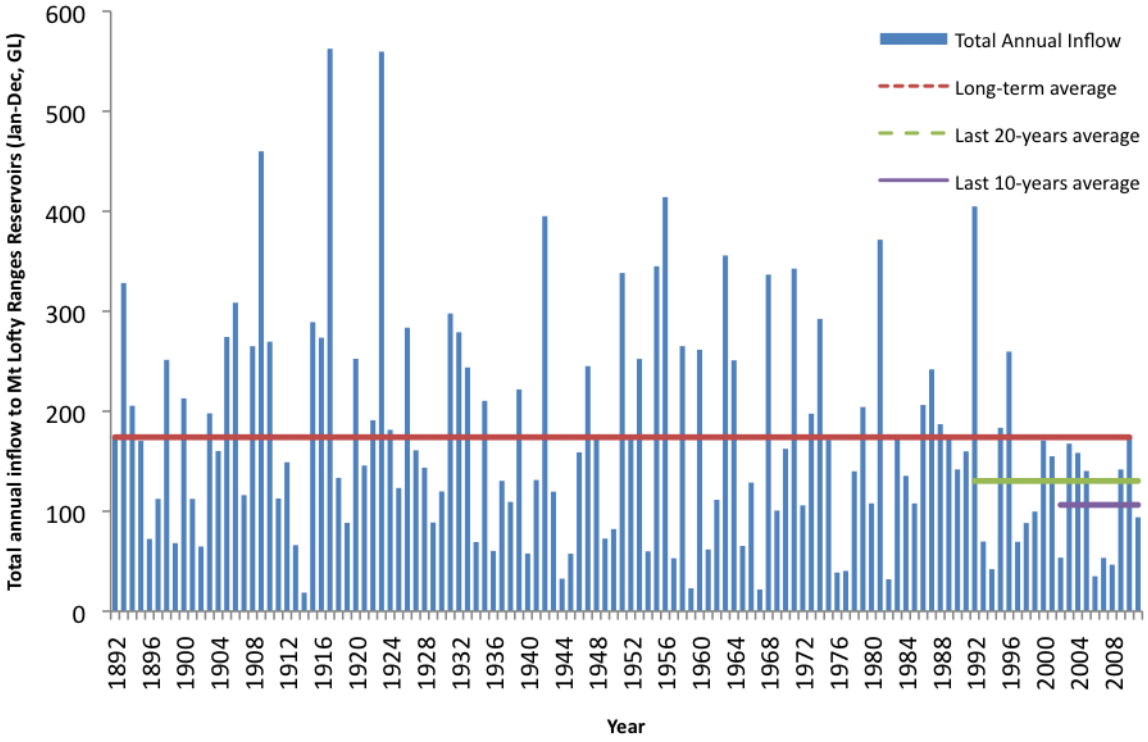


Figure 2: River Murray system inflows 1891-2011 (including inflows to Menindee and excluding Snowy releases)



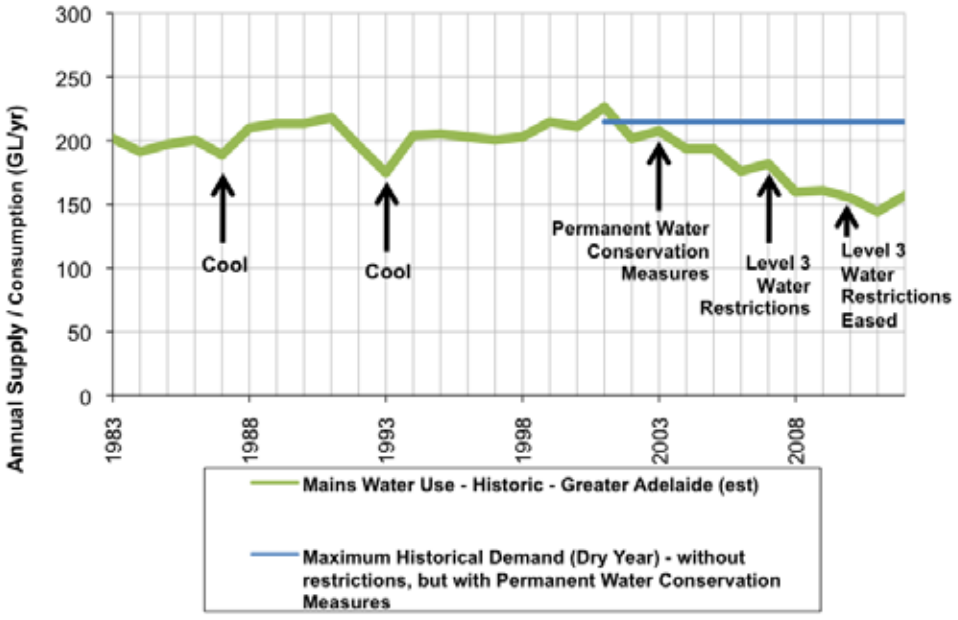
Inflows to the Mount Lofty Ranges reservoirs decreased significantly, by approximately 46 per cent, from 173 gigalitres in 2010 to 94 gigalitres in 2011 (see Figure 3). This volume is lower than the 10-year, 20-year and long-term average inflows.

Figure 3: Annual inflow to the Mount Lofty Ranges reservoirs



During 2011-2012, demand for mains water in Greater Adelaide was 157 gigalitres (see Figure 4). Although this volume is 13 gigalitres more than demanded in 2010-11, it is still well below the maximum historical dry year demand of 215 gigalitres.

Figure 4: Mains water consumption for Greater Adelaide



GREATER ADELAIDE ACTUAL AND PROJECTED AVAILABLE SUPPLY (2011–12)

There were significantly lower inflows to the Mount Lofty Ranges reservoirs and River Murray during 2011–12 compared with 2010–2011, although there was still a surplus in available supply for Greater Adelaide in 2011–12. There was also a surplus of treated wastewater available for reuse.

A 73 gigalitre surplus of mains water (drinking quality water) was recorded in the Greater Adelaide area, compared with a likely projected moderate and extreme dry-year scenario surplus of 23.8 gigalitres and 3.9 gigalitres respectively (see Figure 5). If the quantities of drinking quality and non-drinking quality water (i.e. including recycled stormwater and wastewater and other prescribed water resources such as groundwater) were combined, there was a surplus of 191 gigalitres. The projections for moderate and extreme dry-year scenarios are for a surplus of 142 gigalitres and 122 gigalitres respectively.

Figure 5: Greater Adelaide 2011–12 available supply compared to projections

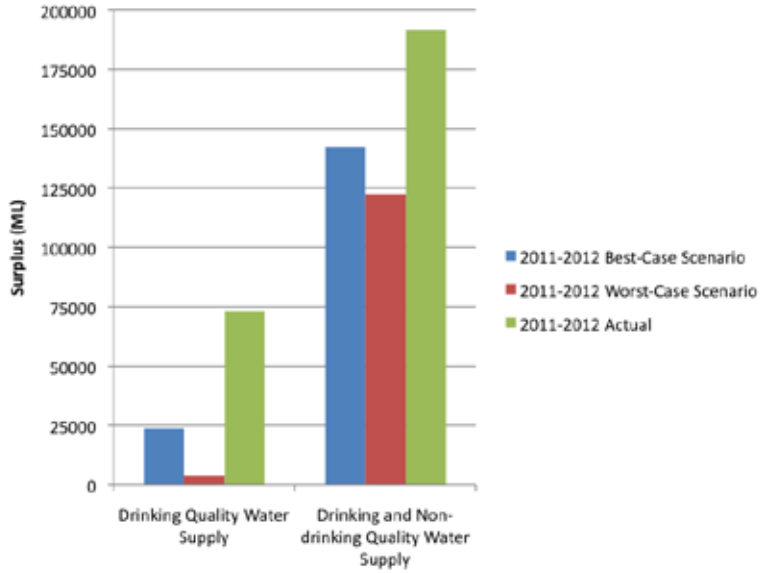
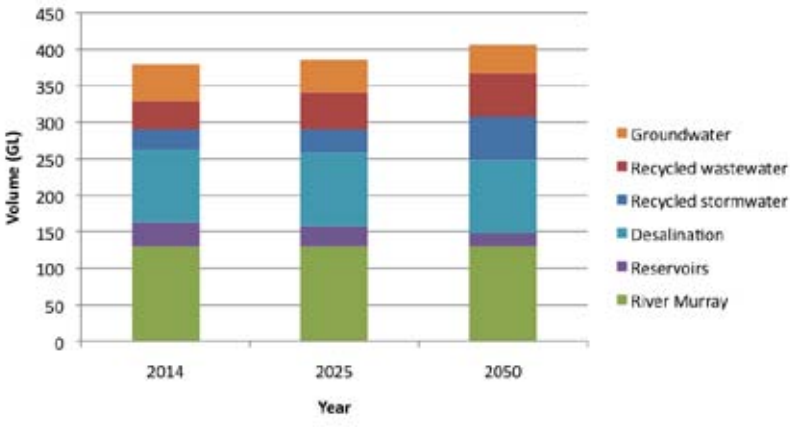


Figure 6 shows the projected total available water supply mix for Greater Adelaide in 2014, 2025 and 2050 in a moderate dry-year scenario. There have been no changes to the projected supply mix since the last **Water for Good** Annual Report.

As Greater Adelaide's water supply increases to 2050 the new initiatives and water sources detailed elsewhere will help reduce Adelaide's reliance on the River Murray.

Figure 6: Greater Adelaide's projected water supply mix



Review of Assumptions (Greater Adelaide)

During the development of **Water for Good**, a number of factors were identified that could affect the demand-supply balance for Greater Adelaide. To better understand the future water supply and the demands it will face, it is important to recognise the influences. An overview of these drivers is provided below.

Supply Drivers

Mount Lofty Ranges reservoirs supply

Inflows to the Mount Lofty Ranges reservoirs decreased significantly, by approximately 46 per cent, between 2010 and 2011. Despite the reduced inflows to the reservoirs, the volume received in addition to water remaining in the reservoirs from the previous year meant SA Water did not rely heavily on the River Murray for use in Greater Adelaide.

River Murray supply

Inflows into the River Murray system decreased by 33.5 per cent, from 17 120 gigalitres in 2010–11 to 11 389 gigalitres in 2011–12 (see Figures 1 and 2). The 2011–12 volume of 11 389 gigalitres is, however, still slightly greater than the long-term average inflow of 11 275 gigalitres (see Figure 2).

In normal circumstances, South Australia has a minimum entitlement of 1850 gigalitres, of which SA Water has a five-year rolling licence for 650 gigalitres for metropolitan Adelaide water supply (130 gigalitres/annum on average). In extreme circumstances, special water-sharing arrangements are triggered to ensure South Australia has access to water for critical human needs.

In 2011–12, SA Water used only 57 gigalitres of River Murray water to supply Greater Adelaide (the **Water for Good** extreme dry-year scenario predicts 160 gigalitres). The State prefers to draw on the reservoirs before pumping water from the River Murray should sufficient water be available in the reservoir system.

Desalinated water supply

Water for Good projected that 100 gigalitres of desalinated water would be supplied to the Greater Adelaide region by the end of 2012. The Adelaide Desalination Plant was fully commissioned in November 2012 and is now producing desalinated water. At the launch of the Desalination Plant on 26 March 2013, more than 12 gigalitres of drinking water supplies had already been produced in 2013 to augment Adelaide's drinking water supplies.

Alternative supplies

There are nine stormwater harvesting projects in Greater Adelaide due for completion in 2013. The projects are expected to harvest approximately eight gigalitres per annum in total. South Australia will then be ahead of **Water for Good** projections with respect to the volume of recycled stormwater contributing to the total water supply mix.

Climate change

Based on the most current science, the **Water for Good** projections assume that climate change impacts are estimated to reduce inflows to the Mount Lofty Ranges reservoirs by up to 41 per cent by 2050 (i.e. a gradual reduction of one per cent per annum). While there was a much larger decrease during the reporting period (46 per cent), year-to-year natural variability is not unusual and is expected even in an environment of long-term climate change. Current technical advice from the Department of Environment, Water and Natural Resources is that the **Water for Good** projections remain valid.

Demand Drivers

Demand

During the reporting period demand for mains water in the Greater Adelaide region was 157 gigalitres, slightly higher than the previous two years. However, it was still well below the maximum historical dry year demand of 215 gigalitres.

Climate change

Current advice from the Department of Environment, Water and Natural Resources is that the climate change projections used in **Water for Good** remain valid.

Population growth

Water for Good adopted the population growth projections modelled by the (former) Department for Planning and Local Government (DPLG) for the Plan for Greater Adelaide. When extrapolated out to 2050, the DPLG projections suggested a 37 per cent increase in total, or a 0.88 per cent increase on average per year. Subsequent advice from the Department of Planning, Transport and Infrastructure suggests that its revised medium series population growth projections to 2050 are tracking closely to the projected population growth to 2050 as outlined in **Water for Good**, with a suggested 44 per cent increase in total or a 0.91 per cent increase on average per year.

Demand management measures

Water for Good projections assume that demand management measures implemented between 2010 and 2050 will equate to 50 gigalitres in savings. These are in addition to those calculated under the Water Proofing Adelaide Strategy and equate to gradual water savings of 1.25 gigalitres per annum. It is difficult to quantify the savings achieved as a result of demand management measures to date; however, it is expected that initiatives such as the WaterWise Communities program will have some effect in the longer term.

EYRE PENINSULA DEMAND AND SUPPLY

The Eyre Peninsula Demand and Supply Statement outlines demand-supply projections to 2050 based on four scenarios – high and low population growth and climate change impact, and covers the Eyre Peninsula NRM region up to Whyalla. They illustrate the possible water demand and supply levels in any given year, depending on a range of assumptions including population, climate change, the available supply from the Southern Basins and Musgrave Basin Prescribed Wells Areas, River Murray supply and the impacts of mitigation measures. When released in April 2011 the Eyre Peninsula Demand and Supply Statement projected that under a worst-case scenario of high population growth and climate change impact, demand for drinking quality water was projected to exceed supply in 2017–18. The 2010–11 annual review revised this projection to 2023–24. Projections from the 2011-12 review now suggest that demand is anticipated to exceed supply slightly earlier at 2020–21, under the worst case scenario.

Eyre Peninsula 2011–12 Demand and Supply

After long periods of declining groundwater levels in the Southern Basin Prescribed Wells Area (PWA), above-average rainfall since 2009 has increased recharge and led to watertable rises of up to 0.4 m in some areas. During 2011, despite small localised declines in some areas, there has been an overall general increase in groundwater levels across the majority of the PWA when compared to water levels at the same time the previous year (Department for Water (DFW), 2012).

After a long period of declining groundwater levels and below-average rainfall in the Musgrave PWA, good winter and spring rainfall in both 2009 and 2010 had increased recharge and led to watertable rises of up to 1.7 m in Polda lens and up to 2.1 m in other minor lenses. In some areas the water levels were the highest recorded for the past 10 years. During 2011, due to slightly above-average rainfall, water levels increased marginally in Polda lens up to 0.7 m. In other lenses water levels declined slightly when compared to water levels recorded at the same time during the previous year (Department of Environment, Water and Natural Resources (DEWNR), 2012a).

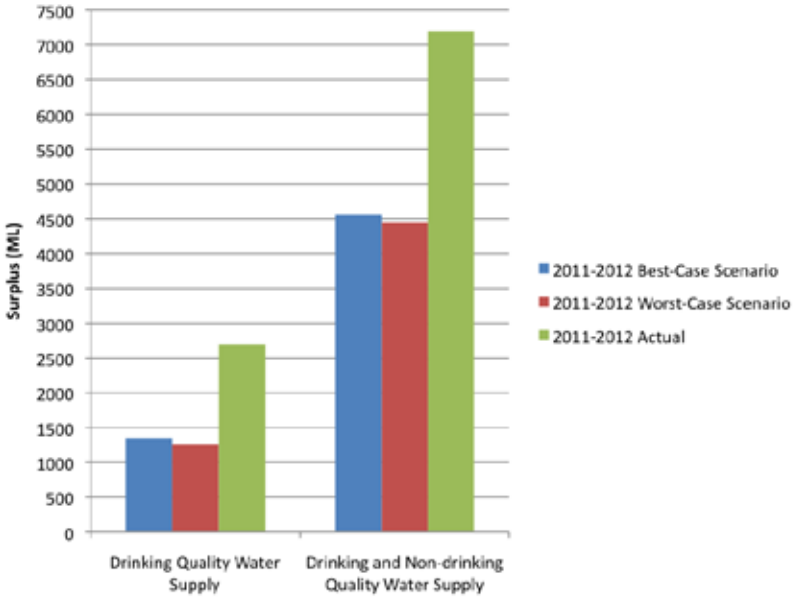
During 2011–12, demand for drinking quality water in the Eyre Peninsula region was lower than the best and worst-case scenarios of low and high population growth in the Eyre Peninsula Demand and Supply Statement. Mains water consumption for the Eyre Peninsula region was 16.2 gigalitres, compared with projected demands of 19.1 gigalitres in the best-case scenario and 19.2 gigalitres in the worst-case scenario.

Eyre Peninsula 2011–12 Actual and Projected Available Supply

Significantly lower actual demand from the mains water supply compared to projections in the Eyre Peninsula Demand and Supply Statement resulted in a surplus in available supply for the Eyre Peninsula region over 2011–12. There was also less water supplied from the River Murray than projected, though this reduction in supply was outweighed by the decrease in demand.

A 2698 megalitre surplus of drinking quality water was recorded in the Eyre Peninsula region, compared with projected best-case and worst-case scenario surplus of 1352 megalitres and 1259 megalitres respectively (see Figure 7). If the quantities of drinking quality and non-drinking quality water (i.e. including recycled stormwater and wastewater and other prescribed water resources such as groundwater) were combined, there was a surplus of 7189 megalitres (see Figure 7). The projections for the best-case and worst-case scenarios were for surpluses of 4557 megalitres and 4453 megalitres respectively.

Figure 7: Eyre Peninsula 2011–12 available supply compared to projections



REVIEW OF ASSUMPTIONS (EYRE PENINSULA)

During development of the Eyre Peninsula Demand and Supply Statement, a number of factors were identified that could affect the demand-supply balance for the Eyre Peninsula region and lead to a surplus or deficit. To better understand the region's future water supply and the demands, it is important to recognise the influences. An overview of these drivers is provided below.

SUPPLY DRIVERS

River Murray supply

In normal circumstances, South Australia has a minimum entitlement of 1850 gigalitres from the River Murray, of which SA Water has a licence for 50 gigalitres per annum for country town water supply purposes. In extreme circumstances, special water-sharing arrangements are triggered to ensure South Australia has access to water for critical human needs.

In 2011–12, SA Water supplied approximately 9.5 gigalitres of River Murray water to the Eyre Peninsula region (the Eyre Peninsula Demand and Supply Statement assumed a maximum supply capacity of 11.2 gigalitres), the majority of which is used in Whyalla. Throughout the year, there would have been peak demand periods where there may have been limited capacity. However, the total demand for water in the region for the whole year in 2011–12 did not require SA Water to use the full notional annual system capacity.

Southern Basins Prescribed Wells Area supply

After long periods of declining groundwater levels in the Southern Basins PWA, above-average rainfall since 2009 has increased recharge and led to watertable rises of up to 0.4 m in some areas. During 2011, despite small localised declines in some areas, there has been an overall general increase in groundwater levels across the majority of the PWA when compared to water levels at the same time the previous year (DFW, 2012).

As a result of the overall general increase in groundwater levels across the majority of the PWA during 2011, the total available licensed allocation in 2012–13 will remain consistent with the 2011–12 volume of approximately 8.6 gigalitres.

Musgrave Prescribed Wells Area supply

After a long period of declining groundwater levels and below-average rainfall in the Musgrave PWA, good winter and spring rainfall in both 2009 and 2010 had increased recharge and led to watertable rises of up to 1.7 m in Polda lens and up to 2.1 m in other minor lenses. In some areas the water levels were the highest recorded for the past 10 years. During 2011, due to slightly above-average rainfall, water levels increased marginally in Polda lens up to 0.7 m. In other lenses water levels declined slightly when compared to water levels recorded at the same time during the previous year (DEWNR, 2012a).

Given that the water level declined in some of the aquifers in the Musgrave PWA, the total available licensed allocation in 2011–12 of approximately 2.3 gigalitres has decreased slightly to approximately 2.2 gigalitres in 2012–13.

Alternative supplies

Local government throughout the Eyre Peninsula region have well developed capacities for capturing and reusing stormwater, and reusing treated wastewater for non-drinking purposes. The annual review showed that less stormwater was being captured and reused than had been projected and that less treated wastewater from community wastewater management schemes was being reused than had been projected. However, this is likely to be due to difficulties in obtaining data rather than actual reductions in stormwater capture and reuse.

Climate change

New information is now available on the impacts of climate change on recharge to the Southern Basins and Musgrave Basin PWAs and run-off into the Tod Reservoir catchment since the Eyre Peninsula Demand and Supply Statement was developed.

This new science indicates that the impact of climate change on recharge to the Southern Basins and Musgrave Basin PWAs will not be as severe as first projected. Based on the most current science, climate change impacts on the Southern Basins PWA will reduce by 24 per cent by 2050 (i.e. a gradual reduction of 0.4 per cent per annum) and by 26 per cent by 2050 to the Musgrave Basin PWA (i.e. a gradual reduction of 0.43 per cent per annum) (Green et al., 2012). Run-off into the Tod Reservoir catchment is projected to decrease by 45 per cent by 2050 (i.e. a gradual reduction of 0.75 per cent per annum).

While recharge and run-off remained steady during the reporting period compared to the previous year, year-to-year natural variability is not unusual and is expected even in an environment of long-term climate change.

Mining supply

As outlined in **Water for Good**, it is State Government policy that securing water for mining activities is the responsibility of the company.

The information regarding supply of water for mining purposes in the demand-supply projections in the Eyre Peninsula Demand and Supply Statement is sourced from the Resources and Energy Sector Infrastructure Council's (RESIC) Infrastructure Demand Study 2009. The annual review has revised the supply of water for mining purposes based on the RESIC Infrastructure Demand Study 2011.

Based on the updated information, there is currently a greater volume of water being supplied for mining purposes, from the 2011–12 projected volume of approximately 2.3 gigalitres to approximately four gigalitres from private desalinated seawater.

DEMAND DRIVERS

Demand

During the reporting period, demand for drinking quality water in the Eyre Peninsula region was approximately 3 gigalitres lower than the Eyre Peninsula Demand and Supply Statement projections. Demand for drinking and non-drinking quality water was approximately 2 gigalitres lower than the Eyre Peninsula Demand and Supply Statement projections.

Population growth

The Eyre Peninsula Demand and Supply Statement adopted South Australia's Strategic Plan regional population targets/ growth rates for the Eyre and Western South Australian Government region. Advice from the Department of Planning, Transport and Infrastructure suggests that actual population growth was above the low population growth rate used in the projections but lower than the high population growth rate used.

The Department of Planning, Transport and Infrastructure has advised that when the actual population growth rate is averaged out to 2050, it is tracking in line with the low population growth rate scenario used in the Eyre Peninsula Demand and Supply Statement.

Mining demand

The information regarding demand of water for mining purposes in the demand-supply projections in the Eyre Peninsula Demand and Supply Statement is sourced from the RESIC Infrastructure Demand Study 2009 as well as advice from the (former) Primary Industries and Resources South Australia. The annual review has revised the demand of water for mining purposes based on the RESIC Infrastructure Demand Study 2011.

Based on the updated information, there is currently a greater demand for water for mining purposes, from the 2011–12 projected volume of approximately 2.9 gigalitres to the actual volume of approximately 4 gigalitres. This 4 gigalitres is provided from private desalinated seawater.

It is anticipated that there will be significant growth in the demand for water for mining purposes. The majority of this water is expected to be sourced from private seawater desalination plants, with a smaller portion sourced from non-prescribed groundwater resources.

Essentially the growth in demand from the mining sector is not expected to have a detrimental impact on the current mains water supply in the region, as mining companies suggest they will supply the water for their operations from desalinated seawater or non-prescribed groundwater resources.

Stock

Based on advice from the (former) Primary Industries and Resources South Australia, the Eyre Peninsula Demand and Supply Statement projections assume that stock demand will increase by 1.5 per cent on the 2009–10 level for 10 years and then remain constant. Current advice from Primary Industries and Regions South Australia is that the Eyre Peninsula Demand and Supply Statement projections remain valid.

NORTHERN AND YORKE DEMAND AND SUPPLY

The Northern and Yorke Demand and Supply Statement outlines demand-supply projections to 2050 based on four scenarios – high and low population growth and climate change impact. They are intended to illustrate the possible water demand and supply levels in any given year, depending on a range of assumptions including population, climate change, the available supply from the Clare Valley Prescribed Water Resources Area and River Murray supply. When released in December 2011 the Northern and Yorke Demand and Supply Statement projected that under a worst-case scenario of high population growth, demand for drinking quality water was projected to exceed supply in 2044–45.

Northern and Yorke 2011–12 Demand and Supply

The majority of groundwater level observations wells in the Clare Valley Prescribed Water Resources Area (PWRA) display declining long-term trends over the past 20 years up to 2009, followed by rising water levels up to and including 2011. In 2011 the majority (113 out of 152) of observation wells show a rise (up to 4.55 m) in the maximum water level attained in comparison to the maximum water level observed in 2010 (DEWNR 2012b).

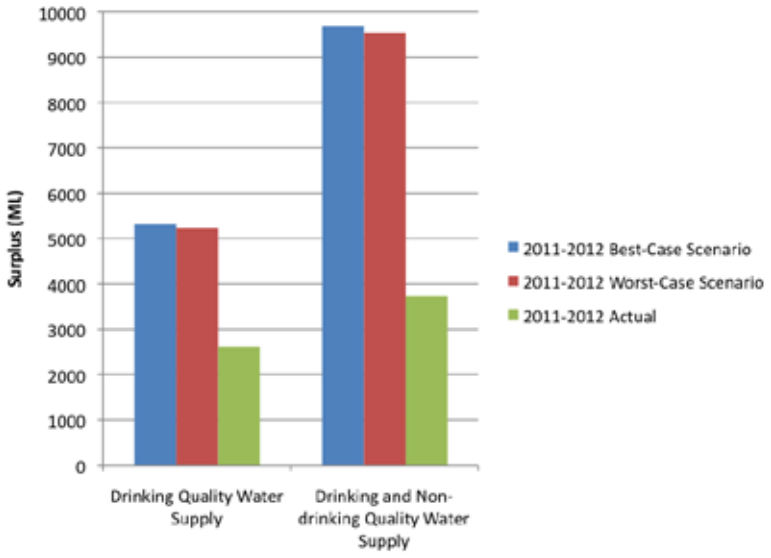
During 2011–12, demand for drinking quality water in the Northern and Yorke region was lower than the best and worst-case scenarios of low and high population growth in the Northern and Yorke Demand and Supply Statement. Mains water consumption for the Northern and Yorke region was 17.7 gigalitres compared with projected demands of 27.2 gigalitres in the best-case scenario and 27.3 gigalitres in the worst-case scenario.

Northern and Yorke 2011–12 Actual and Projected Available Supply

Significantly lower actual demand from the mains water supply compared to projections in the Northern and Yorke Demand and Supply Statement resulted in a surplus in available supply for the Northern and Yorke region over 2011–12. There was also less water supplied from the River Murray than projected; however, this reduction in supply was outweighed by the decrease in demand.

A 2614 megalitre surplus of drinking quality water was recorded in the Northern and Yorke region, compared with projected best-case and worst-case scenario surplus of 5330 megalitres and 5229 megalitres respectively (see Figure 8). If the quantities of drinking quality and non-drinking quality water (i.e. including recycled stormwater and wastewater and other prescribed water resources such as groundwater) were combined, there was a surplus of 3727 megalitres (see Figure 8). The projections for the best-case and worst-case scenarios were for surpluses of 9683 megalitres and 9453 megalitres respectively.

Figure 8: Northern and Yorke 2011–12 available supply compared to projections



REVIEW OF ASSUMPTIONS (NORTHERN AND YORKE)

During development of the Northern and Yorke Demand and Supply Statement, a number of factors were identified that could affect the demand-supply balance for the Northern and Yorke region and lead to a surplus or deficit. To better understand the region's future water supply and the demands, it is important to recognise the influences. An overview of these drivers is provided below.

SUPPLY DRIVERS

River Murray supply

In normal circumstances, South Australia has a minimum entitlement of 1850 gigalitres from the River Murray, of which SA Water has a licence for 50 gigalitres per annum for country town water supply purposes and a five-year rolling licence of 650 GL for metropolitan Adelaide. In extreme circumstances, special water-sharing arrangements are triggered to ensure South Australia has access to water for critical human needs. The Northern and Yorke region receives most of their River Murray water from the country town licence, with a smaller portion from the metropolitan Adelaide licence.

In 2011–12, SA Water supplied approximately 19.9 gigalitres of River Murray water to the Northern and Yorke region. This includes 230 megalitres that was supplied through the Clare Valley Water Supply Scheme for irrigation purposes. The Northern and Yorke Demand and Supply Statement assumed a maximum supply capacity of 31.8 gigalitres. Demand for water in the region during 2011–12 did not require that SA Water utilise the full system capacity.

Clare Valley Prescribed Water Resources Area supply

In 2011–12 there was a total of 1504 megalitres of licensed surface water, 713 megalitres of licensed watercourse water and 2228 megalitres of licensed groundwater available for allocation from the Clare Valley PWRA. Under a worst-case scenario, the Northern and Yorke Demand and Supply Statement assumed a maximum licensed available supply capacity in 2011–12 of 1312 megalitres of surface water, 657 megalitres of watercourse water and 2165 megalitres of groundwater. The total available licensed allocations in 2012–13 will remain consistent with the 2011–12 volume.

Baroota Prescribed Water Resources Area supply

The water allocation plan for the Baroota PWRA is under development. As such, there is no new data available regarding volumes of water available for supply from the Baroota surface water, watercourse water or groundwater resources. Therefore, the volumes used in the Northern and Yorke Demand and Supply Statement remain valid.

Bundaleer, Beetaloo and Baroota Reservoirs

The Bundaleer, Beetaloo and Baroota reservoirs remain as standby water supplies as part of SA Water's State Disaster and Emergency Management Plan. The volumes used in the Northern and Yorke Demand and Supply Statement remain valid.

Non-prescribed groundwater resources

There is no new information regarding the volumes of water available from the non-prescribed groundwater resources in the Northern and Yorke region and, as such, the volumes used in the Northern and Yorke Demand and Supply Statement remain valid.

Alternative supplies

Local government throughout the Northern and Yorke region has well developed capacities for capturing and reusing stormwater, and reusing treated wastewater for non-drinking purposes. The annual review showed that less stormwater was being captured and reused than had been projected and that less treated wastewater from community wastewater management schemes was being reused than had been projected. However, this is likely to be due to difficulties in obtaining data rather than actual reductions in stormwater capture and reuse.

The available volume of treated wastewater available from SA Water Waste Water Treatment Plants for non-drinking purposes was greater during the reporting period than was projected; however, the demand was lower than projected.

Climate change

Current advice from the Department of Environment, Water and Natural Resources is that the climate change projections used in the Northern and Yorke Demand and Supply Statement remain valid.

DEMAND DRIVERS

Demand

During the reporting period, demand for drinking quality water in the Northern and Yorke region was approximately 9.6 gigalitres lower than the Northern and Yorke Demand and Supply Statement projections. Demand for drinking and non-drinking quality water was approximately 6 gigalitres lower than the Northern and Yorke Demand and Supply Statement projections.

Population growth

The Northern and Yorke Demand and Supply Statement adopted the South Australia and Statistical Divisions 2006–36 population projections. Advice from the Department of Planning, Transport and Infrastructure suggests that actual population growth was above the low population growth rate used in the projections but lower than the high population growth rate used.

The Department of Planning, Transport and Infrastructure has advised that when the actual population growth rate is averaged out to 2050, it is tracking only slightly higher than the low population growth rate scenario used in the Northern and Yorke Demand and Supply Statement.

Viticulture demand

The Northern and Yorke Demand and Supply Statement based the demand on water resources from the viticulture industry on the irrigation demand in the water allocation plan for the Clare Valley PWRA and the 2009–10 usage through the Clare Irrigation Scheme. The projected demand volume, as outlined in the Northern and Yorke Demand and Supply Statement, was approximately four gigalitres. Actual demand, based on water taken from the Clare Valley PWRA in 2011–12, as well as the volume of water supplied through the Clare Irrigation Scheme, was approximately 2.2 gigalitres.

Stock

Based on advice from the (former) Primary Industries and Resources South Australia, the Northern and Yorke Demand and Supply Statement projections assume that stock demand will increase by 1.5 per cent on the 2010–11 level for 10 years and then remain constant. Current advice from Primary Industries and Regions South Australia is that the Northern and Yorke Demand and Supply Statement projections remain valid.

THE YEAR AHEAD AND FUTURE PRIORITIES

Many challenges still remain in 2013 to ensure a secure, safe and reliable water supply for South Australia.

In 2012 the Government established seven strategic priorities, as part of its forward agenda for the next two years. These are:

- Realising the benefits of the mining boom for all;
- Every chance for every child;
- Growing advanced manufacturing;
- An affordable place to live;
- Safe communities, healthy neighbourhoods;
- Premium food and wine from our clean environment; and
- Creating a vibrant city.

Water management and many of the actions in **Water for Good** will be essential elements of the Government's approach to these strategic priorities, and they will provide an important mechanism for ensuring stronger linkages between water management and other areas of Government policy.

The development of the Blueprint for Urban Water and finalisation of a State policy on Water Sensitive Urban Design will be critical to creating a vibrant city. Improving stormwater and flood management arrangements will be an essential foundation for maintaining safe communities. Securing the future of the Murray-Darling Basin will be a necessary precursor to developing an internationally competitive and sustainable food sector.

Other important initiatives to be progressed during 2013 include:

- Implementing independent economic regulation under the *Water Industry Act 2012*;
- Implementing the first stages of the Basin Plan;
- Bringing in the operation of the *Safe Drinking Water Act 2011* and regulations;
- Approval of the draft Water Sensitive Urban Design policy;
- Establishing a vision, and roles and responsibilities for managing the Mount Lofty Ranges Watershed;
- Approval of the draft Water Quality Improvement Plan for the Mount Lofty Ranges Watershed;
- Finalisation of stormwater harvesting infrastructure across Adelaide;
- Stakeholders and community consideration of a draft consultation report of Environmental Values for Lake Bonney (in the South East);
- Completing the South Australian Arid Lands and Alinytjara Wilurara Demand and Supply Statements; and
- Development of a draft strategy for remote community water supplies in late 2013 for consultation with various stakeholders.

A comprehensive review of **Water for Good** is scheduled to be completed in 2014. This will provide an opportunity to assess the impact of the approaches embodied in the Plan and set enhanced directions for water security across the State. Opportunities to deliver a more integrated approach to water management, which addresses issues such as flood risk, water quality and city liveability, in addition to water security, will also be considered during this review process.

While much has already been achieved, the Government is committed to the ongoing implementation of **Water for Good** and the use of an adaptive management approach to ensure the future security of our water resources.

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ISBN 978-1-921800-68-9

WATER FOR GOOD