

AWA / Deloitte
State of the Water Sector
2010-2015
Preliminary Report



Cover Photo:

The Murray Darling River 2009

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Foreword

Two years ago, water – or the lack thereof – was very much front of mind for Australians residing in almost every major city and region across the country.

For much of the general population, the persistent drought across vast expanses of the eastern seaboard states, in South Australia and much of Western Australia was, in many ways, the litmus test for the reality of global warming.

Australia, the hot dry continent, was seemingly getting hotter and certainly drier.

Increasingly stringent restrictions on domestic water use and reduction in allocations in rural areas brought greater awareness of issues of which those in the water sector have been aware for some time.

Since then the domestic landscape – economically and politically as well as in climatic terms – has changed.

At the time of writing, dams within the eastern seaboard water catchment areas are fuller, courtesy of successive drought-breaking rains, than they have been for many years; desalination plants, given the go ahead in drier times, are near to commissioning if not already in production; and the debate in the general media has moved on to the rights of irrigators in the Murray-Darling Basin and the impacts on food production and rural communities if flows to agriculture are reduced.

Outside of the water sector focus on, and interest in, the critical and intransigent nature of issues associated with water, appears to have come down several notches.

But it is in this context that AWA, in conjunction with Deloitte's water industry team, has undertaken the first AWA / Deloitte State of the Water Sector Survey for the period 2010-2010.

Good planning is only possible with good knowledge. In water, much effort has put into understanding the technical aspects of a project or process but much less on accessing the views and opinions of those who build or design infrastructure, operate it, manage it, repair it, finance it or explain it.

Yet, this group has an intimate day by day and – it will be seen – year following long year of knowledge of water equipment and systems, processes and programs, their interfaces, their effectiveness, their inadequacies.

The preliminary findings of this first AWA / Deloitte survey represent a consolidated perspective of the water sector by almost 1200 of those with deepest knowledge and experience across every state and region.

The Survey reports not just the views of the major urban water utilities, nor even of the multiple smaller operations of local government; not just the views of engineers, managers and consultants.

It is, in fact, the consolidated view of water sector participants at every rank from board and executive level through to contractors and owner operators, and to supervisors and front line team employees – a host of whom have been in the sector for more than ten years and plan to be in the sector for another decade.

The Survey identifies the priority issues for the water sector and gauges its level of preparedness to confront these issues. The preliminary findings here will be followed by state perspectives and other cuts through the data to provide additional insight into industry views.

A final report will be completed for AWA's annual national water conference to be held in Adelaide in May 2011 and it is proposed that the survey be repeated in future years to track changing priorities in line with effective issues management.

The data is an important and unique source of information for all those working in the water industry, those who regulate it or otherwise oversee it, and those who consult to it; indeed for anyone with an interest in the future of water in Australia.

It is with great pleasure that we provide this first cut of the data and we look forward to presenting the results in more detail in conjunction with further qualitative data.

We believe the information gathered – informed, knowledgeable, balanced – can be an important input into water policy, planning and debate nationwide.



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Executive summary

This report is the first-cut analysis of data from the AWA / Deloitte *State of the Water Sector Survey 2010-15*. It presents the key consolidated findings of the research and highlights some of the critical issues.

The Survey was available to water sector participants nationwide and at all levels of seniority, all disciplines within the sector, and all ages and levels of experience. The responses received broadly reflect the demographic breakdown of the nation and there is a good representation of most groups within the sector. 1,162 individuals responded.

In short, this Survey is representative of the sector and statistically robust.

The survey is unique in that it has collected the views of those who understand the sector best: those who work within it or are associated with it in their day-to-day life. These are the people who know if a system is well managed or not, is being maintained properly or is being allowed to run down, is performing to specifications or is at risk, is financially sound or is costing the community more than it should.

There are many positive stories for the water sector from this data. It is heartening, for example, that 62% of those who work in or are closely associated with the sector – urban and rural – feel that its performance is ‘sound’ or ‘very sound’.

It is important also to know that of the many issues that might be priorities for the industry to address currently and into the future, the sustainable management of water is considered consistently to be the most important.

This finding, of course, challenges the sector. Only 25% of respondents feel that sustainability is being handled well currently. Achieving a sustainable water system in the face of population growth and a changing climate, and competition for resources by various parts of society and the environment itself will be difficult. The intense debate about the future of the Murray-Darling is an example of just how difficult.

The sector is also challenged by competition for human resources. While the sector is now implementing strategies to reduce current and future skills shortages, 85% of respondents who felt that the skills shortage is one of the most important issues facing the sector do not think it is being dealt with well. Clearly, the sector cannot do without skilled labour in all categories. Yet it faces competition from other higher profile industries such as mining and has difficulty in raising awareness of itself among graduates and other prospective employees.

There is a notable divide in some areas between the way respondents perceive the rural sector is performing and their views about the urban sector. Most feel that we are planning well for our future urban water supplies, but 75% and 73% respectively believe we are not planning well for future rural and environmental water needs. Likewise, 62% feel that urban infrastructure is being maintained well, but only 26% feel similarly about rural infrastructure. This is an interesting finding. Given that the vast majority of water use and most of the environmental issues occur in rural areas, the risks to the national economic and social well being and to the environment are clearly significant.

Respondents were asked to consider where in future our water supplies should come from. The most common response was that we should recycle more water. When asked about the barriers to recycling only 12% of respondents said that there was a risk that recycled water would not be fit for purpose. In other words, those who work with treatment systems and the management of potable supplies day-by-day feel that technically, we can produce a quality of water that meets the quality demands of consumers. The two most common barriers cited were ‘community resistance’ and ‘politics’. There is clearly a need – and an opportunity – for the sector to explain to the general community how recycled water systems can be managed safely, and to work with political representatives to prevent ill-informed responses.

The Australian water sector has a sound record of reform. Over the past 20 years the sector – both urban and rural – has become hugely more efficient and creative and demonstrates a high degree of financial security. Structural reform has been a feature of this process. Corporatisations of utilities, the separation of regulatory from operational responsibilities and improved governance arrangements, have made the sector a world leader.

Equally, the trend toward amalgamation of smaller utilities – such as has been pursued recently in Tasmania and south east Queensland – is seen as highly beneficial. Respondents believe that there are economies of scale to be had and that larger entities have more resources, and are better able to provide consumers with the services they need, while meeting all regulatory standards

There is, however, a push for further structural reform which, it is claimed, will enhance competition and improve efficiency further. Parallels are often drawn with other utility sectors, such as electricity and telecommunications, where a multiplicity of suppliers service the market and production, distribution and retail functions are often separate. However, there is scepticism about this trend to vertical disaggregation in the water sector with 54% saying it is not beneficial and only 30% finding benefit. This is not necessarily surprising. While vertical disaggregation is common globally in certain industries, Australia is now pursuing strategies for which there is no international precedence. Of itself this is not a bad thing; the sector should continue to innovate. But it is clear that in pursuing reform we will need to make sure that the benefits outweigh the costs, and that reform is not being undertaken for reform's sake.

One area in which the water sector is reforming without international precedence is in the development of water markets. Respondents believe, however, that this development can produce benefit in the form of better allocation of water and improvements in water use efficiency, with 59% and 72% respectively believing that water markets will help to deliver these goals. However, while these may be objectives that water markets can help to deliver, it will be essential that they are open, transparent and efficient. Presently, 42% of respondents feel that markets are not functioning well, and only 27% believe the opposite.

Effective regulation is vital in a sector that frequently displays the characteristics of a natural monopoly and provides services so vital to human health. It is encouraging to note that, overall, respondents think the level of regulation across the sectors is 'about right' and that most think that the regulation of environmental performance, water quality and corporate governance is effective. It is less encouraging that only a minority think similarly about economic regulation, particularly as ineffective regulation will distort the market for water service provision, limiting opportunities for competition to emerge. Some states – notably Victoria, New South Wales

and the ACT- have lengthy experience with independent regulation in the water sector. However regulators in other states have limited powers in the water sector. One hypothesis perhaps is that the respondents in states without such a long history of economic regulation are marking down performance of economic regulation. It will be interesting in future to disaggregate the responses on a state-by-state basis as it would be surprising if all states and territories felt similarly. Whether this is so, or not, it is vital that attention be directed to strengthening and ensuring the independence of economic regulators outside of Victoria, New South Wales and the ACT – a point also made in the NWC's second biennial review.

There has been a huge capital injection to the water sector over the past five years. Principally, this has funded the construction of desalination plants in a number of locations across the country, as well as funding improvements to irrigation systems. It is interesting, therefore, that respondents feel that expenditure within the sector will increase in the near future. Perhaps this can be ascribed to the need to invest in improving rural infrastructure. However, capital available to some government-owned enterprises is constrained by state borrowing limits, hindering the sector's ability to meet its goals. If expenditure is to increase, utilities will need to be allowed to take on additional debt outside state limits where it is financially prudent to do so.

The *State of the Water Sector Survey* has produced a rich database of information pointing to trends, priorities and challenges facing the industry. Further analysis will be essential to provide state-by-state and territory-by-territory perspectives and this will be done over the coming period. The survey will also be repeated periodically to track trends and to explore new and emerging issues. The following pages provide an insight into the first cut analysis of responses and highlights key directions about which the sector should be concerned.

AWA and Deloitte are delighted to present these findings.

The findings... at a glance

The 'big' issues

- Sustainability, water security (ensuring reliability and quality of supply) and water scarcity and planning are seen by respondents as the three most important issues currently facing the water sector
- While 55% see the issue of water security as being managed quite well (55%), only 41% see water scarcity and planning as being handled well; and only 25% see sustainability as being well handled
- While not ranked as important as sustainability, water security and water scarcity, other issues – nutrient recovery, institutional and governance reform, skills and ageing infrastructure – are seen to be the least well addressed:
 - 87% see nutrient recovery as being not well addressed
 - 86% see institutional and governance reform as being not well addressed
 - 85% see skills shortages as being not well addressed
 - 83% see ageing infrastructure as being not well addressed
- 62% describe the current overall state of the water sector (urban and rural) as quite sound; 35% disagree
- Respondents ranked the three most important issues in five years time slightly differently to the three most important issues currently.
- Sustainability was still seen to be the most important issue, and water security the third most important but adapting to climate change eclipsed water scarcity and planning to be ranked the second most important issue facing the sector.

Infrastructure management and maintenance

- 62% think urban infrastructure is being maintained well; but only 26% think rural infrastructure is being well maintained
- 58% think capital expenditure will increase in real terms over the next three to five years.

Sustainability / climate change / resource management

- 87% think climate change is moderate or significant threat to the sustainable management of water; less 2% thought it was no threat
- 57% think the water sector is not addressing climate change related issues very or at all well; 35% thought climate change issues were being dealt with quite well
- 75% think we are not planning well for future rural or agricultural water supplies
- 73% think we are not planning well for future environmental water supplies
- 55% think we are planning well for future urban water supplies
- 82% think water restrictions ensure wasteful practices are prohibited; only 18% think they inhibit consumer choice
- 69% think pricing contributes moderately or significantly to efficient water use
- Only 12% think there is a risk of recycled water quality not being fit for purpose; 27% see community resistance as the main issue; 24% said politics; 21% said cost
- Recycling more water, utilising stormwater as a source of supply and raising the price of water were seen to be the three most important things which should be done to meet Australia's future water needs (in the context of the increasing population).

Regulation

- 55% think the level of regulation overall is about right
- 80% think water quality / health regulation in their state is very or quite effective
- 57% think environmental regulation in their state is very or quite effective
- Respondents were split regarding the effectiveness of economic / price regulation in their state (41% positive; 45% negative)
- 44% think regulatory oversight of corporate performance is effective; 33% disagree.



Institutional reform

- 77% of respondents think the trend to amalgamation of smaller water utilities is beneficial
- However 54% think the trend to disaggregation of water utilities (i.e. separation of bulk water / distribution / retail / waste water etc) is not beneficial (30% thought beneficial)
- Respondents see the three most significant risks associated with disaggregation as reduced planning efficiency, 'lack of oversight of the big picture' and inefficiency
- 41% thought disaggregation poses risks in terms of planning efficiency (19%) and inability to see the 'big picture' (22%)
- 25% see inefficiency (14%) and lack of accountability (11%) as the most significant risk
- Respondents ranked the three most important objectives for future urban institutional reform to be ensuring the water industry is sustainable (21%), improving water security (reliability and quality of supply) (17%) and making the best of available water resources / resource sharing (16%)
- The same three objectives were ranked as the most important for future rural institutional reform, with the importance of improving water security (reliability and quality of supply) (18%) and making the best of available water resources / resource sharing (19%) rated even more strongly.

Funding models / investment

- 70% of respondents think urban water utilities should be fully or somewhat commercial
- 61% think rural water service providers (including irrigation infrastructure operators) should be fully or somewhat commercial
- 50% think competition in the provision of water services provides benefits for consumers; 43% disagree
- 81% think private sector investment in water infrastructure produces benefits for consumers; yet 89% think public investment is to be preferred to private sector investment.

Water markets / pricing

- A clear majority of respondents think the price of water does not reflect well the value derived by any category of users
 - 59% think the price of water does not reflect well the value derived by agricultural users
 - 57% of respondents think the price of water does not reflect well the value derived by domestic users
 - 61% think the price of water does not reflect well the value derived by commercial users
 - 69% think the price of water does not reflect well the value derived by industrial users
 - 42% think water markets in their state are not functioning well; 27% disagree; 31% don't know
 - 41% think a fully functioning market will reduce over-allocation; 22% disagree
 - 50% think a fully functioning water market will improve the efficiency of water use; 14% disagree
 - Respondents believe the three most significant reforms that should be introduced are full metering (15%), greater commitment to water accounting by government (12%), and better data on water availability.

Talent: attraction / retention

- 65% think recruitment and retention of employees is becoming more difficult
- The three most significant factors contributing to current skill shortages are competition for scarce skills from other industries (21%), lack of financial incentives (17%) and unclear career opportunities (11%)
- The three most significant factors for recruitment and retention are competitive financial / other incentives (18%), promotion of the sector (16%) and promotion of water jobs to graduates and school leavers (12%)
- Future skill shortages are seen to be most significant in engineering (20%), science / technical (14%) and at operator level (skilled) (11%).