Wednesday, 3 October 2012

FINAL REPORT TO CUAC

Water Products and Tariffs: Perceptions, attitudes and preferences of rural seniors

Collaboration between:
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1. Introduction

In 2011 the National Water Commission and the Productivity Commission conducted major reviews of the urban water sector, setting the scene for consideration of reforms in pricing and water management practices. Much of the discussion has concluded that mandatory water restrictions are not only inefficient but also an inequitable means of balancing supply and demand. Therefore the modifications currently under consideration in the formulation of urban water businesses' Water Plans 2013-2018 largely relate to the setting of tariffs.

There are concerns that the proposed changes could disproportionately impact some groups within the community including those living in small rural communities, who have to-date had their water tariffs subsidised by customers in larger regional towns. This is likely to be problematic for older residents, typically on fixed incomes, and at a time when other utility prices like electricity are also on the rise. Such financial burdens are likely to have implications for healthy ageing – diminishing older people's ability to remain active, productive, socially engaged and independent. Given the growing proportion of older people living in rural communities, the issue of healthy ageing is also likely to be critical to the ongoing viability of many rural communities.

In the lead up to the next water plan due for approval by the Essential Services Commission (ESC) in 2012, water authorities are required to consult with their customers, and also with various advocacy groups. While there is an extensive literature on the economics of water

[1] The views expressed in this document do not necessarily reflect those of the Consumer Utilities Advocacy Centre.

management policies and practices ((Sibly, 2006, Edwards, 2007, Crase et al., 2007), little is known about the impacts of water access and affordability on the health and wellbeing of senior members of rural communities and the subsequent impacts on rural community sustainability.

However, the ESC is required under the WIRO to apply certain principles in setting prices. They must take account of disadvantaged groups, and have regard to the ease of understanding tariff structures. In the current water planning phase, many urban water businesses are considering offering a range of water products, such as high security water and one concern is that consumers are constrained in their ability to readily understand such complex tariffs. There has also been significant interest (see, for example, PC 2011) in reducing the reliance on the fixed component of tariffs to better signal conservation messages, and finally, it has also been argued that tariffs should better reflect costs of supply and therefore prices should vary according to location.

For many senior members of rural communities, water security has direct implications for their health and wellbeing through their capacity to keep cool, maintain gardens, grow vegetables and live an active and engaged life (Alston and Kent, 2004). This raises questions about the impact of water security on an individual's capacity to remain active, successful, productive and positive. These important elements of 'healthy aging' are being encapsulated in health policy aimed at extending quality as well as length of life, such that individuals are able to maintain functional independence and a capacity to adapt to physical, mental, social and environmental challenges (Clark and McCann, 2003) - thus, reducing the burden on aged care facilities in the face of an aging population. (Peel, Bartlett and McClure (2004).

In the context of the Water Price Review to be conducted by the Essential Services Commission for the period 2013-2018, this report presents the findings of the project that focussed on the responses of rural seniors to recent and proposed water management strategies. More specifically, the study was designed to elicit the attitudes, perceptions and preferences of older rural residents - a group which is sometimes portrayed as doubly disadvantaged.

The report is broken into four main parts. In part two, the methodology employed is explained, and section three provides a summary of the main findings, followed by some brief concluding remarks and directions for future research in section four.

2. Methodology

At the request of CUAC, this study unashamedly avoids the temptation to take a quantitative approach such as is done in contingent valuation or other willingness to pay estimation methods. Rather, we have adopted a qualitative approach through the conduct of in-depth semi-structured focus groups. Focus groups were held across four different sites and involved people 65 years and older – people who have typically moved out of paid work and have access either to the government aged pension or depend on private superannuation sources. Focus groups enable a richer and deeper understanding of issues (Krueger, 1994) (Macnaghten and Myers, 2004).

The study region of North-East Victoria (bordering New South Wales) is known for its scenic beauty and proximity to the River Murray. The region has a diverse rural population with some areas attracting in-migration while others are in decline. Of the four sites in this study, one site has enjoyed recent growth, two are relatively static in terms of population and one has seen a decline in population. Town populations ranged from between 300 to just over 1000 people.

The case study sites were chosen on the basis of demographic profile (specifically each was home to a high proportion of older residents), geographical location and proximity to regional centres, and level of water security in light of climate change scenarios. All sites, regardless of their differing hydrology, have experienced the recent drought and high level water restrictions. They differ in that three have relatively high water security being located on a major river and a lake system or in a high rainfall area. One site has a significantly lower rainfall and is not located on a river. Water supplies at all four sites are administered by the same regional water business and comprise towns on mains water outside of regional centres.

Table 1: Profile of study participants

Study site	Number of participants	Age range	Gender mix	Pension or self-funded retiree	Home owner

1	8	67 - 93	6 (F), 2(M)	8 Pensioners	1 renting 7 own home
2	9	64 - 80	6 (F), 3(M)	1 self-fund 8 Pensioners	2 renting 7 own home
3	10	62 - 87	8 (F), 2(M)	1 self-funded 9 Pensioners	3 renting 7 own home
4	12	64 - 85	8 (F),4 (M)	2 self-funded 10 Pensioners	2 renting 10 own home

Details about focus group participants are included in Table 1. Participants were recruited via the local Senior Citizens organisations and discussion groups varied in size from between 8 and 12 participants. Groups were convened for between one and two hours to ensure that adequate time was provided for discussion and an interview schedule was followed to minimise subjective, interpretative bias. The main questions focused on:

- the role of water in participants lives, both now and in the past;
- how the recent drought had impacted on participants lives; and
- participants' views and perceptions of current water pricing.

All proceedings were tape recorded, and the text transcribed and entered into a qualitative data analysis program, QSR-NVIVO. The data were then analysed using an interpretive approach. The main themes that emerged from this analysis were water and health, water use behaviour, water type and water costs.

The study received ethics clearance from the University ethics committee, and all participants gave informed consent. To protect anonymity of participants, particularly those from small rural communities, which are potentially identifiable, only the group is specifically identified in this paper.

3. What we heard from the Seniors

While the results of this research are preliminary, this analysis yielded several key findings. A characteristic of the participants that stood out was their resilience and adaptability, evidenced over many years of dealing with fluctuating water availability. In contrast to much that is written about rural communities, this ability to deal with what nature (and policy makers) delivers was a hallmark of the focus group conversations. However, water was seen as occupying a vital role in participants' lives and the lives of their communities. More particularly, several key findings emerge from this study. First, water is essential not only for physical health but also for more general individual and community wellbeing; second, rural elders are well informed about hydrology and about the various values and uses of water; third, participants made a distinction between public and private uses of water. Finally, the attitudes and behaviour of this group are distinctive, and they contrast with those of younger generations and city dwellers. Participants viewed themselves as essentially frugal in relation to water, reflecting strongly held conservation values, in addition they were also adaptive, and they viewed water pricing decisions as irrational and counter-intuitive. These themes are explored in the discussion below.

3.1 Water and health

A recurrent theme across the focus groups was recognition of the importance of access to water for physical health and also for a sense of more general well-being. The importance of water to people's physical well-being was raised by all four groups, with repeated reference (21) to the exercise afforded by the maintenance of vegetable gardens, as the following quotes illustrate.

> *I think it is important for those in the later years to have a garden and to keep it going....it gives you exercise –Some mornings I wake up all stiff and creaky and just don't want to move.. the animals they get you up and going when you might not always want to..and I think the garden is the same. (4)*

The maintenance of a green lawn, both at home and on nature strips, was also raised as important for people's ability to walk safely. When the ground was dry and bare during the recent drought, it became uneven and quite treacherous particularly for those with walking frames. As one person noted:

The lawns were dead...walking up the street was more difficult, it was so dusty and dry. People with walkers found it difficult because it was rough and bumpy.(1)

Others highlighted the financial burden on those who needed to use more water for either economic or health reasons. In one group, the maintenance of a vegetable garden was seen as vital given the high cost and poor access to quality fresh fruit and vegetables.

Yes.... the quality isn't available if we have to buy it... you have to go to Albury/Wodonga to get good veges. Its not easy to buy fresh veges - its $50 to go to town ...and Corryong doesn't have that good a supply. It was an issue during the drought – you didn't have enough water to keep your garden – Vege gardens were the last things to go. (4)

In a related vein, several participants expressed concern about the additional cost of water to those who had poor health or disabilities, as well as financial concerns:

I know myself – I try to have a shower as much as I can, but because of my legs I have to have a bath. It is more comfortable in bath water... in the shower I just have to sit there and watch the water go down the drain.. in the wheel chair... I would have to turn on the shower, and by the time I had wriggled out of the chair and into the shower, water was just running down the drain...I was using a lot more water because of that. where I live the owner doesn't want me to make any modifications, I'm renting see, and so I can't make it better for myself. One hand rail in the toilet and that's it.(4)

It can be very expensive for somebody that's on dialysis because they use a lot of water. Jones was out there, he put in about four big tanks because he was on home dialysis. (2)

In addition to the focus on physical health, all groups noted the importance of water to mental health. This access to water was seen to take the form of views of water and more general access to water bodies such that one could walk beside a lake or waterway:

When I was having a very bad patch a few years ago – the lake was full – when things got me down too much I would go up to the lake and sit there stare at the water and the birds – I could then go back and tackle the difficult stuff – two dear people were dying. That was therapy to me – the water. To just go up there and watch the ducks - it was very important to my sanity. (1)

3.2 Knowledge of water types, uses and values

CUAC has previously expressed concern that the level of complexity embodied in differentiated water products is likely to cause confusion amongst water consumers, and

accordingly will require increased attention to education. However, this fear is not borne out in the context of this study. In fact, this study has revealed the substantial depth of knowledge of these rural residents about various sources and uses of water.

Their deep understanding seems to stem from their experience of various water sources over time, something which most urban residents cannot draw upon. For example, all four groups discussed the way dam water, river water, and tank water were typically used in and around the house:

> *In the country we had dam water, creek water and rain water - and we used it on a priority… used water differently… dam on garden, creek for flushing and rain for cooking and drinking. (1)*
>
> *Everything inside the house is rain water, anything outside is from the creek or dam... we never put drinking water down our toilets. (4)*

Participants were also aware of the specifics of the local hydro-geology, for example:

> *Actually we had spring water as well as bore water... when the springs got too low the bores would kick in. (1)*
>
> *We've got 3 bores put in and only one hit water... because we are on a rock we only get water from the top layer... we will only have water in that well if it rains... (4)*
>
> *The water has shifted dramatically in the ground since the drought. So we are getting springs in the most inappropriate places... where they've never been before. (4)*
>
> *Our water comes from the Mitta Mitta River, not Hume Dam, and that water comes through the weir. (3)*

This knowledge of hydrology also meant that participants were keenly aware of third party effects of their water use behaviour. Close proximity to a river was accompanied by a heightened appreciation of the calls on water supplies by downstream users. In contrast to the view about 'ownership' of local water supplies, residents were cognisant of a perceived need to conserve the water for downstream users.

3.3 Distinction between community and private values

Water was seen to have both private and social values, and participants distinguished between public and private uses of water. This included an appreciation of the amenity

value of bodies of water (see above for its relationship to mental health). A commonly cited example was the importance of the local municipal swimming pool, which was unanimously perceived as important for the physical well-being and the social connections it facilitated. Unlike private swimming pools which were seen as wasteful, access to a municipal swimming pool was perceived as a key component of a healthy community. In particular the pool was seen as a gathering place that brings together the generations:

> *I know here they have their swimming clubs so the more mature people swim in the morning and they leave the pool for the kids in the afternoon. Even though they do have a designated swimming lane it usually becomes chaotic so a lot of people do it in the morning. (2)*

In this way, access to such a facility was seen as building both social and community capital.

> *It also forms a community too, don't it, at the pool. Like, they have barbecues and, I mean, you go with your own picnic basket for your family, but then take it to the next step, they have barbecues so you take a salad and you share it with the others. So it's a community thing as well. (3)*

3.4 Attitudes and water use behaviour

a) Ours and theirs - notions of ownership of water resources

Participants in this study commonly expressed notions around 'their' water, implying ownership, and they perceived differences in both availability and quality across various geographic areas. There was a common perception that tank water was of higher quality than 'town water', but also that town water in large centres was inferior to that in smaller settlements. The evidence in relation to these assertions appears likely to be spurious and this attitude arguably reflects a preference for 'local' water sources and control. Moreover, there was a perception that although these participants were frugal in their water use, the same cannot be said of the behaviours and attitudes of 'city dwellers' and 'young people' whose 'profligate' use of water was bemoaned by participants.

> *One of the grievances we had during the restrictions, this is where the water comes from... you go to Melbourne go into a motel down there and there were no restrictions down there… up here we were told we had to limit our showers – and yet this is where the water comes. (2)*

It is worrying to watch other people – they still aren't frugal even after living through the drought. (4)

They also flush drinking water down the toilets...we use different water for toilets and what we drink. (4)

b) Ingrained conservation values- frugality

Participants were aware that their attitudes to water conservation had remained fairly consistent but that over time their water using behaviour had adapted, partly as a result of improved technology. Most of the participants talked about having improved the way they captured and stored water. They were aware of how such changes had provided greater water security during times of drought. Most people had put in new water tanks, including those in town and on the land. Several people talked about how their private infrastructure had meant they no longer needed to rely on the river for their water, or on town water. For example:

Although we have access to water from the river – we put in new tanks. When the floods came we pulled the pump out of the river and we haven't put it back. We have had plenty of water from the new tank. (4)

Didn't have to go back to the old measures during the recent drought... we had increased the tankage, a hell of a lot more so it wasn't such an issue. More storage... triple the storage – we did it ourselves and paid for it ourselves. (3)

The concept of self sufficiency was particularly appealing to this cohort, and this is also most likely connected to the view that their own water was of superior standard to 'town water'.

c) Opinions about water management strategies

Not unexpectedly, and in line with concerns expressed by the Essential Services Commission in their recent Tariff Issues Paper (2011), participants expressed frustration with current tariff structures that are heavily weighted towards the fixed component. They complained that this approach was irrational and failed to send a conservation signal. For single or double person households such as these, the current bill structure affords little possibility that reduced usage will result in a reduced financial impost.

I'm a single water user in the home... um... the biggest percentage of mine is big fees and the rest is a little bit of water only worth a few dollars... the rest is ALL FEES.(3)

They also expressed frustration that pricing structures did not reflect water availability, as they believed that in times of abundance the price paid should decline, although no-one suggested that prices should increase in times of shortage. Nonetheless, there was a general appreciation for the need to pay for infrastructure and those who had come off the land were well aware of the costs involved in providing and maintaining pumps and pipes. Their objection was the unacceptable weighting towards the fixed part of the water bill. For example:

We have to pay for the upkeep of infrastructure – it all costs – it's certainly not free water (4)

4. Concluding comments

In the broader context where there is concern about the viability of many small rural communities and where the government is emphasising the fiscal imperatives for people to 'age in place' (Peel, Bartlett and McCure, 2004; Davis and Bartlett, 2008), questions around the precursors for healthy aging are of increasing interest for policy makers. Abundant evidence exists to suggest that the contributions of by older rural residents are crucial to the social fabric of these communities (Davis, Crothers, Young and Smith, 2010; Warburton and Winterton, 2011). However, urban water policy makers face increasing challenges in the pricing and management of water supplies to such small communities. Typically, these communities have been subsidised by residents of the larger regional centres.

Accordingly, questions arise about the likely impact on this cohort of changed water management and pricing strategies. While this study has drawn upon a relatively small sample, the participants belonged to existing groups and have not, like many studies of water users self selected on the basis of an interest in issues around water management and design. Moreover, there has been surprising consensus across all groups and the points noted above were both widely reported and strongly expressed by participants. This study has shown the importance of water for the health of individuals and communities, but more importantly it has revealed the knowledge, resilience and adaptability of the older residents of these areas. Contrary to the popular view, these groups do not see themselves as

disadvantaged, and historically, they have shown an ability to take measures to adapt to changing water availability scenarios. However, their ability to continue to contribute to their communities, and thereby to participate socially, is likely to be constrained by the price they have to pay for their water. Current pricing arrangements that are heavily weighted towards the fixed portion of the bill are seen as irrational and counter-productive. Further difficulties are likely to ensue if postage stamp pricing was abolished as the result would see increased costs for these rural residents. This is particularly problematic as electricity prices are also on the rise.

Throughout this report we have emphasised that this group perceive themselves as distinct from younger generations and city dwellers, particularly in relation to the extent of conservation values held. A useful extension of this study would be to investigate the veracity of this perception. That is, is this group more attuned to conservation than their city counterparts or those from other generations? Is the existence of conservation values age related or is it a function of location or life experience?

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