Appendix D

# Focus Group Outcomes







What is she going to say?



What is he going to hear?



What does she have in mind?

# Western Water's Tariff Structure Research Findings

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### Contents

Introduction	3
<ul> <li>Background</li> </ul>	4
<ul> <li>Research Objectives</li> </ul>	5
<ul> <li>Methodology – A Qualitative Research Program</li> </ul>	6
Research Findings	8
<ul> <li>Sample Profile &amp; Important Notes</li> </ul>	9
<ul> <li>Understanding &amp; Perceptions of the Current Tariff Structure</li> </ul>	10
<ul> <li>Greenhouse Emission Reductions</li> </ul>	23
<ul> <li>Biosolids Reuse</li> </ul>	32
<ul> <li>Guaranteed Service Levels</li> </ul>	36
Conclusions & Implications	42
Appendices:	48
Appendix 1: Focus Group Moderator's Guide	
Appendix 2: Self-Completion Questionnaire	
Appendix 3: Respondent Showcards / Stimuli	





# Introduction





### Background

- Western Water is one of 13 regional urban water and sewerage authorities formed under the Water Act 1989, providing services to more than 50,000 properties and 120,000 people.
  - The vast majority (94%) of Western Water's customer base is residential.
- Western Water is preparing its 2008-2013 water plan for submission (1 May 2007) to the Essential Services Commission (ESC), which was established by the Government in 2004 as the economic regulator of Victoria's water and energy industries.
- Within the 2008-2013 water plan, Western Water needs to demonstrate that it has consulted with, and gained feedback from its customers in relation to the plan – specifically including the tariff structure and any proposed changes.
- As such, Western Water commissioned Ipsos to undertake customer research in relation to the tariff structure, in light of our company's significant experience in, and understanding of the water sector and tariff related issues in Victoria and other States.
  - Specifically, key members of the dedicated Agribusiness, Natural Resources and Environment unit at Ipsos conducted this research – namely Jasmine Hoye (Account Director) and Jenn Fowler (Research Analyst).



### **Research Objectives**

#### Research Focus...

- To develop a better understanding of customer preferences on the current tariff structure, as well as feedback on a range of proposed initiatives.
- The specific objectives and topics explored in the research included:
  - Awareness, understanding, perceptions and attitudes in relation to the current tariff structure including how it affects the relationship customers have with Western Water.
  - Ascertaining the overall role and value of water and sewerage service charges in influencing customer behaviours such as water conservation, both on its own, and relative to other measures and mechanisms, such as water restrictions, media coverage about the drought, etc.
  - Expectations of Western Water's future tariffs, generally and in light of broader issues such as the drought. This would include perceptions of continued use of Rising Block Tariffs, as well as suggestions for how (and why) the tariff structure might be improved, to meet the needs of customers, across segments such as different age groups, levels of water consumption, household and garden sizes, people living in different areas etc.
  - Exploring willingness to pay for greenhouse emission reduction strategies, including what customers understand this to mean, whether this is something they see as important, and price and other sensitivities towards this approach.
  - Exploring willingness to pay for further biosolid re-use strategies, including what customers understand this to mean, whether this is something they see as important, and any sensitivities.
  - Seeking advice on which services should be subject to Guaranteed Service Level (GSL) payments and how much these payments should be.
  - Exploring the fit of the proposed changes with Western Water as a company overall.



# Methodology – A qualitative research approach

- The research objectives were generally qualitative in nature, and previous research lpsos has conducted in relation to water tariffs and pricing reveals that this remains a fairly complex topic for customers to comprehend and respond to.
- Ipsos therefore recommended a *qualitative* research program to address Western Water's information needs, involving the conduct of **five focus group discussions with residential customers**.
  - Each group was 1.5 hours in duration, in order to comprehensively address the research objectives.
  - A detailed focus group discussion guide was prepared for Western Water's review and approval. A brief selfcompletion survey was also developed for respondents to complete at key points throughout the discussion, to allow for collecting individual responses prior to opening up the discussion amongst the group. This approach was important in understanding individual customer awareness and knowledge of the current tariff structure, as well as perceptions, needs and preferences without the influence of the rest of the group.
  - Ipsos worked closely with Western Water to develop a series of information sheets and scenarios across the various initiatives to be considered, which were provided as important stimuli for participants in the research.
  - The focus groups were conducted on April 2 and 3, 2007 the structure of the groups is outlined below.

<b>RESEARCH DESIGN: 5 Residential Focus Group Discussions</b>						
Participant Type:	Residential Locations					
Person Most Responsible for Paying the Water Account, and	Macedon Ranges	Sunbury	Melton/ Bacchus Marsh			
18 – 35 years of age	1	1	1			
36 years of age and over	1	1	1			
Total:	1	2	2			



### Methodology (cont'd)

- All respondents were the person in the household most responsible for paying the Western Water account, and residential customers who do not currently receive a water bill were excluded.
- All respondent recruitment was conducted by Cooper Symons, who have extensive experience sourcing people on water related issues, and undertook recruiting for the 2006 Water Preference Study, which Ipsos completed on behalf of Western Water.
  - Recruitment was from the telephone book and included a mix of different household water usage levels - eight participants recruited per group, with a total of 37 customers participating in the research.
  - To determine relative household water usage, potential respondents were asked to obtain a copy of their most recent bill and state their average daily usage, and the recruiter then used a chart prepared by Western Water (shown opposite) to determine whether the household fell with the efficient, average or high water usage band, based on the number of residents.
  - Target quotas set for each focus group discussion, to ensure an excellent mix of customers were included within the overall research sample – including age groups, owner/occupiers and tenants, household sizes, locations etc.







# **Research Findings**





### **Sample Profile & Important Notes**

- The findings provided herein are primarily qualitative in nature. However, some very *indicative* quantitative findings are also provided to support the in-depth qualitative findings, based on the individual responses from the 37 respondents, as collected in the self-completion questionnaires.
  - The findings should be interpreted in consideration of the sample profile, which included an good mix of males and females, different ages (from 25 80 years), household water use levels, income levels, owners and tenants, locations, occupations and backgrounds. Some of the key sample characteristics are provided on this page.
- Results were highly consistent from group to group. Therefore unless otherwise specified, the reader should assume that results were consistent across all locations.













# **Understanding & Perceptions** of the Current Tariff Structure



# Ipsos

### Current water usage is largely an unknown, although is generally seen as moderate

- Importantly, most customers have no idea how much water they are using (73% of respondents). Despite this, the majority believe they are not using very much (57%).
  - The 10 respondents who provided their average usage ranged from 100 to 1,100 litres per day, with the average being 475 litres. (See over for comparison against <u>actual</u> usage.)
  - It is worth noting that as part of the recruitment process respondents were asked to obtain their latest bill and tell the recruiter their average daily usage. That most could not remember the figure, having looked at it within days of the group confirms that this information holds no real meaning for them, and that there would need to be significant education efforts in place to change this. Customers spoke about being conservative and using what they have to use. They also spoke of looking at the trend graph to see if it has dropped when they have taken steps to reduce their usage as being a sufficient indicator.



Q.8 Do you feel that your household uses...? Q.9 How many litres per day does your household tend to use, on average? Q.10 In the past 12 months, has your household water usage...?



Q9. How many litres per day does your household tend to use, on average?	<u>Actual</u> Average Litres Used / Day		
1100 Litres	520 Litres 🔍		
889 Litres	750 Litres 🔍		
675 Litres	610 Litres 🏾 🎩		
500 Litres	3000 Litres 👚		
441 Litres	445 Litres		
400 – 100 Litres (depends on garden)	617 Litres 🕆		
350 Litres	361 Litres		
150 Litres	151 Litres		
100 Litres	240 Litres 1		
150 Litres	874 Litres 🕆		

- Only 3 of the 10 respondents who provided their daily average water usage within the selfcompletion questionnaire were within 50 Litres of their actual usage.
- Meanwhile, 3 were somewhat below what they thought, while the remaining 4 were using more than they thought – one being over 700 Litres out and another 2,500!
- This further confirms that most customers do not really know how much water they are using.



#### In last 12 months, has your water usage ...?



"I've never been extravagant – with a farming background you can't be."

*"I'm reasonably conservative except for showers. It takes a lot of water to cover me. I'm the son of a farmer, though, so I was always taught that water is very precious."* 

"Guilty conscience. We're doing things to save, but not nearly enough. We've upgraded appliances, but we're not doing anything in the grey water department." Most customers see themselves as fairly conservative and conscious about their usage. Quite a few also feel guilty they aren't doing more. Those who have reduced their usage in the last 12 months spoke of doing this in response to the drought and resulting water restrictions.

 Older customers and those from farming or rural backgrounds tend to claim that they have always been very careful with water, whereas younger customers tend to speak of only more recently reduced their usage – specifically within the last 4 to 6 months.

Customers described their social conscience as being a key driver in the way that they use water.

- Quite a few spoke of having reduced their usage to help avoid the prospect of rationing or even running out. There are also reports of some elderly people injuring themselves as a result – i.e. bucketing.
- Some who had increased their usage qualified that this was because their garden needed extra help to get through the drought.



### In their own words...

"I'm very conscious. Used to be half an hour in the shower – now about 5 minutes. It was really hard, but I did it and I'm also bucketing ... Cut down about 6 months ago, and started bucketing about 2 months ago. My garden is also dying because I don't water. It's because of the water restrictions."

"I should be doing so much more. Hate having dishes on the sink and there's the baby's bath, which happens every day. I should be doing more. I'm always washing."

"Reduced by half; I had a look at the graph. We put in a new lawn and had to put in a lot of water to get it started. Washing machine can run on to the front lawn. This is only a recent thing since the water rations started."

"My kids are telling me how to do things better. They're learning from school and the media."

"I'm depressed that we don't have much water left."

"I heard we only have 60 days of water left!"

"You don't want to be the only one with the green grass. So there's social shame involved. You get a stone through your window or someone will dob you in."

"We are all changing our minds. It's precious stuff. Growing up we spent days out under the sprinkler and have water fights. Now it's a precious resource so think we're all changing."

"My grandfather just spent two weeks in hospital because he was bucketing water out of the bath and he put his back out."

"There's no restriction on people having really long showers!"



# Plenty of opportunities for saving more water inside the home

Items inside the home...



Base: All respondents (n=37). Note: Small sample size.

Q.12 Do you have the following <u>inside</u> your home? CHOOSE AS MANY AS APPLY TO YOU. Q.13 Do you do any of the following things <u>inside</u> your home? CHOOSE AS MANY AS APPLY TO YOU.



# Many opportunities to reduce outside water consumption as well

Outside the home...



Q.15 Do you have or do any of the following outside your home? CHOOSE AS MANY AS APPLY TO YOU.

90



- Prior to discussing the tariff structure and specific charges, some customers in each focus group commented with prompting that the current tariff structure offers no real incentive to reduce water consumption.
  - This is because the water usage charges are seen as minimal, if not quite cheap, primarily in comparison to the service charges. Respondents tend to feel that because the water usage charges tend to make up only a small proportion of the overall bill, water saving efforts do not make much difference to the total bill amount.
  - In turn they tend to feel that there is not much need to look at the breakdown of charges on the account, given that they have limited ability to influence the overall charges.
  - Some also commented (without prompting) that the usage charges are generally quite low especially given the current water crisis, and the perceived need to instill a greater sense of value upon this finite resource. A few respondents did comment that the water charges are expensive, although upon exploring this further, this was related mainly to the service charges.

"Services are expensive. The water isn't so expensive."

"Service charges are 3 times the water cost. We paid huge rates for the sewerage when they built it all and now we have to keep paying for it."

"There is no incentive to save water - dollar wise."

"I have 2 incomes and no kids – the cost is within reason – it's immaterial. If the rates went up I would whinge, but I would pay it. The garden is very important to me. It's a huge investment for me. Would I let that infrastructure go to waste? Not unless it was \$50 for a glass full."

"You need the water you use water and you can't do any better so you just pay what you do. Our usage is down but the bill is the same...Financially it's not doing any good to save water."



### **The Current Tariff Structure**

- Customers were generally aware that there are service charges on their account, and that there is a water usage charge, based on how much water the household uses.
  - However, a few respondents also believe that there is a set price for basic water usage and that if usage goes above a certain amount, there is an 'excess water charge'.
  - They were not, however, able to say what that cut-off level is, as they had not looked into this (and because this is not really how the current system works).
- Given that customers do not tend to look at the breakdown of charges on their water bill, most are not aware of what the actual charge rates are.
  - Indeed, almost half of those in the groups did not even know how much their average total bill is. Of those who were able to say (n=20), the amounts ranged from \$30 \$600, and the average amount was around \$200.

#### "It's pretty cheap I think. Isn't it about 10 cents a litre?"

- There is limited understanding of what the service charges cover, and some skepticism about whether Western Water needs to keep charging the same amount given that the infrastructure has been in place for quite some time now.
  - With further consideration, respondents tended to concede that the charges cover 'maintenance'.
  - There is a general lack of understanding that this covers operating costs for water and sewage pumping, treatment, etc. As a result, some are concerned that the service charges are too high.
  - Once exposed to the actual charges and what they comprise, customers were generally accepting.
  - Seeing the average daily charge also tended to enhance acceptance.

*"I have always taken an issue with the sewer charges. How many times do we have to pay for it? What are the charges for?"* 



### **The Current Tariff Structure**

- Despite reasonable awareness that there is a 'user pays' system in place (40%), there is very little awareness of the "Rising Block Tariffs", let alone understanding of how this system works. This includes the number of blocks, and how they are used.
  - When exposed to the actual usage charges, most people are surprised to see how low or "cheap" they are. Notably, customers find it difficult to relate to kilolitres litres is easier.
    - This was especially clear when considering what customers pay for water on an average daily basis. This is certainly not something that respondents had considered before. Thinking about water charges in this way prompted people to think about what they pay for other household services on a daily basis, and made them realise even more how important water is.
- There is a strong feeling that the rates at each block are not sufficiently different and should be adjusted to encourage water conservation. It was too difficult for customers to offer specific suggestions as to what the amounts should be, without seeing the impact.
  - One respondent suggested that the Block 2 should be doubled and Block 3 tripled. A number of
    others agreed with this in principle, although wanted to understand how this would affect the bill.
  - One respondent made the comment that if a customer has a 10,000 litre pool to fill, it would cost them less than \$20, which he saw as ludicrous.
  - It was also too difficult for respondents to comment on the usage levels in each block, because they did not know the rationale for the levels, and also because they generally do not know how much water they use anyway.
  - When considering that the average property uses 770 litres a day, and that the rate in Block 2 is only 1 cent more per 100 litres, this 'negligible' difference reaffirmed that this lacks meaning.



In their own words...

"If they charge per litre, it's a better incentive. If you charged 10c per litre. And that should be for business and industry and everyone."

"We also agreed that the service charge should be less."

"Decrease your set charges and increase your use charges."

"To me [the water usage charges are] no incentive to save on water. It's such a minimal amount on the bill. If you use a certain amount of water then have a reduce fixed rate then that would encourage you to save water."

"Lots of things on the bill are quite small and you really have to look for them."

"The restrictions play a big role. The regulations have more of an impact than the price. Seems highly unfair. You can use as much as you want inside and you're limited outside, but as I understand it, most of the usage is inside anyway. They don't tell me how to use my electricity... If they were really serious, they'd give you an allocation per person, per head per household and an exemption for certain circumstances. There has to be flexibility in the system. They're relying on dobbing people in – that's bad in a small town."

"There's really only a very marginal difference between Block 1 and 2."



- There was a fairly strong sentiment among respondents that in order to better encourage water conservation, the service charges should be reduced, and the usage charges increased. Importantly, respondents stressed that this should not increase profits.
  - Respondents generally felt that such an approach would be more meaningful and relevant, given the current water crisis, and hence the need to conserve this resource.
- While customers generally supported this idea, there are a number of important factors that Western Water would need to consider:
  - Customers were concerned that large households or those with certain medical needs may be unfairly disadvantaged. Notably, they did not tend to be concerned about their *own* situation, rather *other* households who may experience financial difficulty as a result. There was a sense that options for customers likely to be unfairly affected (e.g. concessions, payment plans, exemptions) would therefore need to be widely communicated to address concerns and minimise the impact.
  - Conversely, there was also a sense that wealthy households would simply pay a higher rate rather than reduce their usage. Respondents used the rise in petrol prices as an example of this attitude.
  - Many respondents also commented that non-residential charges are too low, and need to be reviewed and/or increased. NB: Respondents were not aware the majority of usage is residential.
- The idea of introducing a variable sewage disposal charge (as is in place in Melbourne) appealed to customers, as it was seen as a fairer way to pay for disposal that would give customers more control over their total bill.

"If you have 4 people in your household, then I shouldn't have to pay the same amount when it's just me – I would be using less."



- The idea of removing the service charges from vacant land and applying the increase to occupied properties (\$55 p/a) did not appeal to most respondents.
  - It appealed to some of those who have vacant land but not all.
- Interestingly, of the few who supported this, most were male. Females tended to feel that it is unfair for people to subsidise others who can afford to have vacant land.
- Some respondents felt that perhaps Western Water should offer a reduced rate for vacant properties, but without applying any increase for other customers i.e. achieve this through implementing operational efficiencies to reduce *overall* service costs.
  - This was seen as something that Western Water could be doing 'as a matter of course'.

*"I think these costs should be something you consider when you buy a block of land. We can't all afford to buy a block of land."* 

"They could take the charge off but not charge everyone else the difference. For example, if they increase their water usage rates and they maybe go up to 4 blocks. They still get some of their money back, and don't have to charge everyone else. Even increase usage charge rather than apply a flat \$55 increase across the board. The only way I see people being happy with that is with a charge that they can control. 8 cents per a litre I'm happy to contribute, even 12 cents."

"They still have a connection to the land so they still have a duty of care. They should contribute – to overall maintenance of that service. Maybe a reduced amount, maybe not that much."





# Greenhouse Emission Reductions





### **Greenhouse Emission Reductions**

- Western Water's annual greenhouse emissions = 30,000 tonnes, 80% of which is from electricity. Options being considered to reduce / offset emissions include:
  - Option 1: Instead of buying coal based electricity, Western Water could purchase 100% of its electricity from government accredited GreenPower sources such as wind and solar energy from its electricity retailer. These energy sources do not produce greenhouse emissions, so this option would reduce emissions *from electricity* by 100%.
  - Option 2: Investing in 'carbon offsets' (such as tree planting to absorb the emissions) and capital infrastructure to capture greenhouse gases from a local land fill, and using those gases to generate energy for Western Water's operations. This would make Western Water 'carbon neutral' – i.e. the activities undertaken would offset or absorb the organisation's greenhouse emissions.
  - **Option 3:** Increasing the energy efficiency of its own operations, to reduce its total energy use through technological innovations as well as changing practices and procedures. At the same time, the company would invest in renewable energy options such as the collection of gases from its wastewater or sewage treatment plants, as a source of renewable energy. This would also make Western Water 'carbon neutral'.
  - **Option 4:** A combination of the above options, to make the company carbon neutral.



### Customers see greenhouse reductions as very important

#### Importance of Reducing Western Water's Emissions



Customers generally felt that it was important for Western Water to reduce its greenhouse emissions both before and after being provided with specific information about the extent of emissions the company produces. The two respondents who claimed that it is not important for Western Water to reduce its emissions had both initially responded 'don't know'. One was not convinced about global warming in general, and the other commented that Western Water is not corporately honest enough to be asking questions like this, which indicates a desire for greater transparency.

Base: All respondents (n=37). NB: Small sample size.

Q22 How important do you think it is for Western Water to reduce the greenhouse emissions produced in delivering its services to customers? Q23 Now that you know the extent of greenhouse emissions produced via Western Water's operations, how important do you think it is to reduce these greenhouse emissions?



#### Feelings Towards Option 1



- Of the four options presented to respondents, the GreenPower option was the most positively regarded.
- Respondents liked that this option would eliminate 80% of the company's emissions to start with – as distinct from offsetting the emissions.

*"I think that using wind and solar is a better and cheaper option."* 

"I think the easiest and cheapest option would be to be 'connected' to an already tried and tested method as in Option 1. Option 2 & 3 would probably cost a lot more and take more time to connect."

"All but option 1 are still using coal and with an increasing population and business there will still be an increase in coal emissions from power plants."

#### Base: All respondents (n=37). NB: Small sample size.



# Reasonably positive feelings towards carbon offsets, and efficiencies are well regarded

#### Feelings Towards Remaining Options



Reasonably positive feelings were expressed towards Option 2 - carbon offsets and renewable.

Efficiencies and investing in renewable energy generation are quite positively regarded. Efficiencies are seen as good business practice. More work is needed to convince customers why this is the preferred option though – some believe it will be expensive.

- Indeed, there would need to be considerable communications to support the introduction of any of these options, as some people did not clearly understand the options even though they thought them to be a good idea. There is also some confusion about greenhouse emissions and global warming in general, which would need to be addressed.
- A combination of the options was also highly regarded second to GreenPower. There is a general sense that many different actions will be needed.

Base: All respondents (n=37). NB: Small sample size.

Q.25 Please indicate how you feel about each of the options that Western Water is considering, to reduce or neutralise the greenhouse emissions produced in its operations. Refer to the information sheet in answering the questions.

Overall ranking confirms preferences for emission (coal) avoidance, and a <u>range</u> of actions **Ipsos** 

#### **Option Preference Ranking**



Base: All respondents who answered (n=33). Caution: Small sample.

Q26. Please rank Western Water's greenhouse emission reduction options from 1 to 4, with 1 being your most preferred option to 4 being your 28 least preferred, if Western Water were to proceed with this.



# High degree of willingness to pay for greenhouse emission reductions

- Respondents were asked to nominate how much they would be willing to contribute per year towards Western Water reducing its greenhouse emissions – both before being exposed to the options and afterwards.
- Only 8 or 9 of the 37 respondents consistently said that they would not be prepared to contribute anything towards this, and a couple were unsure. This means that most respondents were prepared to.
  - Prior to seeing the options being considered, the nominated amounts ranged from \$01 \$100, and the average of those willing to contribute was \$31 (or among all respondents, \$20). The most commonly mentioned amount (i.e. the mode) was equally \$10 and \$20 (6 respondents each).
  - After seeing the options being considered, the nominated amounts again ranged from \$1 \$100, and the average of those willing to contribute was a similar amount, at \$29. While the average among all respondents was a slightly higher \$22 at this point, the mode dropped to \$10 (8 respondents). This supports the \$10-\$15 anticipated requirement.
- Respondents were also asked whether they would specifically be willing to contribute an extra \$10 \$15 per year to assist Western Water in reducing or offsetting its emissions by 100%. The majority said that they would (68%), while 8 remained unprepared and 4 were unsure.
- These results indicate a high degree of willingness to contribute financially towards reducing emissions.
- Should a greenhouse reduction charge be introduced, it was considered important for Western Water to show this charge as a separate line item on the account not only for the purposes of transparency, but also to demonstrate clearly to customers that the company is taking specific steps to address global warming and reduce emissions produced in delivering services to customers (and *by* customers).
  - Importantly, many customers do not clearly understand their role in contributing to these emissions especially not in terms of emissions from sewage, but also in terms of the associated benefits of reducing water usage. Extensive communication with customers about this initiative would be required, as there is quite a bit of confusion surrounding emissions and reduction options generally.



# Arguments against contributing reveal an 'us and them' mentality

"I would prefer a user pays rather than set costs."

"I believe that it should be a cost that could be covered by the services and charges we already pay for infrastructure etc." "Global warming – still not convinced."

"I'm uncertain to whether the customer should pay for this. This should be included in the business budget."

"I don't think you can ask the consumer to accept the cost of going green. The water company must take on some of the cost."

"We all have to make changes at our own costs why can't they do it as well."

"Solar, wind and wave power have always been an option and this was expressed years ago. It's not until the earth gets unwell that they want to jump on the bandwagon! Our taxes should cover this option. Also it's more economical to run alternative energies than current energies so why would there be an extra cost?"

"I feel that the charges already incurred on the bill should cover these costs. The companies knew what was being produced when they started. This should have been taken into account."



# The majority, however, accept joint responsibility and the precedence of the issue

"What ever can be done to reduce emissions is extremely important so I would pay that small amount."

"Offsetting greenhouse emissions may contribute to increased rainfall."

"This needs to be done, there is no option (to keep going with the status quo is crazy). We have been reducing water capacity due to drought caused by global warming. Emissions must be cut so there is a financial cost to fix this."

*"I am more than prepared to pay well above \$100. I would therefore see \$10-15 as a real bargain."* 

"I believe it's very important for everyone to try and help with this and if we have to pay to ensure that this is done, that's the way it needs to be."

"I believe that every individual and organisation has a duty to assist in the reduction of greenhouse gasses where possible. Therefore a minimal dollar cost per year should be acceptable."

"\$10 per year is nominal and easily budgeted for. Would be prepared to incur \$10 per month if a tangible result is achieved. If the commitment is made across 50,000 properties all of whom are contributing, then \$100+ per year is not unreasonable."





# **Biosolids Reuse**





# **Biosolids Reuse**

- An important component of the research involved gaining customer feedback on the re-use of biosolids. The following information was provided to respondents, which they completed some questions on individually, and then discussed as a group. The information provided to respondents was as follows:
  - Biosolids are a nutrient-rich, solid organic material derived from the wastewater treatment process.
     Western Water produces around 15,000 cubic metres of wet biosolids (containing 15% water). This is equivalent to 1,500 truckloads per year, or it could fill a circus tent to the brink.
    - On average, each person in the Western Water region generates around 200 litres of wastewater 99% of this is water and 1% is solids.
  - Western Water collects the wastewater and it is treated at one of its 7 recycled water plants.
    - Long term storage of biosolids at treatment plants leads to groundwater pollution and can also result in odour generation and space consumption. The recycled water plants are running out of space for long term storage.
    - The Environment Protection Authority requires that Western Water uses the biosolids for beneficial purposes, so that their storage does not increase the impact to the environment.
  - Currently around 50% of the biosolids are re-used (as fertilizer, soil conditioner, compost and topsoil for rehabilitating completed landfill sites – i.e. once the landfill site is filled with solid waste). This is currently costing Western Water around \$250,000 per year.
  - Going forward, to help further reduce its environmental impact and address the storage space problem, Western Water would like to re-use the remaining 50% (i.e. ALL) of the biosolids produced by its customers. This would cost an additional \$250,000 per year.
- The following pages detail the respondent sentiment towards biosolids and their reuse.

Biosolids re-use is seen as important and very acceptable, with high interest in the product for domestic use

#### Feelings towards biosolids re-use

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#### Importance of 100% biosolids re-use



- There is little doubt that customers understand the importance of biosolid reuse; once they understand what this is and means, and the reasons why especially in reducing their environmental impacts. Notably, the term 'biosolids' is not a familiar one to customers, which means that communications in relation to this topic need to be simplified. Respondents readily related to the term 'treated solid human waste'.
- While 15 of the 37 respondents (41%) were willing to pay \$5-\$10 per year towards this (with a leaning towards \$5, although one respondent suggested \$50 and another \$20), the remainder were unsure, or tended to believe that Western Water should be exploring ways to make money from this rather than it incurring an expense. Nearly all respondents said that they would be happy to use the treated biosolids on their gardens (provided they are safe), which indicates a high degree of social acceptance. This is information that Western Water should be able to leverage in future.

Base: All respondents (n=37). NB: Small sample size.

Q30. How do you feel about the re-use of biosolids in things like compost, fertilizer and topsoil for landfill sites?

Q31. How important do you think it is for Western Water to invest in ways of recycling or re-using the remaining 50% of the biosolids produced by its customers, so that all biosolids are re-used?



### In their own words...

"Western should be processing the remaining 50% within cost as they would already be making money with the sale of fertilisers etc." "The biosolids can be sold as a fertiliser to the customer." "Do not know if ONE CAN PAY! - restricted low income." "Biosoilids have a net worth. More thought should be put into their investment." "I think it is not our responsibility as our charges are high enough." "Through using it we can improve the environment. More education is needed." "Need to solve this problem so I am happy to contribute financially to solve this." "I believe that the sale of biosolids would create an income if done properly." "As it's an environmental issue we all should try and help and unfortunately we as customers are creating this." "Environmental benefits - small amount to pay per year."

"I would still prefer to buy this as a product. It should be a profit turner not a disadvantage." "This is potentially a great resource. If extra treatment is required to make it saleable, this is an acceptable cost."





# **Guaranteed Service Levels**



# **Guaranteed Service Levels**

- Western Water is proposing to implement a number of Guaranteed Service Levels (GSLs) from 1 July 2008, which would apply to water supply and sewerage system interruptions.
  - If these are breached, customers automatically receive a rebate on their water bill, of \$25 or \$50.
  - Customers supported this idea, as it conveyed that Western Water seeks to be more accountable.

#### Proposed Water Supply Interruptions...

- 1. No more than 5 unplanned interruptions in 12 months
- 2. Customers to be notified about <u>planned</u> interruptions at least 2 days prior
- 3. <u>Planned</u> interruptions being fixed within the time advised
- 4. <u>Planned</u> interruptions not occurring during peak hours (5–9am, 5–11pm)
- 5. <u>Planned</u> interruptions taking no longer than 5 hours for the water supply to be restored
- 6. Repair of leaking service pipes within 5 days

#### Proposed Sewerage System Interruptions...

- 1. No more than 3 interruptions in 12 months an interruption meaning that the sewerage system is blocked and the customer is unable to dispose of any waste water down the drains during that time
- 2. Sewage spills contained in a house within one hour of notification from the customer, with Western Water also paying for the clean-up
- 3. Sewage spills contained within the time specified by Western Water, from the time that the customer notifies Western Water, with Western Water also paying for the clean-up

NB: Western Water's preferences are:				
٠	Water: 1, 2 & 3			
•	Sewerage: 1 & 2			



# Prior notification most important, as well as fixing leaks – given the water crisis

#### Importance Level of Each Proposed Water Supply GSL



The majority of respondents see <u>all</u> of the proposed Water Supply Interruptions GSL as extremely important. Some commented that 5 days is not quick enough for GSL 6, considering storage levels. Notably, very few had ever experienced service below these GSLs.

Base: All respondents (n=37). Note: Small sample size.

Q35. Please indicate how important you think it would be for Western Water to introduce each of the proposed

Guaranteed Service Levels – please keep in mind what it would mean to you if Western Water were to fail to meet the guarantee. Refer to the information sheet in answering the guestions.



A preference for interruptions outside of peak times over no more than 5 unplanned interruptions

Water Interruption GSLs Preference Ranking



Customers prefer a somewhat different mix of Water Supply Interruption GSLs from Western Water's preference. However, qualitatively, customers would accept the latter.

Base: All respondents who answered (n=30). Caution: Small sample. Q36. For each of the Water Supply Guaranteed Service Levels, please think about how your household would be affected if Western Water failed to meet the guarantee. Please rank the Guaranteed Service Levels from 1 to 6, with 1 being the highest impact to 6 being the lowest impact on your household, if Western Water did not meet the guarantee.



# Containing spills within an hour is clearly the most important to customers

Importance Level of Each Proposed Sewerage System GSL



Western Water's preferred GSLs are seen as highly important. Only one customer had experienced an interruption, and another knew someone who had experienced a sewage spill.

Base: All respondents who answered (n=34). Note: Small sample size. Q35. Please indicate how important you think it would be for Western Water to introduce each of the proposed Guaranteed Service Levels – please keep in mind what it would mean to you if Western Water were to fail to meet the guarantee. Refer to the information sheet in answering the guestions. A very clear preference for containing sewage spills in the house within an hour, as distinct from a non-specific time

**GSL Sewerage System Interruptions Preference Ranking** 



The sewage spill containment within an hour is the standout GSL, and the one that customers felt most strongly about in terms of attracting a \$50 rebate. As this is seen as far more critical than GSL 3, respondents were quite happy if just 1 and 2 were to be introduced.

Base: All respondents who answered (n=31). Caution: Small sample.

**psos** 

Q37. Now please rank the Sewerage Service Guaranteed Service Levels, from 1 to 3, with 1 being the highest impact to 3 being the lowest impact on your household, if Western Water did not meet the





# Conclusions & Implications





### Understanding & Perceptions of the Current Tariff Structure

- Customers generally understand that there are 'service' and 'usage' charges on their bill.
- While there is limited awareness of the specific charges (both service and usage), customers do believe that the service charges comprise the largest part of the total bill.
  - As a result, there is also a fairly strong sense that it is difficult to reduce the bill as a result of saving water – and hence the current structure does not incentivise water saving.
  - Instead, respondents are saving water because of the restrictions, as well as awareness of the drought and fears of running out. Social conscience is therefore a key driver in water usage.
- When exposed to the *actual* charge rates, customers generally see the water usage charges as quite cheap, if not too cheap. This is not only in comparison to the service charges, but also in a general sense of what they receive especially when considered on a daily average basis, and in comparison to other household bills.
  - Although there was limited awareness and understanding of the Rising Block Tariffs, customers see this as a fair, 'user pays' system and support its continued use. When considering the rates at each Block, however, customers see both the rates and the differences as too small and certainly not an incentive to reduce their usage. As such, greater differentiation between blocks is sought.
  - Customers have limited understanding of what the service charges comprise, with some not even realising that maintenance costs are incurred.
    - Few had even considered that there are water and sewage treatment and pumping costs. As a result, there are some concerns that the service charges are too high.
    - Once exposed to the actual charges and what these comprise, customers were generally accepting
      of these. Seeing the average daily charge also tended to enhance acceptance.



## **Tariff Structure – Looking Ahead**

- As customers were reasonably accepting of the current service charges (especially once they realise some of the things that it covers, and see the charges broken down on a daily basis), Western Water may continue with similar rates.
  - However, it would be prudent to undertake communications about what the service charges cover, in order to address some of the concerns and enhance customer understanding.
- Importantly, there was fairly strong sentiment that if greater water conservation efforts are required, then the service charges should be reduced and the usage charges increased accordingly. This is a change that Western Water could consider for the future.
- The idea of introducing a variable sewage disposal charge (as is in place in Melbourne) appealed to customers, as it was seen as a fairer way to pay for disposal that would give customers more control over their total bill.
  - This is an option that Western Water could consider, although it would need careful communication.
- In relation to the Rising Block Tariff system, this should be retained as customers recognise it as a fair system. However, it would be prudent to consider more differentiation between the blocks, along with increased rates overall provided that the fixed service charges can be adjusted accordingly, and that this is a revenue neutral.
- The idea of removing the service charges from vacant land and applying the increase to occupied properties (\$55 p/a) is not recommended, as the majority rejected this.

# **Greenhouse Emission Reductions**

- Customers generally believe that it is very, if not extremely, important for Western Water to reduce its greenhouse emissions.
  - Most had not previously considered Western Water's emissions, and were surprised to learn that the delivery of water and sewerage services creates so many emissions.
  - The amount of 30,000 tonnes is something that customers could not readily relate to, which having the comparison of 6,900 cars helped with. However, it would be prudent to find a way to communicate this in a simpler fashion – visual information is recommended.
  - Importantly, many customers do not clearly understand their role in contributing to these emissions – especially not in terms of emissions from sewage, but also in terms of the associated benefits of reducing water usage.
  - Extensive communication with customers about this initiative would be therefore required, as there is quite a bit of confusion surrounding emissions and reduction options generally.
- In turn, the majority are quite prepared to contribute financially towards Western Water reducing and/or offsetting its emissions.
  - Western Water should consider a variable charge based on usage, in light of customer sentiment about charges in general. It will be important to include this as a separate line item on the account to demonstrate the initiative's precedence.
- To address the arguments against contributing financially, with the 'us and them' mentality, communications should convey a message along the lines of Western Water being a part of the community and funded completely by and for the community.



# **Biosolids Reuse**

- Full biosolids reuse is definitely an initiative that customers support, and which Western Water should pursue. Simple terminology will be needed in rolling out communications.
- Quite a few customers are willing to pay an additional \$5 \$10 per annum to cover the current costs of biosolids re-use.
- However, many struggled to accept that Western Water has not yet turned this into a revenue stream. Further, nearly all respondents also commented that they would be happy to buy some biosolids for their own gardens. This highlights a high degree of social acceptance, and understanding of the environmental imperative of waste reduction.
  - If customers are themselves prepared to buy it, this is something that could be used as a form of leverage in gaining wider acceptance in the commercial sector.
- The question then, is how much longer will this be a cost rather than a revenue source for the company? Is this a charge that could be imposed for the next one or two years, shown as a separate line item on the account (to further communicate Western Water's commitment to sustainability), and introduced as a temporary charge until the company is able to implement this at no net cost if not turning generating overall cost savings.
- Given strong support for using the biosolids to produce biofuels, this is something that Western Water should certainly explore further.



# **Guaranteed Service Levels**

- Customers see Guaranteed Service Levels as a good idea, and support Western Water introducing these.
  - Although very few had experienced service levels below the proposed GSLs, this is still seen as a way for Western Water to hold itself more accountable.
  - Western Water should therefore proceed with the introduction of GSLs.
- In terms of specific GSLs, respondents would be satisfied with Western Water's preferred options especially for sewerage interruptions.
- However, if given the choice, there is a preference for planned water supply interruptions not occurring during peak hours, over 'no more than 5 unplanned interruptions in 12 months'. Western Water should therefore consider this alternative.
- In addition, if the repair of leaking pipes within 5 days is introduced, this would send a good message in terms of accountability especially during the current water crisis.
  - However, as some respondents questioned whether 5 days was responsive enough, this timeframe may need to be reduced for maximum benefits in terms of customer perceptions.
- Customers were unsure as to how much the rebate for each option should be, however were generally happy with \$25 this is seen as reasonable, and better than nothing.
  - For the sewage spills however, customers welcome a higher form of compensation this is where the \$50 rebate is most appropriate and should be applied.





# **Appendices**







# Appendix 1: Focus Group Moderator's Guide







# Appendix 2: Self-Completion Questionnaire







# Appendix 3: Respondent Showcards / Stimuli









What is she going to say?



What is he going to hear?



What does she have in mind?

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