

# SUNBURY'S WATER FUTURE

COMMUNITY ENGAGEMENT

**WIDER ENGAGEMENT (PHASE 1) REPORT**

**1 May 2019**

## LIMITATIONS OF USE

The sole purpose of this report prepared by MosaicLab ([www.mosaiclab.com.au](http://www.mosaiclab.com.au)) is to provide a summary report on findings of a stakeholder survey and nine face-to-face community conversations conducted by Western Water and Melbourne Water and facilitated by MosaicLab in relation to the development of an integrated water management (IWM) plan for Sunbury.

This report has been prepared in accordance with the scope of services set out by Western Water and Melbourne Water. In preparing this report, MosaicLab has relied upon the information provided by the people who responded to the survey or participated in the sessions. Western Water and Melbourne Water can choose to share and distribute this report as they see fit.

MosaicLab accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

PLEASE NOTE: While every effort has been made to analyse participants' comments accurately a small number may not have been included in this summary due to the legibility of the content.

## REPORT PREPARED BY:



# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>	<b>4. ENGAGEMENT FINDINGS.....</b>	<b>14</b>
OVERVIEW .....	1	4.1. BENEFITS.....	14
KEY FINDINGS.....	1	4.1.1. What benefits are most important?.....	14
Benefits of integrated water management .....	1	4.1.2. Comments on benefits ranking.....	16
Stormwater .....	2	4.1.3. Additional benefits.....	17
Wastewater.....	2	4.2. DRINKING WATER (WATER SOURCES).....	18
Drinking water (water sources).....	2	4.2.1. Pros and cons: drinking water options.....	18
Waterways .....	2	4.2.2. Preferences: drinking water options .....	20
Future planning.....	2	4.3. WASTEWATER.....	23
Other ideas .....	2	4.3.1. Pros and cons: wastewater options.....	23
<b>1. INTRODUCTION.....</b>	<b>3</b>	4.3.2. Preferences: wastewater options.....	28
1.1. PURPOSE OF THIS REPORT .....	3	4.4. STORMWATER .....	30
1.2. PROJECT CONTEXT.....	3	4.4.1. Pros and cons: stormwater options.....	30
1.3. ENGAGEMENT PROCESS OVERVIEW.....	3	4.4.2. Preferences: stormwater options .....	33
<b>2. METHODOLOGY.....</b>	<b>5</b>	4.5. WATERWAYS.....	35
2.1. SURVEY.....	5	4.6. LOCAL VS BROADER IMPACT.....	37
2.1.1. Overview.....	5	4.7. FUTURE PLANNING.....	38
2.1.2. Survey questions.....	5	4.7.1. Investment .....	38
2.1.3. Information provided to participants .....	5	4.7.2. Community involvement.....	39
2.1.4. Promotion .....	5	4.8. OTHER COMMENTS AND IDEAS.....	40
2.2. FACE-TO-FACE ENGAGEMENT .....	6	4.8.1. Other comments: Survey .....	40
2.2.1. Overview.....	6	4.8.2. Other ideas: Face-to-face sessions .....	41
2.2.2. Feedback sought (topics discussed) .....	6	<b>5. NEXT STEPS.....</b>	<b>42</b>
2.2.3. Information provided to participants .....	6	<b>APPENDIX A: Survey questions.....</b>	<b>43</b>
2.2.4. Session details .....	7	<b>APPENDIX B: Fact sheets .....</b>	<b>47</b>
2.3. THEMING OF COMMENTS .....	11	<b>APPENDIX C: Diagrams.....</b>	<b>61</b>
<b>3. ABOUT THE PARTICIPANTS .....</b>	<b>12</b>		
3.1. SURVEY RESPONDENTS			
– GEOGRAPHIC SPREAD .....	12		
3.2. SURVEY RESPONDENTS:			
LENGTH OF RESIDENCE.....	13		
3.3. COMPARISON OF SURVEY RESULTS:			
PLACE AND LENGTH OF RESIDENCE .....	13		

# EXECUTIVE SUMMARY

## OVERVIEW

Between October 2018 and March 2019, Western Water and Melbourne Water commenced the first phase of community engagement as part of a planning process to develop an Integrated Water Management (IWM) Plan for Sunbury.

This initial, 'wider engagement' phase comprised of a community survey and a series of nine face-to-face community discussions (including targeted discussions, community workshops and one-on-one conversations). The survey contained questions centred around seven topics related to water management in Sunbury. The face-to-face sessions explored these topics in depth. The results of both the survey and the face-to-face sessions have been collated by MosaicLab and provided in this report.

This report will be provided to the Sunbury's Water Future Community Panel - a cross-section of approximately 30 randomly selected people from Sunbury and surrounding communities. The panel will consider this report, alongside a wide range of other inputs, during their deliberations in May and June 2019.



## KEY FINDINGS

Broadly speaking, the following key findings and themes were identified from across survey responses and the outputs collated from face-to-face sessions.

### BENEFITS OF INTEGRATED WATER MANAGEMENT

When asked to rank potential benefits of integrated water management from most important to least important, participants across both face-to-face sessions and the survey said that:

- 'water supply' (ensuring there's enough water available for the needs of the Sunbury region as the population grows) is the most important potential benefit
- 'healthy waterways' (ensuring we have enough water in the waterways for plant and animal life and reducing impacts of stormwater runoff) is the second most important benefit.
- 'green spaces' (having water available for parks, gardens and sporting fields and keeping them green during droughts) was given the lowest average ranking overall.

These findings were supported by comments made by the face-to-face participants. Participants were asked to explain their rankings, with access to clean, reliable drinking water and protection of the natural environment the key themes.

Survey respondents were additionally asked to consider the impact of water management and where benefits might be directed. Most respondents (70%) said they were happy to share the benefits of local solutions, as long as Sunbury and surrounds also benefit.

## STORMWATER

Across both survey and face-to-face session results, the most preferred stormwater option/scenario was for stormwater to be captured and re-used rather than continuing to let it flow into local streams. Participants in the face-to-face sessions indicated that protection of the natural environment and local waterways was an important consideration/advantage of capturing this excess water.

There were also high levels of support across both the survey and face-to-face sessions for collecting stormwater from rooftops, storing it in rainwater tanks and using it for gardens and toilet flushing (as examples).

## WASTEWATER

When presented with wastewater management options/scenarios, the most preferred option was treating wastewater locally to a higher quality (e.g. Class A) so more recycled water could be re-used locally. There was also strong support for using this water to improve waterway flows in local creeks and selling it to farmers for suitable agricultural uses.

The least supported wastewater option/scenario across both the survey and face-to-face results was to transfer wastewater to Melbourne's main treatment plant – some participants indicated that they felt this was a costly solution that reduced potential for local benefit/use.

Survey respondents also indicated that there is support for education campaigns that encourage people to use grey water, save water and capture their own water.

## DRINKING WATER (WATER SOURCES)

Most survey respondents (65%) were open to their water supply coming from either external or local sources. Those that preferred a specific source (e.g. local or external source) were most concerned about water quality, continuous supply and cost.

However, face-to-face session participants were slightly more likely to prefer that their water came from local sources over external sources. Some of the key advantages identified in relation to using local sources included

- It provides more control and local access;
- It's a more efficient solution; and
- It's less expensive.

Some face-to-face participants also identified securing continuous supply as a potential challenge associated with using local water sources.

## WATERWAYS

Protection of the environment and healthy waterways were seen as a priority by many participants and survey respondents. Ensuring that waterways have enough water to flow properly was selected as the most important future waterway management option (average rating of 8.7 out of 10 – where 10=very important and 1=least important), closely followed by improving the quality of recycled water and storing it so more can be released at the right times to improve flows in waterways option (average rating of 8.6 out of 10 – where 10=very important and 1=least important).

## FUTURE PLANNING

72% of survey respondents said investment in water management planning was 'very important' (selecting '10' where 1=not important and 10=very important). Most survey respondents also felt that community involvement in planning processes around water management was important (84% selected 8,9 or 10 on the rating scale where 1=not important and 10=very important). However, some people also commented that it was important that experts were brought in to provide planning support and technical input.

## OTHER IDEAS

The most common type of 'other idea' put forward across both survey responses and face-to-face sessions was that water saving and re-use should be prioritised and increased. It was suggested this could be done through a range of measures including installation of water tanks, water-saving shower heads, more recycled water pipes, more use of grey/recycled water and permanent water restrictions.

Some participants said they wanted to see more engagement and communication with the public – ensuring the community has a better understanding of Australia's water challenges (including its dry climatic conditions).

Some participants indicated they wanted to reduce water use and demand through conservation and education. Others said they were very concerned about population growth and the impact this would have on demand, emphasising the need to limit growth – which is outside the scope of Sunbury's Water Future project and the development of the IWM plan. The latter theme came through in comments made by face-to-face session participants in particular.

# 1. INTRODUCTION

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## 1.1. PURPOSE OF THIS REPORT

This report contains the findings of the first phase of community engagement for the Sunbury's Water Future Project. MosaicLab has prepared this report to provide a record of these inputs.

This report will also be provided to the Sunbury's Water Future Community Panel. The community panel of approximately 30 people will be randomly selected, and representative of a cross-section of customers from Sunbury and surrounds. Panellists will meet for five full days and consider this report alongside a wide range of other information and inputs. The panel will consider different views and perspectives and weigh up IWM options.

Panellists will write a report detailing their agreed recommendations, which will be presented directly to leadership representatives from Western Water and Melbourne Water. Western Water and Melbourne Water will use the panel's recommendations to the greatest extent possible in the development of an IWM plan for Sunbury.

## 1.2. PROJECT CONTEXT

Over the next 20 years, Sunbury is set to double in size. Western Water and Melbourne Water are working together to look at future water solutions for the region as part of the development of a Sunbury IWM Plan. As Western Water and Melbourne Water prepare for this growing population, the broader issues of climate change, the environment, and community liveability also need to be considered.

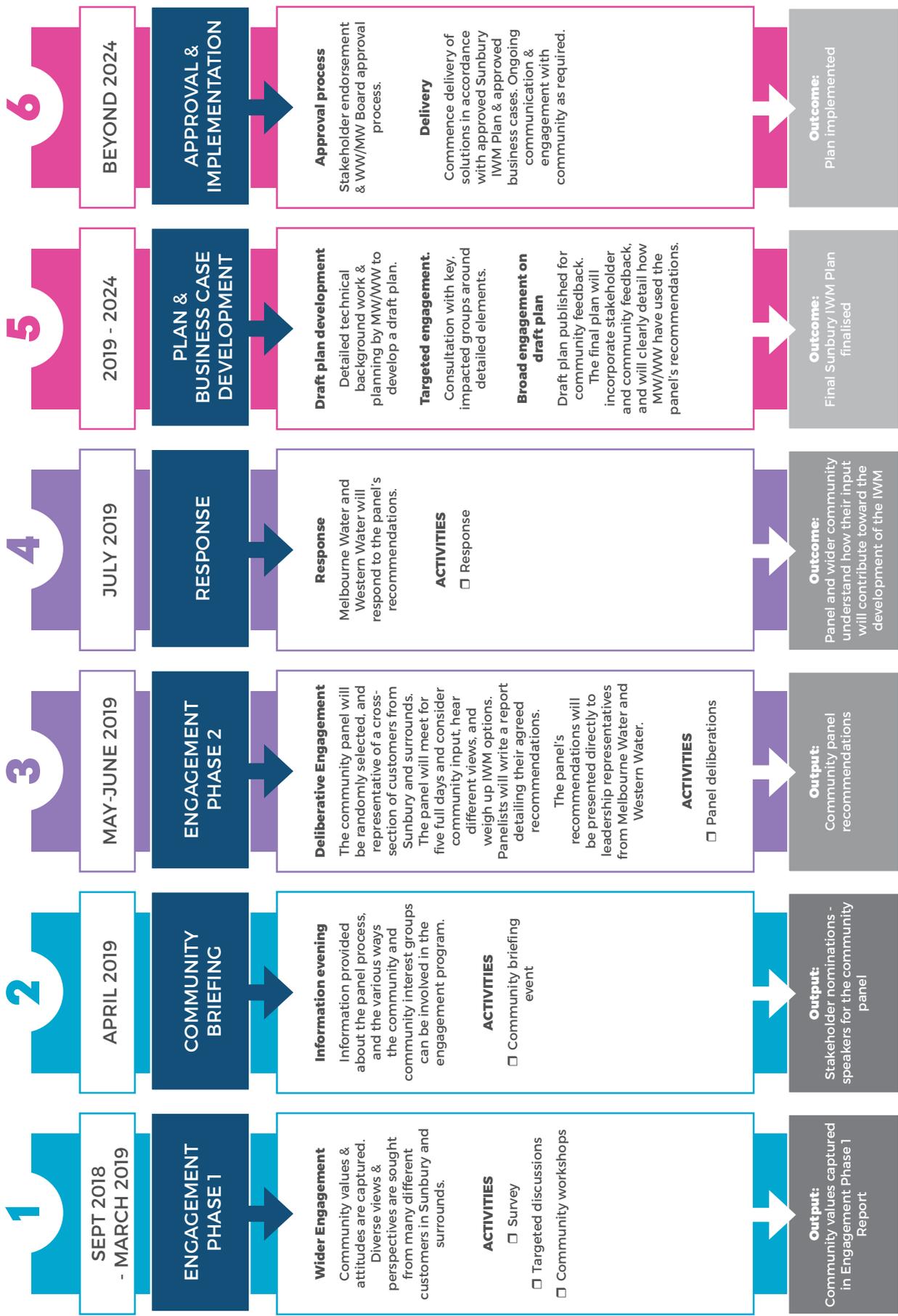
The plan will aim to make the most of all available water resources, including alternative water such as recycled water and stormwater, and minimise impacts on the environment. The plan will consider how to manage different elements of the urban water cycle and consider how their management can reduce the impacts of both climate change and the additional urban areas planned for Sunbury.

This project is being jointly undertaken by Western Water and Melbourne Water, because each organisation manages different aspects of the urban water cycle and both organisations need to work together to ensure planning is well coordinated.

For more information, visit [yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future).

## 1.3. ENGAGEMENT PROCESS OVERVIEW

The following roadmap provides an overview of the engagement process being undertaken by Western Water and Melbourne Water to develop the Sunbury IWM Plan.



# 2. METHODOLOGY

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## 2.1. SURVEY

### 2.1.1. OVERVIEW

The survey was delivered electronically and built using Survey Monkey. The survey was hosted on the Melbourne Water Have Your Say website and was open between 4 October 2018 and 28 October 2018. 283 people participated in the survey. The survey was designed to gather community values and ideas related to the future of water management in the Sunbury area.

The survey results were slightly limited in terms of overall sample size. The population of Sunbury and surrounding towns (postcodes 3427, 3437, 3438, 3440, 3441, 3431, 3429) is approximately 59,530. 283 respondents participated in the survey, meaning the sample size is accurate to a 95% confidence level within a margin error of +/- 6%<sup>1</sup>. To achieve a 95% confidence level and +/- 5% margin of error, a sample size of 382 respondents would be required<sup>2</sup>.

Responses to optional or conditional questions (questions offered only to respondents who selected a certain answer in a previous question) were further limited in number and should be considered with the lower response rate in mind.

### 2.1.2. SURVEY QUESTIONS

The survey contained 12 key questions (and an additional two questions relating to place of residence). These key questions were categorised into seven topics related to water management in Sunbury. All survey questions have been provided in Appendix A.

### 2.1.3. INFORMATION PROVIDED TO PARTICIPANTS

Respondents were provided with seven informative fact sheets and a set of project FAQs. These resources were made available on the Melbourne Water *Your Say* website and the fact sheets were downloaded 252 times. Links to relevant fact sheets were also provided throughout the survey itself. These fact sheets are provided in Appendix B.

### 2.1.4. PROMOTION

A link to the survey was sent via email to 10,441 customers. This included 6,396 Sunbury residents and 4,045 residents of other towns near Sunbury (Bulla, Diggers Rest, Gisborne, New Gisborne, Riddells Creek, Macedon, Mount Macedon) which may be affected by future water management solutions for Sunbury. 47% of recipients opened the email, and 7% of recipients clicked the survey link.

A reminder email was sent to those that didn't respond to the first email. This was delivered to 9,898 email addresses. 43% of recipients opened the email, and 4% of recipients clicked the survey link. A competition was run to encourage participation – all respondents were invited to enter the draw to win \$100 off their water bill. 230 participants opted to enter this draw. 497 unique visitors viewed the page while the survey was open.

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1 Confidence level refers to the level of certainty you can have that the results are a reliable - i.e. there is a probability that at least 95% of the result of the survey is also true for the wider population. The margin of error is the maximum expected difference between the survey results (the sample) and the true population (survey results that would be true for the whole population).

2 SurveyMonkey, 2018, MARGIN OF ERROR CALCULATOR, [surveymonkey.com/mp/margin-of-error-calculator/](https://surveymonkey.com/mp/margin-of-error-calculator/)

## 2.2. FACE-TO-FACE ENGAGEMENT

### 2.2.1. OVERVIEW

119 people participated in face-to-face engagement sessions, which comprised four targeted discussion groups, two open community workshops, two individual conversations and attendance and promotion of engagement opportunities at the Sunfest event.

Two other workshops for representatives of community groups were scheduled but not held due to lack of registrations. The few who registered were invited to the open community workshops. A fifth discussion group was scheduled and also cancelled due to no registrations.

Purpose
<p>The purpose of these sessions was to:</p> <ul style="list-style-type: none"><li>• discuss issues and opportunities around Sunbury's water future</li><li>• capture values and ideas about water management in Sunbury</li><li>• provide input to be considered by the Sunbury's Water Future Community Panel.</li></ul>

### 2.2.2. FEEDBACK SOUGHT (TOPICS DISCUSSED)

The face-to-face sessions sought to gather feedback that was (broadly) reflective of the questions and topics in the survey. These sessions offered an opportunity to discuss topics in more depth and gather additional input and ideas from participants. There were three core categories of feedback:

<b>Benefits of IWM</b>	<ul style="list-style-type: none"><li>• Ranking of possible IWM benefits and explanation of selection</li><li>• Identification of any other, additional benefits</li></ul>
<b>Elements of the system:</b> Stormwater, wastewater and drinking water	<ul style="list-style-type: none"><li>• Identification of pros and cons related to a set of potential IWM scenarios under each element</li><li>• Ranking of possible scenarios under each topic (most preferred to least preferred)</li></ul>
<b>Other ideas</b>	<ul style="list-style-type: none"><li>• Identification of any other ideas relating to Sunbury's water future.</li></ul>

### 2.2.3. INFORMATION PROVIDED TO PARTICIPANTS

The fact sheets survey respondents had access to (see Appendix B) were also available to face-to-face participants (online and as take-home printouts at sessions). Additionally, these participants viewed and discussed four diagrams (see Appendix C) during the sessions. The first diagram depicted overall water sources and uses. Three further diagrams depicted specific elements of the water system (stormwater, wastewater and drinking water) and the scenarios (options) being considered. Melbourne Water and Western Water representatives answered questions about the diagrams in each session.

## 2.2.4. SESSION DETAILS

### Targeted discussions

#### OVERVIEW

Five targeted discussion sessions were planned. Depending on each group's requirements, the sessions ran for 1.5-2hours. Depending on the time available, some groups were able to discuss more topics and complete more activities than others.

The youth session was undertaken as part of a larger event - the Sunbury KidX conference - which was run by the Field Trip group. The format of this session differed from other targeted discussions, however, participants provided feedback on integrated water management benefits (as per other sessions).

GROUP OR COMMUNITY COHORT	PROMOTIONAL ACTIVITIES	DATE, TIME & LOCATION	NUMBER OF PARTICIPANTS
<b>Environmental groups</b>	<ul style="list-style-type: none"> <li>Email sent to 14 groups</li> </ul>	Tues 5 March 2019 6.30pm – 8.30pm Western Water offices	12 people
<b>Sunbury Residents Association</b>	<ul style="list-style-type: none"> <li>Invitation sent to the Sunbury Residents Association (one group)</li> </ul>	Wed 13 March 2019 7.30pm-9.30pm Sunbury Bowling Club	14 people
<b>Recycled water users</b>	<ul style="list-style-type: none"> <li>26 customers contacted (email &amp; phone)</li> </ul>	Thurs 14 March 2019 6.30pm – 8.30pm Western Water offices	10 people
<b>Youth (KidX Youth Forum)</b>	<ul style="list-style-type: none"> <li>11 secondary schools &amp; youth organisations contacted</li> <li>400 flyers distributed</li> <li>Instagram posts</li> </ul>	Sat 23 March 2019 12.00pm – 4.00pm Sunbury Community Health Centre	20-30 people
<b>Young Families</b>	<ul style="list-style-type: none"> <li>19 childcare and primary schools contacted</li> <li>1,000 flyers distributed</li> <li>Facebook posts</li> <li>Notices in school newsletters</li> </ul>	n/a	No registrations*

*\*This session was designed to capture the views of young families in the area. Despite extensive efforts to promote this opportunity, unfortunately no interest was registered in the session and the event was cancelled.*

## Public workshops

### OVERVIEW

Two community workshops – open to anyone in the community to attend. Sessions ran for three hours. These sessions were longer than others, allowing participants more time to discuss and ask questions about the topics and complete the activities.

GROUP OR COMMUNITY COHORT	PROMOTIONAL ACTIVITIES	DATE, TIME & LOCATION	NUMBER OF PARTICIPANTS
<b>Public workshop 1</b>	<p>These workshops were supported by broad promotional activities including:</p> <ul style="list-style-type: none"> <li>• 1/4-page advertisement in Sunbury Star Weekly on 12 March</li> <li>• Flyers/ads in nine local primary school newsletters</li> <li>• Facebook (paid) and Instagram promotion</li> <li>• Email invitations to almost 8,400 local contacts:</li> <li>• Information on Western Water's and Melbourne Water's websites with links to RSVP</li> <li>• Distribution of flyers at SunFest</li> <li>• Direct request to share opportunity with Sunbury Business Association, Sunbury Community Health Centre, and Sunbury Neighbourhood House</li> </ul>	Sun 24 March 2019 10.00am – 1.00pm Sunbury Social Club	10 people
<b>Public workshop 2</b>		Wed 27 March 2019 6.00pm – 9.00pm Sunbury Bowling Club	18 people

## Individual conversations

### OVERVIEW

Two 1-hour conversations were conducted over video-link. These sessions aimed to capture the views of the community and business sectors in Sunbury respectively. These sessions were conducted in lieu of the cancelled community organisation workshops (see below).

Each conversation included discussion around the four diagrams that were used in other face-to-face sessions, and a Q&A with representatives of Western Water and Melbourne Water. Following the conversation, each participant was sent a survey that asked questions that reflected the key questions asked in the workshops and targeted discussions.

GROUP OR COMMUNITY COHORT	PROMOTIONAL ACTIVITIES	DATE, TIME & LOCATION	NUMBER OF PARTICIPANTS
<b>President of the Sunbury Business Association</b>	<ul style="list-style-type: none"> <li>Direct email/contact with each organisation in lieu of community org workshops when these were cancelled</li> </ul>	27 March 2019 Video link	1 participant
<b>CEO of the Sunbury Community Health Centre</b>		28 March 2019 Video link	1 participant

## SunFest event

### OVERVIEW

Western Water representatives also attended the SunFest community event in Sunbury. Staff were stationed at a café to raise awareness about the project and encourage people to attend community workshops. If unable to attend, people were encouraged to provide feedback on integrated water management benefits.

GROUP OR COMMUNITY COHORT	PROMOTIONAL ACTIVITIES	DATE, TIME & LOCATION	NUMBER OF PARTICIPANTS
<b>Sunfest</b>	<ul style="list-style-type: none"><li>Attendance at the festival was promoted by Western Water on Facebook on 15 March.</li></ul>	16 March 2019 11am-3pm Village Green, Sunbury	Approximately 15-20 families were spoken with on the day and 15 benefits ranking cards were completed.

### Community organisation workshops (invitation)

Two community organisation workshops were also planned. 91 community organisations were invited to send representatives to these workshops via direct contact from Western Water. These organisations were also sent a reminder email encouraging them to RSVP, and as there were no registrations a week prior to the event, most contacts were called again to encourage them to take part.

Three registrations were received so the events did not proceed. Those who registered were invited to attend the public community workshops instead. As a proxy for these workshops, MosaicLab conducted direct, individual conversations with two community representatives (see above). Additionally, other sessions (including the public workshops) were attended by community organisation representatives including people from various environmental groups, Sunbury Residents Association, U3A, CWA, Sunbury Little Athletics, Sunbury Neighbourhood House, the Sunbury Lawn Tennis Club, Sunbury Heritage Society, and the Sunbury Community Health Centre.

## 2.3. THEMING OF COMMENTS

MosaicLab has grouped comments made by participants across both the survey and face-to-face sessions into broad categories or themes, and these themes provide a general guide to the level of support (or number of comments) that could be attributed to each theme.

The number and percentage of comments against each theme has been calculated based on the total number of comments received in relation to that specific question or activity. Some comments were grouped under multiple themes; some comments/ideas were not related to a key theme. Therefore, the total number of comments made in response to a question or activity may not equal the total number of comments or ideas counted against the themes identified.

# 3. ABOUT THE PARTICIPANTS

Some geographic information was collected from survey participants. This has been summarised below. Individuals participating in face-to-face sessions were not required to provide this information, although some information about the groups and community cohorts represented in these sessions has been provided in Section 2.2.

## 3.1. SURVEY RESPONDENTS - GEOGRAPHIC SPREAD

268 people provided their postcode (15 people skipped this question). The largest cohort of respondents (75%) were from the Sunbury area (postcode 3429). Three respondents provided postcodes that were unknown (no location could be attributed to that postcode) and may have contained an error.

The survey was distributed to a list of customers within a certain number of postcodes (see Section 2.1). Respondents indicated that they lived in a postcode outside of this list, which may possibly be attributed to them having moved outside the region since their details were collected, owning multiple properties or owning a business within the region and living outside the region. Figure 1 below depicts the geographical spread of residents.

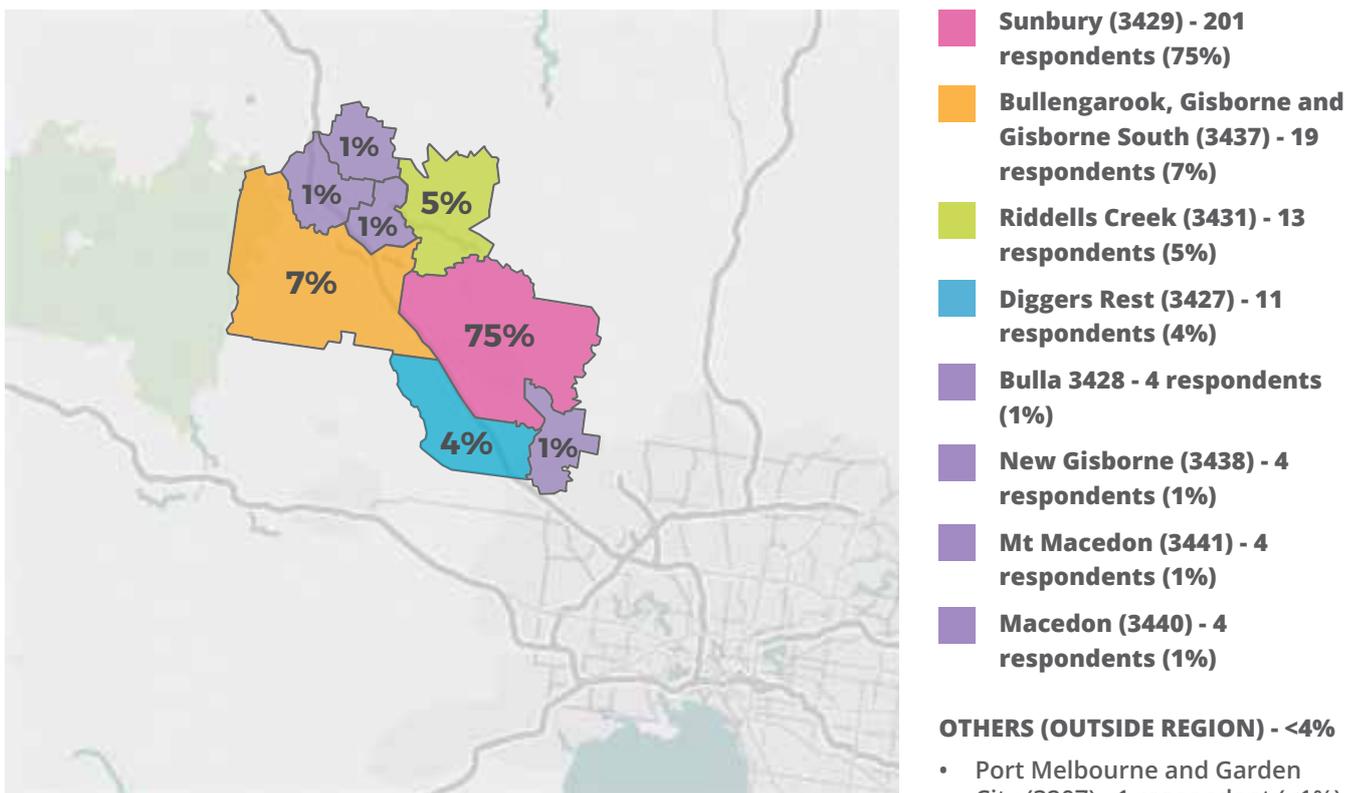


Figure 1. Geographic spread of respondents (place of residence).

### 3.2. SURVEY RESPONDENTS: LENGTH OF RESIDENCE

Respondents also indicated how long they had lived in the local region. 268 people completed this question (15 people skipped this question). 104 respondents had lived in the local region between 0-5 years and 90 respondents had lived in the local region more than 20 years.

Combined, new and long-term residents made up 73% of total respondents. 15 respondents indicated that they had never lived in the local area (likely landlords). Figure 2 below shows the full results.

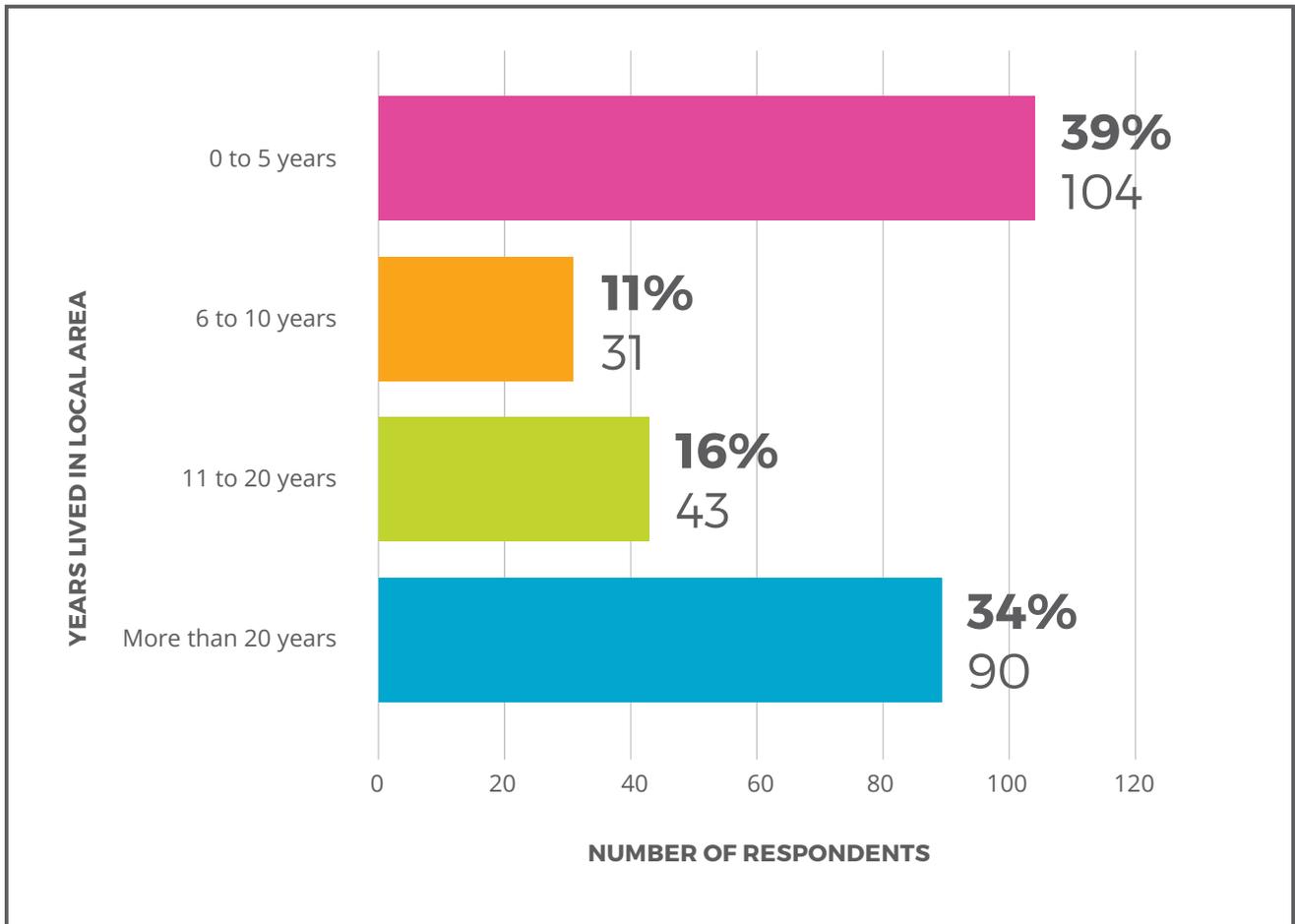


Figure 2. Length of residence in the local area (survey participants).

### 3.3. COMPARISON OF SURVEY RESULTS: PLACE AND LENGTH OF RESIDENCE

Overall, there was no significant difference identified when survey responses were filtered and compared based on people's place of residence or length of time living in the local area.

There was only a very slight difference in responses noted in relation to some questions. Where this has been identified, it has been noted in each relevant section of this document (see Section 4).

# 4. ENGAGEMENT FINDINGS

## 4.1. BENEFITS

### 4.1.1. WHAT BENEFITS ARE MOST IMPORTANT?

In both the survey and face to face sessions, participants were asked to consider a list of possible IWM benefits – the benefits of making the most of water sources available in the future (provided below). Participants ranked these benefits in order of importance (where 1=most important and 5=least important).

<b>Water supply</b>	Ensuring there's enough water available for the needs of the Sunbury region as the population grows
<b>Green spaces</b>	Having water available for parks, gardens and sporting fields and keeping them green during droughts
<b>Healthy waterways</b>	Ensuring we have enough water in the waterways for plant and animal life; reducing the impacts of stormwater runoff
<b>Agricultural and industrial productivity</b>	Providing treated alternative water (e.g. recycled water, stormwater) for use by farms and industry
<b>Affordability</b>	Keeping the cost of water services at levels as low as possible

### Survey findings

**283 respondents** completed this question. Respondents considered 'water supply' to be the most important benefit (average ranking of 1.5) followed by 'healthy waterways' (average ranking of 2.8). The graph below (Figure 3) provides a breakdown of the results.

<b>BENEFITS</b>	<b>AVERAGE RANKING</b> (where 1=most important and 5=least important)
Water supply	<b>1.5</b>
Healthy waterways	<b>2.8</b>
Affordability	<b>3.2</b>
Agricultural and industrial productivity	<b>3.6</b>
Green spaces	<b>3.8</b>

**Figure 3. Average (mean) ranking - values (survey respondents)**

## Face-to-face session findings

**77 respondents** completed the same ranking activity during the face-to-face sessions. These results were consistent with the survey. 'Water supply' was most frequently selected as the most important benefit, achieving an average ranking of 1.6. This was followed by 'healthy waterways' (average ranking of 2.5). The below graph details the overall results from across all sessions.

<b>BENEFITS</b>	<b>AVERAGE RANKING</b> (where 1=most important and 5=least important)
Water supply	<b>1.6</b>
Healthy waterways	<b>2.2</b>
Affordability	<b>3.0</b>
Agricultural and industrial productivity	<b>3.6</b>
Green spaces	<b>4.1</b>

**Figure 4. Average (mean) ranking – values (face-to-face session participants)**

### FACE TO FACE SESSIONS: BENEFITS FINDINGS COMPARISON

Generally, these results were closely aligned across all face-to-face engagement sessions. However, there were some differences:

- Recycled water users (targeted discussion) participants were more likely (than any other cohort) to rank 'affordability' highly (average ranking of 2.9).
- Community workshop (#1) and environment group (targeted discussion) participants were more likely to regard 'affordability' as least important (average ranking of 4.4 and 4.3 respectively).
- Youth (targeted discussion) participants consistently ranked 'green spaces' below all other benefits (average ranking of 4.1)

## 4.1.2. COMMENTS ON BENEFITS RANKING

In addition to a ranking exercise, face-to-face participants were invited to explain their rankings/selections (survey respondents did not have this option). **71 people** chose to provide a comment. These answers have been themed into categories which are provided below.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 71)	EXAMPLES OF COMMENTS PROVIDED
<b>Reliable water supply</b> Access to clean, reliable drinking water is paramount to human survival	18 (25%)	<i>"Town must have water to survive. No water = less residents, industry and amenities."</i> <i>"For the health and wellbeing of people, access to quality water is important."</i> <i>"Security of supply is essential, everything else is subordinate to that."</i>
<b>Protect natural environment</b> <ul style="list-style-type: none"> <li>• Healthy environment and waterways is key</li> <li>• Protection of flora and fauna is important</li> <li>• Negative impacts on environment negatively impact people</li> </ul>	8 (11%)	<i>"Water is essential for survival, but not at the detriment of the natural environment - must work in partnership."</i> <i>"We will create a desert or otherwise bring about extinction of flora and fauna."</i> <i>"Plant and animal life = essential for environment and human survival."</i>
<b>All the benefits are important</b> All benefits are important and interrelated - not possible to have one benefit without the other	7 (10%)	<i>"All are equally important and very difficult to prioritise."</i> <i>"I think all of them are pretty important."</i>
<b>Accept cost increases</b> Cost increases are acceptable if it guarantees water supply or provides substantial benefit	6 (8%)	<i>"Try to keep costs lower but at the end of the day cost is irrelevant - it's worth spending a bit more on such essential things to life and living."</i> <i>"We have to pay for a better more integrated system."</i>
<b>Water management suggestions</b> Other suggestions relating to how to manage excess water or improve current system	6 (8%)	<i>"Parks and gardens can use storm water and store in tanks."</i> <i>"Clean so not block the irrigation drip system in place."</i>
<b>Reduce demand on or need for water</b> Water demand reductions through water saving or limits on growth	6 (8%)	<i>"We need to restrict wasted water i.e. washing driveways etc."</i> <i>"Population should be capped to align with water, not the other way around."</i>

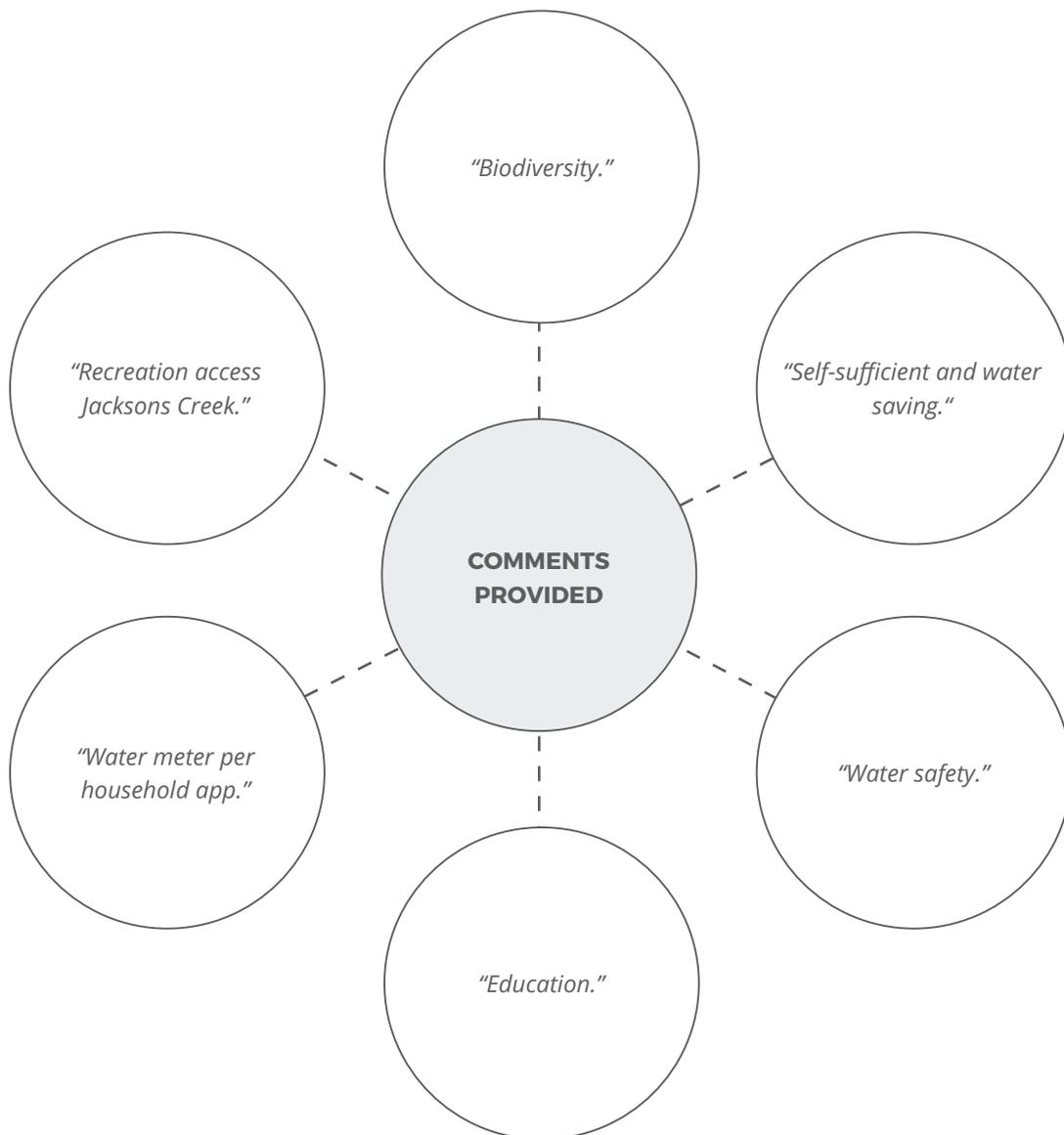
The below themes had four or less comments attributed to them:

THEMES WITH 4 COMMENTS ATTRIBUTED	THEMES WITH 3 COMMENTS ATTRIBUTED	THEMES WITH 2 COMMENTS ATTRIBUTED
<ul style="list-style-type: none"> <li>• Value/consider green spaces, parks and gardens</li> </ul>	<ul style="list-style-type: none"> <li>• Green spaces are not essential/a priority</li> <li>• Support for alternative water sources and supply</li> </ul>	<ul style="list-style-type: none"> <li>• Water quality is key</li> </ul>

Two comments were in the 'other' category and could not be attributed to a theme.

### 4.1.3. ADDITIONAL BENEFITS

In the face-to-face sessions, participants were also given the option of nominating an 'other' benefit (if they identified an additional benefit that was not listed.) **11 people** identified an additional benefit. Their ideas have been provided below:



## 4.2. DRINKING WATER (WATER SOURCES)

Participants considered three options (or scenarios) relating to drinking water (water supply):

OPTION A	Water comes from local sources.
OPTION B	Water supply comes from external sources (like the Melbourne supply system).
OPTION C	I don't mind where my water comes from.

Face-to-face session participants were also provided with a diagram depicting these options visually (Appendix C).

### 4.2.1. PROS AND CONS : DRINKING WATER OPTIONS

Working in small groups of 3-5 people, participants in the face-to-face sessions discussed and provided input on the pros and cons of each option (scenario). In total **88 separate comments/ideas** (pros or cons) related to drinking water were captured and have been themed in the table below<sup>3</sup>.

OPTION A: Water comes from local sources			
KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Provides local access, control and supply	10	Local water source not guaranteed	11
Efficient solution	3	Costly solution	6
Benefits natural environment	3	Water quality	5
Cost effective solution	4	Not enough water stocks	3
Creates self-sufficiency	1	Adverse impact on natural environment	1
Best water quality	1		

*"Possibly lower carbon footprint if water doesn't need to be transported over long distance."*

INTERVIEW PARTICIPANT

*"Rosslynne not enough for Sunbury."*

RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT

<sup>3</sup> Percentages have not been provided because, due to the group nature of this activity (i.e. multiple people contributed to the development of each idea) and the breakdown of themes under each option, the number of ideas against each theme is low in comparison with other sections of this report. A percentage (number of comments attributed to a theme against the total number of ideas) would not provide any substantial, additional meaning to the data.

**OPTION B:**  
Water supply comes from external sources (like the Melbourne supply system)

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Utilises reliable water source	5	Costly solution	6
Best water quality	2	Reduces local access, control and supply	3
Other	2	Water quality	1
		Adverse impact on natural environment	1
		Water wastage	1

*"Higher quality water."*

**INTERVIEW PARTICIPANT**

*"In drought Sunbury will be a lower priority than Melbourne."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

**OPTION C:**  
I don't mind where my water comes from

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Utilises reliable water source	5	Water quality concerns	8
Best water quality	2	Costly	4
Other	2	Local water source not guaranteed	1

*"Trust water corporation to supply quality water."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"Questions of quality."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"Reduces demand for catchment H2O means more H2O for the environment locally."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

*"Very much care about source of drinking water - not recycled, must be from rivers with sufficient flows."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

## 4.2.2. PREFERENCES: DRINKING WATER OPTIONS

Both survey respondents and face-to-face session participants were invited to indicate their level of support for these options. The question each cohort was asked, however, varied slightly.

### Survey findings

Respondents were asked to put costs aside and consider where they would prefer water to come from in the future to meet increased water needs due to population growth. The survey results indicated that most respondents (65%) don't mind where their water is drawn from in future. 22% of respondents selected 'local sources' as their preference, while only 9% indicated 'external sources' would be their preference.

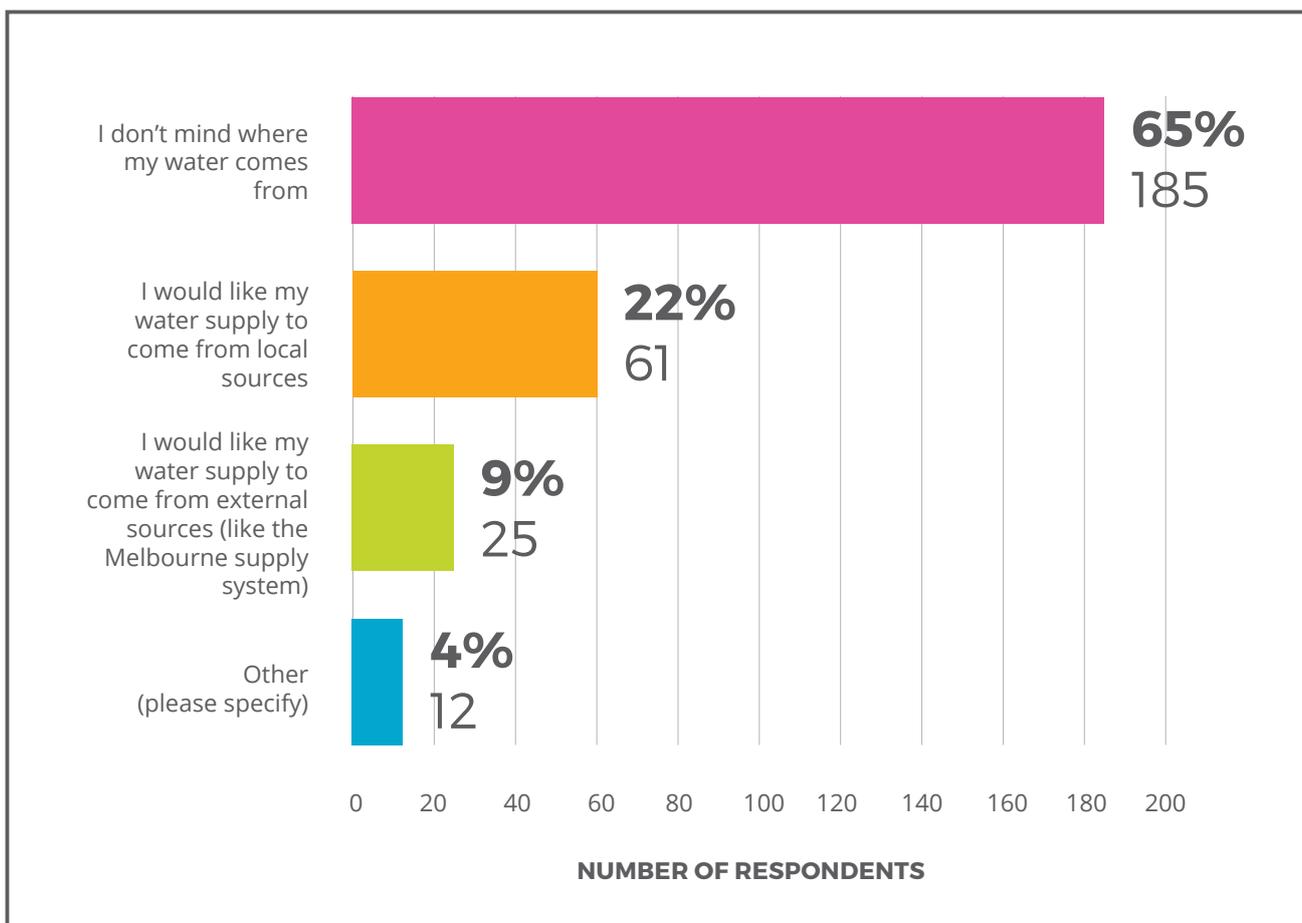


Figure 5. Preferences - where water comes from (survey respondents)

Survey respondents who selected 'local sources' or 'external sources' were asked to explain their answer. **55 respondents** provided an explanation as to why use of 'local sources' was important to them. The most popular reason given was that they believed it would affect quality and cost. Their answers have been themed into categories which are provided below.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 55)	EXAMPLES OF COMMENTS PROVIDED
Able to better manage water quality	14 (25%)	<i>"Cleaner and cheaper water."</i> <i>"We can have control over the water quality from local sources."</i>
To keep costs lower	14 (25%)	<i>"It doesn't have to travel as far. It would keep costs down."</i> <i>"Hope the cost of water will be cheaper. "</i>
Increases sustainability or environmental benefits	9 (16%)	<i>"Less cost and fossil fuels used for transport."</i> <i>"Sustainability of the local area."</i>
To encourage local employment	8 (15%)	<i>"More local jobs."</i> <i>"Keep jobs hopefully local."</i>
Accountability	8 (15%)	<i>"I know what is happening and can view and discuss if there are any changes or problems."</i>
Other	2 (4%)	<i>"Sunbury should be independent of Melbourne water supply."</i>

**23 respondents** provided an explanation as to why use of 'external sources' was important to them. The most popular reason given was that they believed it would be better for continuity of supply and water quality. Their answers have been themed into categories which are provided below.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 23)	EXAMPLES OF COMMENTS PROVIDED
To maintain continuous water supply	8 (35%)	<i>"Guarantee of continuous good quality water."</i> <i>"To ensure there is plenty of it as droughts are becoming more common".</i>
To ensure high water quality	7 (30%)	<i>"Water quality. The taste is better."</i> <i>"The Melbourne supply system is by far the best tasting."</i>
Because local water sources are insufficient	5 (22%)	<i>"Our local resources are not adequate to meet our needs."</i>
To reduce dependence on other rural communities	2 (9%)	<i>"Because towns in the Macedon Ranges region rely on their own water supplies (rainwater tanks) it wouldn't be fair to reduce their water supply potential."</i>
Other	1 (4%)	<i>"I don't want Sunbury using Rosslyne."</i>

## Face-to-face session findings

Participants were invited to rank the same three options from 1-3 (where 1=most preferred and 3=least preferred). Face-to-face session participants, on average, ranked Option A ('water comes from local sources' highest (average ranking of 1.7). For face-to-face participants, Option C ('I don't mind where my water comes from') was the lowest ranked option (average ranking of 2.1), whereas for survey respondents, this option was the most popular/ supported selection.

<b>DRINKING WATER (WATER SOURCES) OPTIONS (SCENARIOS)</b>	<b>AVERAGE RANKING</b> (where 1=most important and 5=least important)
<b>Option A:</b> Water comes from local sources.	<b>1.7</b>
<b>Option B:</b> Water supply comes from external sources (like the Melbourne supply system).	<b>1.8</b>
<b>Option C:</b> I don't mind where my water comes from.	<b>2.1</b>

**Figure 6. Average (mean) ranking – drinking water/water sources (face-to-face session participants).**

### FACE TO FACE SESSIONS: PREFERENCES COMPARISON (DRINKING WATER)

- Environment group members were more likely (than any other cohort) to rank 'I don't mind where my water comes from' highest (average ranking of 1.9).
- Community workshop (#1) participants (average ranking of 1.4) were most in favour of a scenario in which 'water comes from local sources.'
- Sunbury Residents Association members gave a comparatively lower ranking to the option 'I don't mind where my water comes from' (average ranking 2.3)

### DRINKING WATER – YOUTH IDEAS

Participants at the KidX youth forum worked in small groups and discussed whether drinking water should come from local or outside sources. The following is a summary of their responses.

- Use locally water where possible but supplement with other sources.
- Provide water education to help reduce water wastage and increase understanding of self-sustaining options.
- Protect water reserves so there is more water for future use.
- Use a desalination plant.
- Collect water in reservoirs, using nature to support the collection of drinking water.
- Look to combat the bigger problems causing water shortage, including global warming and population growth.

## 4.3. WASTEWATER

Participants considered five options (or scenarios) relating to wastewater management:

<b>OPTION A</b>	Transfer extra untreated wastewater to Melbourne's main treatment plant.
<b>OPTION B</b>	Treat all wastewater locally at the current recycled water quality (Class B) and transfer extra recycled water to sell to farmers for suitable agricultural uses
<b>OPTION C</b>	Treat all wastewater locally at the current recycled water quality (Class B) and use extra recycled water on local land purchased by Western Water to grow livestock feed.
<b>OPTION D</b>	Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water can be re-used locally.
<b>OPTION E</b>	Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.

Face-to-face session participants were also provided with a diagram depicting these options visually (Appendix A)

### 4.3.1. PROS AND CONS: WASTEWATER OPTIONS

Working in small groups of 3-5 people, participants in the face-to-face sessions discussed and provided input on the pros and cons of each option (scenario). In total **105 separate comments/ideas** (pros or cons) related to drinking water were captured and have been themed in the table below<sup>4</sup>.

<b>OPTION A: Transfer extra untreated wastewater to Melbourne's main treatment plant.</b>			
<b>KEY THEMES: PROS</b>	<b>NUMBER OF COMMENTS</b>	<b>KEY THEMES: CONS</b>	<b>NUMBER OF COMMENTS</b>
Cost effective solution	3	Costly solution	8
Maximises water	3	Reduces local access, control and supply	5
Utilising existing infrastructure	1	Water required locally	2
Costly solution	1	Limited capacity of Melbourne to treat	2
Efficient solution	1	Adverse impact on natural environment	2
Benefits waterways	1	Wasted water	1
		Impractical solution	1

*"Yes - better to use the water than waste it."*

**SUNBURY RESIDENTS ASSOCIATION TARGETED DISCUSSION PARTICIPANT**

*"Waste of water resources."*

**SUNBURY RESIDENTS ASSOCIATION TARGETED DISCUSSION PARTICIPANT**

<sup>4</sup> Percentages have not been provided due to the group nature of this activity (i.e. multiple people contributed to the development of each idea) and the breakdown of themes under each option, the number of ideas against each theme is low in comparison with other sections of this report. A percentage (number of comments attributed to a theme against the total number of ideas) would not provide any substantial, additional meaning to the data.

**OPTION B:**

**Treat all wastewater locally at the current recycled water quality (Class B) and transfer extra recycled water to sell to farmers for suitable agricultural uses**

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Benefits agriculture	3	Not suitable for food production	7
Maximises existing water	3	Current surplus of water	3
Cost effective solution	3	Water quality	3
Current solution	2	Costly solution	2
Reduces demand	1	Doesn't assist non-agricultural uses	1
Benefits to agriculture	1	Local soil not suited	1
Provides local access, control and supply	1	Impact demand	1
Impractical solution	1	Wasted water	1
Benefits green spaces	1	Adverse impact on natural environment	1
Creates self sufficiency	1	Reduces local access, control and supply	1

*"Opportunities for collaboration with farmers / irrigators to benefit."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

*"Limited because of quality of water - not best practice."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"If price is right, will utilise what is available."*

**RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT**

*"Not suitable for food production."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

**OPTION C:**

Treat all wastewater locally at the current recycled water quality (Class B) and use extra recycled water on local land purchased by Western Water to grow livestock feed.

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Cost effective solution	5	Costly solution	6
Benefits agriculture	2	Out of scope of role	3
Benefits green spaces	2	Limited space	2
Benefits natural environment	2	No benefit provided	2
Effective solution	1	Private enterprise	1
Reduces demand	1	Adverse impact on agriculture	1
Fosters awareness	1	Not suitable for food production	1
Maximises water	1	Water quality	1
Provides local access, control and supply	1		
Best water quality	1		
Creates self sufficiency	1		

*"Lungs of the city. More green space even if not accessible to people."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

*"Too costly for the infrastructure."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

*"Diversifying main core business opportunity for change and experiments"*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"High costs - low value - lack of expertise to manage."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

### OPTION D:

Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Maximises water	3	Costly solution	8
Benefits green spaces	3	Not available to all	1
Provides access to all customers	3	Water quality	4
Other	2		
Benefits households	1		
Benefits drinking water	1		
Best solution	1		
Benefits agriculture	1		
Creates self sufficiency	1		

*"Higher quality of water - benefit local community."*

**RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT**

*"High cost - no benefit to existing houses."*

**RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT**

*"Can be used for all needs locally including agriculture / stock feed and creeks."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

*"Over treating water since all needs to be drinking quality."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

**OPTION E:**

Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Benefits natural environment	9	Costly solution	5
Benefits waterways	8	Alternative solution	2
Best solution	1	Other	2
Cost effective solution	1	Time to implement	1
Provides quality water	1	Water quality	1
Bulk water entitlement	1	No clear benefit	1
		Adverse impact on natural environment	1

*"Good for the environment."*

INTERVIEW PARTICIPANT

*"No it will pollute our drinking water."*

SUNBURY RESIDENTS ASSOCIATION TARGETED DISCUSSION PARTICIPANT

**WASTEWATER - YOUTH IDEAS**

Participants at the KidX youth forum worked in small groups and discussed what should be done about increasing volumes of (excess) wastewater. The following is a summary of their responses.

- Use an evaporator to manage wastewater.
- Provide wastewater to farmers, and agriculture/ producing facilities.
- Treat it so it can supplement drinking water when low.
- Use it around the house for non-drinking tasks including watering lawns, flushing toilets.
- Boil the water – the heat will kill the germs.
- Separate the septic water from grey water.
- Limit waste water – implement water saving toilets, shower heads and shorter shower times.

### 4.3.2. PREFERENCES: WASTEWATER OPTIONS

Both survey respondents and face-to-face session participants were invited to indicate their level of support for these options. The question each cohort was asked, however, varied slightly.

#### Survey findings

Respondents were asked to rate each individual option on a scale of 0-10 (0=least preferred and 10=most preferred). The results are provided in the graph below.

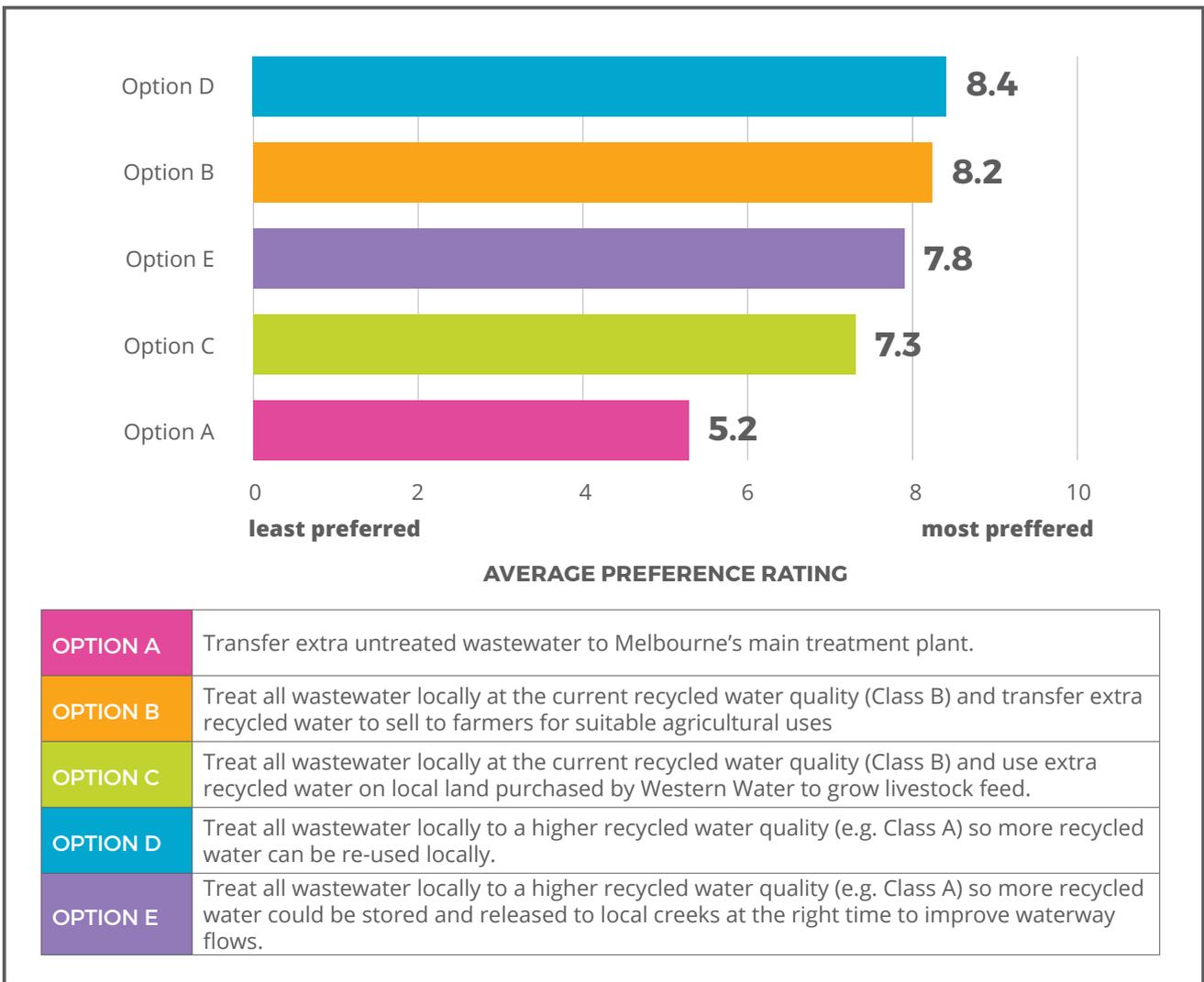


Figure 7. Average (mean) preference score – wastewater options (survey respondents)

#### SURVEY: RESPONSE COMPARISON (LENGTH OF RESIDENCE)

There was a slight difference between answers depending on people's length of residence in the region. Long term residents (more than 20 years) were slightly more likely to prefer not sending wastewater to Melbourne's main treatment plant (i.e. prefer to treat wastewater locally). People who had lived in the region 20 years or less rated Option E as an average (mean) importance score of 5.5 while people who had lived in the region more than 20 years rated this option an average (mean importance score) of 4.8.

## Face-to-face session findings

Participants were invited to rank the same options from 1-5 (where 1=most preferred and 5 =least preferred). The findings were similar to the survey results. 'Option D' ('treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water can be re-used locally') received the most support, with an average ranking of 1.8.

Options E (Treat all wastewater locally to a higher recycled water quality - e.g. Class A - so more recycled water could be stored and released to local creeks at the right time to improve waterway flows) 'and B ('treat all wastewater locally at the current recycled water quality - Class B - and transfer extra recycled water to sell to farmers for suitable agricultural uses') received comparatively similar levels of support; however face-to-face participants were slightly more likely to support Option E over Option B (whereas survey respondents were more likely to favour Option B by a small margin).

<b>WASTEWATER OPTIONS (SCENARIOS)</b>	<b>AVERAGE RANKING</b> (where 1=most important and 5=least important)
<b>Option D:</b> Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water can be re-used locally.	<b>1.8</b>
<b>Option E:</b> Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.	<b>2.2</b>
<b>Option B:</b> Treat all wastewater locally at the current recycled water quality (Class B) and transfer extra recycled water to sell to farmers for suitable agricultural uses.	<b>2.7</b>
<b>Option C:</b> Treat all wastewater locally at the current recycled water quality (Class B) and use extra recycled water on local land purchased by Western Water to grow livestock feed.	<b>3.6</b>
<b>Option A:</b> Transfer extra untreated wastewater to Melbourne's main treatment plant.	<b>3.9</b>

**Figure 8. Average (mean) ranking - wastewater options (face-to-face session participants)**

## 4.4. STORMWATER

Participants considered three options (or scenarios) relating to stormwater management.

<b>OPTION A</b>	All stormwater, including the extra flows from population growth, should keep flowing into local streams, just as it does now
<b>OPTION B</b>	Some stormwater should be collected from rooftops and stored in household rainwater tanks for garden use and/or toilet flushing etc. (but what's not captured including from roads and other buildings will flow into local streams)
<b>OPTION C</b>	Most of the stormwater should be captured and treated to a higher quality so it can be reused for a range of suitable purposes and to protect the waterways and their plants and animals

Face-to-face session participants were provided a diagram depicting these options visually (Appendix A)

### 4.4.1. PROS AND CONS: STORMWATER OPTIONS

Working in small groups of 3-5 people, participants in the face-to-face sessions discussed and provided input on the pros and cons of each option (scenario). In total **105 separate comments/ideas** (pros or cons) related to drinking water were captured and have been themed in the table below<sup>4</sup>.

<b>OPTION A:</b> All stormwater, including the extra flows from population growth, should keep flowing into local streams, just as it does now			
KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Cost effective	<b>7</b>	Adverse impact on waterways	<b>12</b>
Benefit to waterways	<b>4</b>	Adverse impact on natural environment	<b>4</b>
Behaviour change not required	<b>1</b>	Wasted water	<b>4</b>
Maximises water	<b>1</b>	Water quality	<b>2</b>
Current system - no change needed	<b>1</b>		
Benefits natural environment	<b>1</b>		

*"Cheap, easy."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"Over-burdens streams."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

<sup>4</sup> Percentages have not been provided because, due to the group nature of this activity (i.e. multiple people contributed to the development of each idea) and the breakdown of themes under each option, the number of ideas against each theme is low in comparison with other sections of this report. A percentage (number of comments attributed to a theme against the total number of ideas) would not provide any substantial, additional meaning to the data.

**OPTION B:**

Some stormwater should be collected from rooftops and stored in household rainwater tanks for garden use and/or toilet flushing etc. (but what's not captured including from roads and other buildings will flow into local streams)

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Creates self sufficiency	7	Costly solution	6
Maximises water	4	Adverse impact on waterways	3
Reduces demand on drinking water	2	Limited space	2
Benefits green spaces	2	Offers little benefit	3
Fosters water awareness	1	Impractical solution	3
Benefits households	1	Wasted water	2
Meets government requirements	1	Doesn't change behaviour	1
Already occurring	1	Requires legislative change	1
Benefits waterways	1	Water quality	1
Reduces water demand	1	Not accessible for all	1
Best water quality	1	Requires education/behaviour change	1
Cost effective	1		

*"Capturing stormwater saves drinking water."*

**RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT**

*"Not all houses / areas are suitable for collecting water or in 'dry' area where the tanks in place don't collect water."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

*"Reduce net water from mains."*

**PUBLIC WORKSHOP #1 PARTICIPANT**

*"Education of people in collection of stormwater."*

**PUBLIC WORKSHOP #2 PARTICIPANT**

**OPTION C:**

Most of the stormwater should be captured and treated to a higher quality so it can be reused for a range of suitable purposes and to protect the waterways and their plants and animals

KEY THEMES: PROS	NUMBER OF COMMENTS	KEY THEMES: CONS	NUMBER OF COMMENTS
Benefits natural environment	11	Costly solution	8
Benefits green spaces	5	Adverse impact on waterways	4
Maximises water	5	Limited space	2
Benefits waterways	2	Ongoing maintenance	1
Increases water supply	2	Unreliable flow	1
Best solution	2	Generates waste	1
Cost effective	2	Adverse impact on natural environment	1
Best quality water	1	Provides no benefit	1
Benefits - other	1	Water quality	1
Costly solution	1		
Water quality	1		

*"Wetlands created, encourages birds / wildlife corridors as well as purification."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

*"Existing homes hard to retrofit."*

**SUNBURY RESIDENTS ASSOCIATION TARGETED DISCUSSION PARTICIPANT**

*"Provides eco-system, frogs, birds."*

**ENVIRONMENTAL GROUPS TARGETED DISCUSSION PARTICIPANT**

*"Cost involved."*

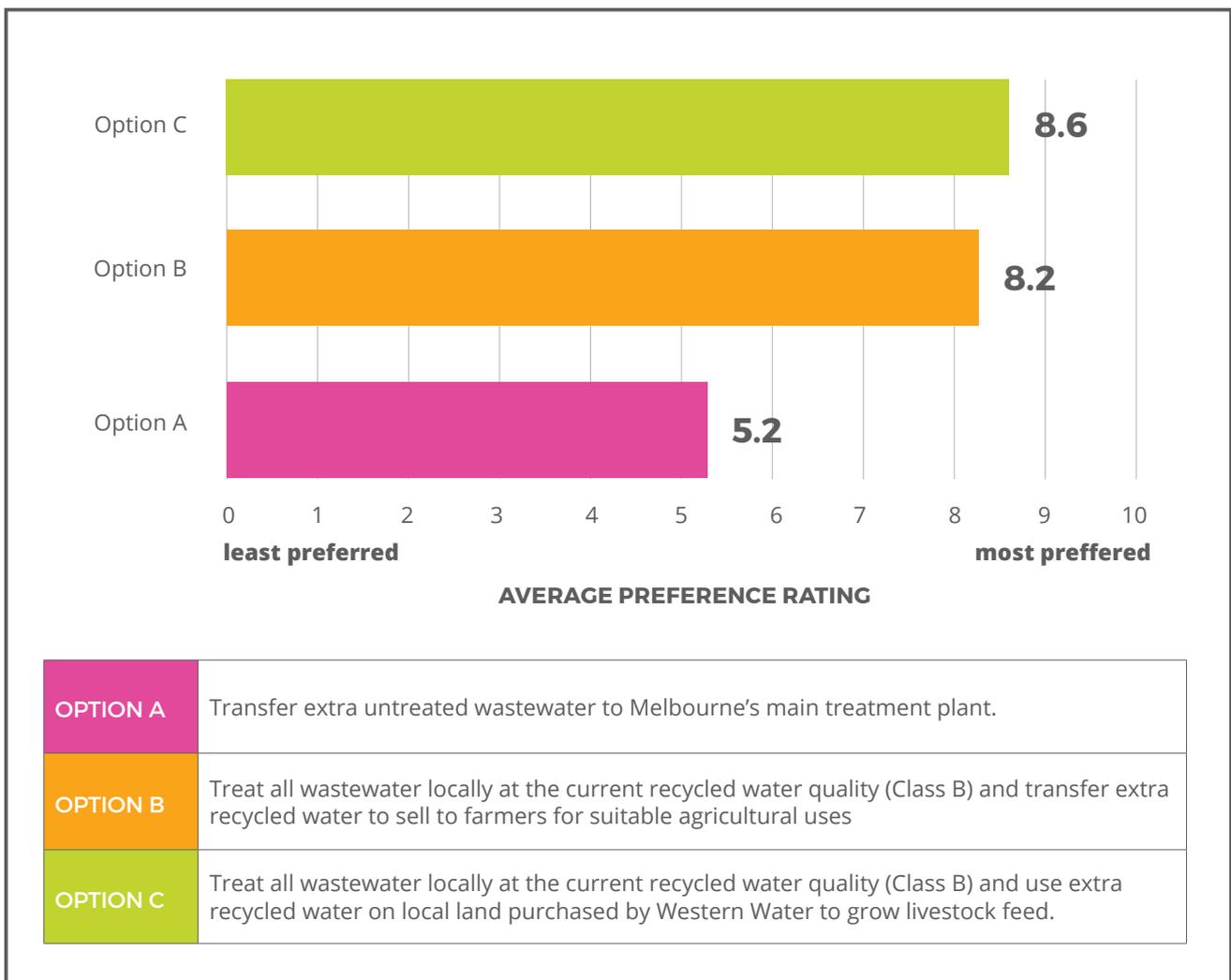
**RECYCLED WATER USERS TARGETED DISCUSSION PARTICIPANT**

## 4.4.2. PREFERENCES: STORMWATER OPTIONS

Both survey respondents and face-to-face session participants were invited to indicate their level of support for these options. The question each cohort was asked, however, varied slightly.

### Survey findings

Respondents were asked to rate each individual option on a scale of 0-10 (0=least preferred and 10=most preferred). The results are provided in the graph below.



**Figure 9. Average (mean) preference score – ranking of each stormwater options (survey respondents)**

## Face-to-face session findings

Participants were invited to rank the three options from 1-3 (where 1=most preferred and 3 =least preferred). The ranking results closely reflected the rating results from the survey.

PREFERENCES	AVERAGE RANKING (where 1=most important and 5=least important)
<p><b>Option C:</b> Most of the stormwater should be captured and treated to a higher quality so it can be reused for a range of suitable purposes and to protect the waterways and their plants and animals</p>	<p><b>1.4</b></p>
<p><b>Option B:</b> Some stormwater should be collected from rooftops and stored in household rainwater tanks for garden use and/or toilet flushing etc. (but what's not captured including from roads and other buildings will flow into local streams)</p>	<p><b>1.6</b></p>
<p><b>Option A:</b> All stormwater, including the extra flows from population growth, should keep flowing into local streams, just as it does now</p>	<p><b>2.7</b></p>

**Figure 10. Average (mean) ranking – stormwater options (face-to-face session participants)**

### STORMWATER – YOUTH IDEAS

Participants at the KidX youth forum worked in small groups and discussed what could be done with increasing amounts of stormwater. The following is a summary of their responses.

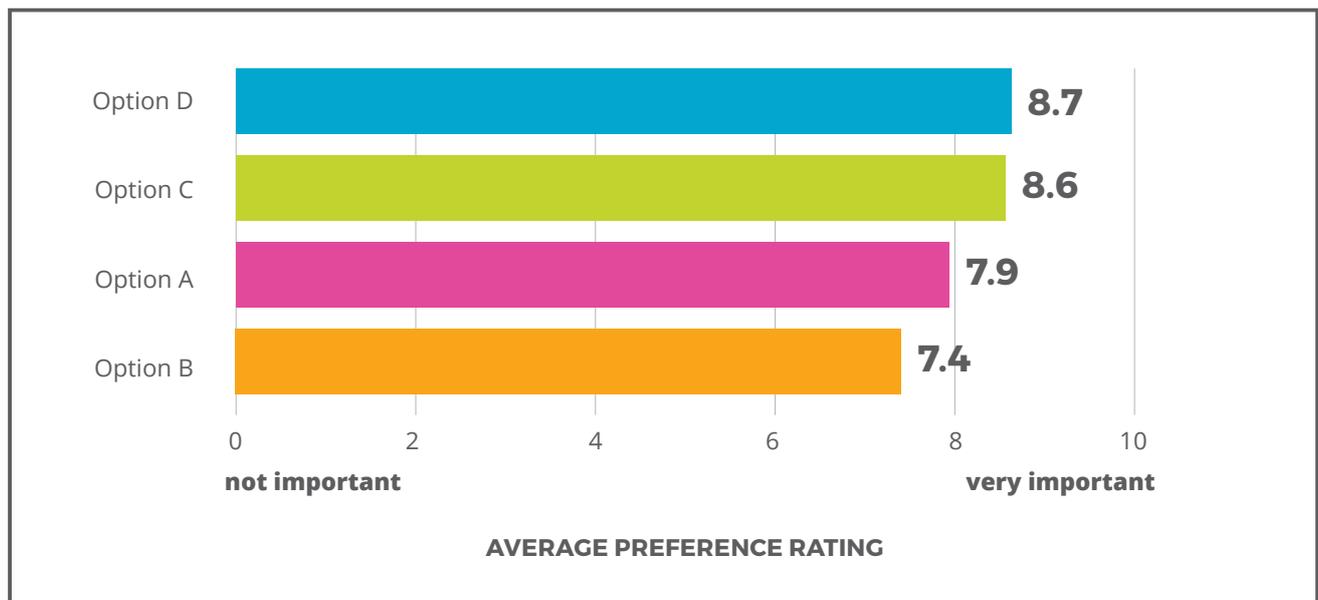
- Increase catchments, including home catchments (tanks, widening gutters, green roofs and implementing new catchment standards in future development).
- Utilise storm water for non-drinking activities such as watering sports venues, local gardens, washing clothes, flushing public toilets.
- Provide filters in the storm water pipes (drain filters)
- Provide incentives, through government subsidies and local businesses (to install stormwater catchments).
- Have collection points from the street runoff and expanding roof and road runoff from new developments.
- Explore hydro as an option.

## 4.5. WATERWAYS

Survey respondents were asked to consider waterways and the impact of human activities on the natural state of waterways including threats such as climate change, drought, taking too much water and changes to land adjoining waterways. Respondents then rated each of the following future management options terms of importance on a scale of 0-10 (where 0=not important and 10=very important)<sup>5</sup>. The options are provided below:

<b>OPTION A</b>	Make sure there is little to no impact on waterways from stormwater flows.
<b>OPTION B</b>	Cap the amount of recycled water released to the creek at the current amount so as not to impact the waterway any further.
<b>OPTION C</b>	Improve the quality of recycled water and store it, so that more could be released at the right times to improve the flow in the waterways.
<b>OPTION D</b>	Make sure the local waterways always have enough water to flow properly.

There was general support for all options. Options 4 and 3 had the highest importance rating overall. Figure 11 below provides a full breakdown of results.



**Figure 11. Average (mean) ranking – stormwater options (face-to-face session participants)**

<sup>5</sup> Face-to-face participants were not asked this specific question.

Respondents were then invited to provide other suggestions on how local waterways should be managed in the future. **45 respondents** provided a comment. There was a wide range of different ideas provided. Their answers have been themed into categories which are provided below.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 45)	EXAMPLES OF COMMENTS PROVIDED
Prioritise environmental protection	10 (22%)	<i>"It is so important to protect local waterways as so much ecology depends upon them, which human beings rely on secondarily. To me this is an absolute priority."</i> <i>"Only so that they can be environmentally sustained for native animal and plant life."</i>
Treat wastewater for reuse	5 (11%)	<i>"All waste water should be recycled and consideration to plumb recycled water to residential customers."</i>
Clean up waterways	4 (9%)	<i>"More cleaning of waterways to remove rubbish and pollutants."</i>
Encourage increased flows into local waterways	3 (7%)	<i>"Remove noxious weeds and introduced vegetation which alters flow of waterways and uses too much water, e.g. willow trees etc."</i>
Improve water infrastructure	3 (7%)	<i>"Develop more facilities for managing local waterways."</i>
Ensure supply for population	3 (7%)	<i>"Clean water is the staff of life to all living things, so plan well ahead, if you don't, we all lose."</i>

#### THEMES WITH 2 COMMENTS ATTRIBUTED

- Encourage use of water tanks
- Improved communication
- Prioritise water for agriculture and industry
- Encourage public access
- Encourage water conservation
- Reduce costs to water users

8 comments were not attributed to a theme as they said 'none' or n/a' (or similar), could not be deciphered or could not be analysed.

### SURVEY: RESPONSE COMPARISON (LENGTH OF RESIDENCE)

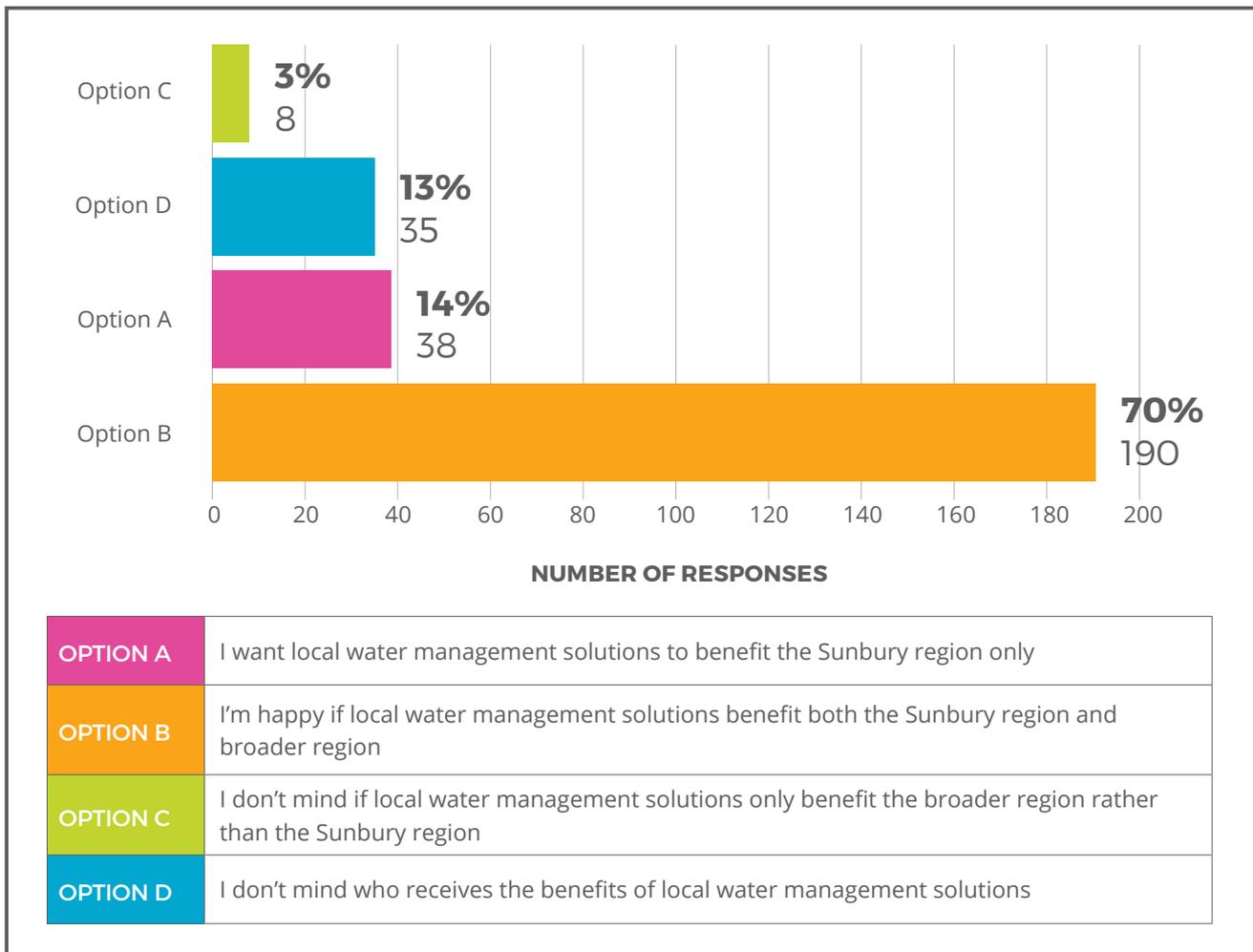
There was a slight difference in answers regarding waterways when comparing respondents' length of residency. Long term residents (more than 20 years) were slightly less likely to believe Option B ('cap the amount of recycled water released to the creek at the current amount so as not to impact the waterway any further') was important when compared with new residents who had lived in the region 5 years or less. The former gave this option an average rating of 7.2 compared to the latter which rated this option an average of 7.9.

## 4.6. LOCAL VS BROADER IMPACT

Respondents were asked to consider where the benefits from available water sources might be directed or have impact. They were asked to indicate if they had a preference as to where the benefits (financial, environmental and recreational) from local solutions are allocated by choosing one of the following options<sup>6</sup>:

<b>OPTION A</b>	I want local water management solutions to benefit the Sunbury region only
<b>OPTION B</b>	I'm happy if local water management solutions benefit both the Sunbury region and broader region
<b>OPTION C</b>	I don't mind if local water management solutions only benefit the broader region rather than the Sunbury region
<b>OPTION D</b>	I don't mind who receives the benefits of local water management solutions

**271 people** responded to this question. The results indicated that respondents are happy to share the benefits of local solutions with the broader region – as long as Sunbury also benefited. The results are provided in Figure 12 below.



**Figure 12. Preferences – benefits of local solutions (survey respondents)**

<sup>6</sup> Face-to-face participants were not asked this specific question.

## 4.7. FUTURE PLANNING

### 4.7.1 INVESTMENT

Participants rated the importance on a scale of 0 -10 (0=not important and 10=very important) of Western Water investing in planning future water management solutions. The results indicated that most respondents believe investment in planning is highly important. **283 respondents** completed this question. The results are provided in Figure 13 below<sup>7</sup>.

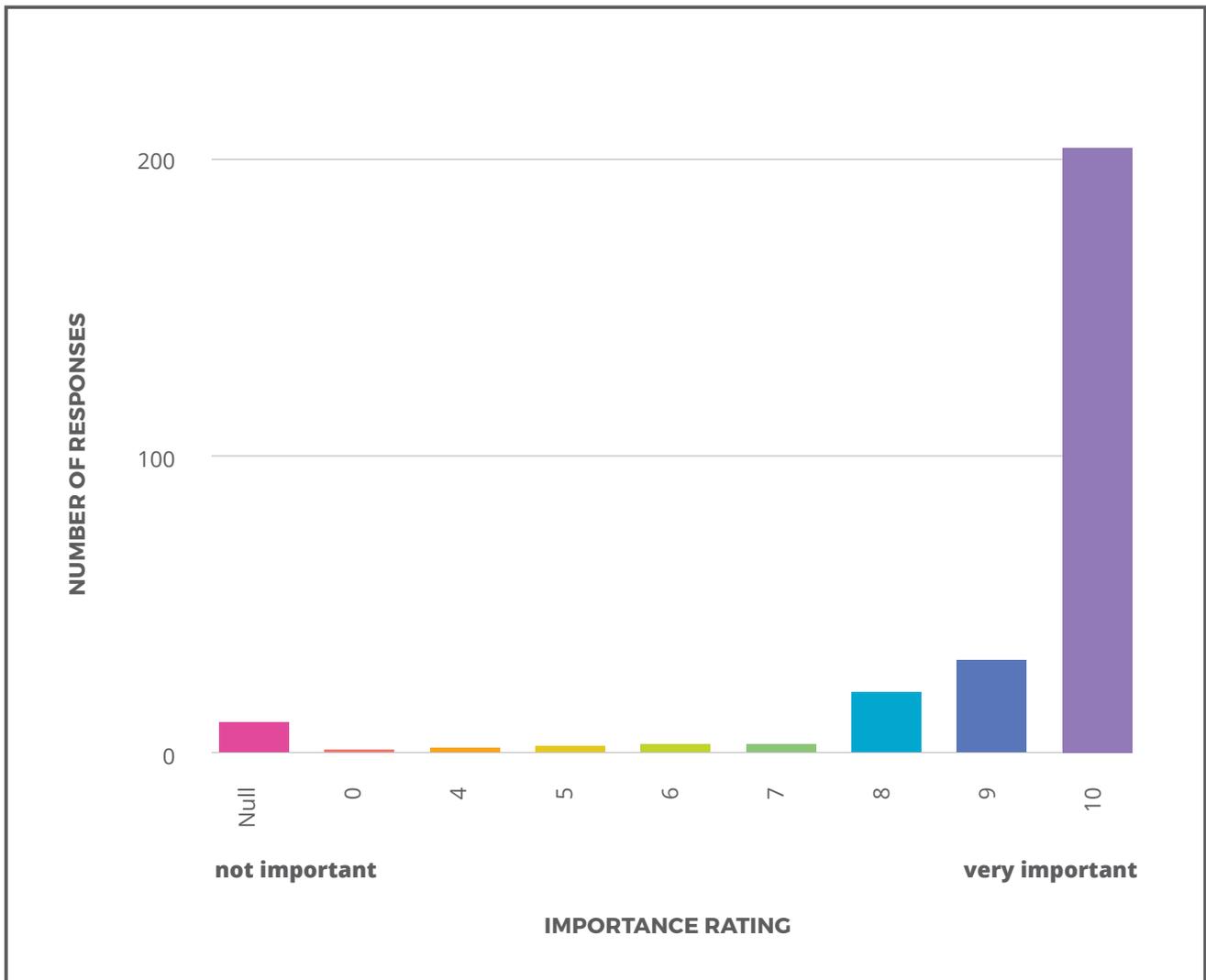


Figure 13. Importance of investment in planning future water management solutions (survey respondents)

<sup>7</sup> Face-to-face participants were not asked this specific question.

## 4.7.2. COMMUNITY INVOLVEMENT

Participants rated the importance on a scale of 0-10 (0=not important and 10=very important) of Western Water involving the community in planning future water management solutions. **271 people** completed this question. Overall, most people believed this was important – 227 (83%) respondents rated it as 8 or more on the importance scale. Figure 14 below outlines the results<sup>8</sup>.

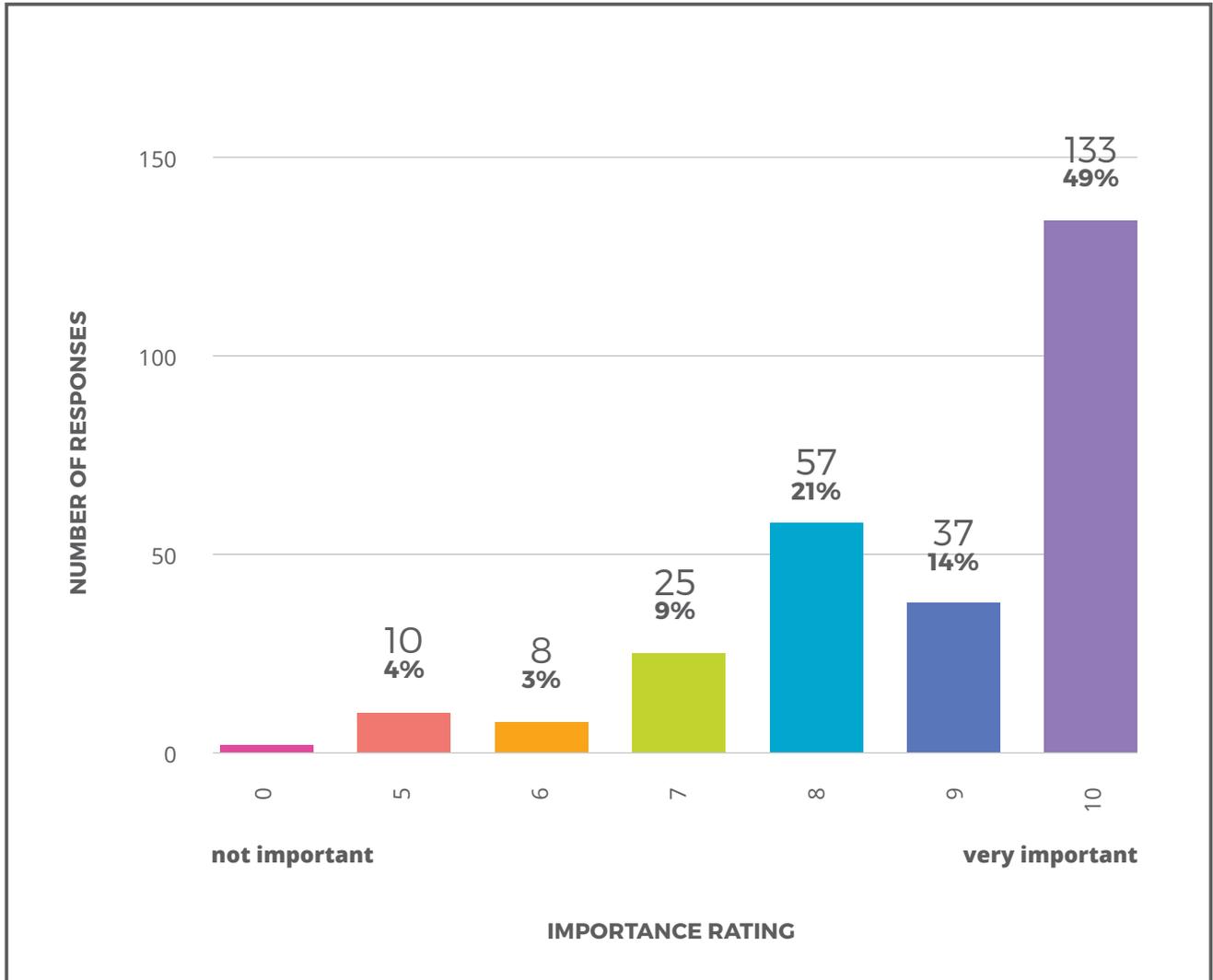


Figure 14. Importance of community involvement planning future water management solutions (survey respondents)

<sup>8</sup> Face-to-face participants were not asked this specific question.

## 4.8. OTHER COMMENTS AND IDEAS

### 4.8.1. OTHER COMMENTS: SURVEY

Respondents were invited to provide other suggestions or comments relating to how water in the Sunbury region is managed in the future. **54 people** provided a comment and a wide range of different ideas captured. Their answers have been themed into categories. The top 6 themes have been provided below.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 54)	EXAMPLES OF COMMENTS PROVIDED
Encourage installation of water tanks	9 (17%)	<i>"Ensure that severe water restrictions are a thing of the past and encourage customers to install tanks."</i> <i>"Strongly encourage the installation of water tanks so households are more responsible with water."</i>
Prioritise planning for the future	8 (15%)	<i>"Any strategy should [be] well researched and form part of a national or at least regional plan with minimal cost to the community and environment, now and in the future."</i> <i>"Western Water needs to lead water planning for the region and ensure maximising of all available water resources."</i>
Support increased grey/ recycled water use	8 (15%)	<i>"All new properties should be made to have on site storage of storm water and also storage &amp; reuse of grey water for flushing toilets."</i> <i>"All to have recycled water taps and pipes to all houses providing recycled water for the garden and toilets."</i>
Use appropriate expertise to advise on management of the water system	5 (9%)	<i>"It is essential to involve a wide range of local and more broadly accessed 'experts' to contribute to this, so that the best solutions can be found."</i>
Encourage drought resilience	3 (6%)	<i>"I think there should be more taught about [drought resilience] in schools. People seem to have forgotten all the things I remember being taught during the last drought."</i>
Prioritise environmental protection	3 (6%)	<i>"It should be managed with the protection of our environment as a key factor."</i>

#### THEMES WITH 2 COMMENTS ATTRIBUTED

- Consult with the local community
- Educate people about water conservation
- Find greater efficiencies and cost reduction
- Prioritise continuity of supply
- Reduce marketing expenditure
- Specific requests (other)

Six comments were not attributed to a theme as they said 'none' or n/a' (or similar), could not be deciphered or could not be analysed.

## 4.8.2. OTHER IDEAS: FACE-TO-FACE SESSIONS

Participants were invited to provide any 'other' ideas relating to how water in the Sunbury region is managed in the future. **48 people** provided a comment and a wide range of different ideas captured. Their answers have been themed into categories.

THEME	NUMBER AND % OF COMMENTS (TOTAL RESPONSES = 48)	EXAMPLES OF COMMENTS PROVIDED
Water limiting and storage devices	11 (23%)	<i>"Program for shower heads."</i> <i>"Incentives for rainwater tanks."</i>
Communications, education and foster conservation	10 (21%)	<i>"More education about water use / management responsibility / system ability."</i> <i>"School newsletter for future engagement."</i>
Limit demand and population growth	9 (19%)	<i>"Permanent water restrictions. Demand management (e.g. target 155)."</i> <i>"We need to have a conversation about population"</i>
Alternative water management suggestions	6 (13%)	<i>"Dams for firefighting."</i> <i>"Bulk water entitlement trading."</i> <i>"Create an artificial rainforest i.e. use the humidity" (example: Singapore gardens by the bay uses humidity to feed plants).</i>
Identify new, alternative sources of water	3 (6%)	<i>"Alternative water - essential for increased population and waterways."</i>
Better integration and coordination	3 (6%)	<i>"We have to pay for a better more integrated system."</i>

The below themes had three or less comments attributed to them:

THEMES WITH 3 COMMENTS ATTRIBUTED	THEMES WITH 2 COMMENTS ATTRIBUTED
<ul style="list-style-type: none"> <li>• Access water from other catchments</li> <li>• Better integration with other water authorities</li> <li>• Other – ideas and feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Question posed (not an idea)</li> </ul>

One comment was not attributed to a theme as they said 'none' or n/a' (or similar), could not be deciphered or could not be analysed.

# 5. NEXT STEPS

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This report will be published on the Melbourne Water Your Say website and provided to the Sunbury's Water Future Community Panel during their deliberations in May and June 2019. For more information on this project and the panel process, please visit [yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future).

# APPENDIX A: SURVEY

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## Privacy and Confidentiality

Western Water and Melbourne Water ("we") are bound by the Privacy and Data Protection Act 2014. To understand how we handle personal information, you can view:

Western Water's [Personal Privacy Charter](#)  
Melbourne Water's [Privacy Policy](#)

You can complete the Sunbury's Water Future survey anonymously. Your responses are confidential and we collect them for project research. We may share anonymous responses with our project partners and contractors for the same purpose.

To enter the draw, please provide your name and contact details. By providing your name and contact details, you agree to participate in future research and communications about this project. Your contact details may be shared with our contractors but will only be used for future research and communications purposes. Your responses will not be matched to your name and contact details.

You have the right to seek access to your personal information. For more information contact [feedback@westernwater.com.au](mailto:feedback@westernwater.com.au)

## Benefits of available water sources

Over the next 20 years, Sunbury is set to double in size. As Sunbury and nearby towns prepare for the growing population, we need to think about the broader impacts of climate change, the environment and community liveability, and how we manage water in the future.

In this survey, Western Water and Melbourne Water are seeking your views on what matters for Sunbury's Water Future.

Fact Sheets and FAQs can be found in our [YourSay page](#).

*If you would like to go into the draw for a chance to win \$100 off your water bill, tick the box at the end of the survey and provide your contact details. The winner of the draw will be notified by email during the week commencing Monday 29 October.*

*For the best experience, we recommend completing this survey on a desktop computer or tablet.*

**In making the most of all the water sources available, how much importance do you place on each of the following?**

Rate each on a scale of 0-10 where **0=not important** and **10=very important**

**Water supply:** Ensuring there's enough water available for the needs of the Sunbury region as the population grows

**Green spaces:** Having water available for parks, gardens and sporting fields and keeping them green during droughts

**Healthy waterways:** Ensuring we have enough water in the waterways for plant and animal life; reducing the impacts of stormwater runoff

**Agricultural and industrial productivity:** Providing treated alternative water (e.g. recycled water, stormwater) for use by farms and industry

**Affordability:** Keeping the cost of water services at levels as low as possible

**Now, please rank each of the following in order of importance, where 1=most important and 5=least important.**

To enter your choices, you can drag and drop your selection (recommended), click into fields and type a number or choose from the drop down menus.

**Water supply:** Ensuring there's enough water available for the needs of the Sunbury region as the population grows

**Green spaces:** Having water available for parks, gardens and sporting fields and keeping them green during droughts

**Healthy waterways:** Ensuring we have enough water in the waterways for plant and animal life; reducing the impacts of stormwater runoff

**Agricultural and industrial productivity:** Providing treated alternative water (e.g. recycled water, stormwater) for use by farms and industry

**Affordability:** Keeping the cost of water services at levels as low as possible

## Drinking water

The water supplied to properties in the Sunbury region currently comes from the local supply (Rosslynne Reservoir) and from the Melbourne water supply system.

As the population grows, we'll need additional water from other local sources or from Melbourne.

**Fact Sheet (PDF):** [Water management in the Sunbury region](#)

**Putting costs aside, for future water needs in the Sunbury region, where would you prefer your water comes from?**

Choose one of the following options

- I would like my water supply to come from local sources
- I would like my water supply to come from external sources (like the Melbourne supply system)
- I don't mind where my water supply comes from
- Other (please specify)

## Drinking water

**Please explain why it's important to you that water supply comes from external sources (like the Melbourne supply system)**

**Please explain why it's important to you that water supply comes from local sources**

## Wastewater

Wastewater is the term for the household water that flows into the sewerage system. It includes the wastewater from kitchens, bathrooms, laundries and toilets. It must be treated to a suitable quality, so it can be reused - treated wastewater is called recycled water. As the population grows, we will have extra wastewater to manage.

Currently, around half of the recycled water produced in Sunbury is reused (for irrigation) and the remainder is released to Jacksons Creek. Western Water's Environment Protection Authority Licence has a set limit on the amount of recycled water we can discharge to the creek each day to protect the waterway.

There are alternatives to future wastewater management including where it's treated, to what quality it's treated and where it's reused. Some of these will cost more than others, but putting costs aside, how would you like local wastewater to be managed in future?

**Fact Sheets (PDF): [Water management in the Sunbury region](#) | [Natural and Urban Water Cycles](#)**

**How would you like local wastewater to be managed in future?**

Rate each of the following on a scale of 0-10 where **0=least preferred** and **10=most preferred**

Transfer extra untreated wastewater to Melbourne's main treatment plant.

Treat all wastewater locally at the current recycled water quality (Class B) and transfer extra recycled water to sell to farmers for suitable agricultural uses

Treat all wastewater locally at the current recycled water quality (Class B) and use extra recycled water on local land purchased by Western Water to grow livestock feed.

Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water can be re-used locally.

Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.

## Waterways

The plants and animals that rely on rivers and creeks live together in a delicate balance. This can be upset by human activities that change a waterway's natural state, sometimes with damaging results.

Some of the threats to our waterways include climate change and drought, taking too much water,

and changes to land use adjoining the waterways.

**Fact Sheets (PDF): [Challenges for the Sunbury region](#) | [Looking after our rivers and creeks](#)**

**Thinking about the future management of waterways, how much importance do you place on each of the following?**

Rate each of the following on a scale of 0-10 where **0=not important** and **10=very important**

Make sure there is little to no impact on waterways from stormwater flows

Cap the amount of recycled water released to the creek at the current amount so as not to impact the waterway any further

Improve the quality of recycled water and store it, so that more could be released at the right times to improve the flow in the waterways

Make sure the local waterways always have enough water to flow properly

**Do you have any other suggestions on how local waterways should be managed in future?**

## Stormwater

As more houses are built, stormwater from roofs and roads flows into local streams where higher flows and poorer water quality impact aquatic plants and animals.

Managing stormwater can help protect the environment and produce a new alternative water source for certain uses.

Now is the time to think about what we can do with stormwater from the new housing estates being developed around Sunbury.

**Fact Sheets (PDF): [Challenges for the Sunbury region](#) | [Looking after our rivers and creeks](#) | [Natural and urban water cycle](#)**

**How would you like local stormwater to be managed in future?**

Rate each of the following on a scale of 0-10 where **0=least preferred** and **10=most preferred**

All stormwater, including the extra flows from population growth, should keep flowing into local streams, just as it does now

Some stormwater should be collected from rooftops and stored in household rainwater tanks for garden use and/or toilet flushing etc. (but what's not captured including from roads and other buildings will flow into local streams)

Most of the stormwater should be captured and treated to a higher quality so it can be reused for a range of suitable purposes and to protect the waterways and their plants and animals

## Local vs broader impact

Some benefits from available water sources may directly impact the Sunbury region (e.g. water for local sports fields).

Some benefits may impact a broader area (e.g. water for agriculture outside the Sunbury region).

Others may impact both local and broader areas.

**Do you have a preference where the benefits (financial, environmental, recreation) from local solutions are allocated?**

Choose one of the following options

- I want local water management to benefit the Sunbury region only
- I'm happy if local water management solutions benefit both the Sunbury region and broader region
- I don't mind if local water management solutions only benefit the broader region rather than the Sunbury region
- I don't mind who receives the benefits of local water management solutions

## Future planning focus

**How important is it that Western Water invests in planning water management solutions for the future?**

Rate the importance on a scale of 0-10 where 0=not important and 10=very important

0  1  2  3  4  5  6  7  8  9  10

**How important is it that Western Water involves the community in planning water management solutions for the future?**

Rate the importance on a scale of 0-10 where 0=not important and 10=very important

0  1  2  3  4  5  6  7  8  9  10

**Do you have any other suggestions or comments about how water in the Sunbury region should be managed in the future?**

## About you

What is your postcode?

How long have you lived in the local region?

**Would you like to be kept up to date about planning for Sunbury's Water Future?**

Yes, I'd like to be kept up to date

Would you like to be entered in the draw to win \$100 off your water bill?

Yes, please enter me in the draw

If you indicated above that you would like to be kept up to date or go into the draw, please provide the following contact details.

Your survey responses will remain anonymous and we will not match you to your responses.

What is your first name?

What is your last name?

What is your email address?

What is your mobile phone number?

# APPENDIX B: FACT SHEETS

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## Natural and urban water cycle

The way our water cycles work

1

### What are the water cycles?

As water moves between the land, ocean, rivers and atmosphere, it changes from solid to liquid to gas – this is our planet's way of recycling water. It's called the 'natural water cycle'.

The natural water cycle still happens in cities and towns, but urban growth has changed how water flows through the environment. This is called the 'urban water cycle' and includes water supply, wastewater, recycled water and stormwater.

### What's the difference between stormwater, wastewater and recycled water?

Rainfall that runs off roofs, roads and other hard surfaces into gutters, drains, creeks and rivers, and eventually into the sea is called 'stormwater'.

Water that's been used in the home, in a business or an industrial process is called 'wastewater'. It's captured in the sewerage system which has different pipes to stormwater.

When wastewater goes through a treatment process, it becomes 'recycled water' that can be reused for other purposes. The Sunbury Recycled Water Plant is one of seven recycled water plants operated by Western Water.

Recycled water can have different levels of treatment depending on what it is to be reused for. Recycled water is also released to waterways.

[Read more: Western Water's approach to recycled water](#)



To find out more about Sunbury's Water Future go to:  
[yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future)



## What is the urban water cycle?

Dams and pipes have been built to take water from our waterways for drinking water supplies. There's also wastewater to manage from homes and businesses that will eventually return to waterways (if it's not reused).

More development results in more stormwater runoff that needs to be managed.

The urban water cycle is managed by organisations like Melbourne Water, Western Water and local councils.

Following is a bit more about each aspect of the urban water cycle.

### Water - catchments to tap

When it rains, water runs off catchment areas, flows into rivers and then into reservoirs. It's then treated and supplied through water mains that make up our water supply system — eventually making its way to you.

### Wastewater - toilets to treatment plants

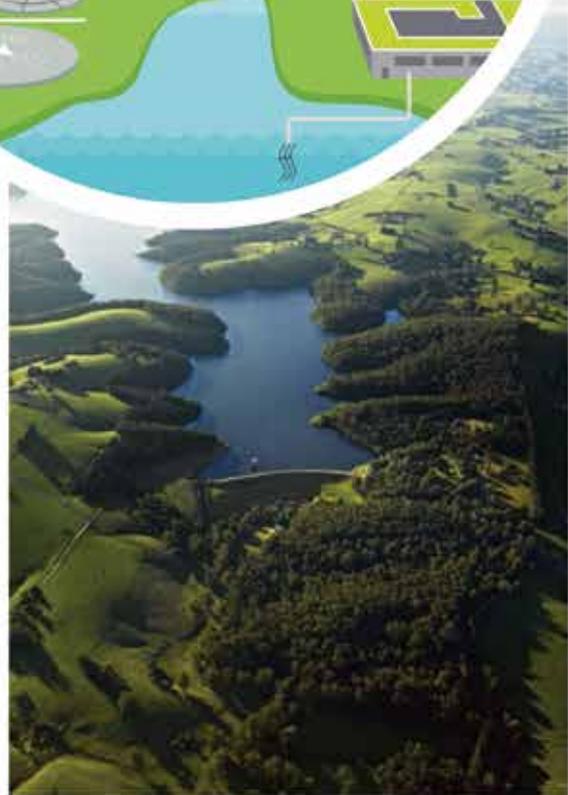
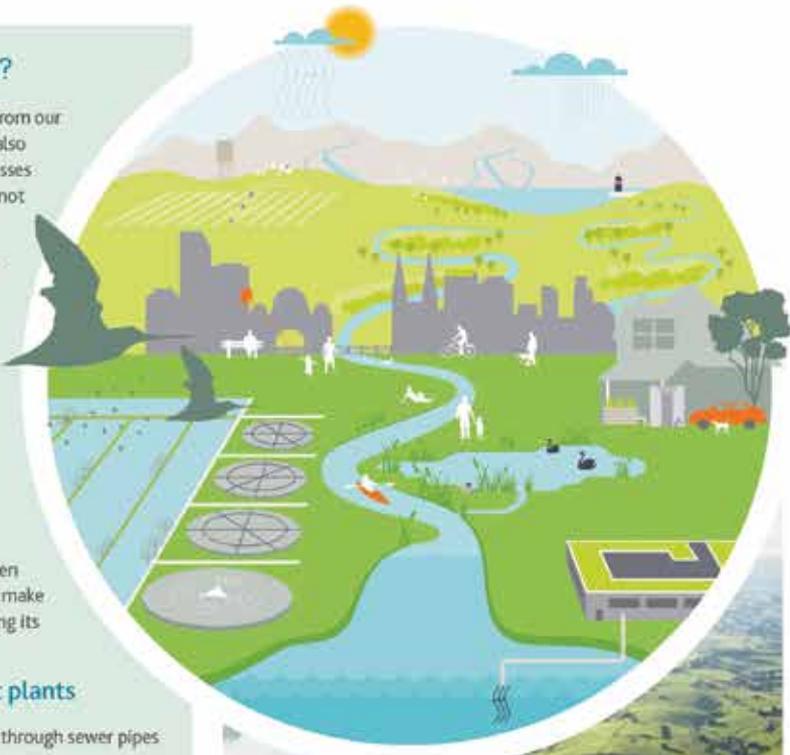
Used water from homes and businesses travels through sewer pipes to wastewater treatment plants — all part of our sewerage system.

These plants turn wastewater into recycled water so it can be re-used. For example, on sports grounds, parks and reserves and in agriculture. Some of it also goes back into local rivers and creeks.

### Stormwater - drains to our bays

Stormwater drains collect rainwater runoff from roads, roofs and gutters. It's sent into nearby rivers and creeks where it re-enters the water cycle. It then eventually ends up in the Port Phillip Bay.

In new growth areas, wetlands and basins are constructed to help filter stormwater. The series of shallow, densely-planted, man-made ponds help filter water through physical and biological processes. It's a natural way to treat and remove some of the sediment and pollutants from stormwater before it enters our rivers and creeks.





## Challenges for the Sunbury region

# 2

Population growth and climate change impacts

The effects of a changing climate, growing population and increasing urban development will impact the available water sources in the Sunbury region as well as our local waterways.

### Why is the population growing?

Sunbury has been identified as an area of growth by the Victorian State Government. The population is forecast to more than double over the next 20 years.

The Victorian Planning Authority has set out a plan for Sunbury. It outlines a clear vision for housing, transport, employment, open space, shopping and community services to support this growth.

Population growth increases water demand and will produce greater volumes of wastewater and stormwater to be managed.

[Read more: Growth Corridor Plans](#)



To find out more about Sunbury's Water Future go to:  
[yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future)



## What are the impacts of climate change?

Greenhouse gases like carbon dioxide in the Earth's atmosphere play a key role in making our planet warm enough to support animal and plant life. But, these gases have been increasing since the mid-1800s, causing our climate to change.

This is a major issue for our water supplies as it will cause:

- higher average and minimum temperatures
- more storms, bushfires and heatwaves
- less rainfall
- more frequent and intense heavy downpours
- rising sea level

As well as the impacts of climate change, Melbourne's weather has always been variable. We've had long periods of low rainfall causing droughts and periods of high rainfall causing floods.

The harsh Millennium Drought (1997 to 2009) followed the wet decades of the 1950s and 1970s. It had an extreme impact locally as our water storages almost dried up.

Western Water acted quickly to construct pipelines that connected local towns to Melbourne's water supply system. This helped to meet immediate water needs but we need to identify additional water sources to make up for gaps in water availability caused by climate change and population growth.



## Climate change and our local waterways

Climate change remains a threat to water supplies and the environment across Melbourne. More drought and heatwave events are predicted, with less overall rainfall and an increase in extreme events like storms and floods.

When our waterways are exposed to increased stormwater, this leads to poorer water quality and erosion, among other impacts.

Over the longer term, climate change will affect the habitat of plants and animals that live along waterways and around wetlands.





## Water management in the Sunbury region 3

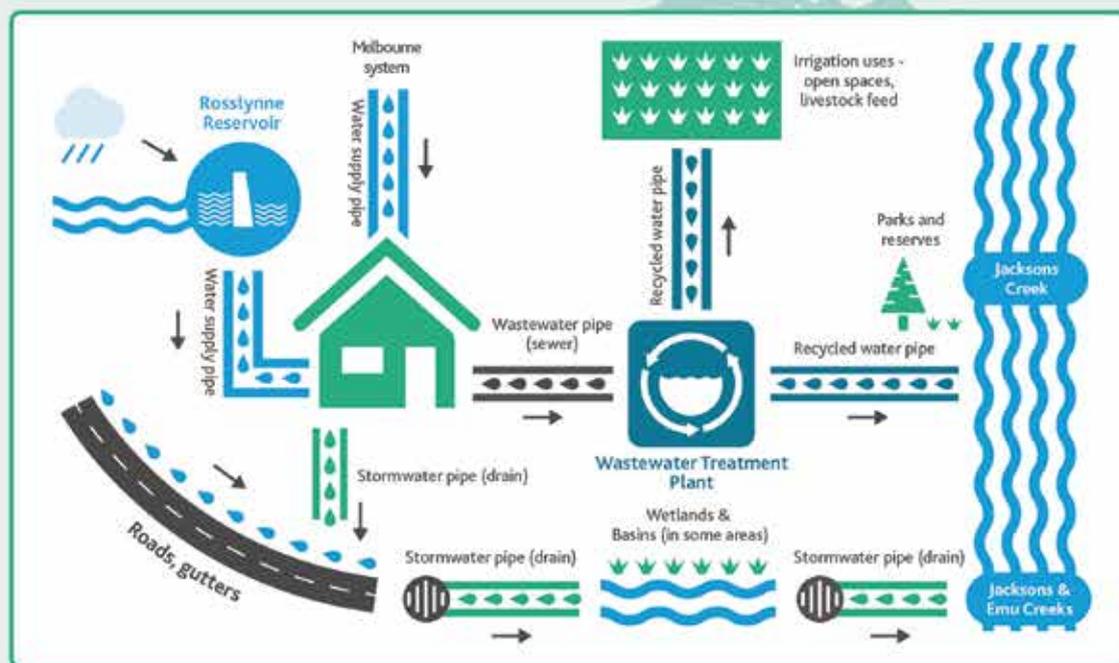
Local water sources and uses

As the population grows, there's increasing pressure on our drinking water supplies. There's also increased potential to capture and produce alternative water for reuse.

Where does the Sunbury region's drinking water come from?

Drinking water for the Sunbury region comes from the local Rosslynne Reservoir and the Melbourne Water supply system.

The supply from Rosslynne Reservoir is limited and has reduced over time due to lower water flow into the reservoir.



To find out more about Sunbury's Water Future go to:  
[yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future)



## What's the difference between stormwater, wastewater and recycled water?

Rainfall that runs off roofs, roads and other hard surfaces into gutters, drains, creeks and rivers, and eventually into the sea is called 'stormwater'. In new growth areas, wetlands and basins are constructed to help filter stormwater.

Water that's been used in the home, in a business or an industrial process is called 'wastewater'. It's captured in different pipes to stormwater.

When wastewater goes through a treatment process, it becomes 'recycled water' that can be reused for other purposes. The Sunbury Recycled Water Plant is one of seven recycled water plants operated by Western Water.

Recycled water can have different levels of treatment depending on what it is to be reused for. Recycled water is also released to waterways.

[Read more: Western Water's approach to recycled water](#)



## What are some alternative sources of water?

Alternative sources of water include stormwater and recycled water which can be treated to suit specific uses. Using alternative water sources may provide greater overall benefits for water conservation and the environment.

Locally, some of the recycled water from our treatment plants is being used to irrigate local sports grounds, parks and reserves and in agriculture.

Another solution is to capture and reuse stormwater. A stormwater harvesting pilot in Melton South is collecting urban runoff for treatment, storage and potential reuse by local farmers.

Alternative water has been used for a range of purposes including grass and crop irrigation, livestock watering, gardening, and some residential uses like flushing toilets, washing clothes and vehicles.





# Sunbury's Water Future

Water management planning for the Sunbury region

## Western Water and Melbourne Water

# 4

Working together for Sunbury's Water Future

Over the next 20 years, the Sunbury population is set to double in size. We need to think about the broader impacts of climate change, the environment and liveability on the growing population, and how water is managed.

Western Water and Melbourne Water are working together and seeking community input into innovative water management solutions. The aim is to make the most of all available water resources and minimise impacts on the environment.

This project is being jointly led by Western Water and Melbourne Water. Hume City Council and the Department of Environment, Land, Water and Planning have important roles too.

### Why are both Western Water and Melbourne Water involved?

We each manage different aspects of the urban water cycle and need to work together to ensure our planning is well coordinated to benefit the community.

*For more on the urban water cycle, see Fact Sheet 1: Natural and urban water cycle.*

Western Water provides water, sewerage and recycled water services for Sunbury, Melton, Bacchus Marsh, the Macedon Ranges and surrounds.

Melbourne Water has the responsibility to manage local waterways such as Jacksons Creek and Emu Creek, and provide essential drainage and flood management services for the region.

Costs to protect and improve waterways and provide flood and drainage services are funded through your Waterways and Drainage charge.

Each year, the waterway projects funded within each local council area are published in a local update.

[View City of Hume Waterways Local Update 2017-18](#)

[View Shire of Macedon Ranges Waterways Local Update 2017-18](#)



To find out more about Sunbury's Water Future go to:  
[yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future)





## Having your say in Sunbury's Water Future 5

How your feedback will shape decision making

Over the next 20 years, Sunbury is set to double in size. As we prepare for a growing local population, we need to think about how water will be managed, the broader impacts of climate change, and the environment and liveability.

The effects of climate change are reducing the available water in our creeks, rivers and dams. We'll need additional water sources to make up any gaps in water availability caused by climate change and to cover the increased water demand from new properties in the Sunbury region.

There'll be more recycled water and stormwater to manage. And we'll need to make sure we're working together to protect our environment, green spaces and waterways from any potential harm.

We need to start talking now about the future to understand what's important in managing water for both the community and the environment.

### Understanding what matters to you

Western Water and Melbourne Water are working together to look at future water solutions for the Sunbury region. The aim is to make the most of all available water resources and minimise impacts on the environment.

Before plans are put in place or decisions made, it's important that we understand what matters to the local residents of Sunbury and nearby towns. We're seeking your feedback on the future of water management including future supply of water, waterway health, liveability, economic prosperity, alternative water sources and customer affordability.



To find out more about Sunbury's Water Future go to:  
[yoursay.melbournewater.com.au/Sunburys-Water-Future](https://yoursay.melbournewater.com.au/Sunburys-Water-Future)





## Having your say in our water future

We invite you to share your feedback by completing the online survey before Sunday 28 October 2018.

Share your feedback by completing the Sunbury's Water Future Survey

In early 2019, Western Water and Melbourne Water will be continuing the conversation through events and targeted discussions to gather additional views. We'll then collate all feedback into a public report which we look forward to sharing with you.

We have lots of information available in fact sheets so you can confidently share your views with an understanding of water management.

### Sunbury's Water Future Water management planning for the Sunbury region

#### WHY

Growth and climate change are impacting available water sources and local waterways

#### WHAT

Western Water and Melbourne Water working together to plan Sunbury's water future

Understanding what's important to Sunbury region residents for new water management models

#### HOW

Completing Sunbury's Water Future online survey

Learning more and sharing feedback at local events

Targeted discussions for community and interest groups

Collating feedback and preparing public report

NOW

EARLY 2019





## Integrated Water Management

An innovative approach for Sunbury's Water Future

6

There's growing demand from communities to provide more innovative approaches to water management.

From offering affordable, readily-available basic services, to creating more liveable cities and protecting our environment, the management of our water systems needs to address today's urban challenges.

### A new approach to urban water management

Integrated Water Management (IWM) is an innovative planning approach that brings together many stakeholders and all of the urban water cycle elements. These include water supply, wastewater management, stormwater management and water treatment. The planning process also considers environmental, economic and social impacts and benefits.

It integrates the water cycle with other aspects of urban management such as land use, infrastructure, urban design and resources planning.

### How is IWM different to traditional approaches?

IWM is an innovative way of thinking about the water cycle and how urban water projects are planned and implemented. Utilities, statutory authorities, local councils, interest and industry groups, residents, businesses and other stakeholders must work together collaboratively and openly.

A big part of IWM involves looking at how the wider opportunities that water from alternative sources can benefit communities. These include recycled wastewater or stormwater treated to suit fit-for-purpose uses. Not only does this provide additional water and protect our drinking water supply, but it can also address damaging impacts on our waterways.



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## How can integrated water management help?

An integrated approach to water planning and management can provide multiple benefits to communities beyond water supply, sewage and drainage services. Benefits include higher resilience to floods and droughts, more water available for a variety of uses, protection of healthy waterways, and green and cool streetscapes.



## IWM for the Sunbury region

The Victorian State Government has created a framework to help government, the water sector and the community work together to better plan, manage and deliver water in Victoria's towns and cities.

This framework helps us look at ways we can manage the different elements of the urban water cycle. In the Sunbury region, these include rainfall in the catchments, wastewater from households, stormwater that runs off roofs and roads and water recycled from wastewater.

Looking at all of these sources and how they're used may help to reduce the impacts of climate change and the additional urban areas planned for Sunbury. Western Water and Melbourne Water are working with councils, state government, other stakeholders and the community to ensure the best water management outcomes.





# Sunbury's Water Future

Water management planning for the Sunbury region

# 7

## Looking after our rivers and creeks

The importance of healthy waterways

Rivers and creeks across the Melbourne region are home to more than 1,800 species of native plants and 600 species of native animals. They're also relaxing and enjoyable places to visit and, in some areas, supply water to homes, businesses and agriculture.

### What are waterways?

Waterways are our rivers, creeks, wetlands and estuaries.

### Why do we need to take care of our waterways?

The plants and animals that rely on rivers and creeks live together in a delicate balance. This can be upset by human activities that change a waterway's natural state, sometimes with damaging results. Some of the threats include:

- drought and climate change
- diverting too much water for agriculture, businesses and homes
- land use next to waterways
- new homes and other buildings

The hard surfaces caused by urban development can't absorb water, leading to litter and pollutants washing into our drains and creeks (stormwater pollution). The volume and velocity of stormwater from these hard surfaces can also cause damage by flushing plants and animals out of waterways and damaging the waterway structure.



### Who is responsible for waterways?

Melbourne Water is responsible for waterways in the Port Phillip and Westernport region. This includes the Maribyrnong River catchment which our local Jacksons and Emu Creeks flow into. Western Water has a role to make sure they don't negatively affect local waterways with discharges from their treatment plants or sewer spills. Western Water also has a responsibility to release environmental flows to waterways from its reservoirs. Councils and Melbourne Water share responsibility for the stormwater which drains to the waterways.

A healthy waterways strategy has been developed to address the threats posed by climate change, urban development and population growth on our waterways. The 2018-2028 Healthy Waterways Strategy outlines regional decision-making, investment, management issues and activities to support our waterways.

To find out more about Sunbury's Water Future go to:  
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## The Sunbury region and local waterways

Jacksons Creek and Emu Creek flow through the Sunbury region. They both border the future planned growth area.

### More about Jacksons Creek

The current state of Jacksons Creek has been rated between very low to moderate in its ability to support a range of native species, including fish, frogs, macroinvertebrates (such as aquatic insects, worms and snails) and platypus. Platypus have been observed in Jacksons Creek near Sunbury.

The natural flows in Jacksons Creek have changed over time as a result of flows being removed and also added at different locations along the stream and at different times of the year. Examples of these include Rosslynne Reservoir upstream, stormwater runoff from Sunbury, recycled water releases and water diverted for agricultural and other uses. These changes are offset to some extent by 'environmental flow' releases from Rosslynne Reservoir. However, over time there has been erosion along Jacksons Creek and changes to its ecology.

To protect the plants and aquatic life in the creek, it needs to flow at the right levels and at the right times to mimic nature where possible. In addition, the volume of stormwater runoff needs to be controlled and high flows at certain times of the year should be avoided.

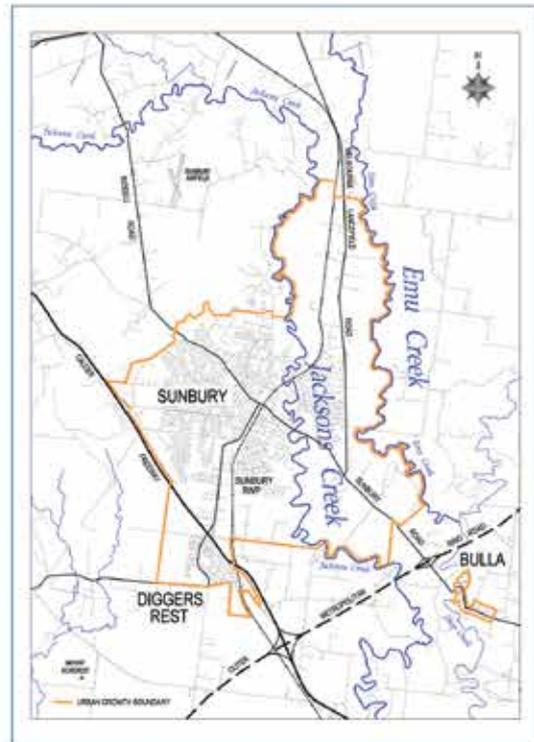


### More about Emu Creek

The current state of Emu Creek has been rated between low to moderate in supporting a range of native species including fish, macroinvertebrates and platypus.

Emu Creek is naturally ephemeral (only flows for part of the year) with a chain of ponds providing habitat for a number of native fish and other aquatic life.

Emu Creek is considered to have an important population of, and provide a habitat corridor for, the Growling Grass Frog. To protect the conditions supporting the values in Emu Creek, steps will need to be taken to lessen the risks of additional stormwater flows outlined in the Healthy Waterways Strategy.



## How does the water sector look after our waterways?

We can't restore every river and creek to its natural state, but we can help protect and improve them. Each year, Melbourne Water invests \$65 million doing this across the Port Phillip and Western Port catchments, while balancing the needs of the community, costs and safety.

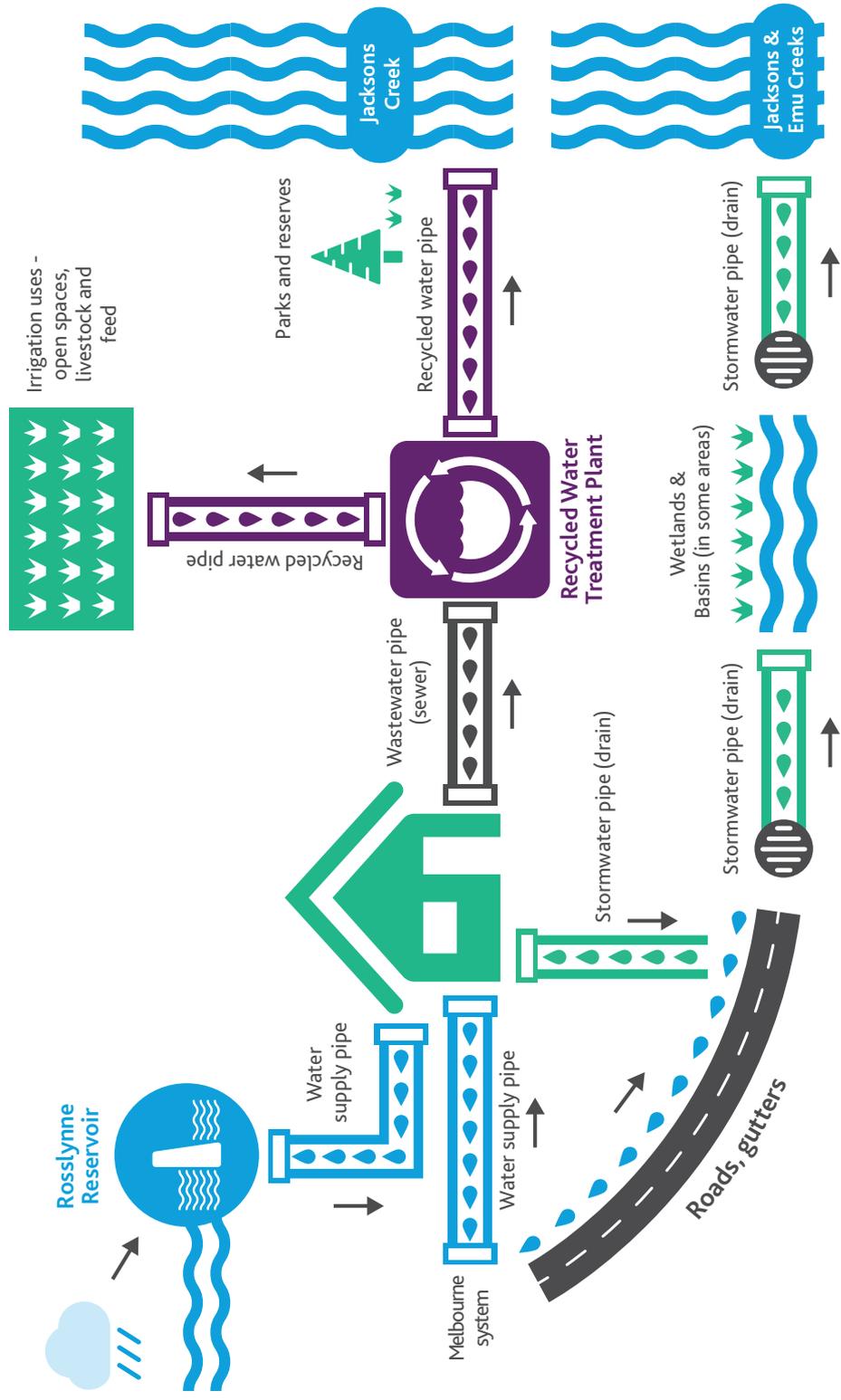
Work includes planting native vegetation, removing weeds and litter and making sure stormwater (flow and quality) from new development is managed to reduce its impacts.



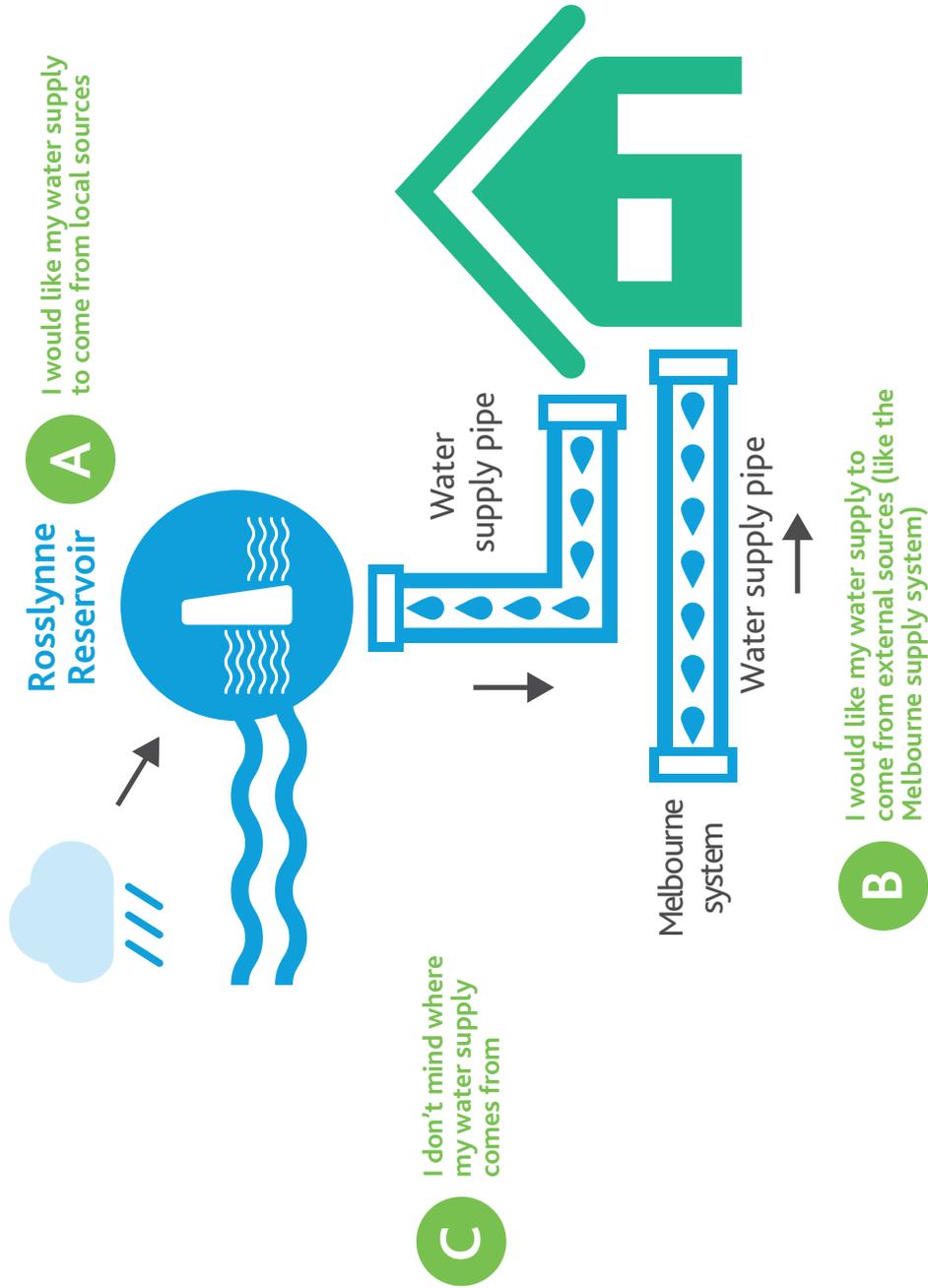
# APPENDIX C: DIAGRAMS

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# Overall sources & uses



# Drinking water



● Future options



# Wastewater

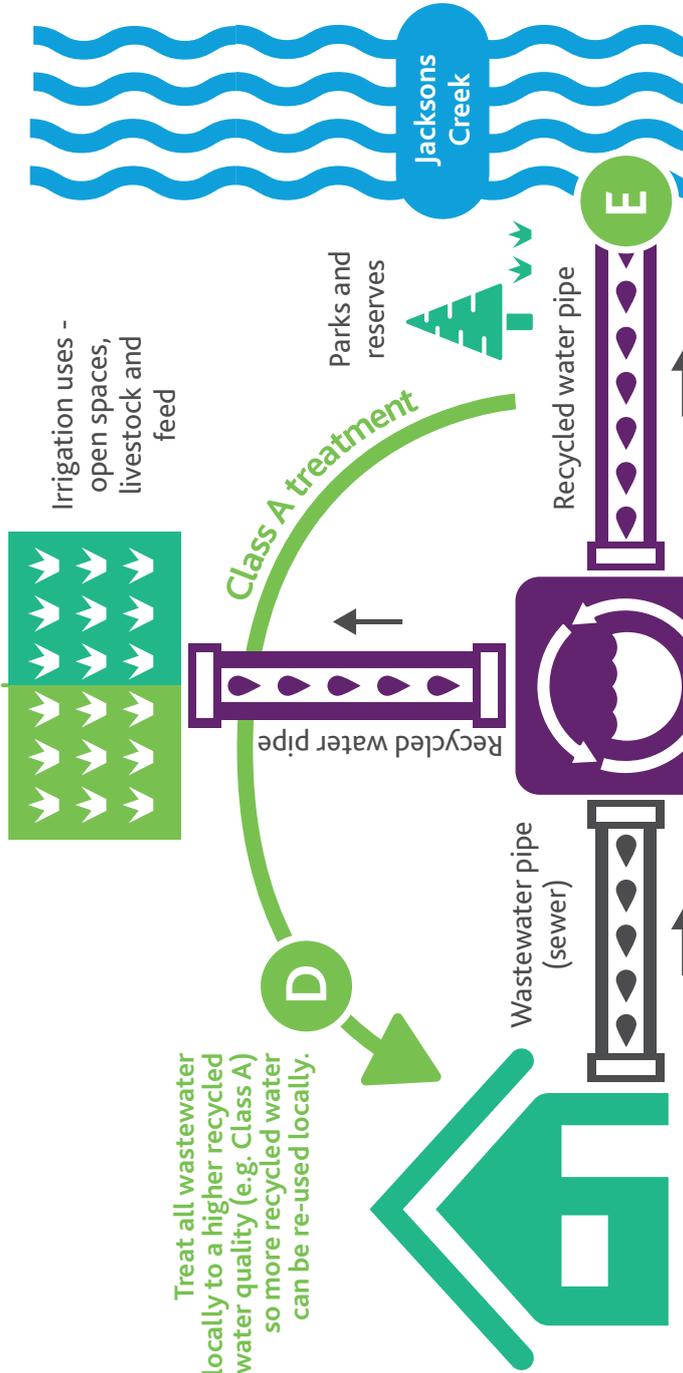
**B** Treat all wastewater locally at the current recycled water quality (Class B) and transfer extra recycled water to sell to farmers for suitable agricultural uses.

**C** Treat all wastewater locally at the current recycled water quality (Class B) and use extra recycled water on local land purchased by Western Water to grow livestock feed.

**D** Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water can be re-used locally.

**A** Transfer extra untreated wastewater to Melbourne's main treatment plant.

**E** Class A treatment  
Treat all wastewater locally to a higher recycled water quality (e.g. Class A) so more recycled water could be stored and released to local creeks at the right time to improve waterway flows.

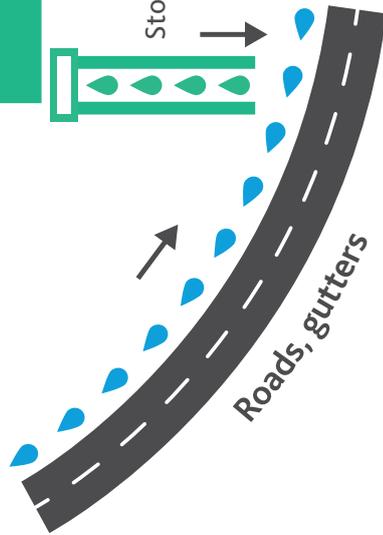
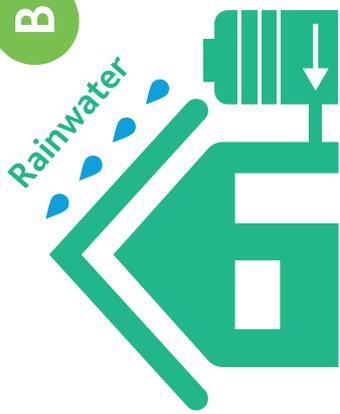


● Future options

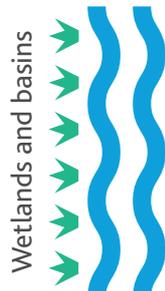


# Stormwater

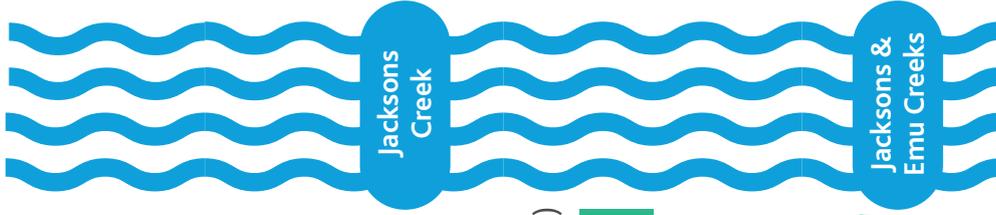
**B** Stormwater collected from rooftops can be stored in household rainwater tank for garden use, toilet flushing etc. (but what's not captured including from roads and other buildings will flow into local streams)



**C** Most of the stormwater captured and treated to a higher quality so it can be reused for a range of suitable purposes and to protect the waterways and their plants and animals



**A** All stormwater, including the extra flows from population growth, continues to keep flowing into local streams, just as it does now



● Future options







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**PLEASE NOTE:** While every effort has been made to transcribe participants comments accurately a small number have not been included in this summary due to the legibility of the content. Please contact Jane Lovejoy at [jane@mosaiclab.com.au](mailto:jane@mosaiclab.com.au) for any suggested additions.