

SYNTHESIS REPORT

Understanding how attendees at Mud Central 2016 value urban trees

KEY POINTS

- People believe trees are important and there should be more trees planted in urban areas.
- There is a strong recognition of the observable benefits provided by trees (e.g. shade) but less recognition of other less tangible benefits (e.g. carbon dioxide storage/sequestration).
- Tree tags, as trialled in Ridge Park, are a valuable and desirable addition to the urban environment, providing educational, awareness, and interactive benefits for adults and children.

1. Context

On April 21, 2016, the City of Unley hosted “Mud Central”, a community fun day celebrating nature and raising awareness of the importance of interacting and connecting with nature and the outdoors. As part of the Mud Central event, the City of Unley sought to better understand current community awareness and values regarding green infrastructure and, especially, trees.

Understanding community awareness and values complements recent project works completed within the City of Unley regarding their urban forest, and understanding the values of trees as a means of justifying the need to increase tree cover in the City (Seed Consulting Services, 2016). By combining environmental data with community values, the City of Unley will be able to more effectively and efficiently target ongoing activities which support a positive cultural and behavioural change towards managing and increasing trees and green infrastructure.

2. Method

The Mud Central event attracted an estimated 4,000 people, of which approximately one-third were adults and two-thirds young children. During the event Seed Consulting conducted three surveys primarily targeting adults: vox pop style videos; tree survey; and tree tag survey.

2.1 Vox pop style videos

This survey format used an approach of recording people's impromptu answers to the question: what do you like about trees?

The videos collected during the event were edited and cut together with photos and quotes also taken during the event. Express verbal consent was given at the time of recording by parents of any children under the age of 18 featuring in the videos.

2.2 Tree survey

This survey was completed by attendees and incorporated seven Likert scale questions, as well as two open answer questions, and a question about the person's demographics (**Attachment A**). The questions were designed to understand how people feel about (i.e. value) trees in urban areas, and their current awareness of benefits provided by trees (e.g. ecosystem services).

Likert scale questions were analysed by calculating the median and interquartile range (IQR) of responses. The median indicates what most respondents seem to believe, whereas the IQR indicates the level of consensus. A relatively small IQR indicates more consensus and a relatively large IQR indicates opinions may be polarised for or against the topic. An IQR of zero indicates complete consensus among respondents.

The list of benefits provided by people were collated into 13 main categories and arranged in order of the number of people who identified the benefit. Other comments provided by people are listed.

2.3 Tree tags survey

Six questions were asked by Seed Consulting to randomly selected attendees of Mud Central (primarily adults). The questions were designed to open a conversation with people to understand their opinions and responses to the tree tags attached to a number of trees around the park (**Attachment B**).

The responses were collated as an information base for the City of Unley when considering the potential future use of tree tags to raise awareness and disseminate information to the public.

3. Results and Interpretation

3.1 Vox pop style videos

Two videos were generated, each just over 3mins in length. These are publicly available at:

<https://youtu.be/13Ht3qdnro> and <https://youtu.be/60FdfK7XEMk>

3.2 Tree survey

Surveys were completed by 50 people ranging in age from late teens to over 70 (**Figure 1**). At least 78% of respondents were women, of which 69% were aged 32-51. This reflects the predominance of mothers with young children drawn to the free community event during school holidays.

The majority of respondents either agreed or strongly agreed with the Likert scale questions (**Figure 2**), and there was generally good consensus (**Table 1**). This indicates overall that **people believe trees are important and there should be more trees planted in urban areas**. Planting **trees on public land received slightly stronger agreement than planting on private land**, and there was agreement that **non-sporting grassy areas and some on-street parking should be used for plantings**, though there was slightly more consensus for replacing grassy areas than on-street parking (**Table 1**). People also tended to **agree that more trees should be planted in Unley** specifically and that they would plant more trees on their property if incentives were provided, though there was slightly lower consensus than some other responses. Based on additional comments provided, the lower consensus related to people not having room to plant more trees on their property, irrespective of incentives.

A wide range of responses were received when asked to list some benefits of trees. The benefits provided were distilled into 13 main categories, of which shade, wildlife habitat/food, and aesthetics/beauty/appeal were the most commonly noted (**Table 2**). This indicates that **there is a strong recognition of the observable benefits provided by trees but less recognition of other less tangible benefits** such as carbon storage and sequestration, erosion control, and rainfall interception. **Certain benefits were not mentioned at all**, such as the positive impacts on real estate values and economic prosperity, the ability to reduce energy use and costs in buildings, the contribution to climate change adaptation, and the potential to extend built infrastructure lifetimes (e.g. road surfaces) and so minimise maintenance costs.

In response to the question “do you have any other comments about trees in urban areas, the following comments were provided:

- *“More trees on verges and maybe shopping car parks (implement in legislation)”*
- *“The tags are really amazing pieces of information for the common public to understand the importance of trees for our lives”*
- *“This park is a great spot and good example”*
- *“They really add to atmosphere and are relaxing”*
- *“Because I love trees!”*
- *“They are beautiful...I love them”*
- *“Could grow more local indigenous trees on foot paths (street trees); cut down the weed trees there at the moment; Would plant more trees on my property but can't fit any more in”*
- *“I couldn't live in a suburb without greenery/trees”*
- *“Need to be prioritised more esp. with regard to developments”*

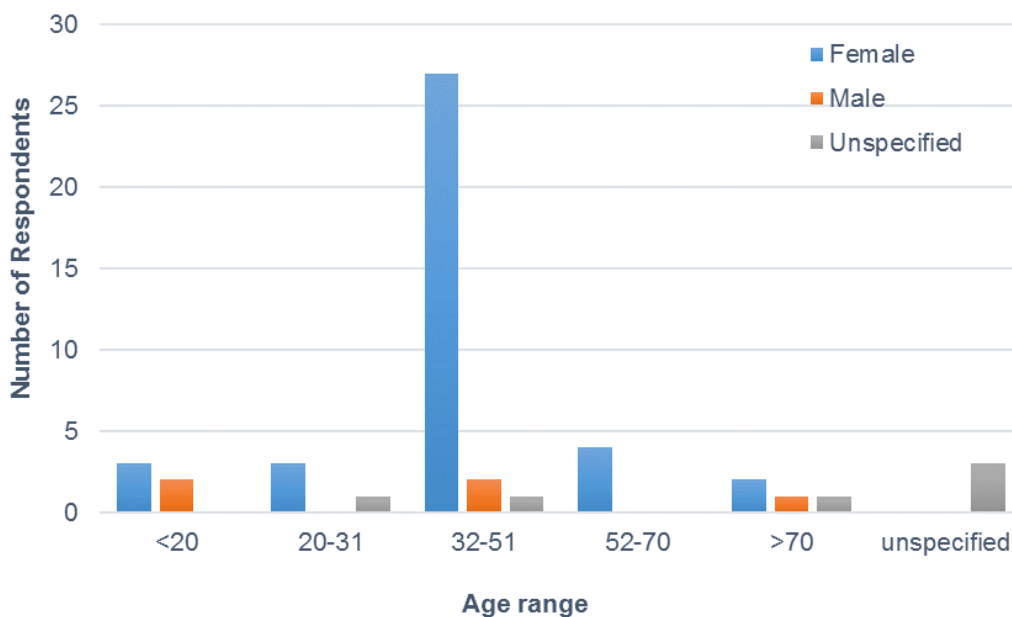


Figure 1. Age range of tree survey respondents

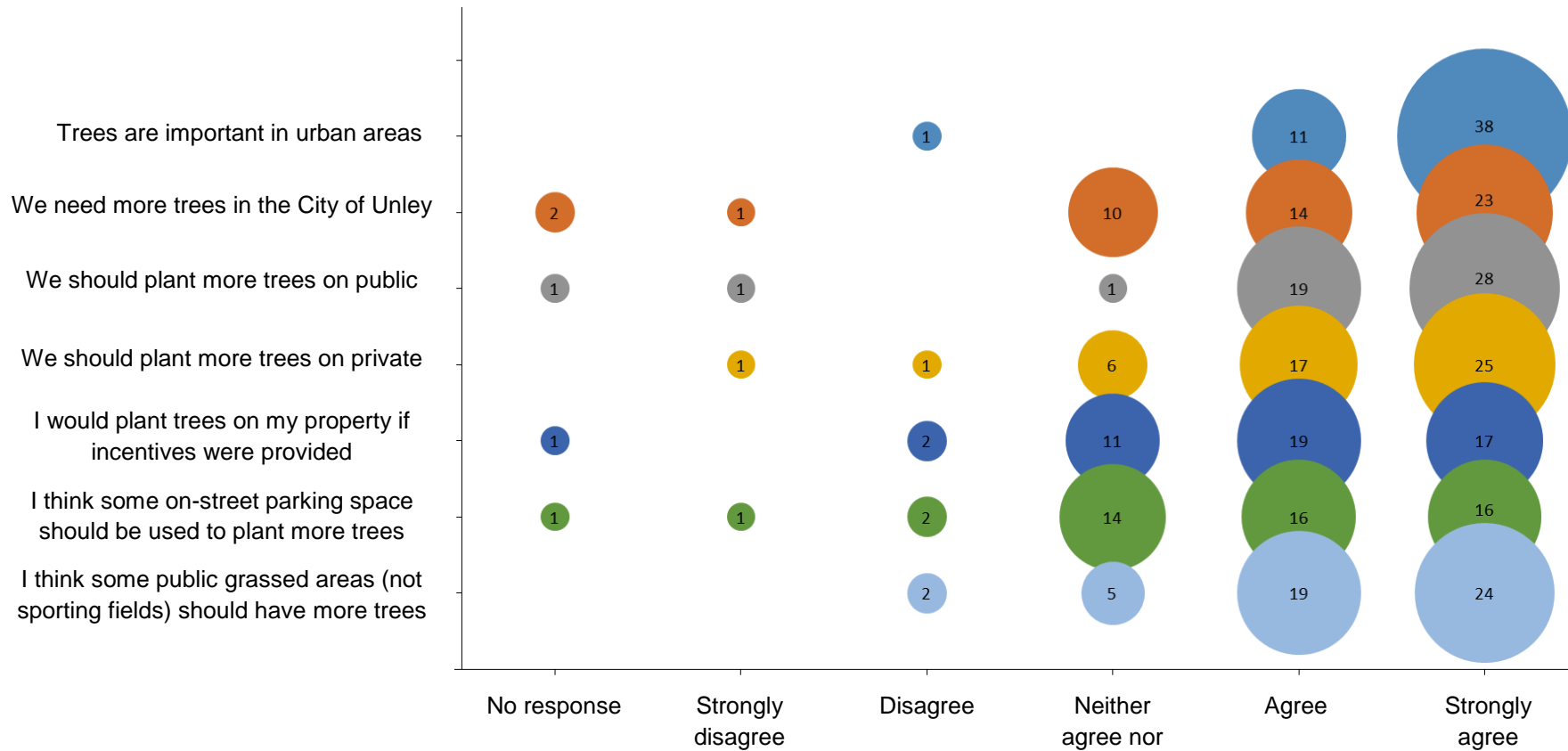


Figure 2. Cumulative responses to each Likert scale question from 50 tree survey respondents. Numbers in circles indicate the number of respondents.

Table 1. Analysis of Likert scale questions showing the median score (i.e. what most respondents believe) and the interquartile range (IQR) (i.e. the level of consensus in the responses).

QUESTION	MEDIAN SCORE	IQR
Trees are important in urban areas	5 (strongly agree)	0
We need more trees in the City of Unley	4 (agree)	1.75
We should plant more trees on public land	5 (strongly agree)	1
We should plant more trees on private land	4.5 (agree to strongly agree)	1
I would plant trees on my property if incentives were provided	4 (agree)	2
I think <i>some</i> on-street parking space should be used to plant more trees	4 (agree)	2
I think <i>some</i> public grassed areas (not sporting fields) should have more trees	4 (agree)	1

Table 2. Number of respondents who identified tree benefits falling in to the 13 collated tree benefit categories.

TREE BENEFIT CATEGORY	NUMBER OF PEOPLE
Shade	33
Wildlife habitat/food	25
Aesthetics/beauty/street appeal	20
Pollutant removal/clean air	14
Produce oxygen	11
Mental wellbeing/relaxing	11
Physical wellbeing/play opportunities	8
Good for environment	6
Reduce/store/sequester CO2	4
Cooling/UHI mitigation	4
Erosion control/mitigation	4
Rainfall interception	2
Storm protection	1

3.3 Tree tags survey

A conversation about the tree tags was had with 26 people, the majority of whom had noticed the tree tags, though had not necessarily read them in detail until the conversation began. This is likely due to the large crowds and numerous child-based activities being run at the Mud Central event and the need for parents to be watchful of their children, rather than focussing on the tree tags. Seventeen people surveyed were females, three of which were children aged 7-12; one boy aged 8 was also surveyed.

Overall, people considered the **tags to be a valuable and desirable addition to the urban environment, providing educational, awareness, and interactive benefits.** The key messages from the survey are:

- Everyone surveyed responded positively to the tree tags, with enthusiastic feedback being that they were a: “wonderful”, “great”, “good”, and “fantastic” idea.
- Everyone also agreed that there should be more implemented on trees in urban areas, especially focussing on trees where children often congregate (e.g. schools, libraries and parks) as it was considered an excellent educational tool for children. Trees of a particular age or conservation concern were other target suggestions.
- The design of the tags was well received, with the font type and size and colour all being positively critiqued, though a few people commented that the colour could be brighter and perhaps the tags could be bigger (to fit more information).
- Most people agreed the information provided, including slogans on the back of the tags, were of interest and the right level of detail. A few people commented that it was good to “find out information without being an expert or needing to go to a Botanic Gardens”.
- People commonly commented that they would have liked to see other benefits/services included on the tags (e.g. good climbing tree, habitat/food for animals). One person also suggested a rearrangement of information so that the species name and age were most prominent, followed by the shade and oxygen information, plus any other benefits information, and the tree ID number being less prominent.
- The most liked element of the tree tags was the conversion of shade and oxygen amounts to the number of beach umbrellas and number of people per year, respectively. This seemed to make the information more readily understood by the general public with one lady commenting, “I get that!”
- Many people also liked knowing the tree name, with one lady commenting that people may see trees they want to “plant in [their] own garden but don't know what it is; the tags help with this”.
- There were mixed opinions about the attachment method, with people either really liking the spinning element of the tags when hung from branches as it is “eye-catching” whilst others found this “distracting” and thought it made the information “difficult to read”.

- There was concern about the material used for the tags. Although the environmentally friendly element of the tags being made from recycled material was good, a number of people mentioned their concern about the tags being vandalised. More permanent material, fixture methods, and display locations were discussed as possible solutions to help avoid vandalism.
- There were also comments that better marketing around what the tree tags are would be good, as this would help draw people’s attention to them and make them seek them out and go and read them. This seemed largely to be targeted towards adults who would otherwise potentially notice the tags but not bother to go out of their way to read them; compared to the children surveyed who were naturally drawn to the tags as something unusual in the environment to explore, with one child commenting that, “when you see them you know they’re something special so you go and have a look”.

If generating additional tags for urban trees, the City of Unley may wish to consider the specific suggestions provided in response to the question “is there anything you would change about [the tags]”. Note these suggestions have been ordered in to similar response categories:

Design

- Not bright enough
- Perhaps brighter colour
- Colour - white rather than yellow
- Making them more bright would make them more visible
- Make the tags bigger
- Colour-code tags by significant tree or tree species
- A bit busy in oxygen and shade boxes
- Perhaps reorder so tree name and age more prominent, then shade and oxygen amounts, other services (e.g. hollows), and ID # less prominent
- Make titles smaller so can fit more information
- Better marketing of tree tags
- Needs to draw in more people

Attachment method

- Attached differently - higher away from vandals
- Could be potentially vandalised - consider another method of attachment/material
- Attachment method - spinning is annoying
- Spinning makes it difficult to read

Information

- Information about caring for trees rather than them being a nuisance
- Is it native or not?
- Other uses e.g. climbing, hollows
- Both sides with information about the tree

Other general quotes about the tree tags provided by people surveyed are as follows:

- *"Would like to see more especially where there are children and in parks"*
- *"Get young ones involved from an early stage"*
- *"Good for kids"*
- *"Good for educating kids easily"*
- *"Not enough taught in schools"*
- *"Great educational tool for kids"*
- *"Be great to involve kids if around schools - perhaps include more pictures for younger kids"*
- *"Definitely need more tags around schools/libraries"*
- *"Target certain areas and bigger trees for other tags"*
- *"Good to have a figure...people can relate to easily"*
- *"Fun for people to see/recognise"*
- *"Year 4's [at Burnside Primary] are learning about animal habitats...including trees...these would be really good"*
- *"Make a map of trees publicly available to help increase awareness when development occurs"*
- *"Perhaps let kids name them, like 'Big Borris'"*
- *"I think all councils should do something like this"*
- *"Helps the community value them more"*
- *"Makes people appreciate trees"*
- *"Need signs to explain what the tags are"*
- *"Before I thought [that tree] was old and ugly but after reading the information on the tag I don't think that anymore...yes, I will view other trees differently now"*

Attachment A. Tree survey

TREE SURVEY

Please circle the response that best characterises how you feel.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Trees are important in urban areas	1	2	3	4	5
We need more trees in the City of Unley	1	2	3	4	5
We should plant more trees on public land	1	2	3	4	5
We should plant more trees on private land	1	2	3	4	5
I would plant trees on my property if incentives were provided	1	2	3	4	5
I think <i>some</i> on-street parking space should be used to plant more trees	1	2	3	4	5
I think <i>some</i> public grassed areas (not sporting fields) should have more trees.	1	2	3	4	5

Can you list some benefits provided by trees?

Do you have any other comments about trees in urban areas?

About you


Are you (please circle): Male Female

Your age is (please circle): <20 20-31 32-51 52-70 >70

What suburb do you live in? _____

Have you noticed the tree tags today? Yes No

THANK YOU



Attachment B. Tree tag survey questions and images of tree tags

M		F	
Did you notice the tree tags?		Did they make sense to you?	
Did you learn anything new/interesting?			
What did you like most about them?			
Is there anything you would change about them?			
Would you like to see more on urban trees?			
Other comments			

Example of tree information provided on tree tags (photo credit: J Garden)



The four slogans provided on the back of tree tags (photo credit: J Garden)

