

May 2020

# 2020 Community Survey for Kings Park and Botanic Garden

Weighted Results

## Executive Summary

The 2020 community survey for Kings Park and Botanic Garden was an opportunity for the Western Australian public to give their views on the importance of the park and its future.

Recruitment of people to complete the online survey was successful, with 4,543 people giving their views. The park was rated highly both as a visitor attraction and for its environmental sustainability focus.

Kings Park is seen as filling many roles, in particular as a sanctuary for native plants and wildlife and as a place for WA families and the community. There was very strong support for the goals of protecting Kings Park bushland and conserving threatened WA plant species.

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## Background

In January 2020 the Botanic Gardens and Parks Authority ran an online survey of the Western Australian community. The survey sought the views of the community and stakeholders on how the park is managed as well as the role that the park played in the broader society. The information from the survey was used to inform the Kings Park and Botanic Garden Management Plan.

The survey instrument was set-up online and was promoted to the community via the media and on social media. There were 4,543 responses to the survey in the month of January. The survey consisted of 13 questions, including rating aspects of the park, open ended questions and categorical questions about the responding individual and their use of the park.

In order to mitigate the risk of selection bias due to the self-selecting sampling process of the online survey, the survey file has been weighted to represent the age and sex distribution of the Western Australian population.

## Survey participants

Survey participants were asked about the nature of their use of Kings Park and also to declare any professional connection with the park.

## Use groups

Respondents were asked:

*Which of these categories best describes you? (Select a maximum of 2 categories.)*

The categories were:

- *I have a connection with Kings Park because of my job.*
- *I work in Kings Park.*
- *I occasionally visit Kings Park.*
- *I regularly spend time with family/friends in Kings Park.*
- *I regularly exercise in Kings Park.*
- *I visit Kings Park to relax.*
- *I bring interstate/international visitors to Kings Park.*
- *I attend events in Kings Park such as concerts, movies, festivals or the ANZAC Day Dawn Service.*
- *I volunteer in Kings Park.*
- *I never visit Kings Park.*

For subsequent analysis of survey data, the sample was categorised based on *use groups* formed by the response to this question.

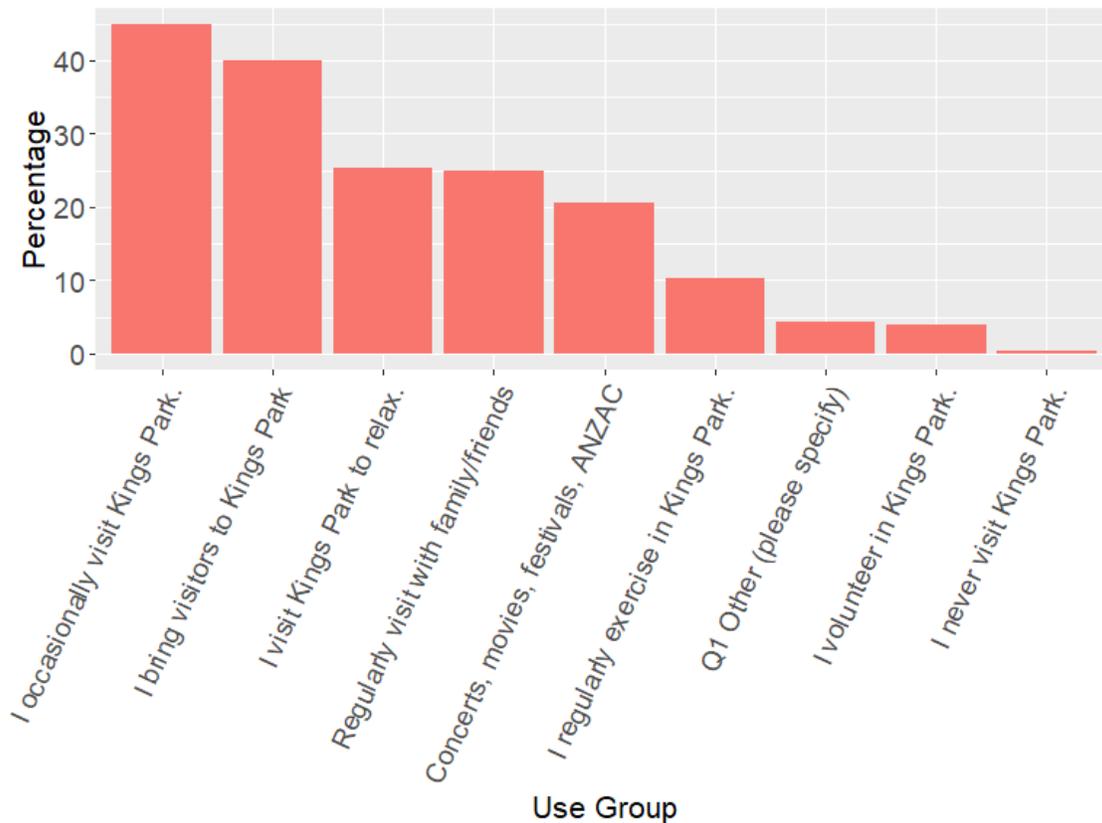


Figure 1 Which of these categories best describes you?

Table 1 Which of these categories best describes you?

Use Group	Percentage
I occasionally visit Kings Park.	44.89
I bring visitors to Kings Park	40.05
I visit Kings Park to relax.	25.23
Regularly visit with family/friends	24.94
Concerts, movies, festivals, ANZAC	20.48
I regularly exercise in Kings Park.	10.27
Other	4.31
I volunteer in Kings Park.	3.85
I never visit Kings Park.	0.39

## Professional connection to Kings Park

This question asked:

*Which category best describes your professional connection with Kings Park?*

The options given were:

- *I own/operate a business in Kings Park*
- *My organisation is a corporate partner or receives services from Kings Park*
- *I am a Kings Park volunteer*
- *I work for a State Government agency*
- *I work in Local Government*
- *I represent Aboriginal interests*
- *I provide a service to Kings Park*
- *I represent WAs cultural/arts sector*
- *I represent WAs environmental/conservation sector*
- *I work in the tourism sector*
- *I represent the community sector*
- *I represent heritage interests in WA*
- *I work for Botanic Gardens and Parks Authority/Dept of Biodiversity, Conservation and Attractions*
- *Other*

Very few respondents had a professional connection to Kings Park, the most being staff of the Department of Biodiversity, Conservation and Attractions which was 1% of the sample.

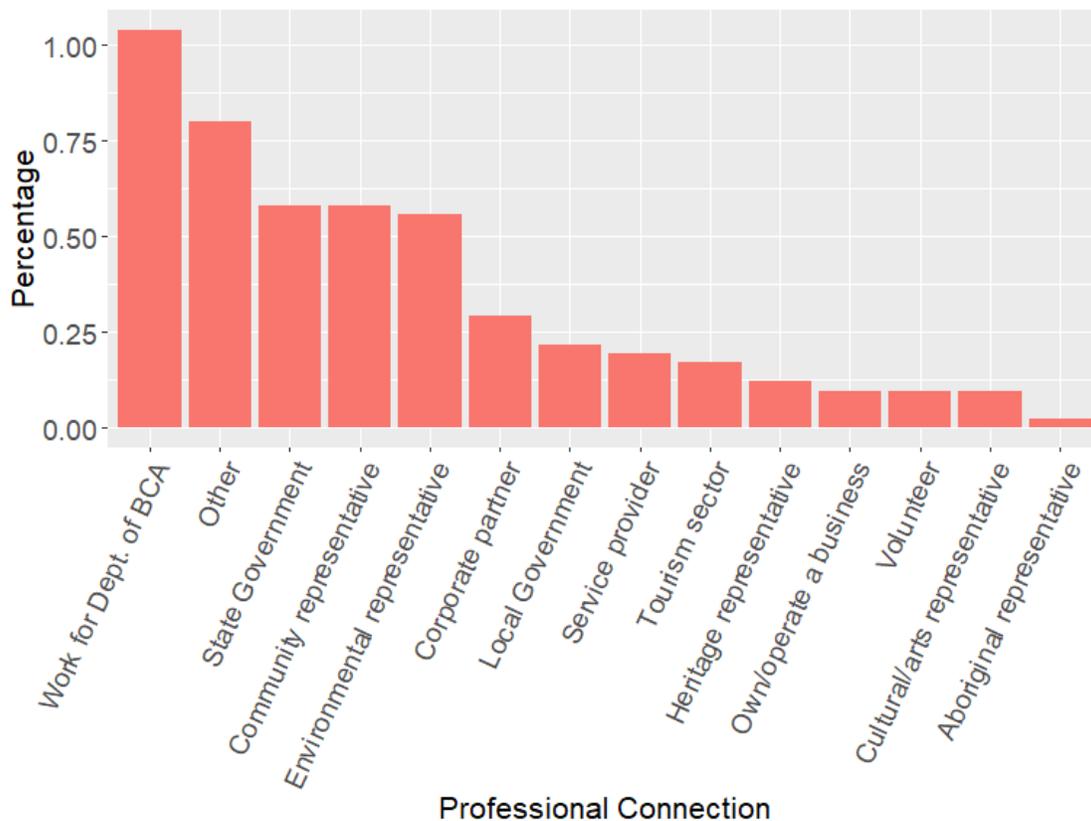


Figure 2 Which category best describes your professional connection with Kings Park?

Table 2 Which category best describes your professional connection with Kings Park?

Professional Connection	Percentage
I work for Botanic Gardens and Parks Authority/Dept of Biodiversity, Conservation and Attractions.	1.04
Other	0.80
I work for a State Government agency.	0.58
I represent the community sector.	0.58
I represent WAs environmental/conservation sector.	0.56
My organisation is a corporate partner or receives services from Kings Park.	0.29
I work in Local Government.	0.22
I provide a service to Kings Park.	0.19
I work in the tourism sector.	0.17
I represent heritage interests in WA.	0.12
I own/operate a business in Kings Park.	0.10
I am a Kings Park volunteer.	0.10
I represent WAs cultural/arts sector.	0.10
I represent Aboriginal interests.	0.02

## Demographics and weighting

An *opt-in* type internet-based survey is a cost-effective way of obtaining a large sample from which to make inference about the population of interest. A drawback of such a survey is that inclusion in the sample is not controlled, in contrast to a sample randomly selected from the population. The fact that participants in effect select themselves to be part of the sample has the potential to create a selection bias in some way that also biases the inference.

Calibration to known benchmarks or to a random sample can mitigate the potential of such bias (Särndal 2007). In the case of the Kings Park and Botanic Garden Western Australian Community Survey we can calibrate to demographic benchmarks.

The potential for self-selection bias arises when a person's responses to the survey questions are related to their likelihood of self-selecting for the survey in the first place. To some degree, both the answers to the questions and the propensity to self-select are related to a person's demographic characteristics. If we control for this via calibration to population benchmarks, we remove this component of the potential bias. As an example, males 18-24 years of age may be more likely to support a particular priority of Kings Park and they may also be less likely to respond to the survey. In such a scenario the sample will have a downward bias in the level of support for this priority. Calibrating to population benchmarks with respect to age and sex will increase the weight of the males aged 18-24 that are in the sample so that their views represent the number of males aged 18-24 in the population and our measure of support for this priority is unbiased.

Of course, there are other characteristics of people that influence both their propensity to participate in the survey and their opinions on Kings Park *beyond* what can be explained only by age and sex. One further measure can be to include an attitudinal question that might reveal a characteristic related to self-selection and the survey content for which a useful benchmark is available from another, reliable random survey.

Looking at the age and sex profile of the survey sample in Figure 3 compared to that of the official estimated resident population for Western Australia (ABS 2019) in Figure 4 shows that the achieved survey sample tends to be older and more likely to be female than the WA population as a whole.

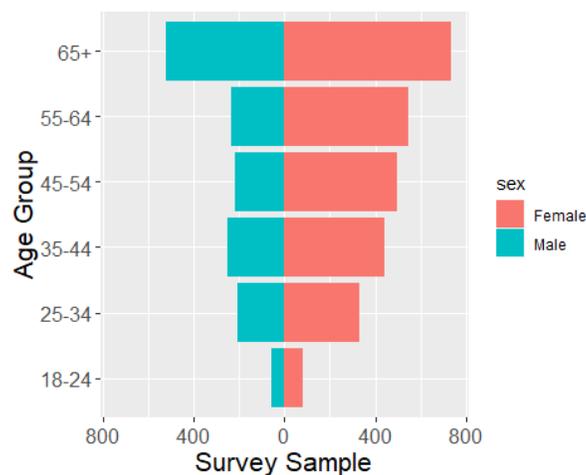


Figure 3 Distribution of sex and age for unweighted sample

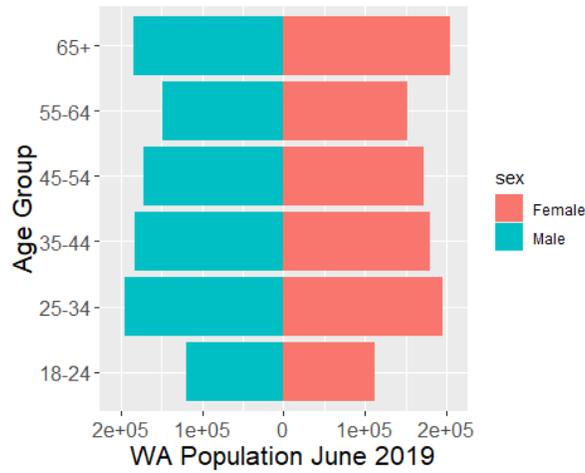


Figure 4 Distribution of sex and age for WA population

By applying weights to the sample to make it representative of the state with respect to sex and broad age groups, the weighted profile, as shown in Figure 5, now matches the population. The weights applied to responding people depending on their sex and age group are shown in Table 3. In order to allocate a weight to every person, some imputation was carried out for people that didn't respond to the items on sex and age. An imputed sex and age group was allocated to each of these people as a random draw from donor records in the fully responding sample.

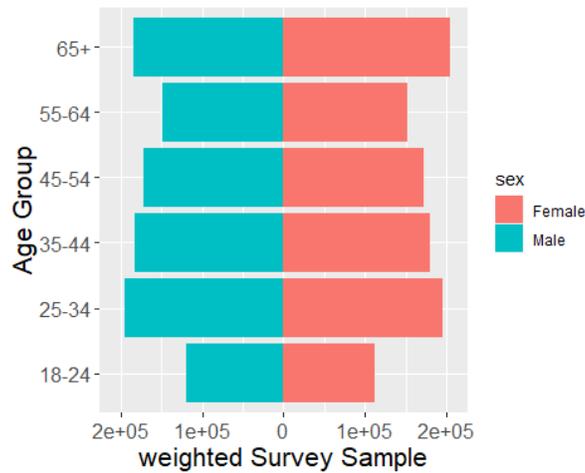


Figure 5 Distribution of sex and age for weighted sample

Looking at the weights assigned to the sample based on sex and age group, we see that the highest weights are for younger respondents, as they were under-represented in the self-selected sample and they are given larger weights in order to represent the state population.

*Table 3 Survey weights to represent WA state population*

Sex	Age Group	Weight
Female	18-24	1352.0
Female	25-34	595.2
Female	35-44	409.9
Female	45-54	345.2
Female	55-64	279.1
Female	65+	278.5
Male	18-24	1980.2
Male	25-34	932.6
Male	35-44	725.2
Male	45-54	790.7
Male	55-64	631.3
Male	65+	352.2

## Community views

The following sections provide results from the survey questions. Estimates are calculated from the weighted survey sample, where weights are produced via post-stratification as described above.

## Community attitudes

This question asked:

*Please share your opinions on the following statements by rating each one.*

The statements were more general in nature than relating solely to Kings Park. They were:

- *Tackling environmental issues is an important priority for Western Australia.*
- *Protecting green space in inner-city areas is important for the future of Perth.*
- *Developing new attractions and activities for tourists is a priority for Perth.*
- *Improving social inclusion is a priority for WA (including for people with disabilities and from different cultures).*
- *Promoting respect for local Aboriginal culture is an important priority for our community.*
- *Green spaces like Kings Park contribute to our physical health.*
- *Green spaces like Kings Park contribute to our mental health.*

Agreement was measured on a 5-point Likert scale:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

The display of the weighted data in Figure 6 shows minimal difference between the use groups in their rating of agreement.

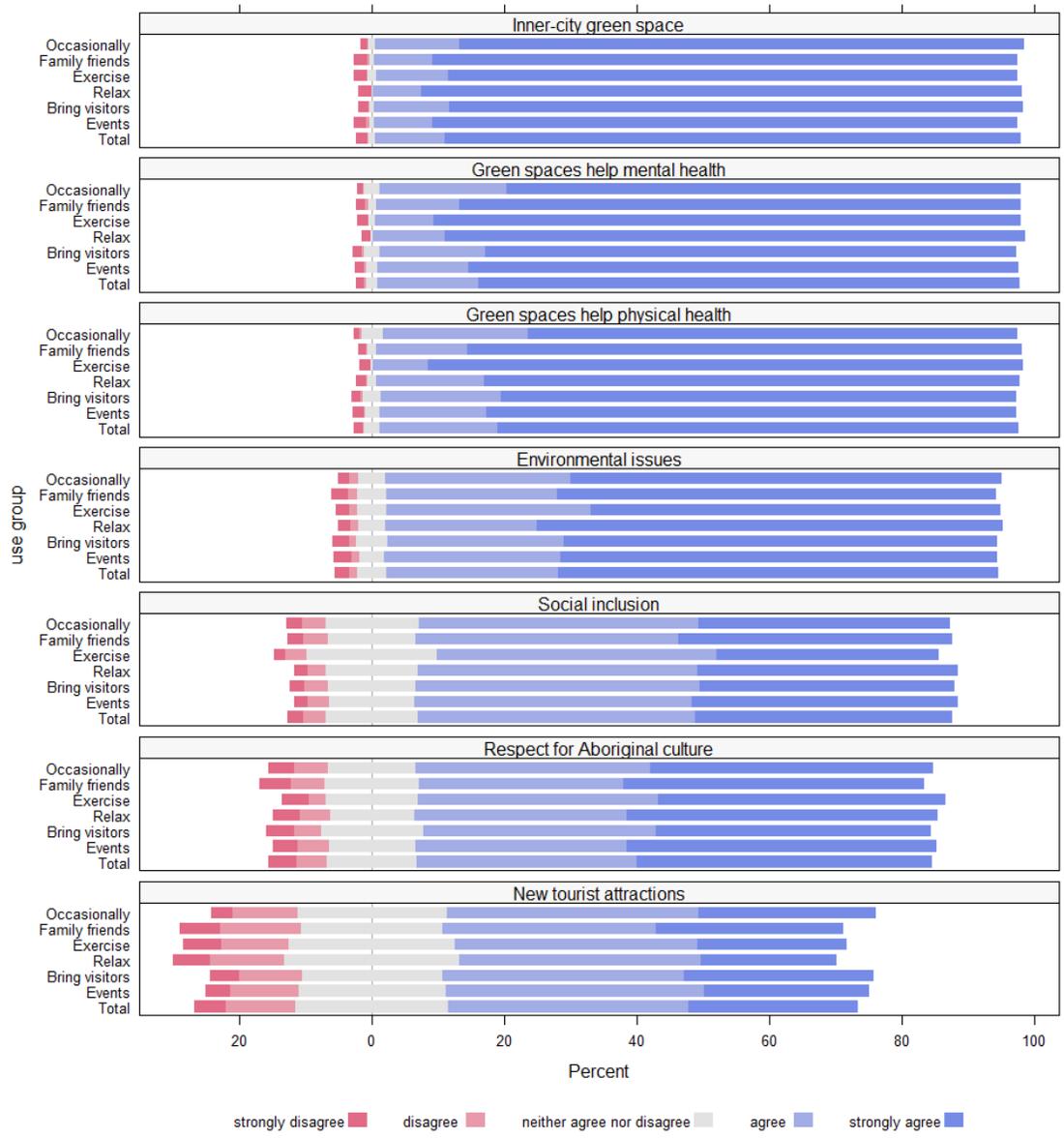


Figure 6 Views on how Kings Park is managed

## Relative importance of goals of Kings Park

This question asked:

*How important is it for Kings Park to achieve each of the following?  
Please rate each statement.*

The statements on goals listed were:

- *Maintain high standards of presentation in the gardens and parklands.*
- *Provide spaces for leisure and recreation, including for picnics and play.*
- *Provide good access for people with special needs.*
- *Promote the culture of Nyoongar people as traditional custodians.*
- *Maintain the State War Memorial and other memorials in the park.*
- *Protect Kings Park bushland.*
- *Offer tours and services for tourists.*
- *Offer a wider range of eating and drinking options.*
- *Build new visitor attractions in the park.*
- *Be a safe place for the community to visit.*
- *Provide education about WA biodiversity and conservation issues.*
- *Provide education about our heritage, including Aboriginal heritage.*
- *Conserve threatened WA plant species.*
- *Help protect and restore WAs natural environment through research.*

The level of importance attributed to each goal is measured on a 5-point Likert scale as follows:

1. Definitely not important
2. Not very important
3. Neither important nor unimportant
4. Reasonably important
5. Very important

There was mixed support for new attractions and a focus on food and drink. Otherwise there was broad support for the other goals, which was fairly consistent between use groups. Those using Kings Park for fitness do, as a group, diverge from the norm slightly on most rating scales.



Figure 7 Relative importance of goals – top 7

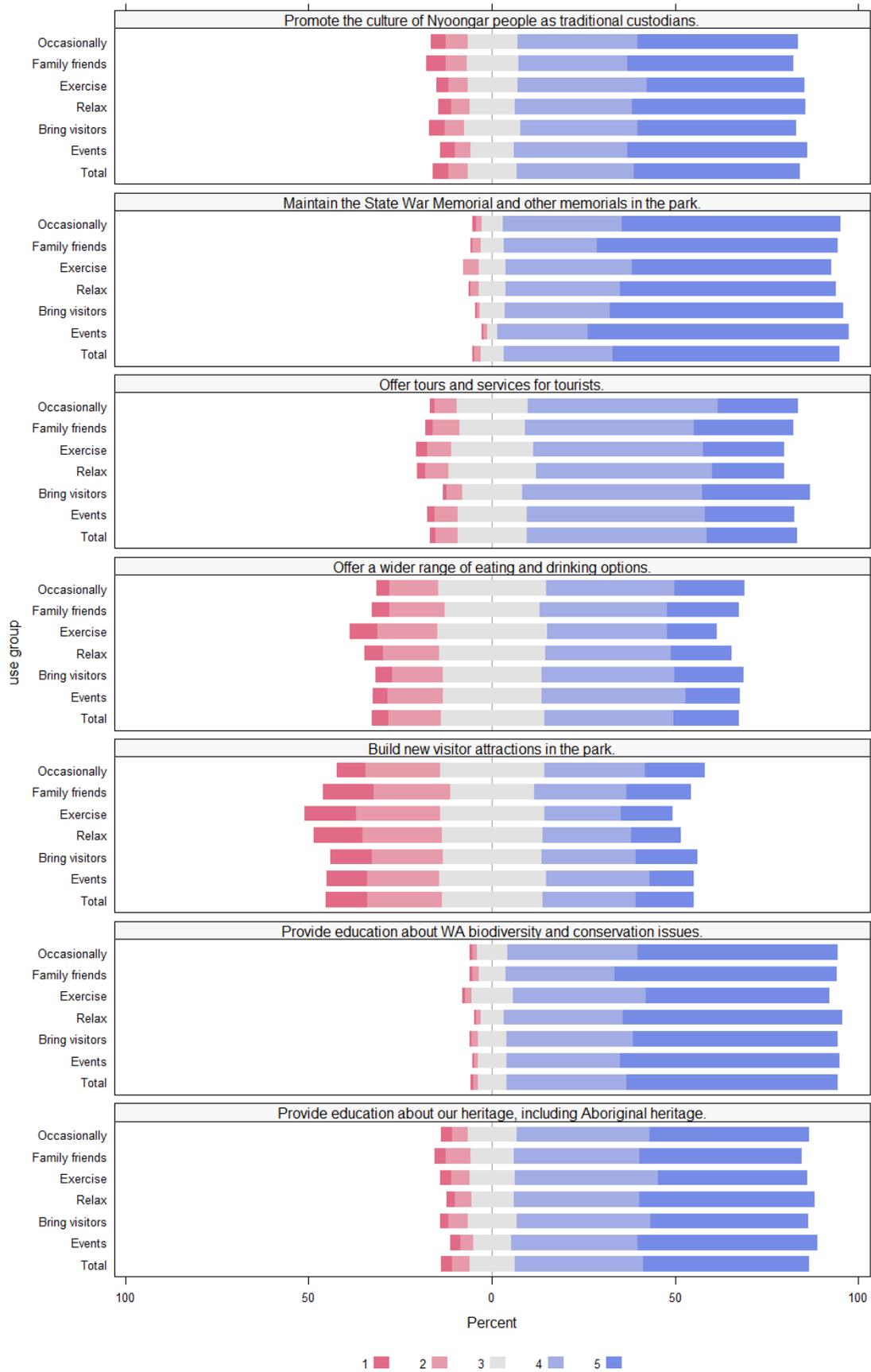


Figure 8 Relative importance of goals – bottom 7

*Table 4 Relative importance of goals (%)*

<b>Priority</b>	<b>Definitely not Important</b>	<b>Not very Important</b>	<b>Neither</b>	<b>Reasonably Important</b>	<b>Very Important</b>
Protect Kings Park bushland.	0.2	0.7	1.9	12.6	84.5
Conserve threatened WA plant species.	0.3	0.3	2.1	13.7	83.5
Safe place for the community to visit.	0.1	0.3	2.2	18.2	79.2
Protect WA's natural environment through research.	0.4	1.1	4.7	19.7	74.2
Spaces for leisure and recreation	0.2	0.7	1.8	27.7	69.6
High standards of presentation	0.1	0.4	1.7	28.8	69.0
Maintain the State War Memorial	0.4	1.7	6.5	29.6	61.7
Access for people with special needs.	0.3	1.0	4.9	33.2	60.6
Biodiversity and conservation education	0.4	1.4	7.9	32.9	57.4
Education about heritage, including Aboriginal	2.6	4.9	12.5	35.0	45.0
Promote the culture of Nyoongar people	4.1	5.3	13.7	31.9	44.9
Offer tours and services for tourists.	1.4	5.9	19.2	49.0	24.4
Range of eating and drinking options.	4.3	14.3	28.5	35.3	17.6
Build new visitor attractions	11.0	20.5	27.5	25.4	15.6

## Kings Park and Botanic Garden as a visitor attraction

This question asked:

*How do you rate Kings Park and Botanic Garden as a Perth visitor attraction?  
(Rate the park from 1-5 stars.)*

For the weighted sample, 94.7 percent of people gave a rating of 4 or 5 stars. As an average, the rating was 4.6 stars out of 5.

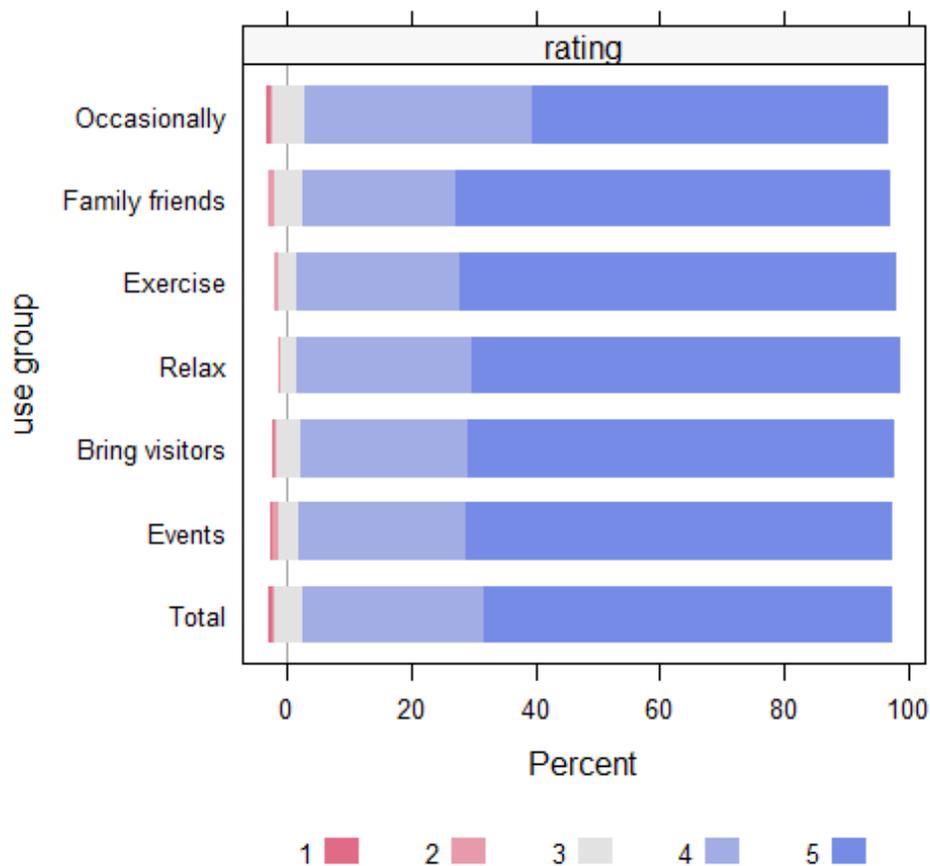


Figure 9 Rating of Kings Park as visitor attraction

Table 5 Rating of Kings Park as visitor attraction (%)

Use Group	1	2	3	4	5
I occasionally visit Kings Park.	0.2	0.3	5.7	36.6	57.2
I regularly spend time with family/friends in Kings Park.	0.0	0.7	4.8	24.7	69.8
I regularly exercise in Kings Park.	0.0	0.5	3.3	26.3	69.9
I visit Kings Park to relax.	0.0	0.1	2.9	28.2	68.8
I bring interstate/international visitors to Kings Park.	0.1	0.3	4.0	27.1	68.5
I attend events in Kings Park such as concerts, movies, festivals or the ANZAC Day Dawn Service.	0.1	0.8	3.6	27.1	68.5
<b>All respondents</b>	<b>0.1</b>	<b>0.3</b>	<b>4.9</b>	<b>29.3</b>	<b>65.4</b>

## Relative importance of the roles of Kings Park in environmental sustainability

This question asked:

*As a conservation agency, Kings Park aims to be a leader in environmental sustainability.  
How important do you think it is for Kings Park to do the following?  
(Please rate each statement.)*

The services and activities listed were:

- *Provide recycling bins for visitors.*
- *Grow native plant species that suit our changing climate.*
- *Reduce the use of single-use plastics and other waste.*
- *Continue to reduce water use and harvest rain water.*
- *Promote the parks award-winning greenwaste program (mulching, composting).*
- *Encourage car-free transport to and through the park.*
- *Provide advice to the community on growing waterwise and/or habitat-friendly home gardens using WA plants.*
- *Continue scientific research into native plants for their conservation in WA.*

The level of importance attributed to each goal is measured on a 5-point Likert scale as follows:

1. Definitely not important
2. Not very important
3. Neither important nor unimportant
4. Reasonably important
5. Very important



Figure 10 As a conservation agency, Kings Park aims to be a leader in environmental sustainability. How important do you think it is for Kings Park to do the following?

## Kings Park and environmental sustainability

This question asked:

*How do you rate Kings Parks current performance in environmental sustainability?  
(Rate the park from 1-5 stars.)*

For the weighted sample, 85.6% of people gave a rating of 4 or 5 stars for this question. The mean response was 4.2 stars.

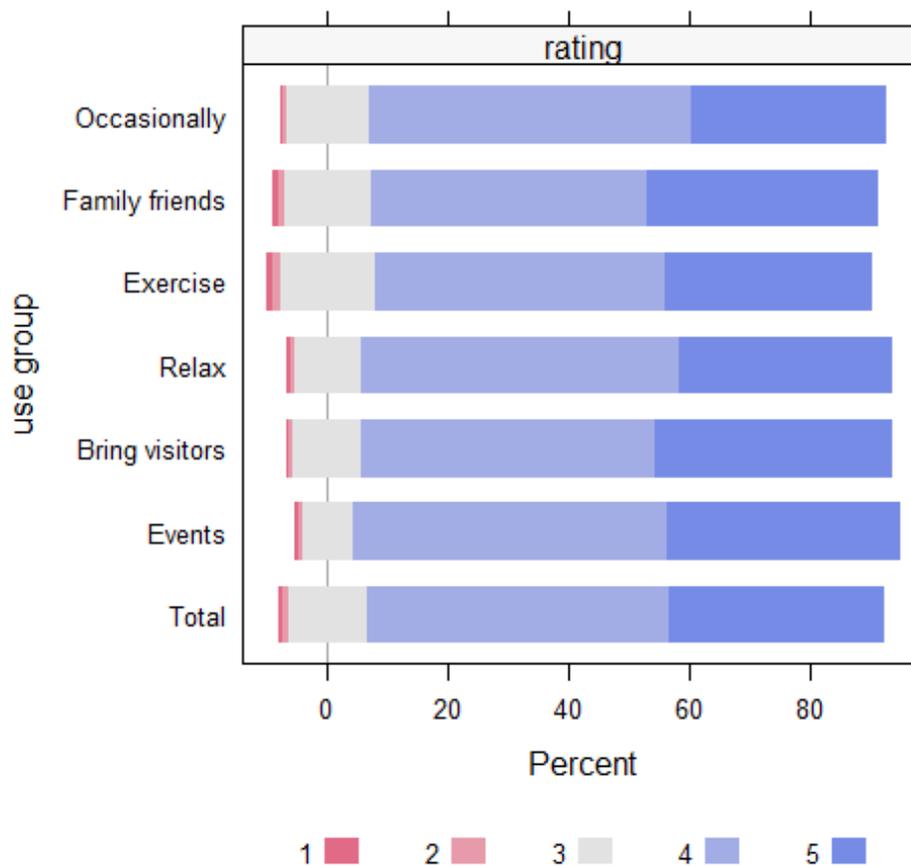


Figure 11 How do you rate Kings Parks current performance in environmental sustainability?

Table 6 How do you rate Kings Parks current performance in environmental sustainability?

Use group	1	2	3	4	5
I occasionally visit Kings Park.	0.2	0.5	13.9	53.5	31.9
I regularly spend time with family/friends in Kings Park.	0.5	1.0	14.7	45.6	38.2
I regularly exercise in Kings Park.	0.5	1.5	15.9	48.2	34.0
I visit Kings Park to relax.	0.4	0.5	11.3	52.8	34.8
I bring interstate/international visitors to Kings Park.	0.3	0.5	11.8	48.4	39.0
I attend events in Kings Park such as concerts, movies, festivals or the ANZAC Day Dawn Service.	0.4	0.6	8.6	52.1	38.3
All respondents	0.4	0.8	13.3	50.1	35.4

## Relative importance of the roles of Kings Park in the community

This question asked:

*First and foremost, Kings Park is...*

*Please rank the following statements from 1 - 7 in order of importance to you.*

The statements provided were:

- *A tourist attraction.*
- *A place for WA families and the community.*
- *A sanctuary for native plants and wildlife.*
- *A significant place for the Wadjuk Nyoongar people.*
- *An environmental research and conservation institution.*
- *A place to exercise and/or relax in nature.*
- *A place for significant memorials and commemoration.*

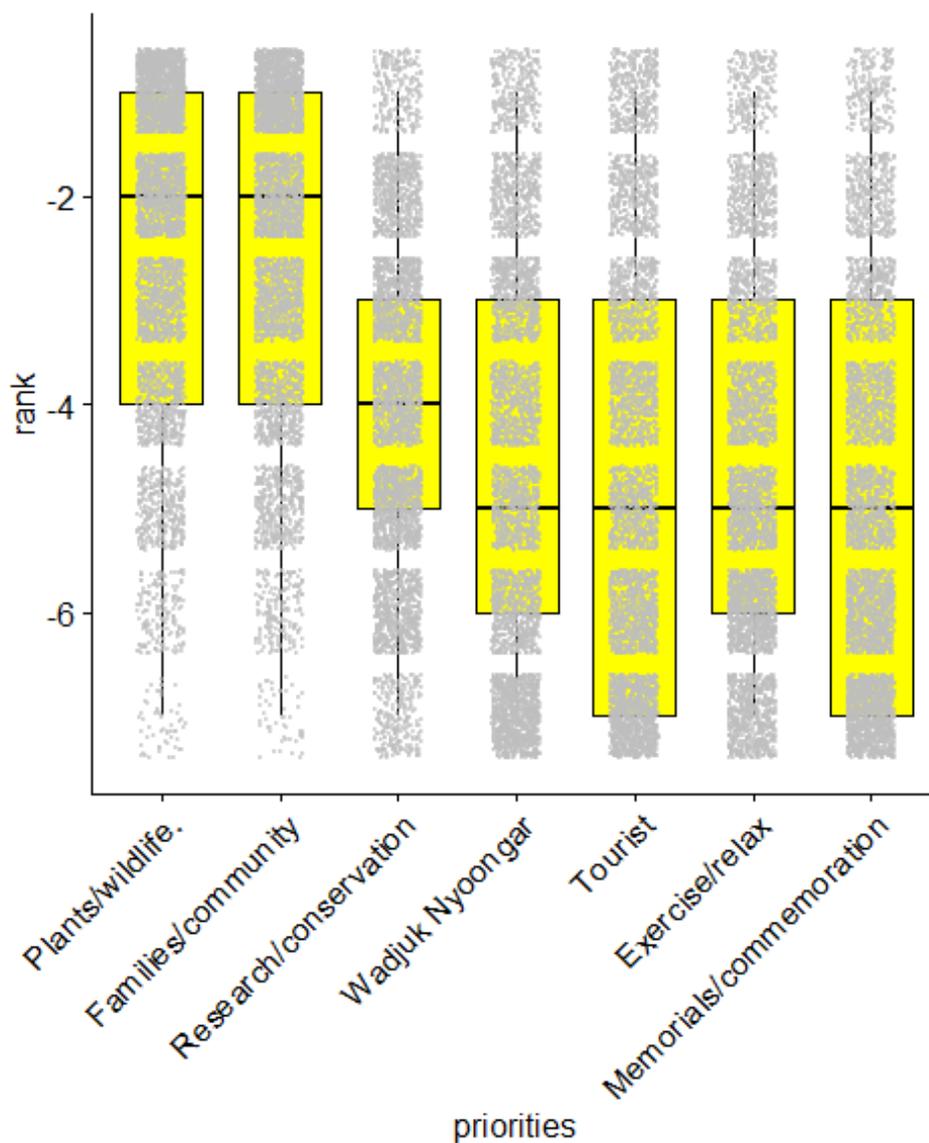


Figure 12 Location and dispersion of rankings for priorities

Figure 12 summarises the responses to the question of what respondents feel should be the top priorities for Kings Park. These are presented as rankings from 1 at the top to 7 at the bottom. Each unweighted response is represented by a grey point and the yellow boxes show the range of ratings given by the middle 50% of ranks. The two most highly ranked options are:

- *A place for WA families and the community; and*
- *A sanctuary for native plants and wildlife*

which are clearly apart from the other options.

There was a low level of agreement about where the priorities of

- *A tourist attraction; and*
- *A place for significant memorials and commemoration*

should be ranked, as shown by the tall boxes in yellow in Figure 12.

The display of the weighted data in Figure 13 show that the two priorities that were highest ranking overall were also consistently the highest ranking for each of the use groups identified.

*Table 7 Please rank the following statements in order of importance*

<b>Role of Kings Park</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
A sanctuary for native plants and wildlife.	33.6	22.8	16.3	12.9	8.4	4.5	1.4
A place for WA families and the community.	31.3	21.8	16.6	14.0	10.0	5.2	1.2
A tourist attraction.	10.1	10.9	12.0	13.2	13.0	16.2	24.6
A significant place for the Wadjuk Nyoongar people.	7.8	11.3	15.4	13.7	13.8	15.1	22.8
A place to exercise and/or relax in nature.	6.5	10.7	11.6	15.2	18.7	22.5	14.7
A place for significant memorials and commemoration.	5.4	8.8	10.7	13.0	15.0	19.4	27.6
An environmental research and conservation institution.	5.3	13.6	17.3	17.9	21.1	17.2	7.7

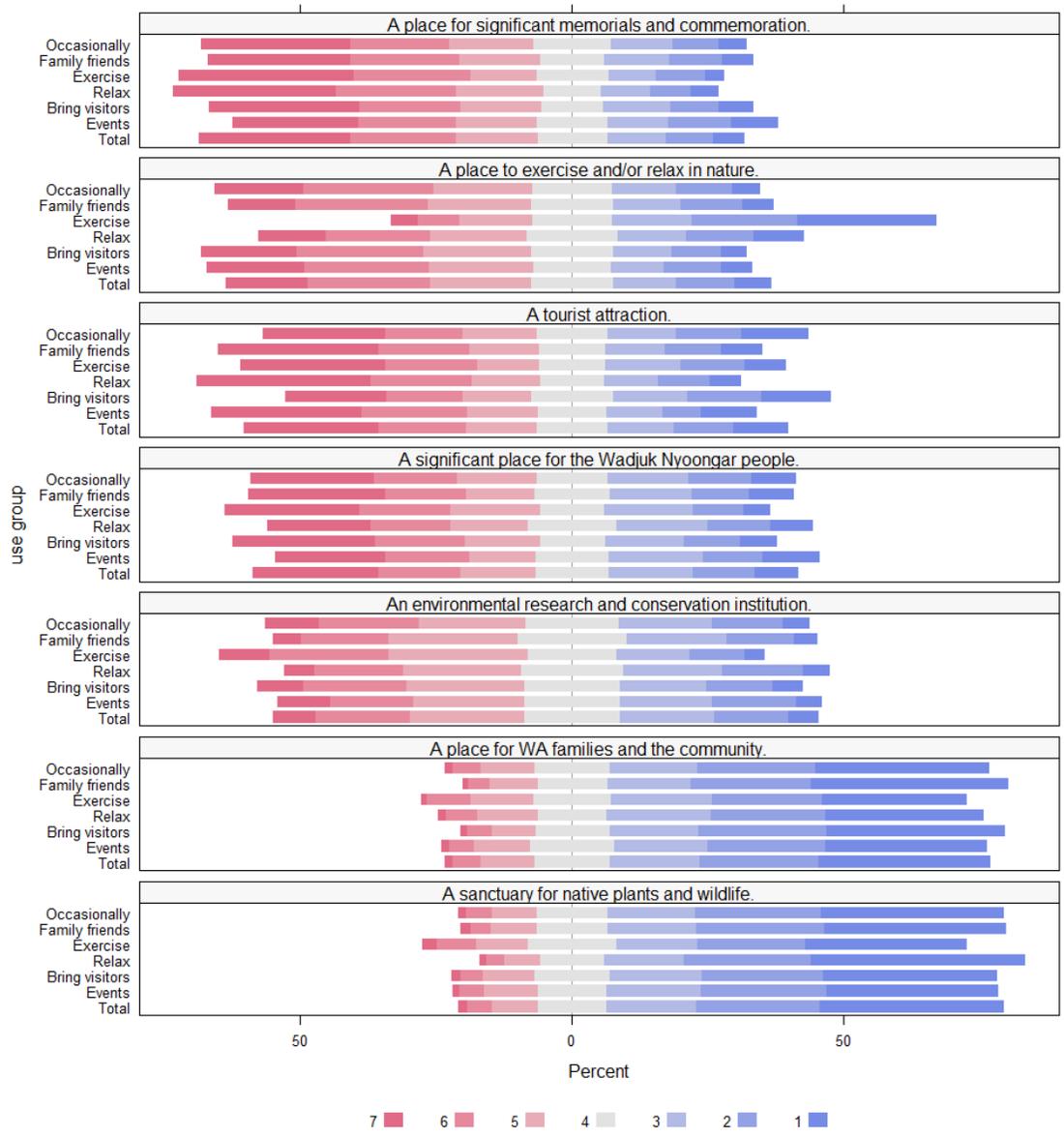


Figure 13 Please rank the following statements in order of importance

## Kings Park management

This question asked:

*Please share your views on the following statements about how Kings Park is managed.  
Please rate each one.*

The statements given were:

- *I am proud of Kings Park.*
- *Overall, Kings Park meets my expectations.*
- *Kings Park provides high quality areas for play, picnics and family recreation.*

The levels of agreement were given as options on a 5-point Likert scale:

1. I strongly disagree
2. I disagree
3. I neither agree nor disagree
4. I agree
5. I strongly agree

The display of the weighted data in Figure 14 shows broad support for all three aspects of the management of Kings Park.

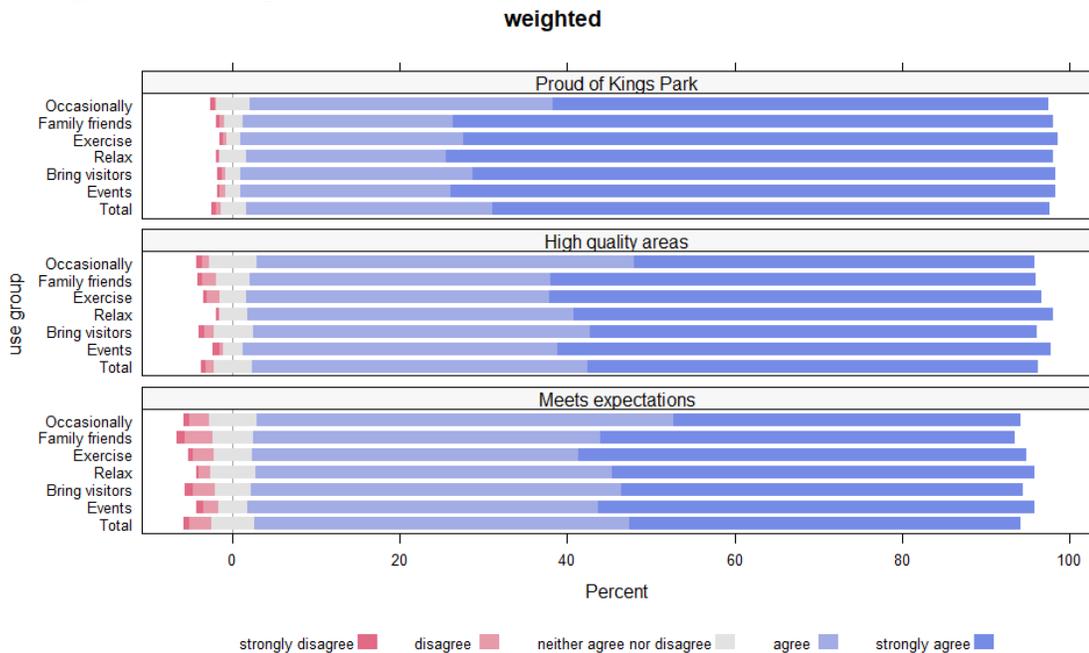


Figure 14 Please share your views on the following statements about how Kings Park is managed



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