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Nature-based outdoor recreation demand and preferences – Quantitative research findings

Western NSW

Prepared for Parks and Wildlife Group, NSW Department of Environment, Climate Change and Water

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This section outlines the key findings from the research

EXECUTIVE SUMMARY

Research context

The current NSW State Plan has set the Parks and Wildlife Group (PWG) of the NSW Department of Environment and Climate Change and Water (DECCW) the target of increasing the number of visits to National Parks by 20% between 2006 and 2016. Meeting this target will require increasing the frequency with which locals and tourists currently access parks, as well as increasing the number of new users. Facilitating and managing such an increase poses significant planning, management, and marketing challenges.

The objective of this research is to explore the preferences, motivations and barriers in relation to participation in nature-based outdoor recreation. This includes obtaining data on current demand, as well as forecasts for the future, in order to identify the types of experiences and locations in which PWG should supply new nature-based outdoor recreation opportunities and the ways in which it should manage existing opportunities.

Research design

A questionnaire was developed on the basis of results of the exploratory qualitative phase of this research, and in close consultation with PWG. This survey measured current behaviour, interests, preferences, barriers and motivations in relation to a range of nature-based outdoor recreation experiences in different settings. It should be noted that current behaviour, interests, barriers and motivations were investigated in relation to nature-based outdoor recreation generally, not just in relation to activities carried out in National Parks, whilst preferences were investigated in relation to activities undertaken in a 'National Park, State Conservation Area, State Forest or Nature Reserve'.

The telephone survey was carried out with 2,807 NSW residents aged 18-75 years.

The sample was split into six geographical regions, and borders were mapped out with the assistance of the Australian Bureau of Statistics' 2008 Australian Standards Geographical Classification (ASGC). The regions were Greater Sydney, North Coast, Northern Tablelands, South Coast, Southern Tablelands, and Western NSW. Samples of n=400 were used in each geographic region, with the exception of Greater Sydney where a sample of n=800 was utilised.

This report presents the findings for the Western NSW area. The findings for the remaining five geographic regions can be found in their respective dedicated reports.

Participation

- Participation rates indicate the percentage of survey participants who had engaged in each of a list of outdoor recreation activities in the last 12 months. The top five activities in terms of participation rates were picnicking (85%), visiting landmarks, lookouts and scenery (74%), walking on roads or footpaths for recreation (70%), scenic driving with a car or motorbike (67%) and bushwalking for less than 2 hours (52%).
- Frequency of participation was calculated using the reported number of times that survey participants had participated in each of the outdoor recreation activities in the last 12 months. Means were then calculated (having first truncated frequencies so that extremely frequent participants did not skew the data) for those survey participants who had done each of the activities at least once in the last year (i.e. 'participants'). The data trimming process is described further in Section 4.2 Participation. The top five activities in terms of the frequency with which the activity was undertaken in the last year were nature study (102.2 times per year), followed by walking on roads or footpaths for recreation (102.0), horse riding (55.3), trail bike or quad bike riding (53.1) and running or jogging outdoors (47.5).
- Participants in each activity were asked whether they had participated in their local area, or further away or both. The majority of activities were practiced more often in the participants' local area, but a sizeable amount of participation occurred further afield.

Interest

- Both participants and non-participants in each of the outdoor recreation activities were asked to indicate how interested they would be in doing in each of the activities more often, if there was nothing stopping them from doing so, using a scale of 0 (not at all interested) to 10 (extremely interested). Interest in more frequent participation was highest for

picnicking, with a mean interest rating of 6.3 out of 10. This was followed by visiting landmarks, lookouts and scenery (6.1), scenic driving with a car or motorbike (5.8), walking on roads or footpaths for recreation (5.2) and attending outdoor concerts/music festivals (5.1).

- Mean interest ratings in participating more often in each of the outdoor recreation activities were greater for current participants (i.e. those who had participated in the last 12 months) than non-participants.
- Level of interest in participating more often in each of the outdoor recreation activities was then divided into three categories: low (0-3), moderate (4-6) and high (7-10). The top five interests based on the proportion of survey participants indicating high interest in participating more often were picnicking (57%), visiting landmarks, lookouts and scenery (50%), scenic driving with car or motorbike (49%), walking on roads or paths for recreation (45%), and fishing (43%).

Barriers

- Barriers represent the things that survey participants cited as stopping them from participating more frequently in the activities in which they were interested. Survey participants provided open-ended responses that were later coded by the researchers. The most frequently mentioned barrier across all activities was time (82%), which can be considered to indicate the relative priority of particular activities. However, unmet demand and cost appear to be present, with 55% reporting a lack of local opportunities and 29% reporting the cost of participating are both barriers to more frequent participation.
- 'Actionable barriers', that is lack of local opportunities and lack of awareness of any local opportunities, were most commonly mentioned for 'attending outdoor concerts/music festivals' (60%), snow sports (55%), water sports (52%), cycling a sealed bike path or track (44%) and visiting aboriginal and other cultural heritage sites (41%).

Preferences

- Preferences represent the natural and man-made features that survey participants cited wanting if they were to do the activities in a National Park, State Conservation Area, State Forest or Nature Reserve in their region (but not in a local park or botanical garden). Survey participants provided open-ended responses that were later coded by the researchers. The most frequently requested feature across all activities was that 'no additional facilities' were required (50%). The next most frequently requested feature was toilets (49%). This was followed by scenery/views (40%), cleared paths or trails through the bush (31%), and good road conditions and accessibility (29%).

Motivations

- Survey participants were asked to indicate the extent to which a list of statements describing motivations to participate in outdoor recreation applied to them, on a scale of 0 to 10, where 0 was not at all applicable and 10 was extremely applicable. Overall, the three highest rated motivations were 'I enjoy getting outdoors to spend time with my family or friends' (8.2 out of 10), 'I like to get outdoors for the peace and quiet' and 'I like to get outdoors for the health benefits, like breathing the fresh air' (each at 8.0).
- There were no notable differences in the motivations for those who either participated in or were highly interested in participating more often in different types of outdoor recreation activities.

Forecasting future participation

- Forecasting was carried out in order to estimate total participation figures for the year 2018 for each of the outdoor recreation activities. Weights developed to reflect the changes in NSW from 2009 to 2018 in both the demographic (age by gender) profile and absolute population size were used to achieve this¹. There were no changes in the relative popularity of different activities and the bulk of the change in this model was due to the projected increase in the NSW population of 11%.
- A second series of analyses was carried out in order to forecast the changes that may result if PWG was to address two of the main 'actionable barriers' in relation to each of the outdoor recreation activities: lack of local opportunities and lack of awareness of local opportunities. These analyses estimated the increase in participation frequency among both current participants and non participants using the data on participation frequency, stated interest in doing an activity more often, and actionable barriers.
 - In percentage terms, when compared to current participation, it was forecasted that that snow sports will increase by 111% in 2018 if actionable barriers are addressed. This was followed by water sports (74%), cycling on a sealed bike path or track (54%), attending outdoor concerts/music festivals and fishing (each at 52%). This analysis showed that, in terms of increase in forecasted number of times Western NSW residents will participate in one year, water

¹ Based on Australian Bureau of Statistics 3222.0 Population Projections, Australia, TABLE B1. Population projections, By age and sex, New South Wales - Series B. Series B largely reflects current trends in fertility, life expectancy at birth, net overseas migration and net interstate migration.

sports had the highest increase with the addressing of actionable barriers, with a predicted 2 million additional events.

- These analyses were then replicated using a cohort approach, which assumes that the interest and times per year will remain the same for participants in 2018.
 - The largest increase using this approach due to population change was for running or jogging outdoors, which was forecasted to rise from 4.6 million to 6.9 million events. In percentage terms, when compared to current participation, it was forecasted that snow sports (141%), rock climbing, abseiling, caving or canyoning (109%), water sports (81%), sports involving motorised watercraft (78%), attending outdoor concerts/music festivals (65%), running or jogging outdoors (61%), cycling on sealed bike path or track (60%) and fishing (57%) would increase by at least 50% should actionable barriers be addressed. Addressing actionable barriers saw the largest impact for water sports, in terms of forecasted number of times per year, with a further 2.0 million times per year predicted should these barriers be removed.
- The assumptions of the cohort approach led to higher predictions than the demographic approach for certain activities, particularly those that had higher frequency of participation among the 18 to 24 year old age group, such as running or jogging outdoors.
 - Using this approach, if actionable barriers are addressed, running or jogging outdoors will increase by 2.8 million events in 2018, compared to only 0.7 million events under the demographic approach. Similarly, activities that had a higher frequency of participation among the oldest participants, such as walking on roads or footpaths for recreation, had a higher forecast using the demographic approach.

This section outlines the background to the project, and specifies the research objectives

RESEARCH CONTEXT

2.1 Background

The current NSW State Plan has set the Parks and Wildlife Group (PWG) of the NSW Department of Environment and Climate Change and Water (DECCW) the target of increasing the number of visits to National Parks by 20% between 2006 and 2016. Meeting this target will require increasing the frequency with which locals and tourists currently access parks, as well as increasing the number of new users. Facilitating and managing such an increase poses significant planning, management, and marketing challenges.

The objective of this research is to explore the preferences, motivations and barriers in relation to participation in nature-based outdoor recreation. This includes obtaining data on current demand, as well as forecasts for the future, in order to identify the types of experiences and locations in which PWG should supply new nature-based outdoor recreation opportunities and the ways in which it should manage existing opportunities. The research will inform strategies for increasing demand among current and prospective outdoor recreation participants.

2.2 Research objectives

Overall, the aims of the project were to understand and measure the motivations, barriers and preferences of nature-based outdoor recreation users and potential users, and the demand for a range of nature-based outdoor recreation experiences. This was achieved over two stages of research.

Specifically, the research aims were to:

- Identify the optimal approach for obtaining the precision required to understand demand, motivations and preferences for segments of the community such as basic demographic groups at regional scales, including the adoption of regional study areas if required.
- Gain an understanding of the nature-based outdoor recreation experiences people are seeking, the motivations of people who choose to participate in particular experiences, and their preferred settings for participating in these experiences.
- Gain insights to improve the application of the PWG visitor segmentation (messaging segmentation).
- Gain an understanding of the reasons people do not participate in particular nature-based outdoor recreation experiences or do not participate more frequently in particular experiences.
- Estimate the current demand for a range of nature-based outdoor recreation experiences in different settings. The main focus of the study is demand for experiences in the local area, but the demand for experiences undertaken when travelling within NSW is also of interest.
- Forecast likely changes in demand for a range of nature-based outdoor recreation experiences in different settings from 2009 to 2018.

This section provides details of the overall research methodology

RESEARCH DESIGN

3.1 Research approach

The overall research approach for this project is illustrated diagrammatically below. This document reports on the second research phase of the project, which involved a telephone survey.



3.2 Telephone survey

Conduct of the survey

A questionnaire was developed on the basis of results of the exploratory qualitative phase of this research, and in close consultation with PWG. It allowed us to measure current behaviour, interests, preferences, barriers and motivations in relation to a range of nature-based outdoor recreation experiences in different settings. It should be noted that current behaviour, interests, barriers and motivations were investigated in relation to nature-based outdoor recreation generally, not just in relation to activities carried out in National Parks, whilst preferences were investigated in relation to activities undertaken in a 'National Park, State Conservation Area, State Forest or Nature Reserve'. The full questionnaire appears in Appendix A. The survey was conducted by I-view from 30th April to 25th May 2009, and averaged 21 minutes in duration.

Survey sample

The telephone survey was carried out with 2,807 NSW residents aged 18-75 years, including current and prospective participants of nature-based outdoor recreation experiences. RDDialer, which is a source of randomly generated landline numbers for exclusive use of Australian Market and Social Research Organisation (AMSRO) members, was used to obtain the sample frame.

The sample was split into six geographical regions, and borders were mapped out with the assistance of the Australian Bureau of Statistics' 2008 Australian Standards Geographical Classification (ASGC). The regions were:

- **Greater Sydney:** Bordered on the south by Stanwell Tops and in the north by Gosford. The Blue Mountains create the western border with Lithgow the furthest west locality.
- **North Coast:** Beginning at the Queensland border in the north and runs down the coast to the Greater Sydney Border. The North Coast includes the cities of Newcastle, Taree, Coffs Harbour, Grafton and Lismore.
- **Northern Tablelands:** Adjoining the North Coast from the Queensland border down to Greater Sydney. Included are the New England and the Hunter regions, Tamworth, Armidale, Walcha and Maitland.
- **South Coast:** Runs from Wollongong along the southern coast to the Victorian Border and as far west as the Great Dividing Range.

- **Southern Tablelands:** Adjoins the South Coast from the south-west corner of Greater Sydney to the Victorian border and includes Wagga Wagga, Goulburn, Albury and ACT.
- **Western NSW:** Adjoins the Northern and Southern Tablelands and runs west and south to the border with South Australia.

The map below shows these regions. A breakdown of regions by postcodes is found in Appendix B.



Samples of n=400 were used in each geographic region, with the exception of Greater Sydney (n=800) in which a larger sample was used to provide greater accuracy of results within that area. A sample of 400 enables us to be 95% confident that a feature of the local population we are surveying is in fact within a range of $\pm 5.0\%$ around what the survey tells us, whereas the confidence interval provided by a sample of 800 is $\pm 3.5\%$.

In order to provide accurate estimates of demand, quotas were established within each location stratum, such that those who participated in the survey matched the age and gender profile of the local population. As a result, it was not necessary to weight the data. Sample quotas per location are shown in Table 3.2.1, below.

Table 3.2.1. Quotas for age and gender within location

Gender	Age group	Greater Sydney	North Coast	New England Tablelands	Western NSW	South Coast	Southern Tablelands
Male	18-34	141	53	56	56	55	70
	35-54	160	80	79	82	77	81
	55-75	94	64	62	63	64	48
Female	18-34	143	53	58	55	54	69
	35-54	165	84	82	82	83	83
	55-75	97	66	63	62	67	49
Total (n=2,800)		800 (100%)	400 (100%)	400 (100%)	400 (100%)	400 (100%)	400 (100%)

The response rate for the survey was 28.7%, based on the number of completed surveys divided by the number of completed surveys plus the number of refusals. A response rate of around 30% is standard for survey of 20-25 minutes that covers a non-sensitive topic. As the reasons why individuals chose not to participate in the survey were not recorded, it is not possible to know whether their refusal to do so resulted in any systematic bias into the data. It is possible, however, that busier individuals were less inclined to participate in the 20 minute survey (or indeed to be contacted on their home telephone in the first place), and are therefore underrepresented in the sample. This may mean that the influence of time pressures, for example, as a barrier to the participation in outdoor recreation activities may be somewhat underestimated in the findings (though, it is worth noting that, averaged across all activities, 82% of those who participated in the survey cited time as a barrier to participation in activities).

3.3 Quantitative analysis

All statistical analyses were conducted in-house, using SPSS and Q Research Software. Coding and editing of variables and statistical manipulations were conducted as appropriate, and weighting was used in the forecasting.

When significant differences are noted in mean tables, green font indicates that the mean for that group (e.g. male 18-24) was significantly higher than the combined mean of all other groups. In contrast, red font indicates the mean for that group (e.g. male 18-24) was significantly lower than the combined mean of all other groups. The statistical test conducted was an independent samples t-test, and alpha was set at .05.

When significant differences are noted in tables that report percentages, green font indicates that the proportion of participants in that group (e.g. male 18-24) was significantly greater

than would be expected if participation was equally distributed across all groups. In contrast, red font indicates that the proportion of participants in that group (e.g. male 18-24) was significantly less than would be expected if participation was equally distributed across all groups. The statistical test conducted was a Standardised and Adjusted Residual Analysis, and alpha was set at .05.

This section presents the findings of the quantitative telephone survey for the Western NSW area

RESEARCH FINDINGS

4.1 Introduction

This section presents the findings of the quantitative telephone survey for the Western NSW area, which will be useful for land managers in the Western NSW area and any area that receives significant visitation from Western NSW residents. The findings for the remaining five geographic regions (Greater Sydney, North Coast, South Coast, North Tablelands, and South Tablelands) can be found in their respective, dedicated reports. The findings can be used for a number of different land management challenges, including the following:

- **Planning supply of nature-based outdoor recreation experiences**

The figures and data tables in this section and the appendices provide rich data for land managers to form an understanding of demand and thereby inform planning to supply nature-based outdoor recreation experiences. By looking at the following data alongside data on the current supply of nature-based outdoor recreation experiences in a region, land managers can identify gaps where more experiences are required:

- **Total participation** is the total number of occasions an activity is undertaken across the region annually. It helps us to consider the supply required, where activities with a high total participation require a large amount of supply.
- The four forecasts of **total future annual participation** are predictions of the total number of occasions an activity will be undertaken across the region in 2018.

- **Participation rates** indicate the size of the audience for a particular activity. Activities with a high participation rate are likely to involve a broad audience. The breakdown of participation rates by local area and further afield indicates the extent to which supply is required locally or elsewhere in NSW or both.

While being useful indicators of the amount of supply required, **total participation** and **participation rates** are limited in that they are themselves influenced by the supply of an activity (if there is little or no supply total participation will be suppressed even if demand is high). A richer picture of the amount of supply required is revealed by looking at data on **interest in participating more often** alongside **actionable barriers**:

- **Interest in participating more often** is a measure of the strength of interest in the population in participating more often in an activity.
- There are many barriers preventing people who are interested in participating more often from doing so. **Actionable barriers** are barriers related to supply or awareness of supply. Activities which rank highly on both interest in participating more often and actionable barriers usually require more supply than indicated by the total participation and participation rates.

Where gaps are identified, land managers can use **preferences for participation** to help make decisions about where and how to supply experiences. Preferences indicate the natural and man-made features respondents prefer when undertaking an activity. They include features of site (scenery, accessibility, terrain, shade, swimming areas etc.), facilities (toilets, rest areas, seats and picnic tables, children's playgrounds etc.) and the experience (other people present, isolation, crowds, restrictions etc.).

Preferences for participation also indicate the diversity of experiences required across the region. Activities which receive a high ranking for a high level of facilities (toilets, rest areas, seats and picnic tables, children's playgrounds etc.) and also receive a high ranking for limited facilities (completely unspoilt surroundings, no additional facilities) need a diversity of supply. Activities which receive a high ranking for other people present and for isolation also need a diversity of supply.

- **Providing high quality nature-based outdoor recreation experiences**

The figures and data tables in this section and the appendices provide the following data to inform development of new nature-based outdoor recreation experiences and revitalisation of existing experiences:

- **Preferences for participation** indicate the natural and man-made features of the site, facilities and experience that respondents prefer, which high quality experiences may incorporate.
- **Barriers to more frequent participation** are the barriers preventing people who are interested in participating in an activity more often from doing so. They include barriers that may be addressed when providing experiences (e.g. facilities, skills and equipment, accessibility, safety etc.).
- **Promoting nature-based outdoor recreation experiences**

The figures and data tables in this section and the appendices provide data to inform promotion of nature-based outdoor recreation experiences:

- **Actionable barriers** are barriers related to supply or awareness of supply. By looking at actionable barriers alongside data on the current supply of nature-based outdoor recreation experiences in a region, land managers can identify promotion needs. More promotion of current supply may be required for activities which appear to have plenty of supply but rank highly on actionable barriers.
- **Age and gender** data help define who is participating in activities. Depending on the purpose of promotions, land managers may wish to target promotions to age and gender groups that are frequent participants, or they may wish to target promotions to groups whose participation is currently limited.
- The breakdown of **participation rates** by local area and further afield indicates where promotions are best targeted. Land managers elsewhere in NSW may wish to promote activities in Western NSW if participation rates further afield are high.
- **Barriers to more frequent participation** are the barriers preventing people who are interested in participating in an activity more often from doing so. They include barriers that targeted promotions may address.
- **Preferences for participation** indicate the natural and man-made features which may be attractive in promotions. They also indicate areas where it may be necessary to manage expectations (e.g. facilities).
- **Mean ratings of personal applicability of motivations** indicate the relative strength of motivations that drive people to undertake nature-based outdoor recreation activities which may be used in promotions to attract participants.

4.2 Participation

Survey participants were asked how many times they had done each of a list of 25 outdoor recreation activities in the last 12 months. These activities were:

- Attending outdoor concerts/music festivals
- Bush or nature walking for less than two hours on trails, tracks or boardwalks
- Bushwalking or hiking for two hours or more, but not overnight
- Bushwalking or hiking with overnight camping
- Car camping, that is, camping within easy walking distance of your car
- Cycling on a sealed bike path or track
- Cycling on roads or footpaths for recreation, not just to get to and from places
- Cycling or mountain biking on an unsealed road or track
- Fishing
- Four-wheel driving on unsealed roads or tracks
- Horse riding
- Nature study, including bird or other wildlife watching, tree and flora appreciation, nature photography or painting/drawing
- Picnicking, including outdoor social gatherings like weddings, family reunions, club fun days, etc.
- Rock climbing, abseiling, caving or canyoning
- Running or jogging outdoors
- Scenic driving with a car or motorbike
- Snow sports, including skiing, snowboarding, tobogganing
- Sports involving motorised watercraft, including motorboating, speedboating, jet skiing, water-skiing and wakeboarding

- Sports involving non-motorised watercraft, including sailing, canoeing, rowing, kayaking and rafting
- Trail bike or quad bike riding
- Visiting Aboriginal and other cultural heritage sites
- Visiting landmarks, lookouts and scenery
- Volunteer work for the environment, for example, bush regeneration
- Walking on roads or footpaths for recreation, not just to get to and from places
- Water sports, including outdoor swimming, snorkelling, surfing, bodyboarding, wind surfing and kite surfing

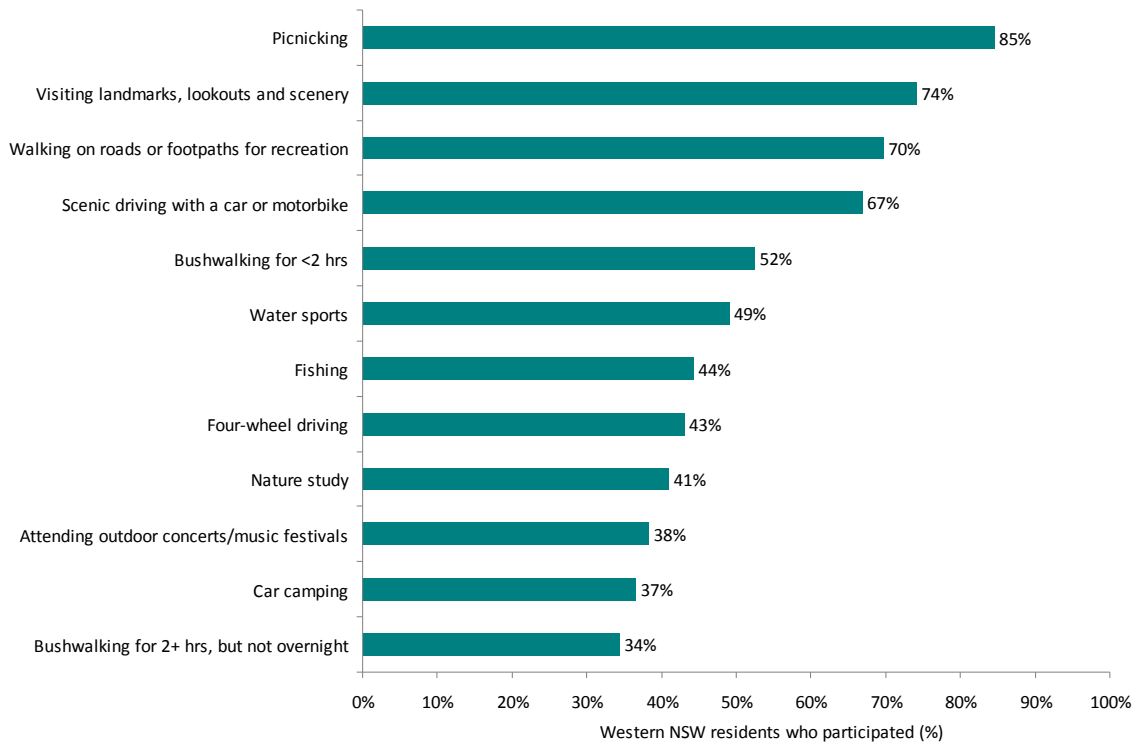
Please note that the names of these activities have been abbreviated in the charts due to space constraints.

Participation rates

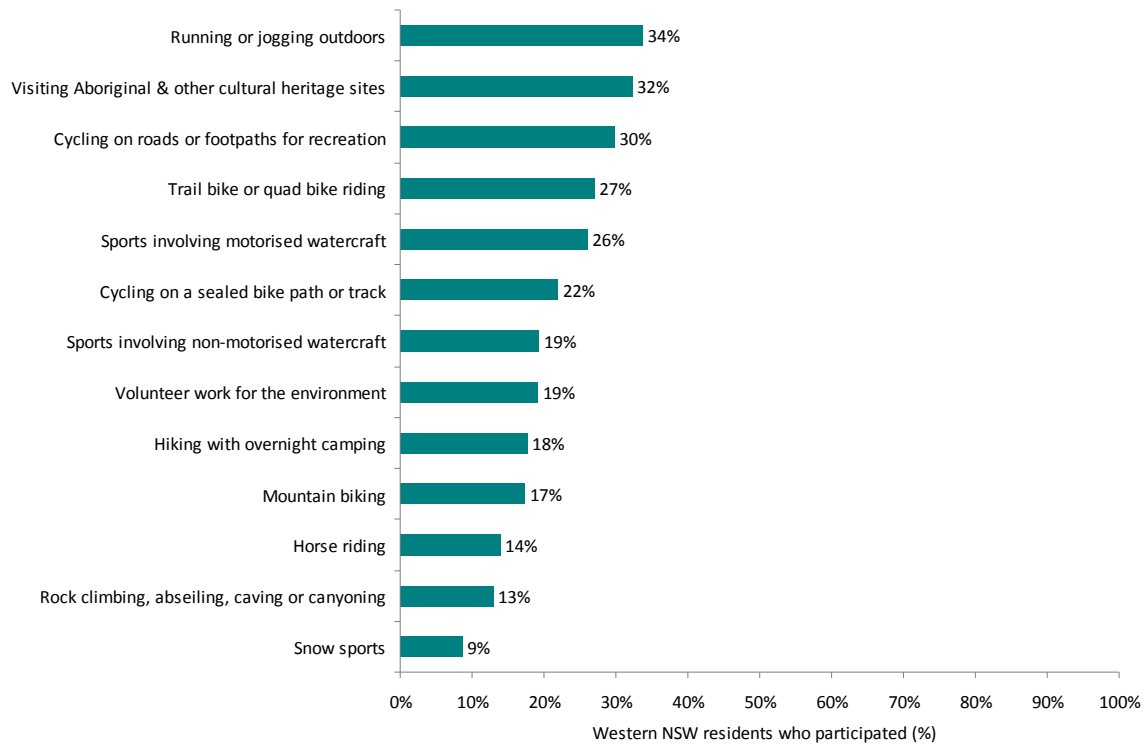
Survey participants who responded zero were considered non-participants in that activity for the purposes of this survey, while those who responded one or more times were considered current participants. In the sample, 6 (2%) had not participated in any of the activities in the last year. These participants still provided responses to the other questions in the survey.

Participation rates, or the percentage of people who had participated in each of the outdoor recreation activities in the last year, are presented in Figures 4.2.1 and 4.2.2.

Figure 4.2.1 Participation rates for outdoor recreation activities in the last 12 months
– Part I



**Figure 4.2.2 Participation rates for outdoor recreation activities in the last 12 months
– Part II**



As can be seen from Figures 4.2.1 and 4.2.2, the top five activities in terms of participation rates were picnicking (85%), visiting landmarks, lookouts and scenery (74%), walking on roads or footpaths for recreation (70%), scenic driving with a car or motorbike (67%) and bushwalking for less than 2 hours (52%).

Participation rates for the top five outdoor recreation activities broken down by age and gender are presented in Table 4.2.1. The breakdowns for the remainder of the activities can be found in Appendix C.

Table 4.2.1 Participation rates for top five outdoor recreation activities by age and gender

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Picnicking	92%	94%	82%	79%	70%	93%	94%	81%	85%
Visiting landmarks, lookouts and scenery	75%	69%	94%	71%	90%	76%	70%	71%	74%
Walking on roads or footpaths for recreation	63%	72%	65%	59%	100%	82%	73%	74%	70%
Scenic driving with a car or motorbike	71%	69%	76%	61%	80%	71%	64%	67%	67%
Bushwalking for <2 hrs	58%	47%	71%	47%	60%	53%	61%	49%	52%

As Table 4.2.1 shows, there were significantly more males aged 35- 44 that reported visiting landmarks, lookouts and scenery (94%). However, there were significantly fewer males aged 45-75 that reported walking on roads or footpaths for recreation (59%).

Frequency of participation

As noted above, participants were asked to estimate the number of times they had participated in each of the outdoor recreation activities in the last 12 months. Means for the frequency of participation, which indicate the average number of times the activity was participated in over the last year, were then calculated.

A small number of participants reported extremely frequent participation. These participants were re-contacted and asked to confirm their responses as part of the data checking process. Seventy-seven participants reported extremely frequent participation for one or more activities. Of these 77 participants, 12 confirmed their responses, while 46 revised at least one of their answers. The remaining 19 participants were unable to be contacted again. The data set was then updated to include respondents' revised answers.

To prevent outliers from skewing the mean frequency of participation for each activity, responses in the revised data set were truncated according to the cut-offs shown in the table below. These cut-offs were chosen as plausible upper-bounds, based on both commonsense

and an examination of the data. Truncation simply entails reducing scores above a cut-off point to that cut-off point. Therefore, all participants who reported, for example, walking on roads or footpaths more than 365 times in the last year had their score reduced to 365. The percentage of participants (i.e. those who had participated in the activity at least once in the past 12 months) who had their data truncated for each activity type is shown in Table 4.2.2.

Table 4.2.2 Data trimming

	Cut-off	% participants	n
Walking on roads or footpaths for recreation	>365	0.7%	3
Bushwalking for <2 hrs	>365	0.2%	1
Bushwalking for 2+ hrs, but not overnight	>104	1.0%	4
Hiking with overnight camping	>26	0.7%	3
Running or jogging outdoors	>365	0.0%	0
Cycling on roads or footpaths for recreation	>365	0.0%	0
Cycling on a sealed bike path or track	>365	0.0%	0
Mountain biking	>365	0.0%	0
Picnicking	>104	0.0%	0
Car camping	>26	1.5%	6
Snow sports	>26	0.0%	0
Water sports	>365	0.0%	0
Sports involving motorised watercraft	>104	0.2%	1
Sports involving non-motorised watercraft	>104	0.0%	0
Scenic driving with a car or motorbike	>104	1.7%	7
Four-wheel driving	>208	4.5%	18
Trail bike or quad bike riding	>365	0.2%	1
Rock climbing, abseiling, caving or canyoning	>52	0.0%	0
Visiting landmarks, lookouts and scenery	>104	0.7%	3
Visiting Aboriginal and other cultural heritage sites	>52	0.5%	2
Nature study	>365	0.0%	0
Volunteer work for the environment	>208	0.2%	1
Attending outdoor concerts/music festivals	>12	0.5%	2
Fishing	>365	0.0%	0
Horse riding	>365	0.0%	0

Mean frequency of participation in each of the outdoor recreation activities for participants only (i.e. the average number of times that participants had participated in each of the outdoor activities) in the last year are presented in Figures 4.2.3 and 4.2.4.

Figure 4.2.3 Frequency of participation in outdoor recreation activities in the last 12 months (participants only) – Part I

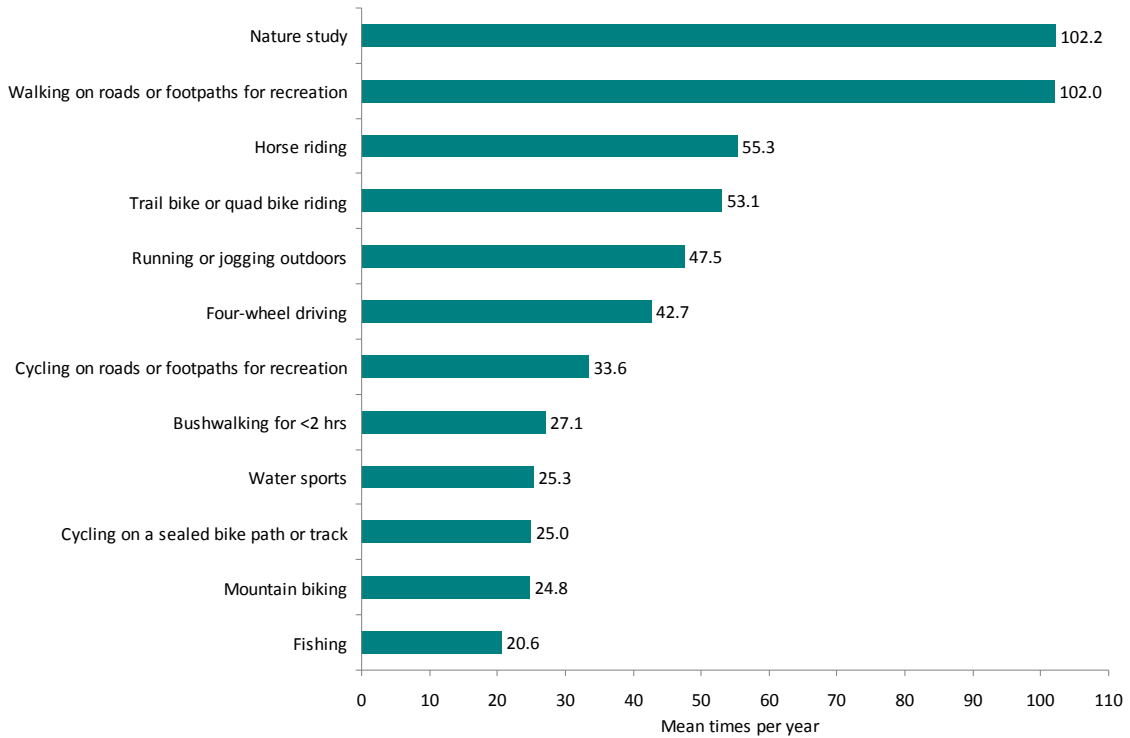
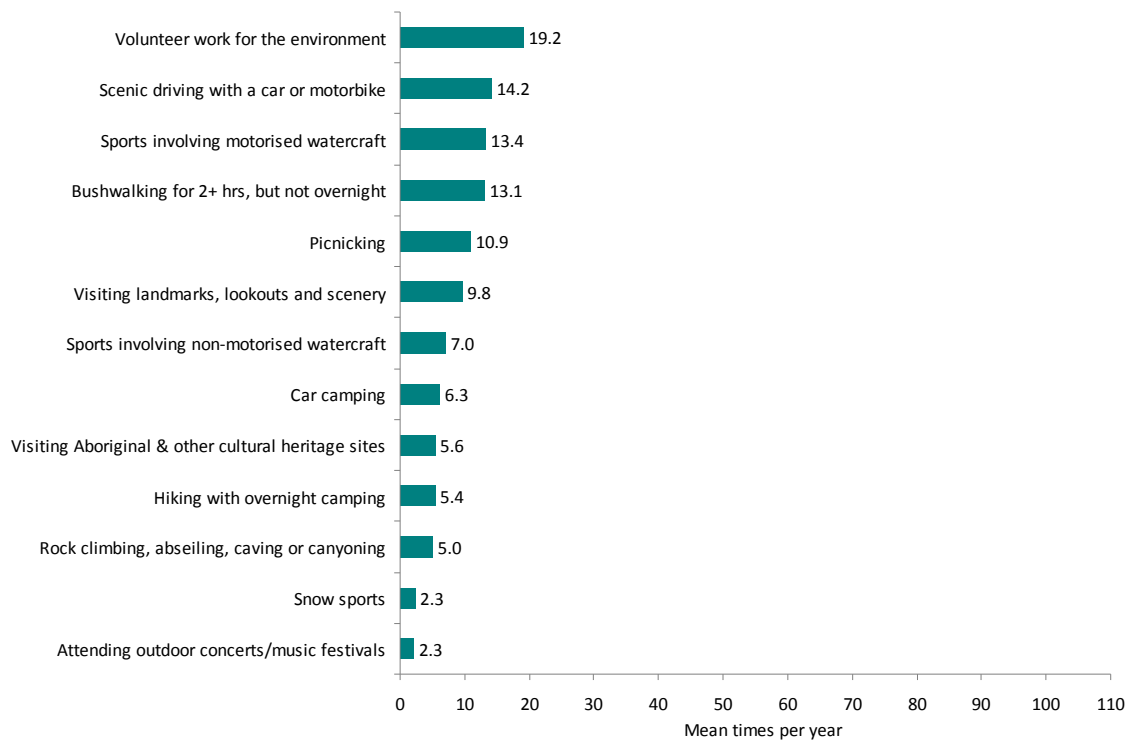


Figure 4.2.4 Frequency of participation in outdoor recreation activities in the last 12 months (participants only) – Part II



Looking at the mean frequency of participation in activities by participants (Figures 4.2.3 and 4.2.4), nature study (102.2 times per year) was the most frequently engaged in activity, followed by walking on roads or footpaths for recreation (102). The next three most frequently participated in activities were horse riding (55.3), trail bike or quad bike riding (53.1) and running or jogging outdoors (47.5).

Means for the frequency of participation by participants in the top five outdoor recreation activities broken down by age and gender are presented in Table 4.2.3. The breakdowns for the remainder of the activities can be found in Appendix C.

Table 4.2.3 Frequency of participation in top five outdoor recreation activities by age and gender (participants only)

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Nature study	17	17	48	145	8	36	49	133	102
Walking on roads or footpaths for recreation	41	39	70	112	107	113	87	130	102
Horse riding	82	13	82	52	13	6	73	77	55
Trail bike or quad bike riding	60	70	16	71	4	52	87	11	53
Running or jogging outdoors	53	51	24	46	105	30	59	52	47

As Table 4.2.3 shows, males aged 25-34 had a significantly lower mean frequency of participation in walking on roads or footpaths for recreation (39 times per year) and males aged 35-44 had a significantly lower mean frequency of participation in trail bike or quad bike riding (16 times per year).

Means for the frequency of participation across both participants and non-participants (i.e. the average number of times that both participants and non-participants had participated in each of the outdoor activities) in the last year for each of the outdoor recreation activities are presented in Figures 4.2.5 and 4.2.6.

Figure 4.2.5 Frequency of participation in outdoor recreation activities in the last 12 months (participants and non-participants) – Part I

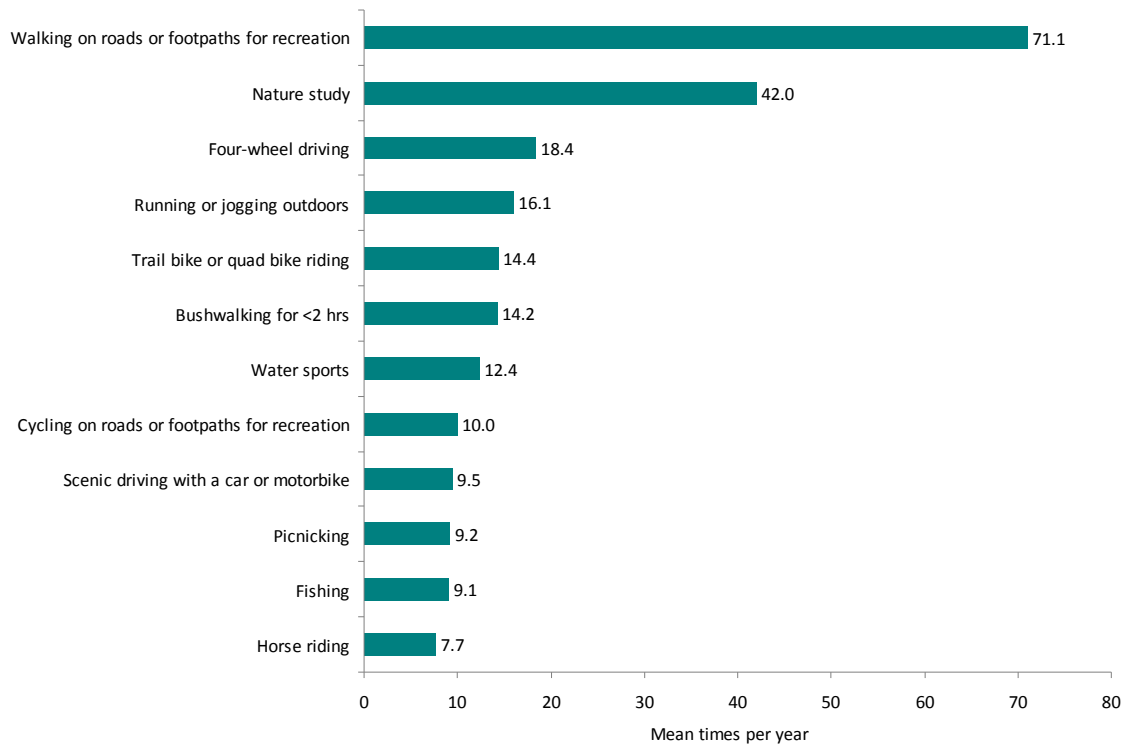
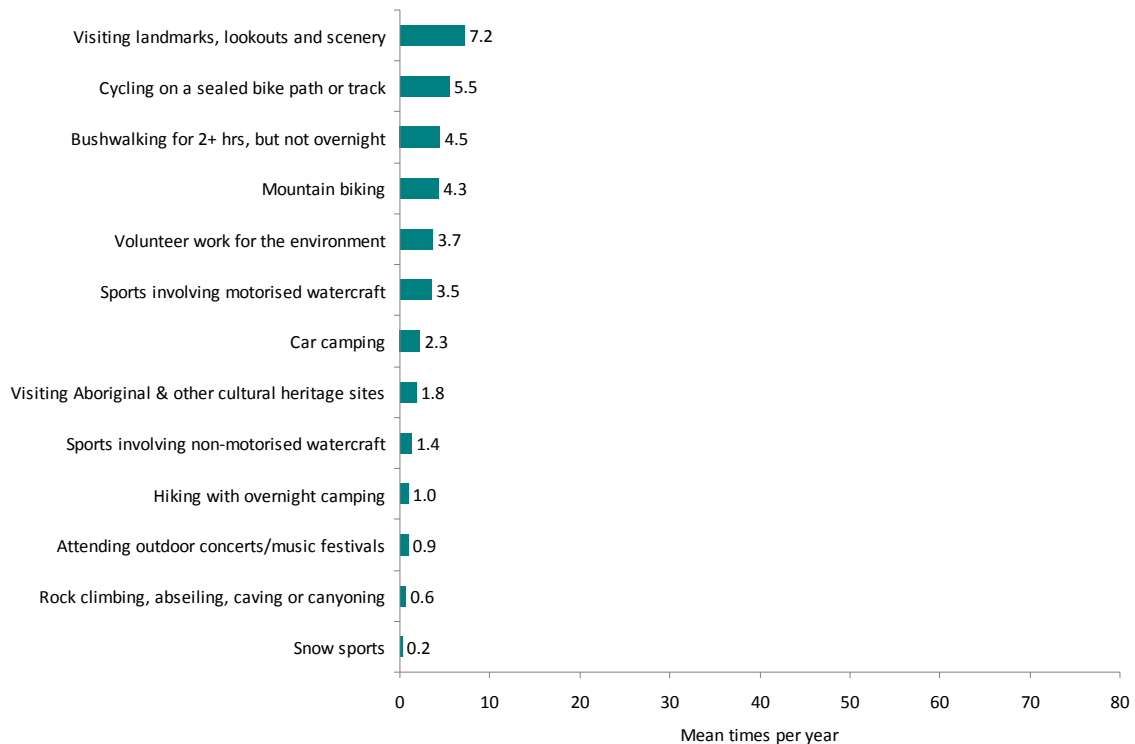


Figure 4.2.6 Frequency of participation in outdoor recreation activities in the last 12 months (participants and non-participants) – Part II



Averaging across participants and non-participants, walking on roads and footpaths for recreation (71.1) was by far the most frequently engaged in activity. This was followed by nature study (42.0), four-wheel driving (18.4), running or jogging outdoors (16.1), and trail bike or quad bike riding (14.4).

Means for the frequency of participation by both participants and non-participants in the top five outdoor recreation activities broken down by age and gender are presented in Table 4.2.4. The breakdowns for the remainder of the activities can be found in Appendix C.

Table 4.2.4 Frequency of participation in the top five outdoor recreation activities by age and gender (participants and non-participants)

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Walking on roads or footpaths for recreation	26	28	45	66	107	93	63	96	71
Nature study	4	3	17	74	3	15	19	58	42
Four-wheel driving	12	31	19	28	5	7	24	10	18
Running or jogging outdoors	40	32	10	12	63	14	16	9	16
Trail bike or quad bike riding	43	28	8	20	2	13	21	1	14
Bushwalking for <2 hrs	6	3	11	20	20	22	6	13	14

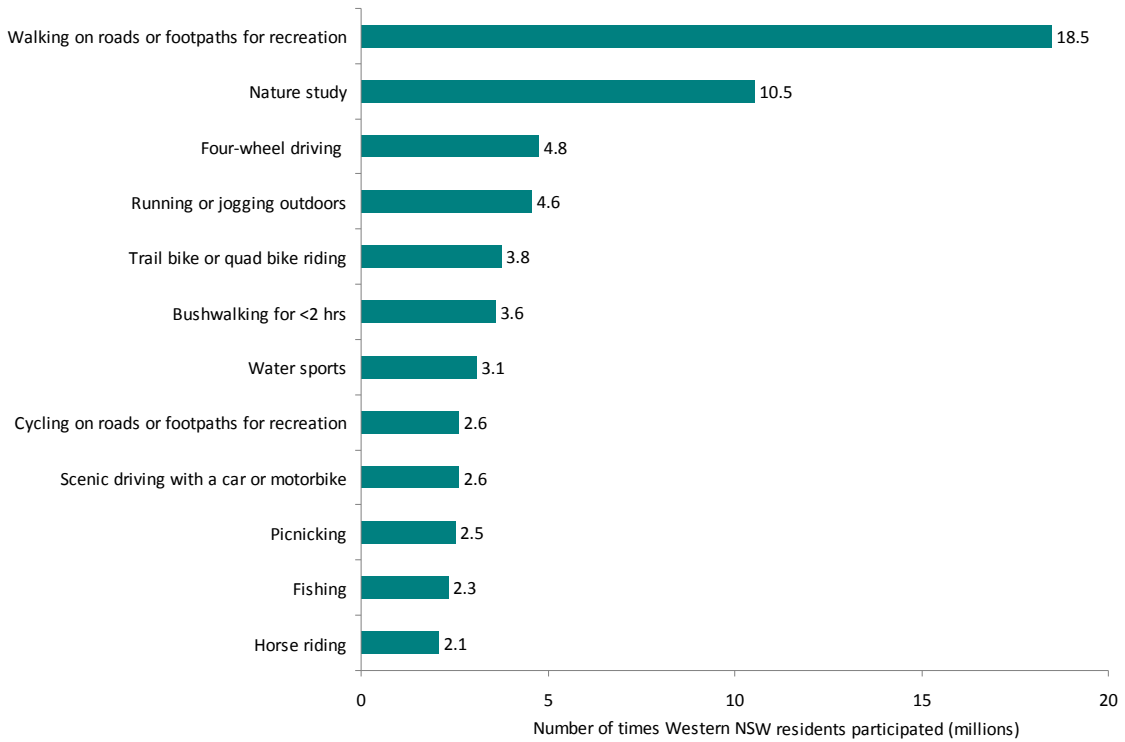
As Table 4.2.4 shows, the mean frequency for walking on roads or footpaths for recreation was significantly lower among males aged from 25-34 years (28 times per year). Nature study had a significantly lower mean frequency of participation for 18-24 year old males (4 times per year), 25-34 year old males (3 times per year), and for 18-24 year old females (3 times per year) and 25-34 year old females (15 times per year), while there was a significantly higher participation for males aged 45-75 years (74 times per year). Females aged 18-24 and 25-34 reported lower mean frequencies for participation in four-wheel driving (5 and 7 times respectively). For trail bike or quad bike riding it was found that there was a significantly lower mean frequency of participation for females aged 18-24 (2 times per year) and those aged 45-75 (1 time per year). For bushwalking less than 2 hours, there was a lower mean frequency of participation by males aged 25-34 (3 times per year).

Total participation figures were estimated for each of the outdoor recreation activities for the last 12 months by multiplying, in each age by gender subgroup:

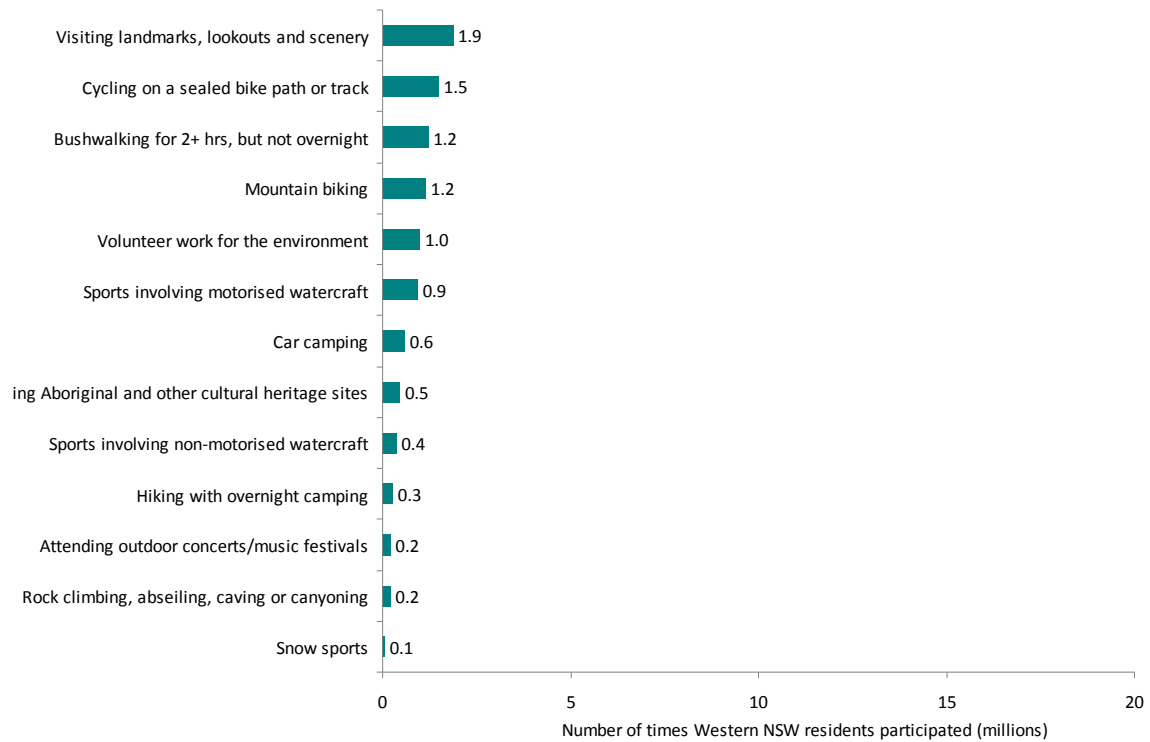
- the mean frequency of participation (including both participants and non-participants);
- and the number of people in each age by gender group in the population for that region.

Overall total participation figures for each of the outdoor recreation activities are presented in Figures 4.2.7 and 4.2.8. The 45-75 year old age bracket was split into three 10 year age bands for the calculation of overall total participation displayed in the figures below.

Figure 4.2.7 Total participation in outdoor recreation activities in the last 12 months – Part I



**Figure 4.2.8 Total participation in outdoor recreation activities in the last 12 months
– Part II**



As can be seen from Figures 4.2.7 and 4.2.8, the top five activities were walking on roads or footpaths for recreation (18.5 million), nature study (10.5 million), four-wheel driving (4.8 million), running or jogging outdoors (4.6 million), and trail bike or quad bike riding (3.8 million).

Total participation figures for the top five outdoor recreation activities broken down by age and gender are presented in Table 4.2.5. The breakdowns for the remainder of the activities can be found in Appendix C. These figures are calculated using the same age and gender subgroups used throughout the rest of the report, so they differ slightly from Figures 4.2.7 and 4.2.8 above.

Table 4.2.5 Total participation in the top five outdoor recreation activities by age and gender (millions)*

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Walking on roads or footpaths for recreation	0.4	0.6	1.2	4.5	1.6	2.0	1.7	6.4	18.3
Nature study	0.1	0.1	0.4	5.1	0.0	0.3	0.5	3.9	10.4
Four-wheel driving	0.2	0.7	0.5	1.9	0.1	0.2	0.6	0.7	4.8
Running or jogging outdoors	0.6	0.7	0.3	0.8	0.9	0.3	0.4	0.6	4.6
Trail bike or quad bike riding	0.7	0.6	0.2	1.4	0.0	0.3	0.6	0.0	3.7

* No significance testing done for this table

Location

Participants in each activity were asked whether they had participated in their local area, further away, or both.

Proportions of participants who had participated in their local area and further afield, in addition to total participation rates, are provided in Figures 4.2.9 and 4.2.10.

Figure 4.2.9 Participation rates for outdoor recreation activities in the last 12 months by local area and further away – Part I

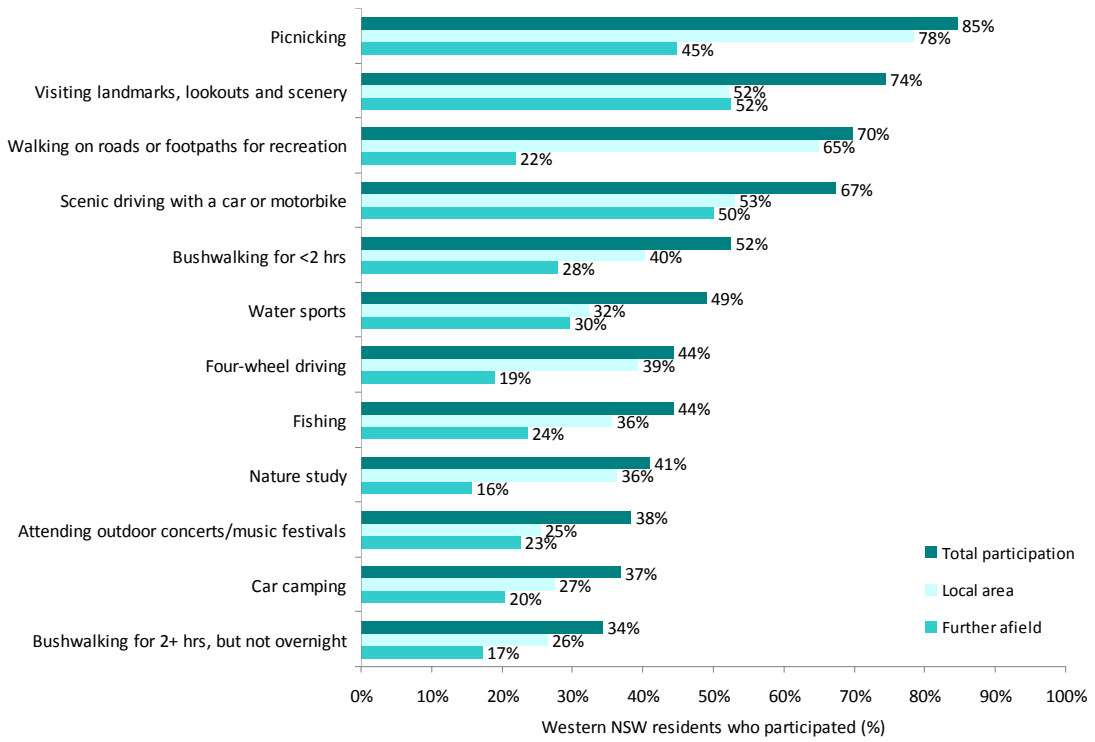
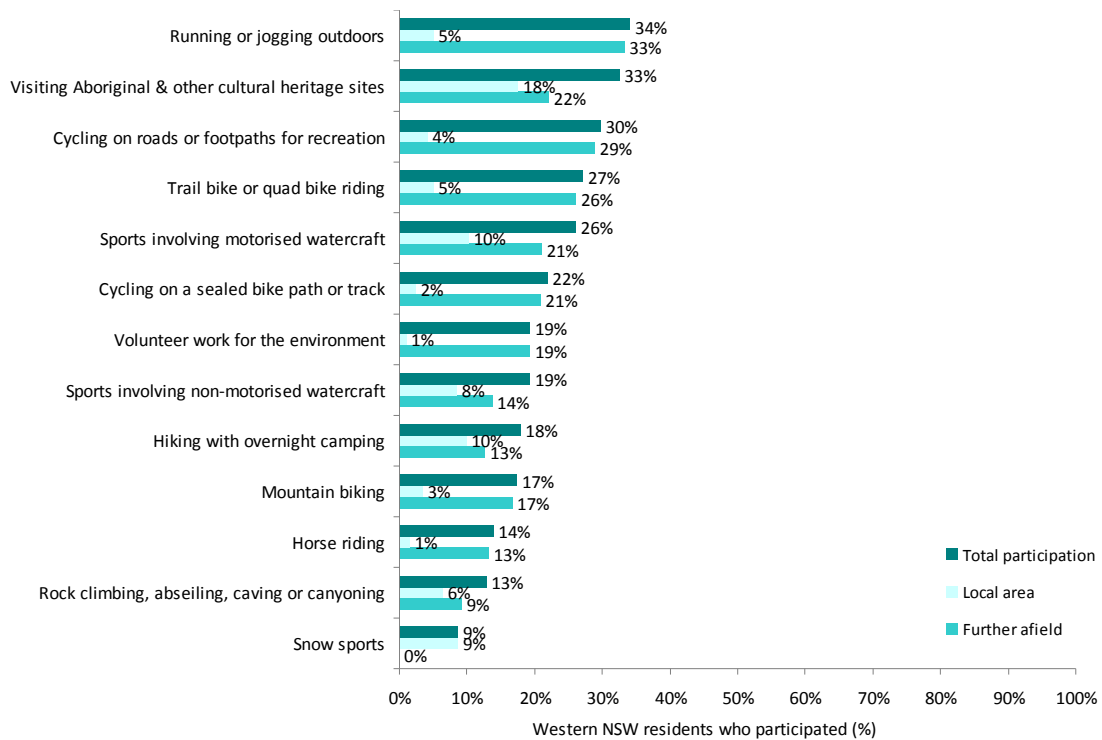


Figure 4.2.10 Participation rates for outdoor recreation activities in the last 12 months by local area and further away – Part II



As can be seen from Figures 4.2.9 and 4.2.10, while more people reported having participated in the activities in their local area, there was a sizeable proportion of people who reported participation further afield.

4.3 Interest

Both participants and non-participants in each of the outdoor recreation activities were asked to indicate how interested they would be in doing in each of the activities more often, if there was nothing stopping them from doing so. They were directed to use a scale of 0 to 10, where 0 was not at all interested and 10 was extremely interested.

Mean interest ratings in participating more often in each of the outdoor recreation activities are presented in Figures 4.3.1 and 4.3.2.

Figure 4.3.1 Interest in more frequent participation in outdoor recreation activities – Part I

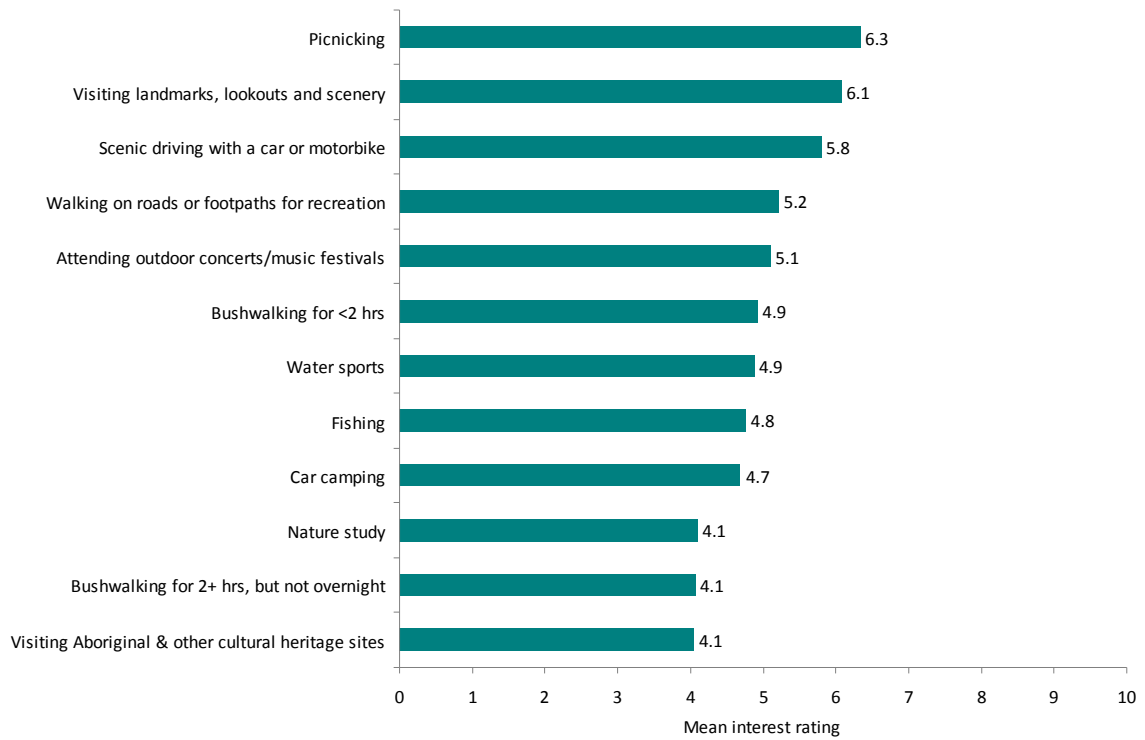
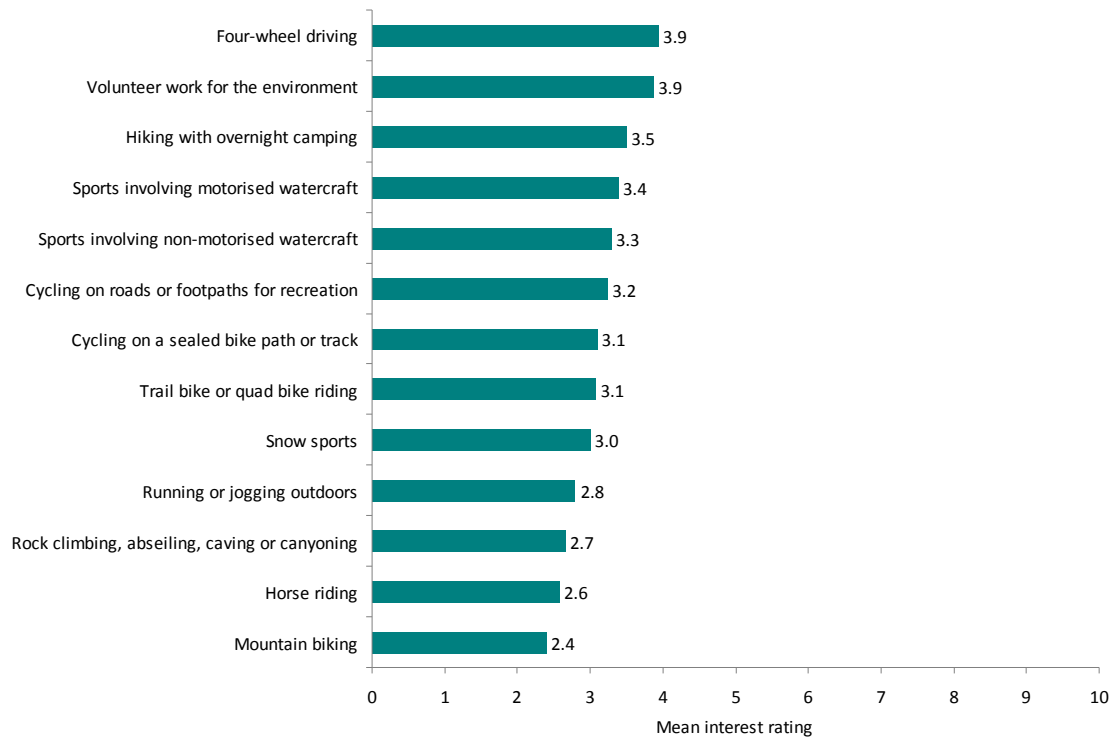


Figure 4.3.2 Interest in more frequent participation in outdoor recreation activities – Part II



As can be seen in Figure 4.3.1, interest in more frequent participation was highest for picnicking, with a mean interest rating of 6.3 out of 10. This was followed by visiting landmarks, lookouts and scenery (6.1), scenic driving with a car or motorbike (5.8), walking on roads or footpaths for recreation (5.2) and attending outdoor concerts/music festivals (5.1). The activity with the lowest mean interest rating was mountain biking with a rating of 2.4, as shown in Figure 4.3.2.

Mean interest ratings in participating more often in each of the outdoor recreation activities broken down by age and gender are presented in Table 4.3.1. The breakdowns for the remainder of the activities can be found in Appendix C.

Table 4.3.1 Interest in more frequent participation in outdoor recreation activities by age and gender

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Picnicking	6.6	7.3	6.0	5.7	7.3	7.3	7.8	5.9	6.3
Visiting landmarks, lookouts and scenery	5.5	5.3	6.5	5.9	7.6	6.5	6.0	6.2	6.1
Scenic driving with a car or motorbike	5.8	5.5	6.9	5.6	6.3	5.6	6.1	5.8	5.8
Walking on roads or footpaths for recreation	4.0	4.8	5.0	4.5	5.6	7.0	6.0	5.5	5.2
Attending outdoor concerts/music festivals	6.6	5.8	5.1	4.1	6.6	6.6	5.8	4.7	5.1

As Table 4.3.1 shows, interest for more frequent participation in picnicking was significantly higher among females aged 35-44 (7.8) and significantly lower for males aged 45-75 (5.7).

Interest in walking on roads or footpaths for recreation was significantly higher for females aged 25-34 (7.0).

Interest in attending outdoor concerts/music festivals was significantly higher for females aged 25-34 (6.6) and significantly lower for males aged 45-75 (4.1).

Mean interest ratings in participating more often in each of the outdoor recreation activities were greater for current participants than non-participants, as can be seen in Figures 4.3.3 and 4.3.4.

Figure 4.3.3 Interest in more frequent participation in outdoor recreation activities by participation status – Part I

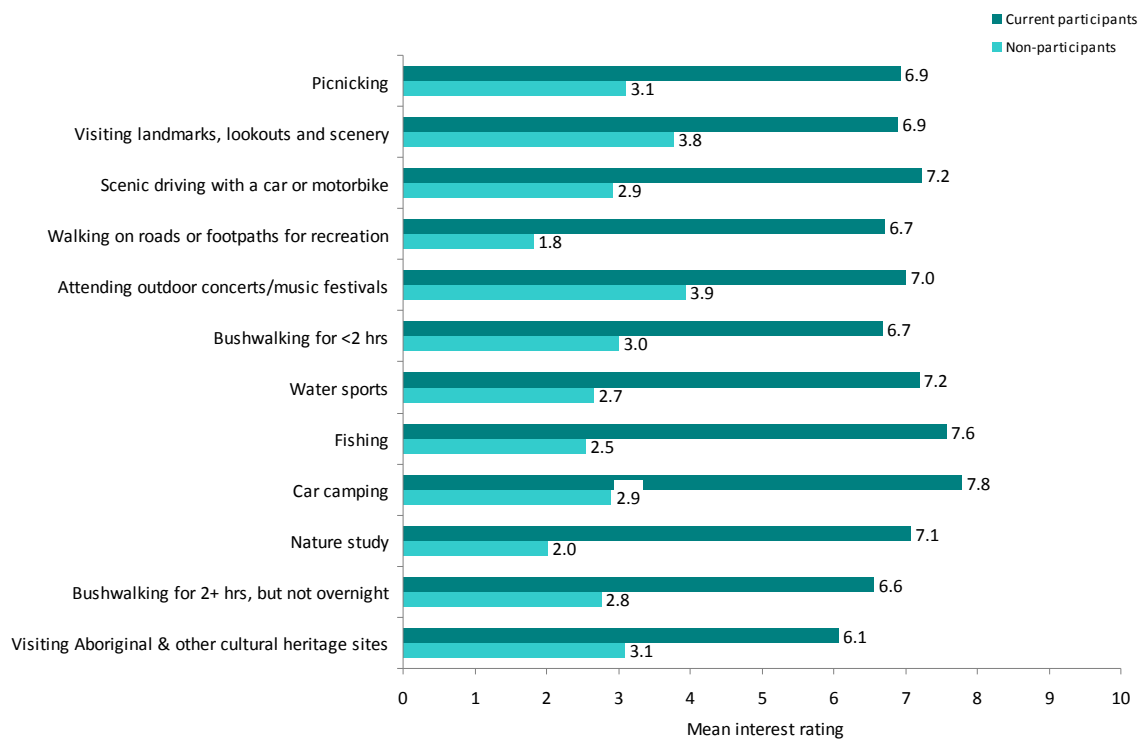
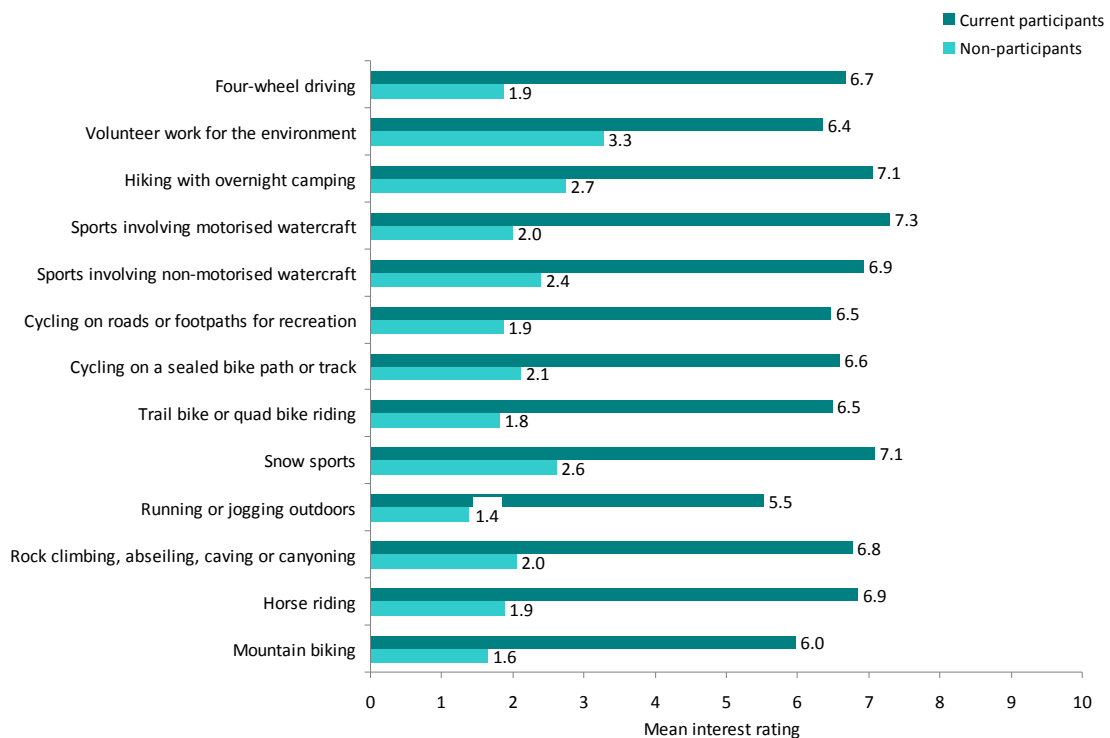


Figure 4.3.4 Interest in more frequent participation in outdoor recreation activities by participation status – Part II



As Figure 4.3.3 shows, the highest difference in interest ratings between participants and non-participants was for sports involving motorised watercraft (7.3 for participants, 2.0 for non-participants). The activities with the highest mean ratings among non-participants were attending outdoor concerts/music festivals (3.9) and visiting landmarks, lookouts and scenery (3.8). The activities with the highest mean ratings among participants were car camping (7.8) and fishing (7.6). The lowest mean interest ratings among non-participants was for running or jogging outdoors (1.4), as shown in Figure 4.3.4.

Level of interest in participating more often in each of the outdoor recreation activities was divided into three categories: low (0-3), moderate (4-6) and high (7-10). The proportions of survey participants spread across the interest categories for each activity are presented in Figures 4.3.5 and 4.3.6.

Figure 4.3.5 Categories of interest in more frequent participation in outdoor recreation activities – Part I

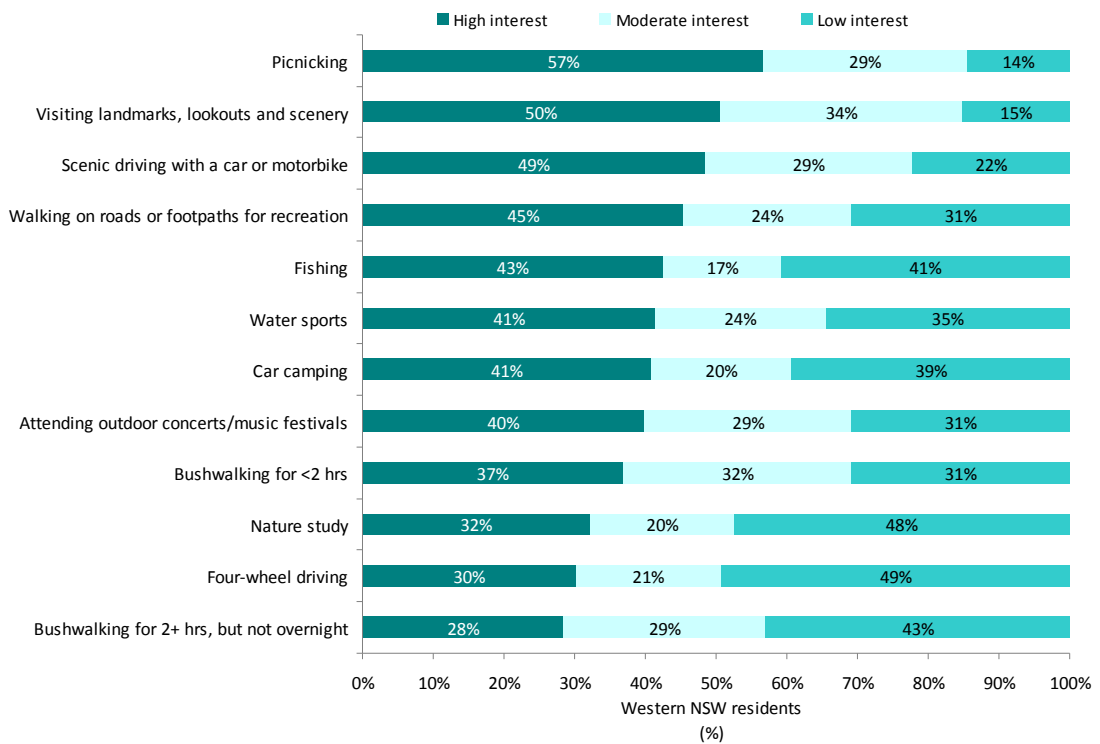
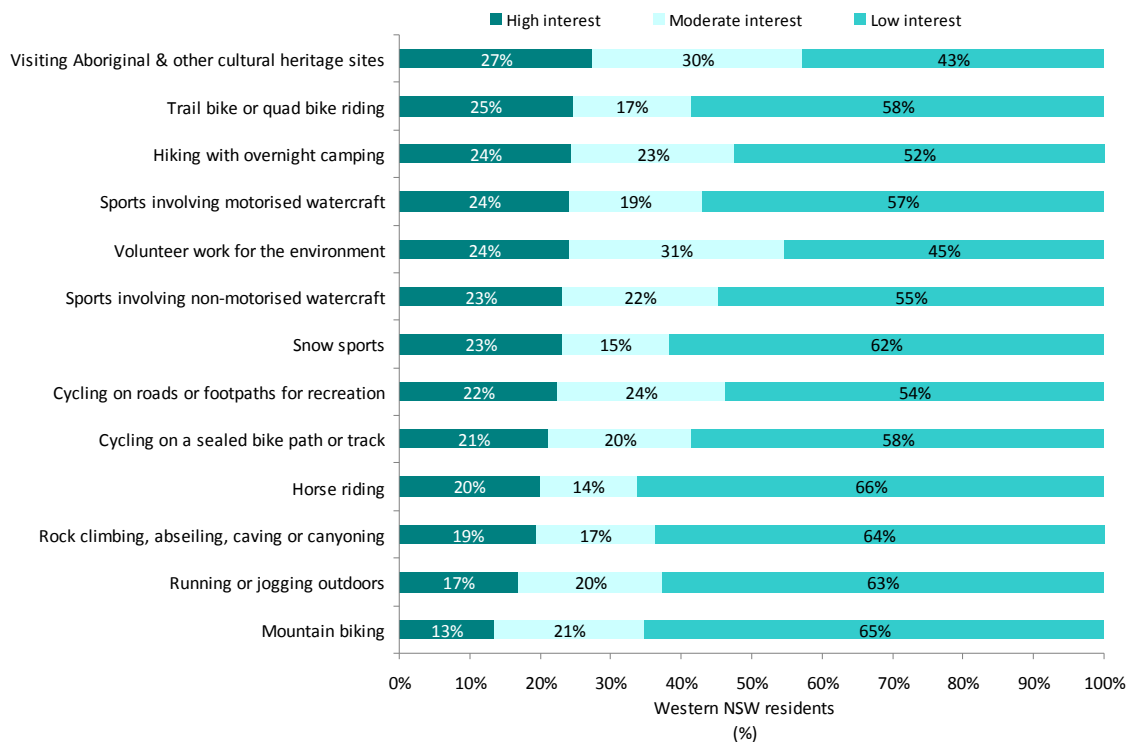


Figure 4.3.6 Categories of interest in more frequent participation in outdoor recreation activities – Part II



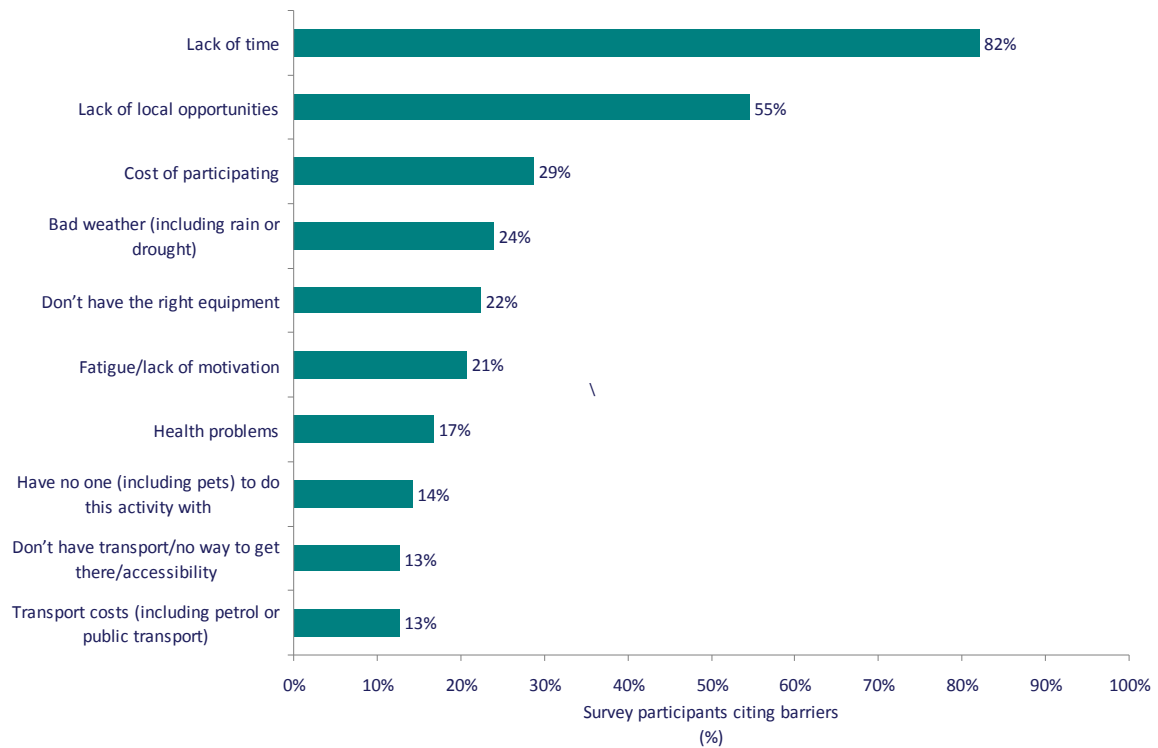
As can be seen in Figures 4.3.5 and 4.3.6, the top five activities based on proportion of survey participants indicating high interest in participating in an activity more often were similar to those based on mean interest ratings. These were picnicking (57%), visiting landmarks, lookouts and scenery (50%), scenic driving with car or motorbike (49%), walking on roads or paths for recreation (45%), and fishing (43%).

4.4 Barriers

Survey participants were asked an additional question about a subset of activities that they indicated they would be interested in doing more often (that is, to which they gave a score of at least 5 out of 10), regardless of whether they currently participated in the activity. For these activities, survey participants were asked to indicate some of the things stopping them from doing so. Survey participants provided open-ended responses, which were later coded by the researchers. To reduce the burden on participants, they were asked to provide a response on barriers for a maximum of five activities.

The top 10 barriers overall are presented in Figure 4.4.1 (refer to Appendix C for the remainder of the barriers). Participants who reported no barriers, or indicated that they were not interested in doing the activity more often, were excluded from the analysis.

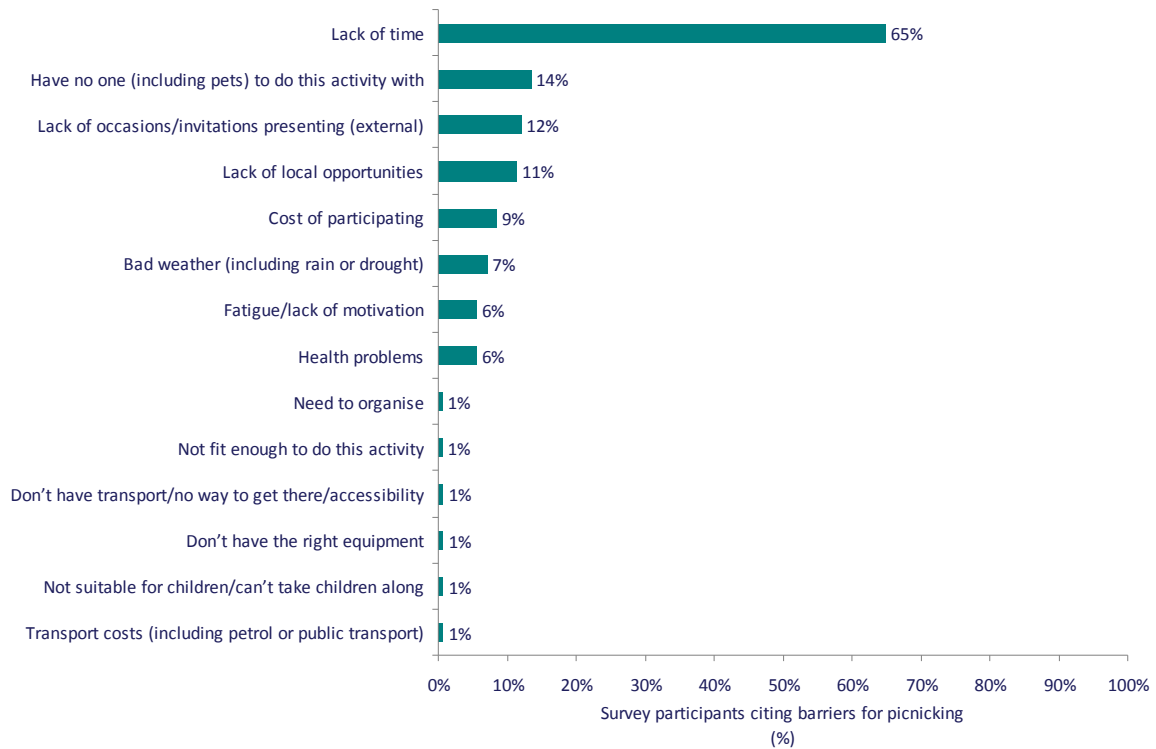
Figure 4.4.1 Barriers to more frequent participation in outdoor recreation averaged over activities



The most frequently mentioned barrier across all activities was time (82%), which can be considered to indicate the relative priority of particular activities. However, unmet demand and cost appear to be present, with 55% reporting a lack of local opportunities and 29% reporting the cost of participating are both barriers to more frequent participation.

The barriers for picnicking, the outdoor recreation activity for which there was the greatest interest in participating more often, are outlined in Figure 4.4.2. The barriers for the remainder of the activities can be found in Appendix C.

Figure 4.4.2 Barriers to more frequent participation in picnicking



Lack of time (65%) was the most frequently mentioned barrier for picnicking. This was followed by 'have no one (including pets) to do this activity with' (14%), 'lack of occasions or invitations presenting themselves' (12%), and 'lack of local opportunities' (11%).

Actionable barriers

Two barriers to participating in activities more often were identified as 'actionable barriers': lack of local opportunities and lack of awareness of local opportunities. These actionable barriers, together with interest in doing activities more often, may represent unmet demand for these activities and are opportunities to increase participation. The following charts show the proportion of participants who when asked about barriers responded with an actionable barrier, for each activity. Proportion of respondents citing an actionable barrier broken down by ages and gender can be found in Appendix C.

Figure 4.4.3 Actionable barriers - Part I

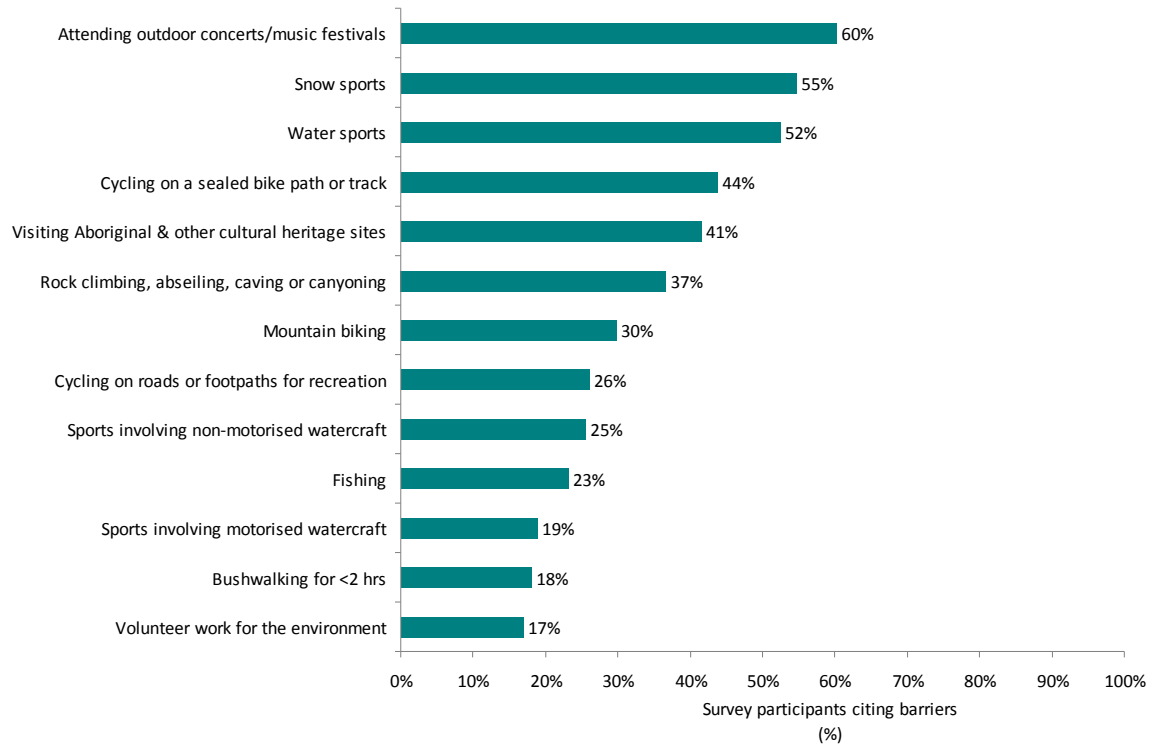
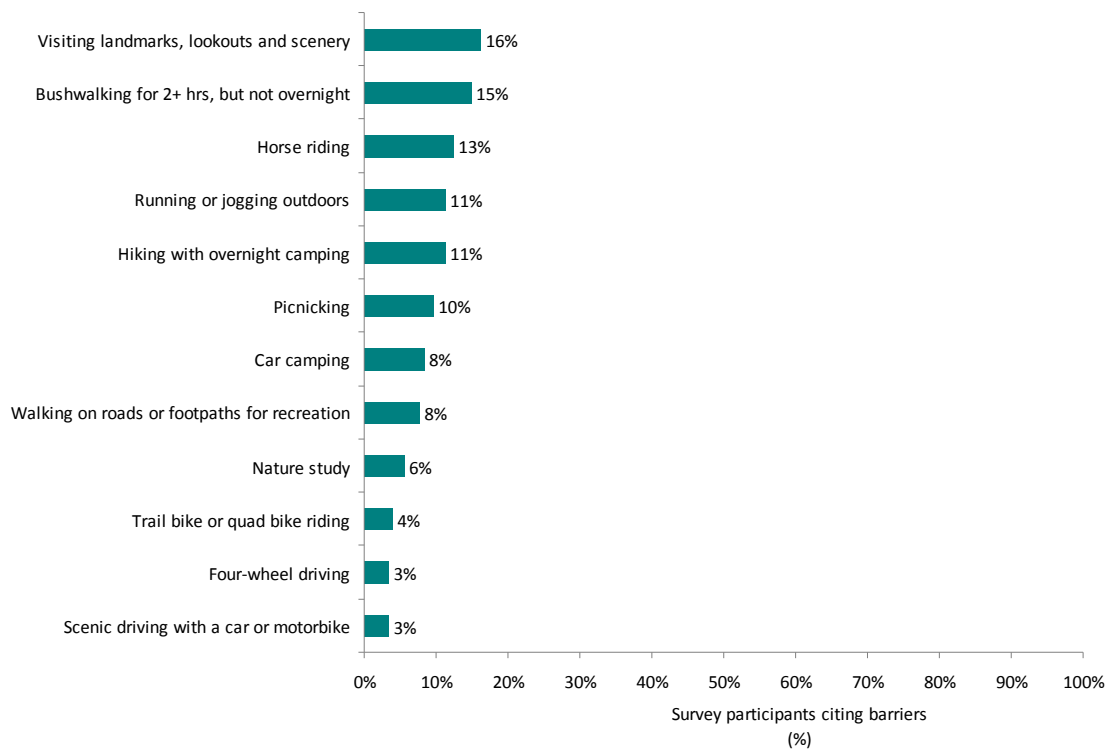


Figure 4.4.4 Actionable barriers - Part II



As Figure 4.4.3 shows, the activity with the highest proportion citing actionable barriers was 'attending outdoor concerts/music festivals', with 60% citing at least one actionable barrier. Snow sports (55%), water sports (52%), cycling on a sealed bike path or track (44%), visiting Aboriginal and other cultural heritage sites (41%), rock climbing, abseiling, caving or canoeing (37%), mountain biking (30%), cycling on roads or footpaths for recreation (26%) and sports involving non-motorised watercraft (25%) had at least one quarter citing an actionable barrier.

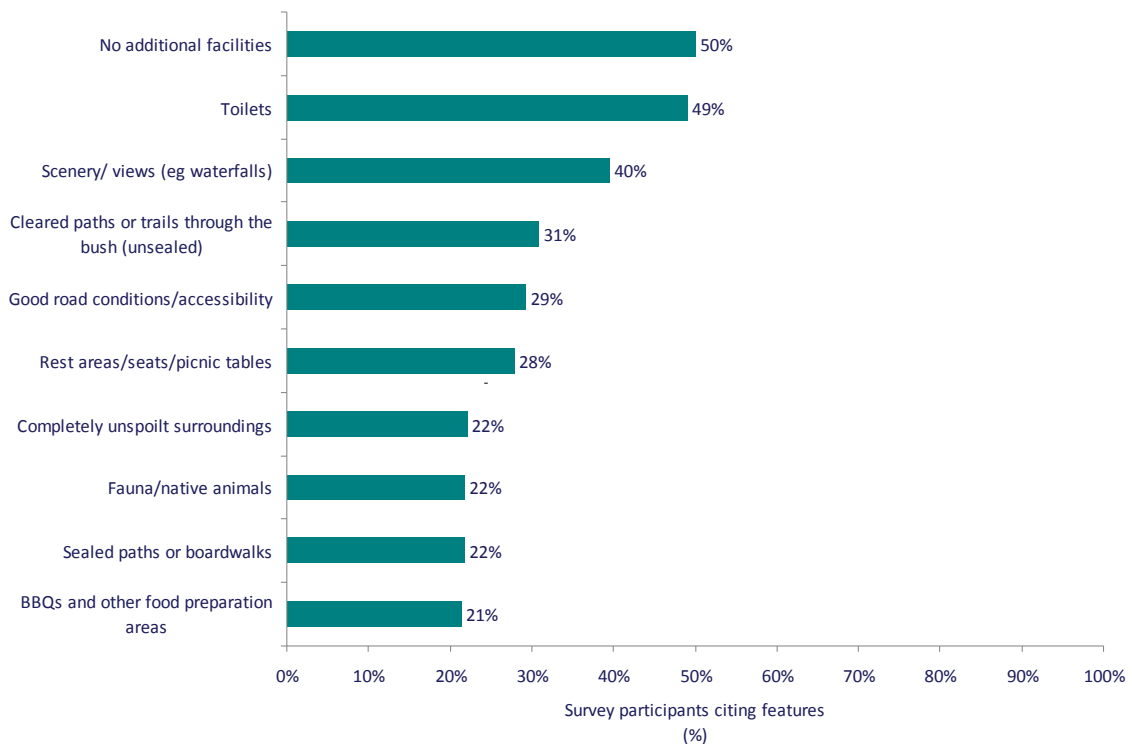
The activities with the least proportion naming actionable barriers were scenic driving with car or motorbike and four-wheel driving (each at 3%) and trail bike or quad bike riding (4%), as shown in Figure 4.4.4.

4.5 Preferences

Survey participants were asked to answer a further question on a subset of activities that they had either performed in the last 12 months, or indicated they would be interested in doing more often (that is, to which they gave a score of at least 5 out of 10). Survey participants were asked to imagine that they were going to do each of the activities in a National Park, State Conservation Area, State Forest or Nature Reserve in their region (but not in a local council park or botanical garden). They were then asked what would be the main features (either natural or man-made) that they would want if they were going to do the activity in one of these locations. Survey participants provided open-ended responses, which were later coded by the researchers. To reduce the burden on survey participants, they were asked to provide a response for a maximum of five activities.

The top 10 preferences overall are presented in Figure 4.5.1 (refer to Appendix C for the remainder of the features).

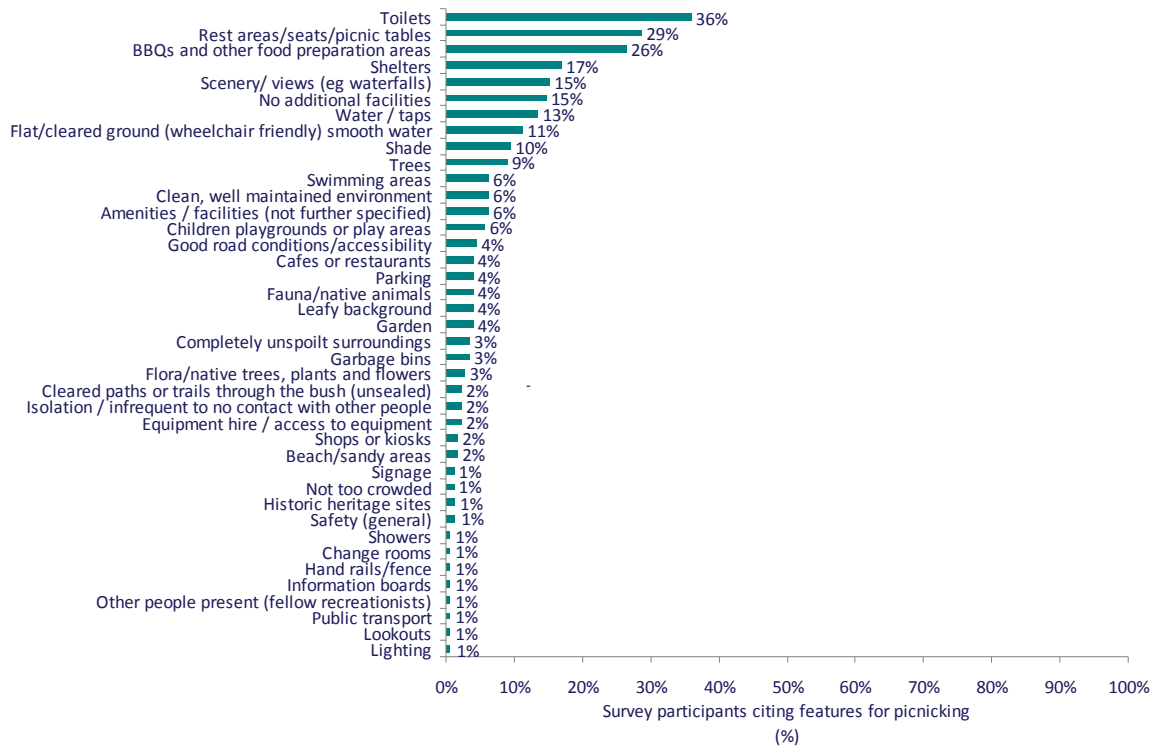
Figure 4.5.1 Top 10 preferences for participation in outdoor recreation averaged over activities



The most frequently requested feature across all activities was that ‘no additional facilities’ were required (50%). The next most frequently requested feature was toilets (49%). This was followed by scenery/views (40%), cleared paths or trails through the bush (31%), and good road conditions and accessibility (29%).

The preferences for picnicking, the outdoor recreation activity for which there was the greatest interest in participating more often, are outlined in Figure 4.5.2. The preferences for the remainder of the activities can be found in Appendix C.

Figure 4.5.2 Preferences for picnicking



Toilets (36%) were the most requested preference for picnicking, followed by rest areas/seats/picnic tables (29%), BBQ's and other food preparation areas (26%), shelters (17%) and scenery/views (15%). A sizeable proportion, 15%, indicated that no additional facilities were required.

4.6 Motivations

Lastly, survey participants were asked to indicate the extent to which a list of statements describing motivations to participate in outdoor recreation applied to them, on a scale of 0 to 10, where 0 was not at all and 10 was extremely.

Mean ratings of personal applicability of each of the motivations to participate in outdoor recreation activities are presented in Figures 4.6.1 and 4.6.2.

Figure 4.6.1 Mean ratings of personal applicability of motivations to participate in outdoor recreation activities– Part I

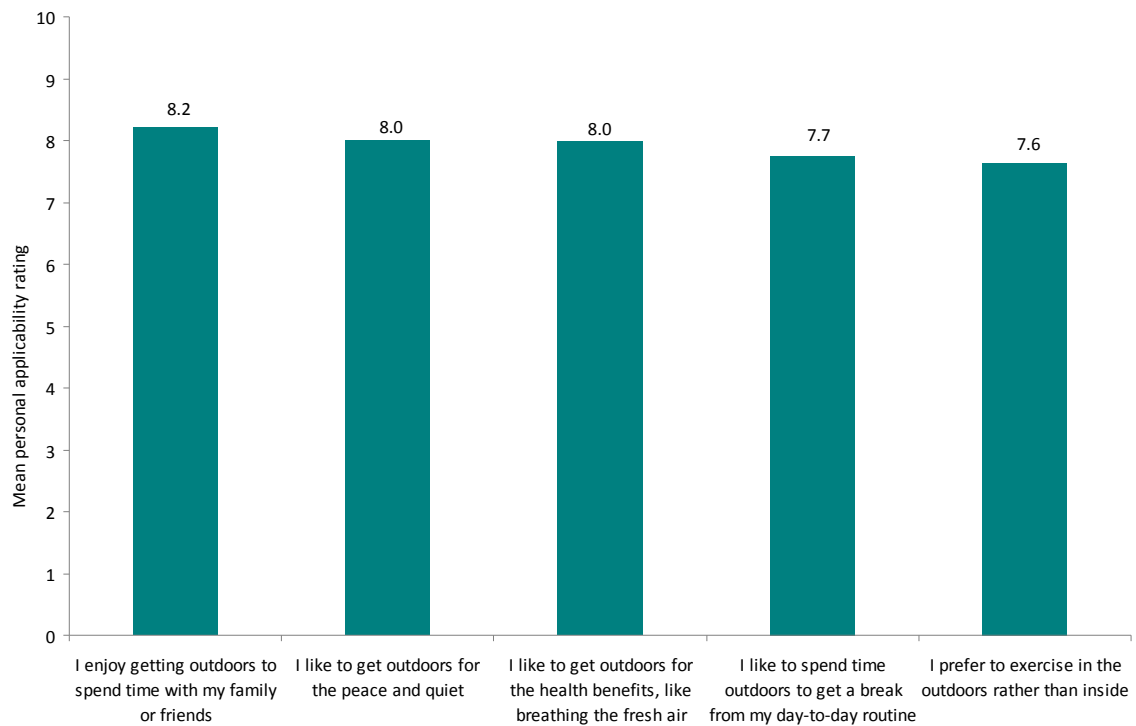
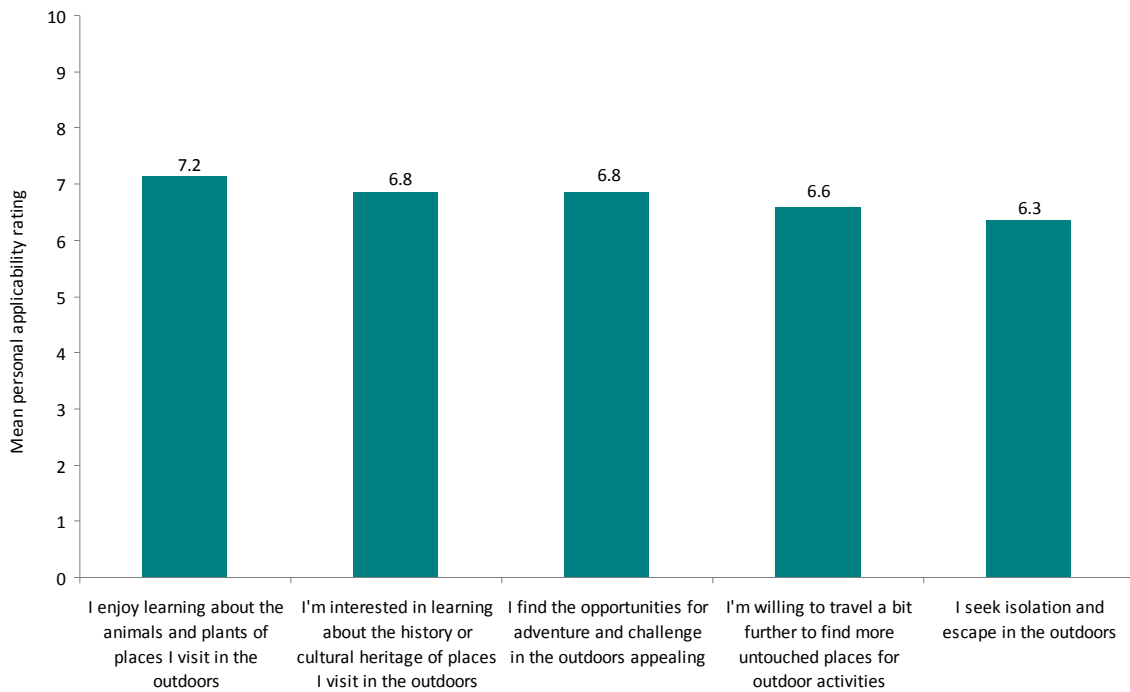


Figure 4.6.2 Mean ratings of personal applicability of motivations to participate in outdoor recreation activities– Part II



As the figures above show, the three highest rated motivations were 'I enjoy getting outdoors to spend time with my family or friends' (8.2 out of 10), 'I like to get outdoors for the peace and quiet' and 'I like to get outdoors for the health benefits, like breathing the fresh air' (each at 8.0).

Mean ratings of personal applicability of each of the motivations to participate in outdoor recreation activities broken down by age and gender are presented in Table 4.6.2.

Table 4.6.2 Mean ratings of personal applicability of motivations to participate in outdoor recreation activities by age and gender

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
I enjoy getting outdoors to spend time with my family or friends	8.0	8.7	8.7	7.7	8.9	8.9	8.2	8.1	8.2
I like to get outdoors for the peace and quiet	6.8	7.8	8.1	8.5	7.8	8.2	7.8	7.8	8.0
I like to get outdoors for the health benefits, like breathing the fresh air	6.6	6.8	7.9	8.0	8.7	8.5	8.3	8.2	8.0
I like to spend time outdoors to get a break from my day-to-day routine	7.7	7.9	8.4	7.4	8.1	8.8	7.9	7.3	7.7
I prefer to exercise in the outdoors rather than inside	8.0	8.1	7.9	7.9	6.5	8.0	7.3	7.2	7.6
I enjoy learning about the animals and plants of places I visit in the outdoors	5.8	6.6	6.4	7.5	6.0	7.3	6.7	7.7	7.2
I'm interested in learning about the history or cultural heritage of places I visit in the outdoors	6.0	5.8	6.4	7.0	7.4	6.2	6.6	7.6	6.8
I find the opportunities for adventure and challenge in the outdoors appealing	7.2	7.4	7.3	7.1	7.5	6.6	6.5	6.4	6.8
I'm willing to travel a bit further to find more untouched places for outdoor activities	6.5	7.6	7.4	6.7	7.8	6.4	6.1	6.0	6.6
I seek isolation and escape in the outdoors	5.5	6.5	6.9	6.8	5.8	6.6	5.8	6.0	6.3

Among age and gender groups, it was found that females in the 25-34 age group had a significantly higher mean rating of the motivation 'I like to spend time outdoors to get a break from my day-to-day routine' (8.8). It was also found that females in the 45-75 age group had a significantly higher mean rating of the motivation 'I'm interested in learning about the history or cultural heritage of places I visit in the outdoors' (7.6).

There were no notable differences in motivations for those who either participated in or were highly interested in participating more often in different types of outdoor recreation activities. Those tables are found in Appendix C.

4.7 Forecasting future participation

Demographic approach

Scenario 1: Participation changes due to demographic change in population

Future participation figures for the year 2018 were estimated for each of the outdoor recreation activities for the last 12 months by multiplying:

- the mean frequency of participation (including both participants and non-participants); and
- the number of people in each age by gender group in the projected population for that region.

The projected population was determined by weighting each age and gender subgroup by weights according to the changes in population across NSW estimated by the Australian Bureau of Statistics². These weights are found in Appendix D. This method adjusts for both change in demographic profile (age by gender groups) and change in absolute size of the population, and estimated population figures. An assumption of this approach is that recreational interests stay the same within age/gender groups (e.g. a constant proportion of 30 year old males will continue to be interested in bike riding).

In contrast, a cohort approach assumes that interests are carried by individuals across age groups (e.g. a constant proportion of "2009's 30 year old males" will continue to be interested in bike riding, even as they age). It can be seen that both approaches rest upon assumptions

² Based on Australian Bureau of Statistics 3222.0 Population Projections, Australia, TABLE B1. Population projections, By age and sex, New South Wales - Series B. Series B largely reflects current trends in fertility, life expectancy at birth, net overseas migration and net interstate migration.

that may, in time, prove incorrect. For that reason, we have looked at each scenario under both the cohort and demographic approach in this section.

Total current and estimated total participation figures for 2018 for each of the outdoor recreation activities are presented in Figures 4.7.1 and 4.7.2. Please note that the current participation figures will differ slightly from those reported in the table in Section 4.2 and tables in Appendix C, as the 45-75 age group was split into three 10-year age bands for forecasting.

Figure 4.7.1 Total current and predicted future participation in outdoor recreation activities – Part I

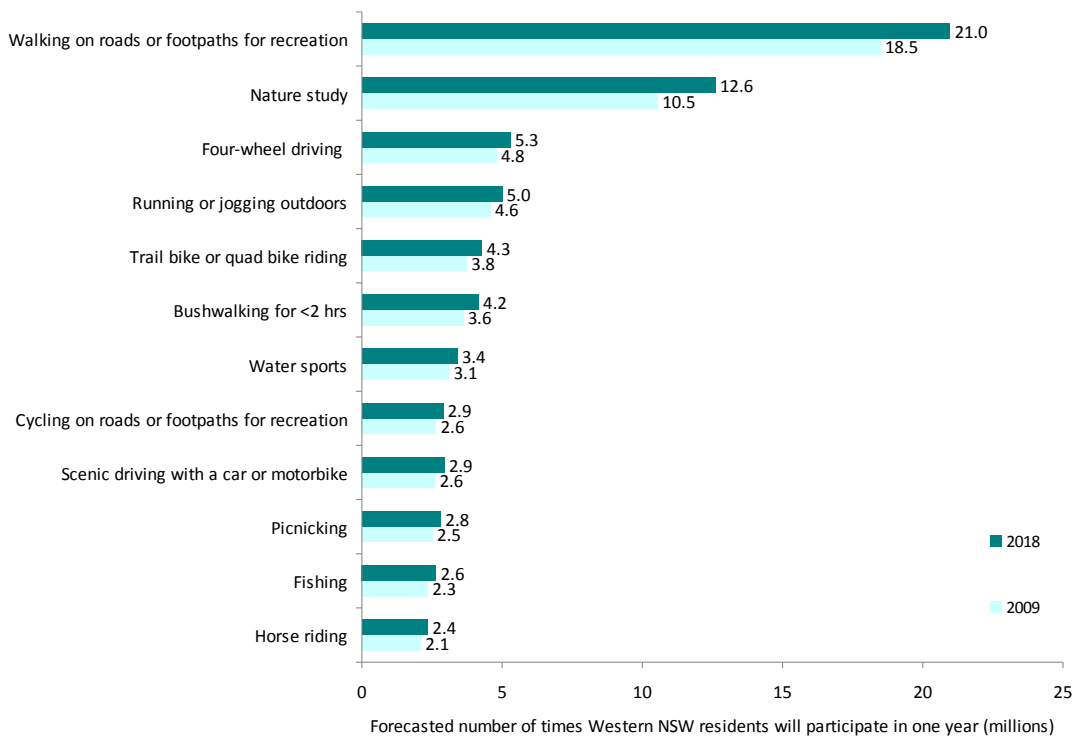
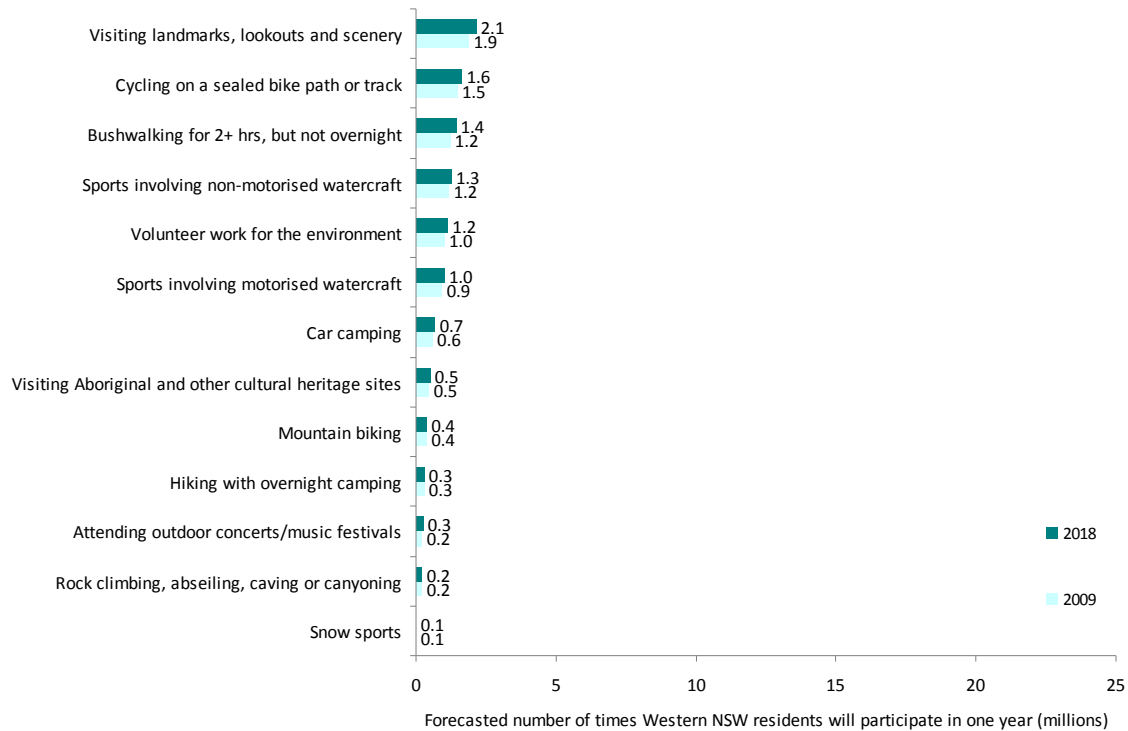


Figure 4.7.2 Total current and predicted future participation in outdoor recreation activities – Part II



Changes to the demographic (age x gender) profile of the NSW adult population are not substantial over the period 2009 to 2018. The greatest change over this period is clearly in terms of absolute population, which is projected to increase in NSW by 11%. This, however, only results in an absolute increase in the number of people participating in the activities, rather than relative changes in the popularity of different activities.

Scenario 2: Actionable barriers are addressed and both participation and frequency increase

A second forecasting analysis was conducted to include an estimation of how participation rates and frequencies may change if PWG was to address two of the main ‘actionable barriers’ in relation to each of the outdoor recreation activities: lack of local opportunities and lack of awareness of local opportunities. The forecasted level of participation was derived from the participant’s current frequency of participation, stated interest in doing the activity more often, and the proportion who cited actionable barriers for that activity. The technique used to model frequency is described in further detail in Appendix D.

Estimated total participation figures for 2018, assuming PWG was to provide new opportunities and market the range of opportunities for the activity in the local area, and estimating impacts

on frequencies, for each of the outdoor recreation activities are presented in Figures 4.7.3 and 4.7.4.

Figure 4.7.3 Total current and predicted future participation in outdoor recreation activities, including if actionable barriers are addressed, and adjusting for frequency – Part I

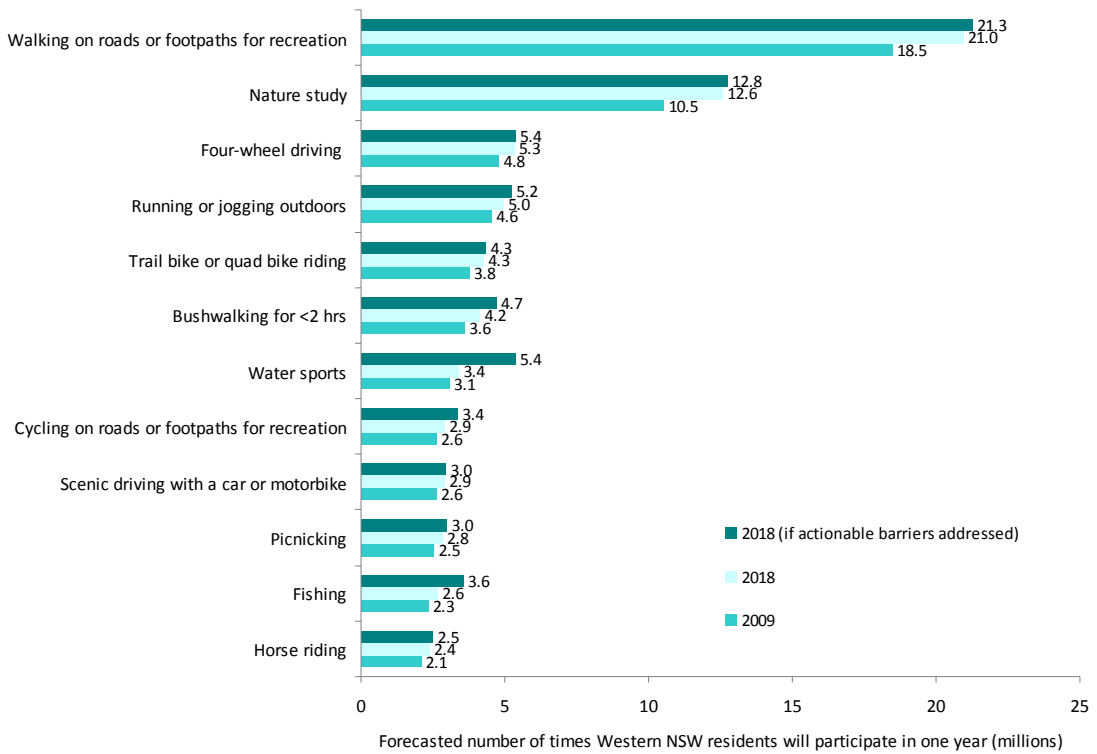
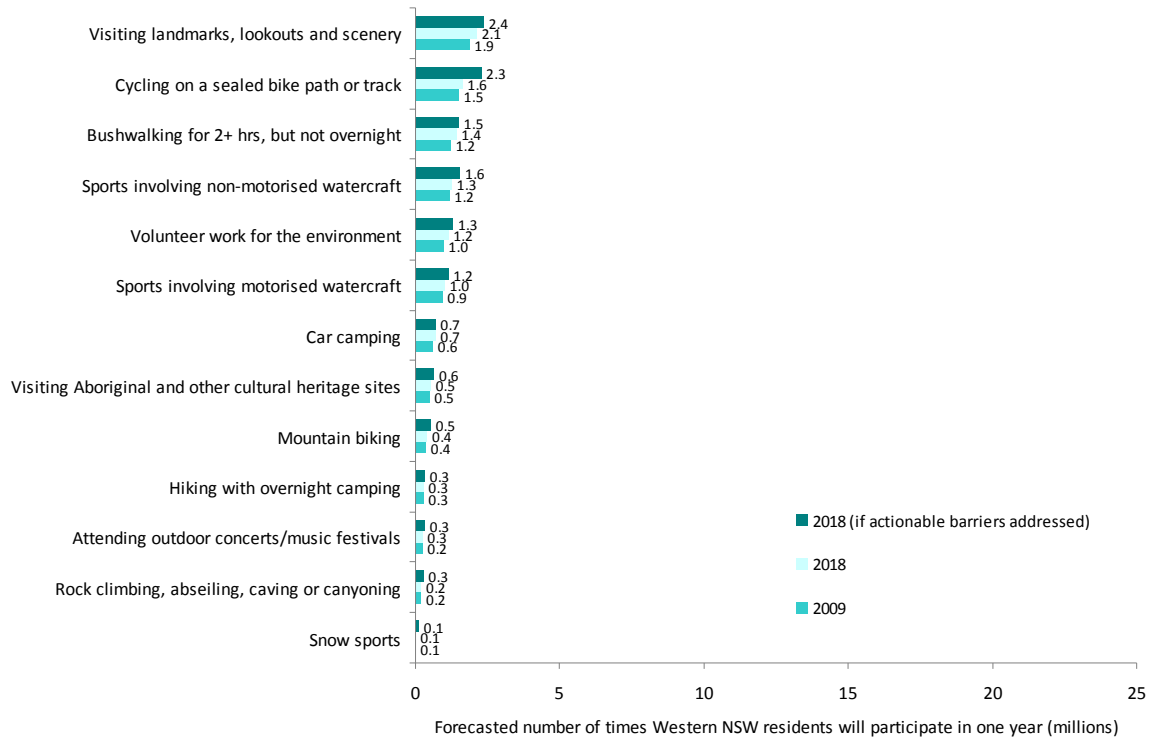


Figure 4.7.4 Total current and predicted future participation in outdoor recreation activities, including if actionable barriers are addressed, and adjusting for frequency – Part II



As can be seen, this modelling approach leads to greater changes in predicted participation. The highest increase in future annual participation is for water sports, rising from a predicted 3.4 million events in 2018 to 5.4 million events if actionable barriers are addressed (an increase of 2.0 million events). The smallest increase in future annual participation were for the activities trail bike or quad bike riding, car camping, hiking with overnight camping, attending outdoor concerts/music festivals and snow sports, which were all estimated to rise by less than 0.1 million events if actionable barriers are addressed.

The following charts show the difference between 2009 and 2018 in both scenarios, firstly in terms of forecasted number of times, then in terms of percentage.

Figure 4.7.5 Forecasted changes in total participation - Part I

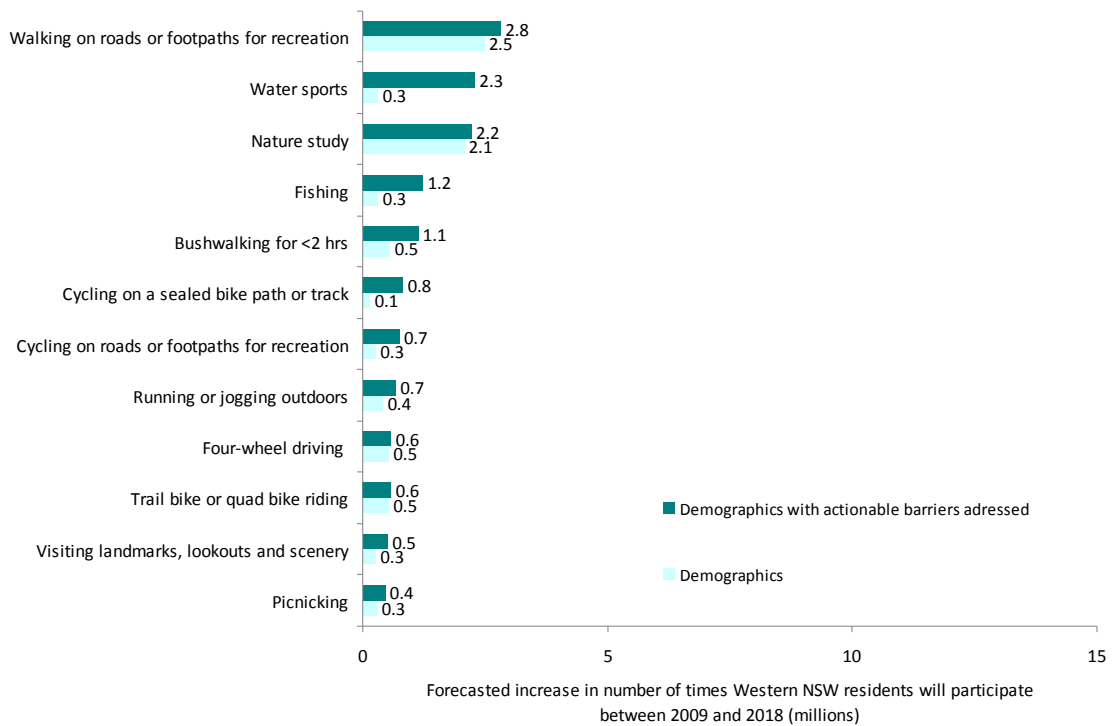
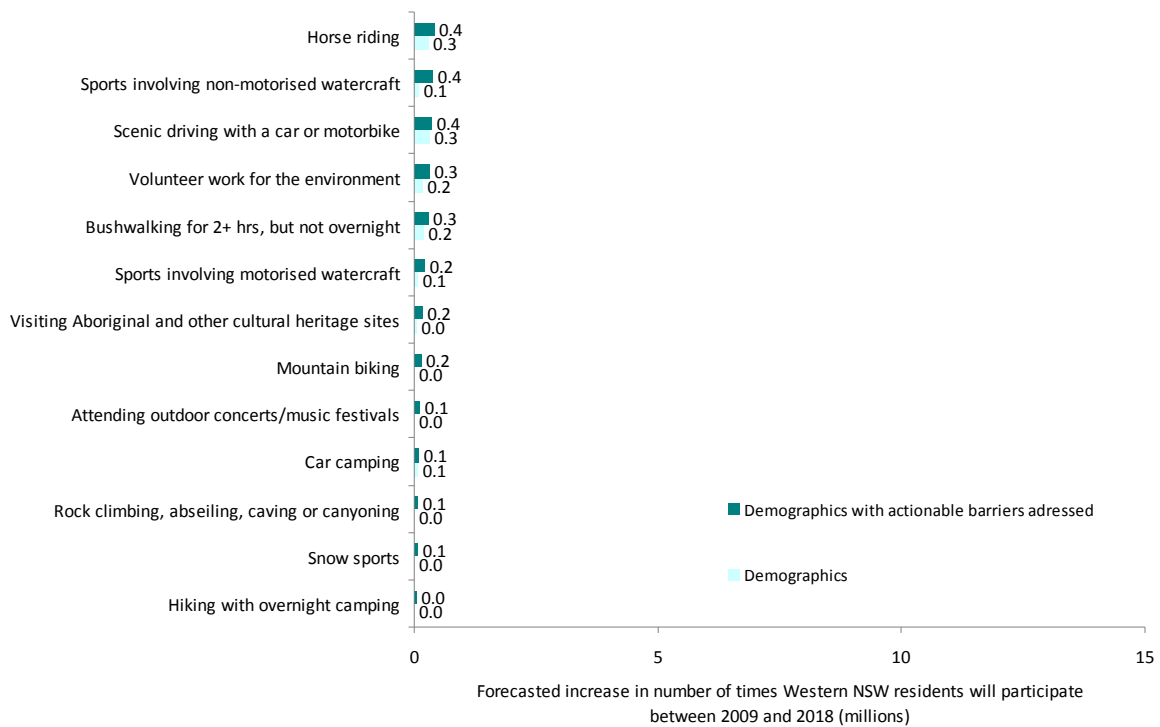


Figure 4.7.6 Forecasted changes in total participation - Part II



As the Figure 4.7.5 shows, walking on roads or footpaths for recreation will have the largest increase in total participation in 2018, rising by 2.5 million events in 2018 and by 2.8 million events if actionable barriers are addressed.

The lowest change in total annual participation from 2009 to 2018 is predicted for hiking with overnight camping, rising by less than 0.1 million events in 2018 and by less than 0.1 million events if actionable barriers are addressed, as shown in Figure 4.7.6.

The next two charts look at the percentage change in annual participation under the two scenarios.

Figure 4.7.7 Forecasted changes (%) in total participation - Part I

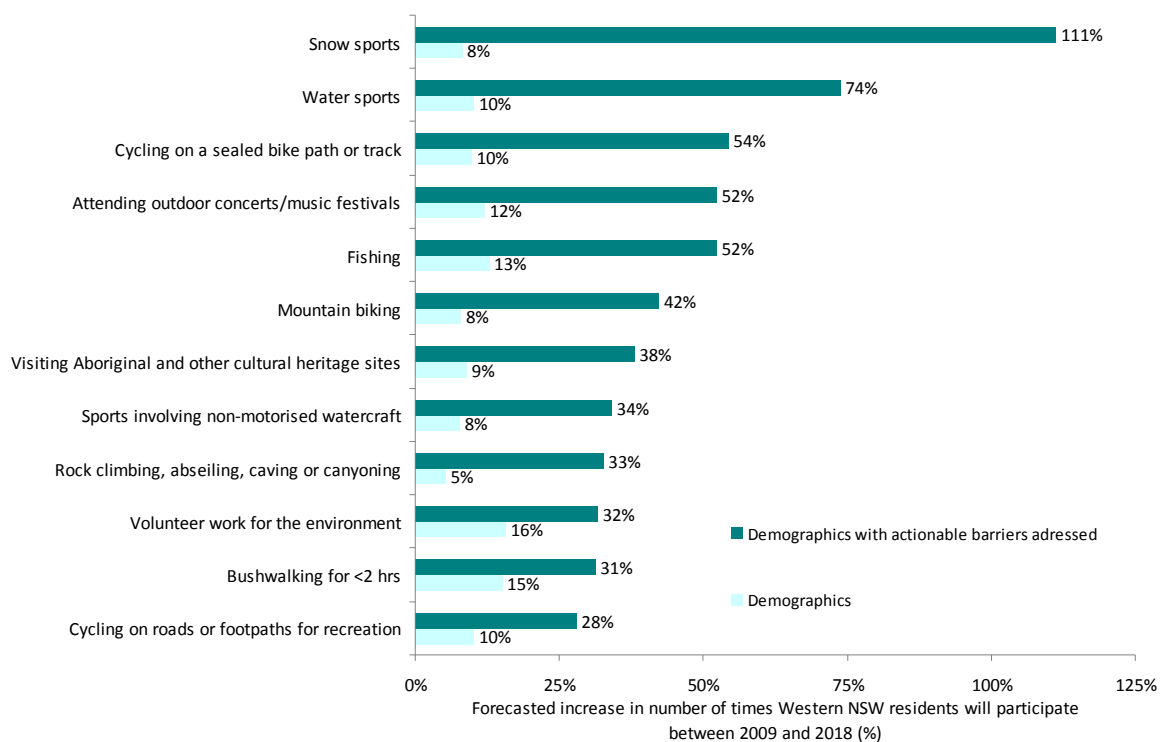
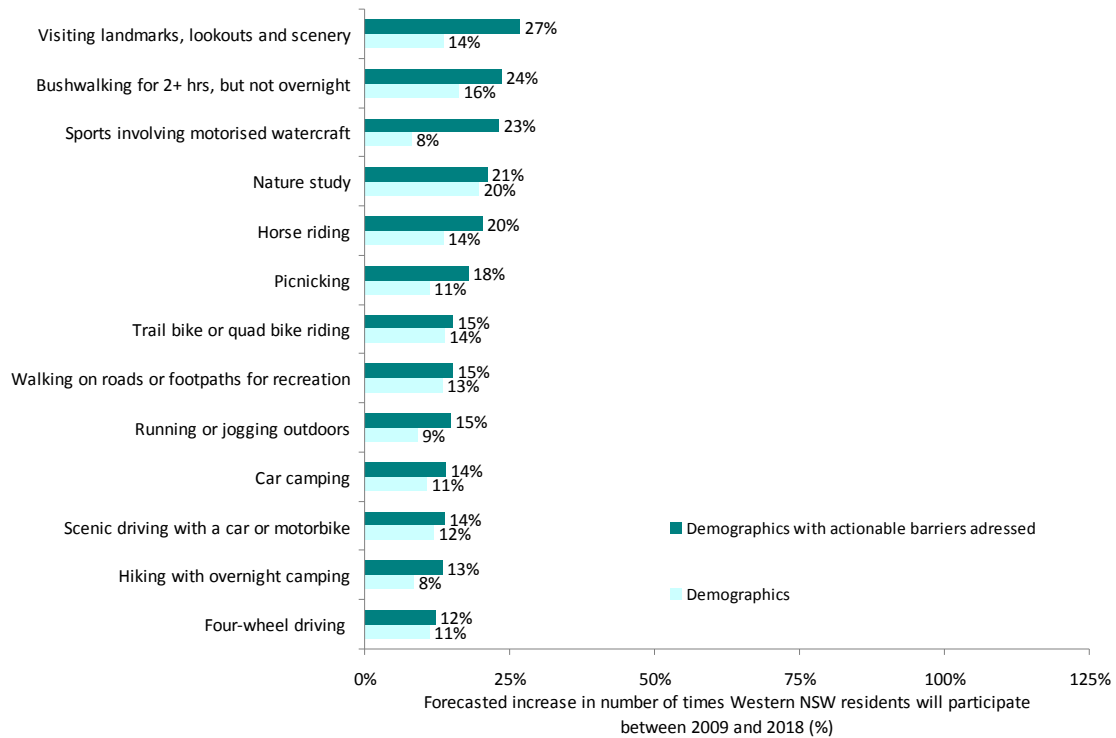


Figure 4.7.8 Forecasted changes (%) in total participation - Part II



As Figure 4.7.7 shows, it is predicted that snow sports will increase by 111% in 2018 if actionable barriers are addressed. This is followed by water sports (74%), cycling on a sealed bike path or track (54%), attending outdoor concerts/music festivals and fishing (each at 52%). These large percentage increases tend to be for activities that have lower frequencies of current participation. A closer look reveals that cycling on a sealed bike path or track has an average interest rating of 3.1, which is at the lower end of all activities. However, the spike in predicted activity is partly due to the high level of actionable barriers for this activity (44%). The increase in predicted activity is also due to the pattern of participation in these less frequent activities. To show the pattern in demand for each activity, current participants were split into quintiles, based on the number of times they had participated in the activity in the past 12 months.

The following charts show the contribution to the total number of events that each quintile makes. Note that for some activities, there is not sufficient variability at the lower ends of frequency to split the sample into quintiles. For example, for the activity snow sports, the cut-off for the first quintile is 1 time per year, and this 'quintile' actually makes up 57% of total snow sport participants. Therefore the next cut-off, of 2 times per year, is shown in the chart as the 3rd quintile, and makes up 17% of total snow sport participants.

Figure 4.7.9. Contribution of each quintile to total participation in activities - Part I

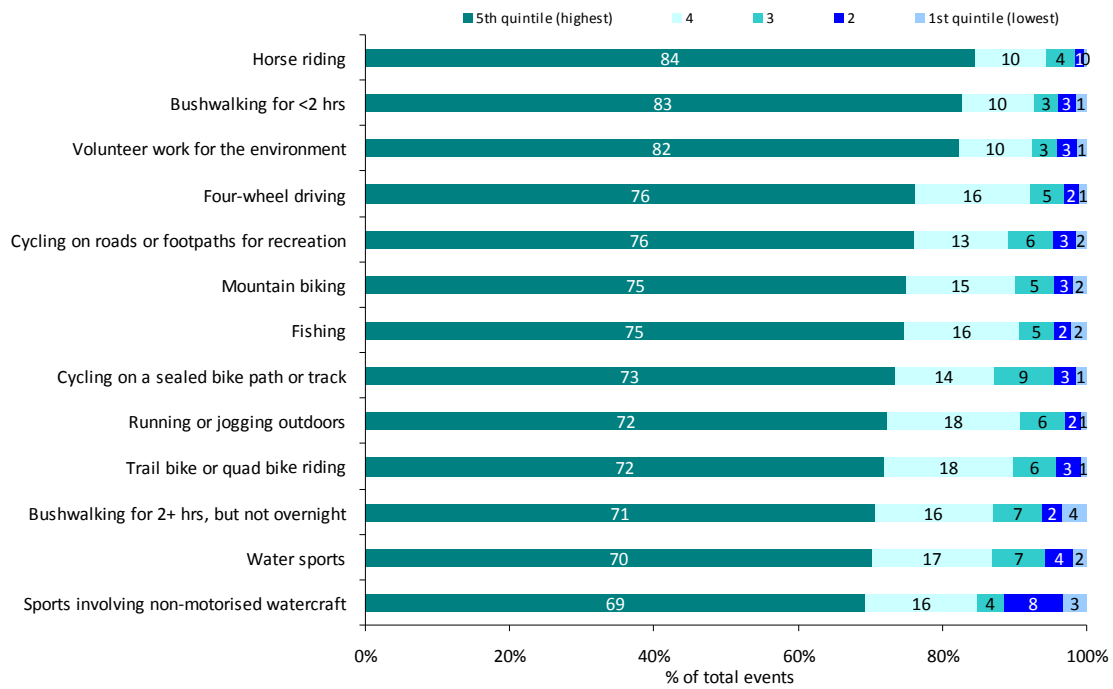
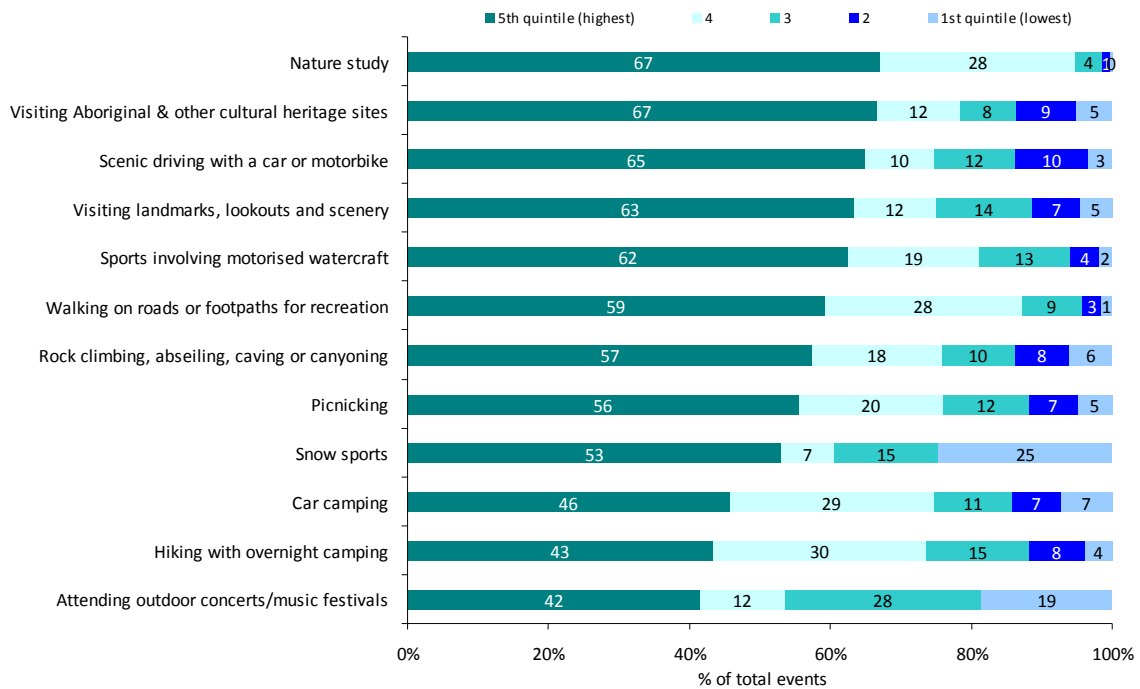


Figure 4.7.10. Contribution of each quintile to total participation in activities - Part II



As Figures 4.7.9 and 4.7.10 show, for horse riding, the highest quintile contributes 84% of total horse-riding. For the activities bushwalking for less than two hours (83%) and volunteer work for the environment (82%), the top quintile makes up at least 80% of the total events. The

activities attending outdoor concerts/music festivals (42%), hiking with overnight camping (43%), and car camping (46%) had the most equitable distributions, with the top quintile making up less than half of the total events.

The skews in demand can partly explain the higher predicted increases for cycling on a sealed bike path or track. The relatively high proportion of actionable barriers for activities such as snow sports, water sports, and attending outdoor concerts/music festivals can partly explain the large predicted increase in these events (although it may be argued that providing local opportunities for snow sports may be difficult to action in some areas).

The next section replicates the two scenarios using the cohort approach.

Cohort approach

Scenario 1: Participation changes due to demographic change in population - Cohort approach

The cohort approach uses current participation and frequency rates for each age group and multiplies them by the projected population in 9 years time. For instance, the current participation rate among 25-34 year old males for walking (72%) is multiplied by the mean frequency for 25-34 year old male participants (39 times a year) and then multiplied by the projected population of 34-43 year old males in 2018 (26,663) to estimate the cohort in 2018. For the younger population, we have assumed that 18-26 year olds in 2018 will be participating in the same way as 18-24 year olds are currently. The weights used to estimate the population in 2018 are found in Appendix D.

As the following charts show, the cohort approach shows little differences in many activities.

Figure 4.7.11. Total current and predicted future participation in outdoor recreation activities, cohort approach– Part I

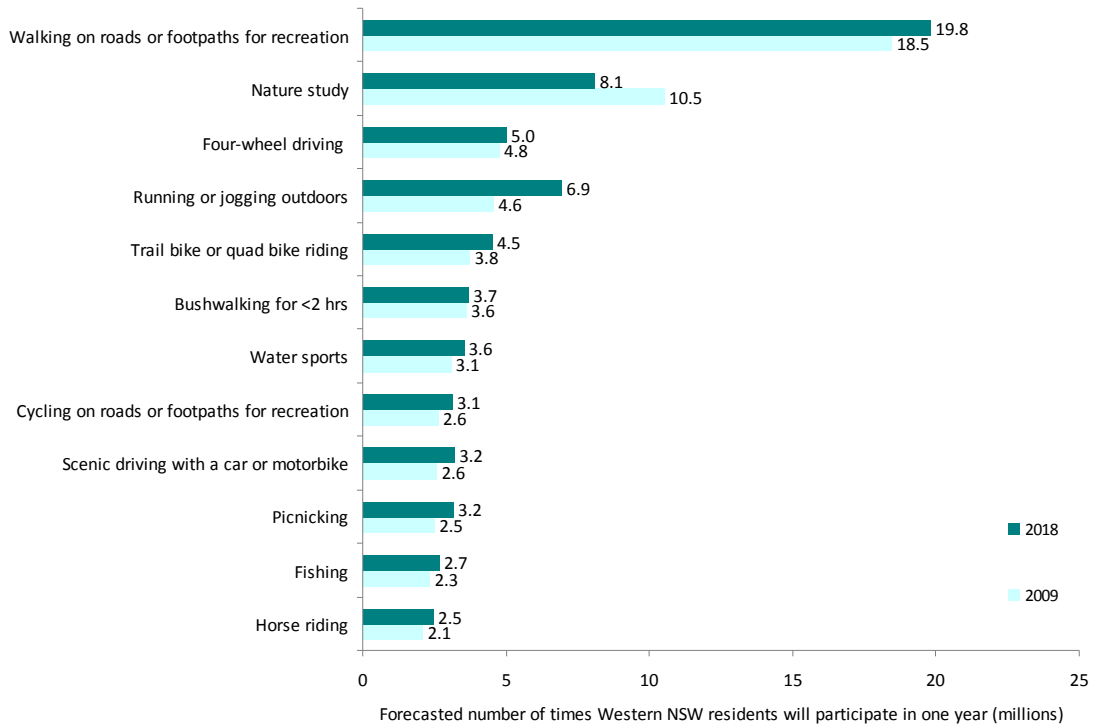
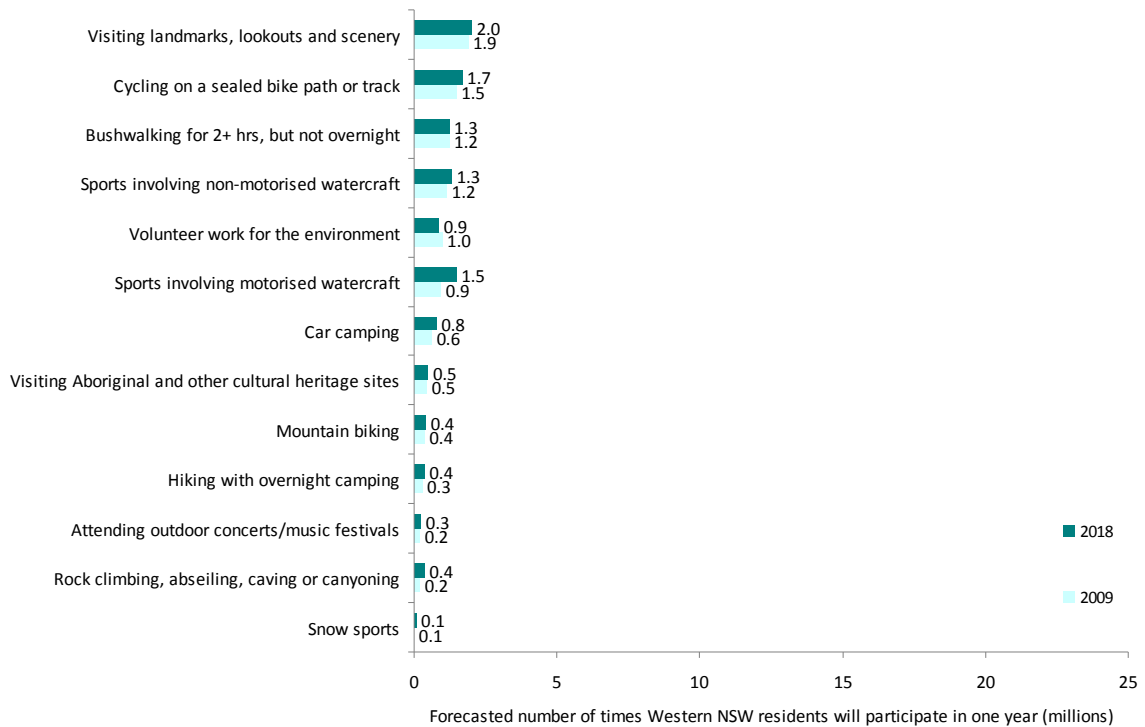


Figure 4.7.12. Total current and predicted future participation in outdoor recreation activities, cohort approach– Part II



As the chart above shows, there were few large increases in any activities. The largest increase predicted was for running or jogging outdoors, rising from 4.6 million to 6.9 million events.

Scenario 2: Actionable barriers are addressed and both participation and frequency increase - Cohort approach

The projected population used in these estimations are derived from the cohort approach. The following charts show the predicted changes in total events.

Figure 4.7.13 Total current and predicted future participation in outdoor recreation activities, including if actionable barriers are addressed, and adjusting for frequency (cohorts)– Part I

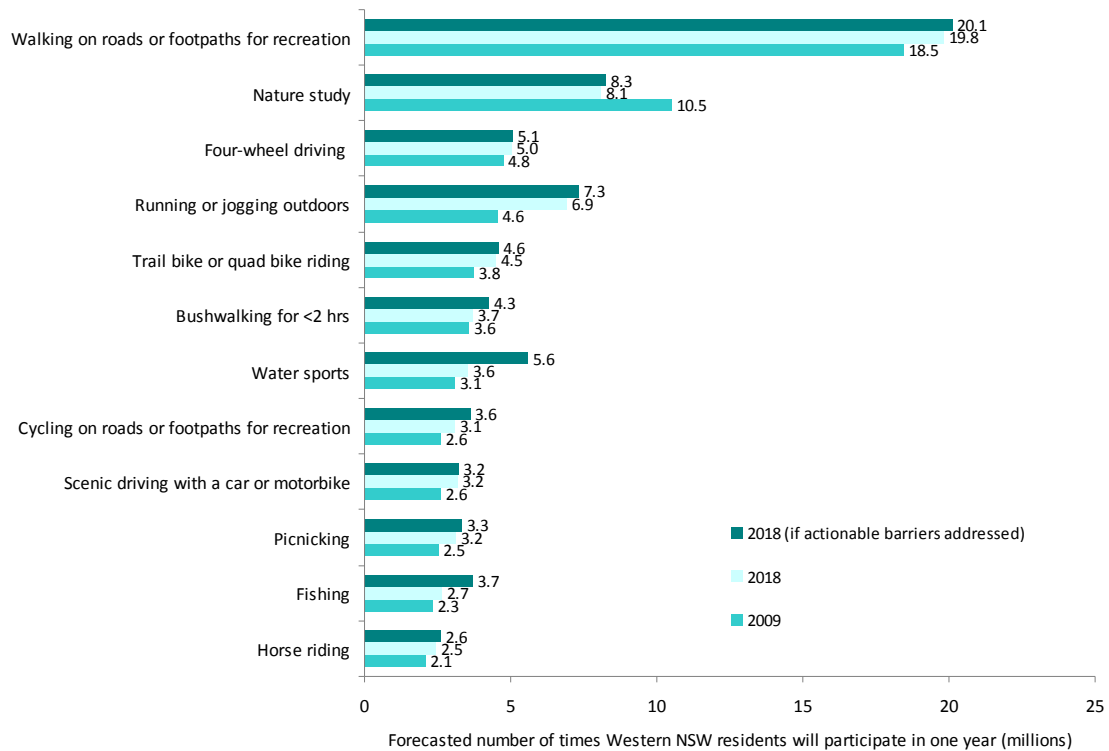
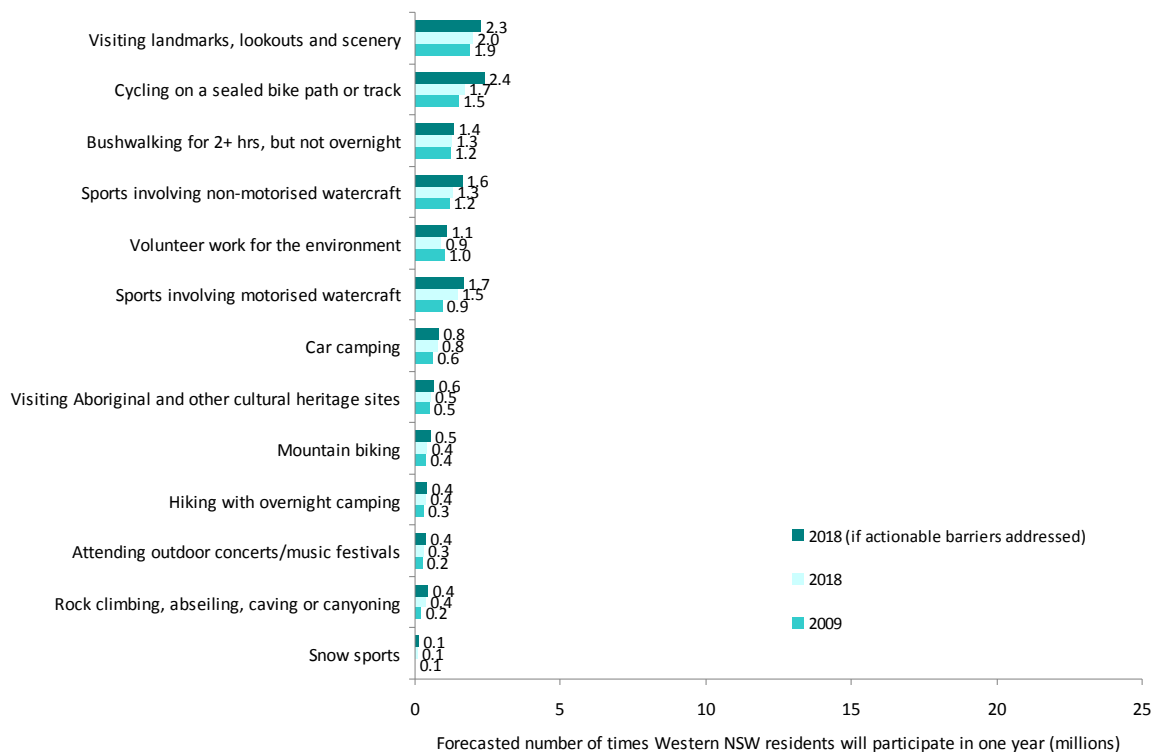


Figure 4.7.14 Total current and predicted future participation in outdoor recreation activities, including if actionable barriers are addressed, and adjusting for frequency (cohorts) – Part II



As Figure 4.7.13 and 4.7.14 show, when modelling for the effect of addressing actionable barriers on frequency, there are few large increases in predicted events. The largest increase is for water sports, with a further 2.0 million events predicted should actionable barriers be addressed.

Contrasting the two approaches

The assumptions of the two approaches lead to different results. The cohort approach, by only looking at the population from 18-75 and estimating its frequency of participation in 9 years time makes assumptions about the participation levels of those currently aged 9 to 17 years, which are not measured in this study. Further, the qualitative research conducted in an earlier phase of the project found that frequency of participation varied among participants as they got older.

As described earlier, the demographic approach assumes that today's 30 year olds will act in the same way as the 30 year olds of 2018. It will neglect some of the generational differences identified in the qualitative research, particularly that lifestyle trends may continue the apparent shift away from outdoor activities for younger age groups.

The following charts show the predicted difference between 2009 and 2018 in both scenarios, under both the demographic and cohort approaches.

Figure 4.7.15. Forecasted changes in total participation - Part I

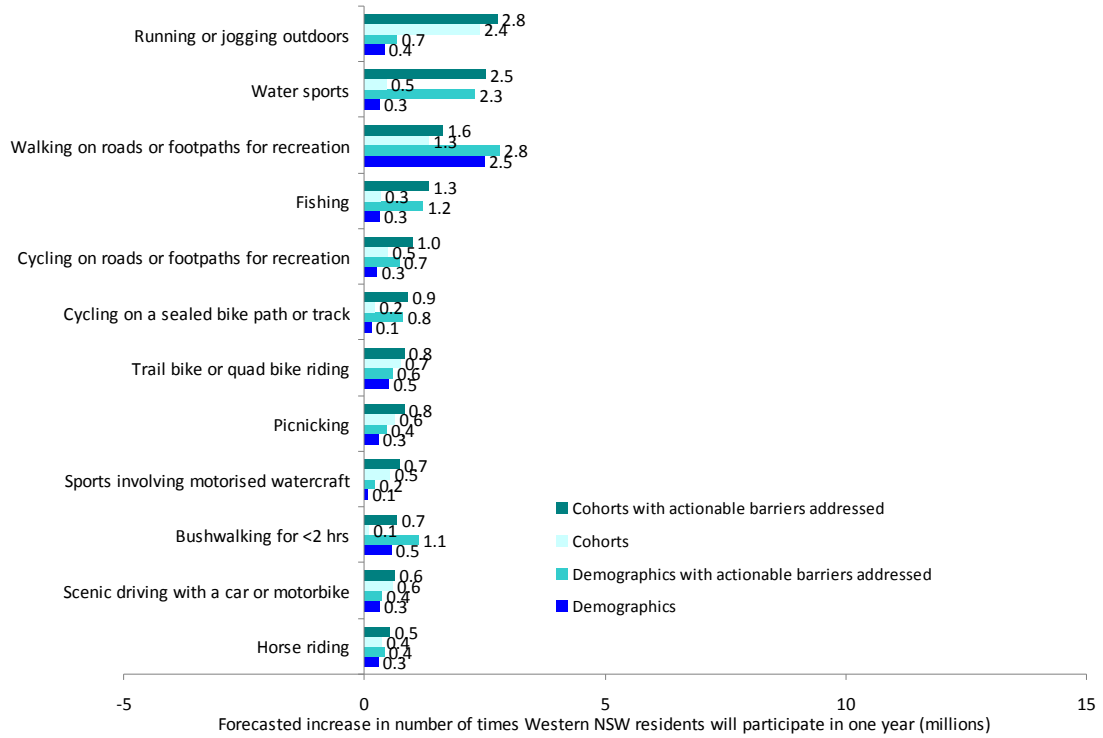
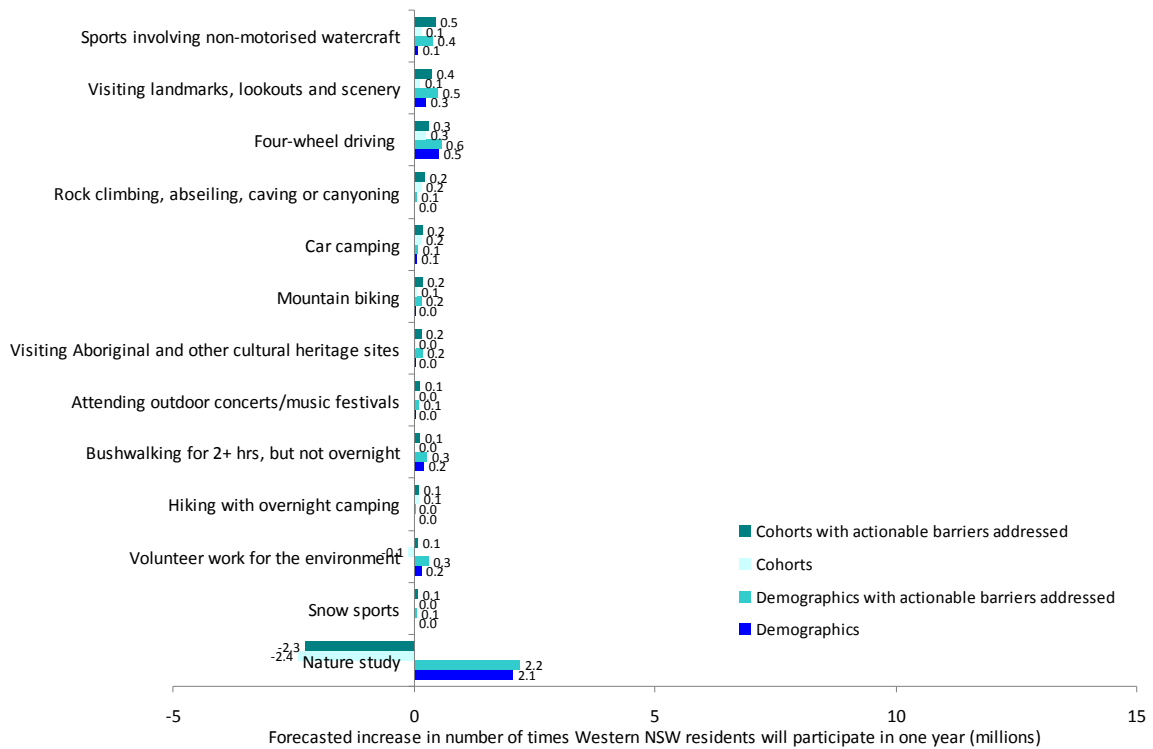


Figure 4.7.16. Forecasted changes in total participation - Part II



As the charts above show, the cohort approach leads to a higher increase predicted in total events for running or jogging outdoors, with an increase of 2.4 million events for cohort approach compared to 0.4 million events for demographics approach (if actionable barriers are addressed, the comparison is 2.8 million events for cohort approach to 0.7 million events for demographic approach). Running or jogging outdoors has a higher participation among 18-24 year olds than other age groups, so the cohort approach's assumptions lead to a higher estimate of future participation for this activity, and similar activities that are more frequent among younger age groups.

The next set of charts show the percentage increase for both scenarios under the two approaches.

Figure 4.7.17 Forecasted changes (%) in total participation - Part I

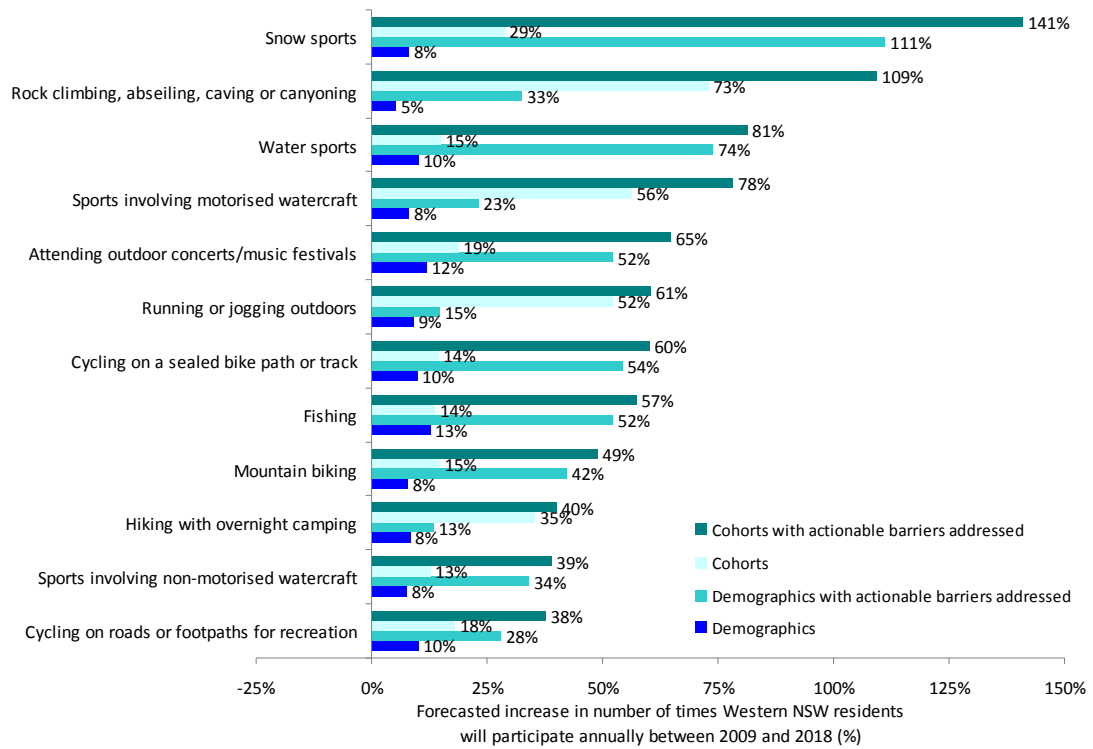
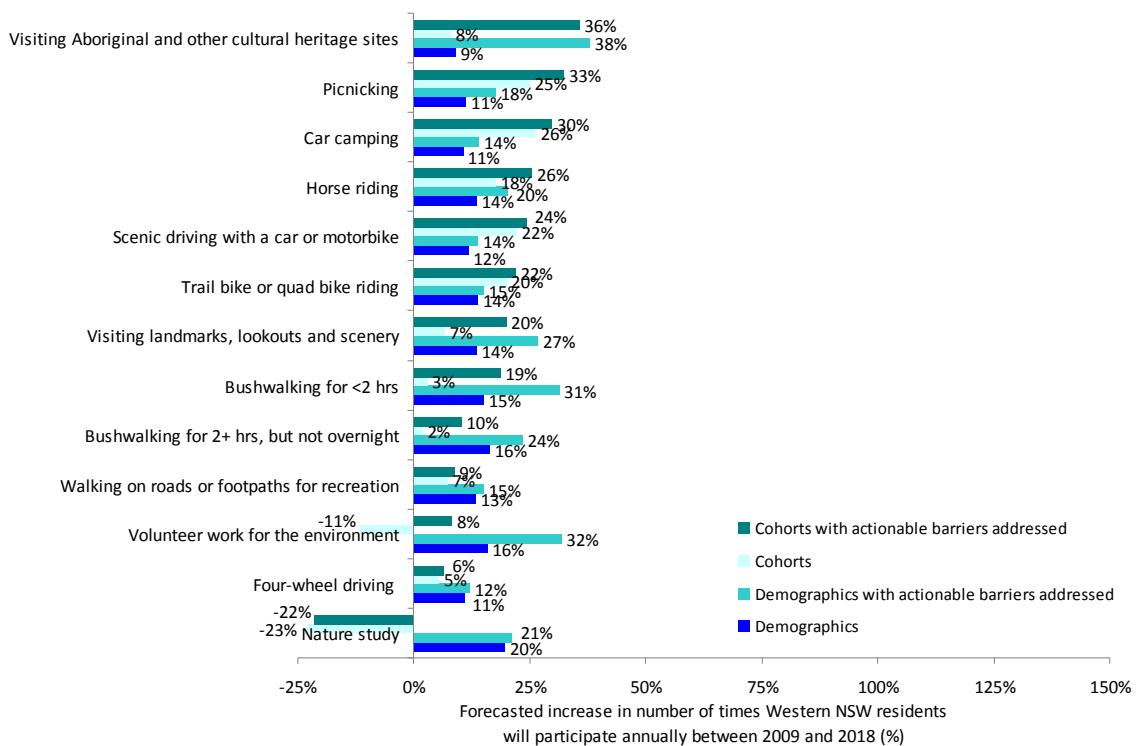


Figure 4.7.18 Forecasted changes (%) in total participation - Part II



As Figures 4.7.17 and 4.7.18 show, the predicted increase in percentage varied between the cohort and demographic approaches, particularly in activities that had a bias in frequency of participation towards the youngest age groups, such as sports involving motorised watercraft, and oldest age groups, such as nature study.

A

APPENDIX A: QUESTIONNAIRE

NATURE-BASED OUTDOOR RECREATION SURVEY Ipsos Public Affairs project #4272

To be administered using computer-assisted telephone interviewing. Headings will not appear in field version.

PLEASE REFER TO EXCEL FILE FOR POSTCODES INCLUDED IN EACH OF THE REGIONS.

PLEASE OBSERVE THE FOLLOWING QUOTAS.

Gender	Age group	Greater Sydney	North Coast	New England Tablelands	Western NSW	South Coast	Southern Tablelands
Male	18-34	141	53	56	56	55	70
	35-54	160	80	79	82	77	81
	55-75	94	64	62	63	64	48
Female	18-34	143	53	58	55	54	69
	35-54	165	84	82	82	83	83
	55-75	97	66	63	62	67	49
Total (N=2,800)		800 (100%)	400 (100%)	400 (100%)	400 (100%)	400 (100%)	400 (100%)

Introduction

Hello, my name is [INTERVIEWER] and I'm calling from Ipsos-Eureka Social Research Institute.

We are conducting a research project on outdoor recreation on behalf of a NSW Government department. We are not trying to sell you anything; your responses will be used only for

research purposes and will remain confidential. The survey will take around [AVERAGE DURATION].

IF TIME INCONVENIENT, ARRANGE CALL BACK

IF NOT INTERESTED: Is there anyone else over 18 who might be interested in participating?

IF CLIENT QUERIED: I'm sorry, I can't tell you the client's name until the end of the survey, because it might affect the way you answer the questions, but I will be able to tell you at the end.

IF QUERIED ABOUT BONA FIDES OF RESEARCH: I can provide the names of people who will verify the legitimate nature of this research project. The first is the Australian Market and Social Research Society enquiry line on 1300 36 4830. The second is the Project Manager at Ipsos-Eureka Social Research Institute, Ben Barnes, on (02) 9550 5100.

IF QUERIED ABOUT HOW NAME WAS SOURCED: We are contacting people using random digit dialling.

IF THE INTERVIEW WILL BE MONITORED: My supervisor may be monitoring the interview for quality control purposes. If you do not wish this to occur, please let me know.

Screening

First let me check that you are one of the people we need to talk to.

S1. Can you tell me your postcode? [RECORD. OBSERVE QUOTAS FOR LOCATION.] [IF NOT RECOGNISED, ASK WHETHER IN NSW. IF NOT, TERMINATE WITH THANKS, IF IN NSW, ASK FOR TOWN OR SUBURB, OR NEAREST TOWN OR SUBURB IF RURAL/REMOTE. IF REFUSE ON THIS QUESTION, TERMINATE WITH THANKS.]

S2. [RECORD GENDER. OBSERVE QUOTAS WITHIN LOCATION.]

S3. Into which of the following age bands do you fall? [READ OUT.]

Under 18 years	DOES NOT QUALIFY
18-24 years	OBSERVE QUOTAS
25-34	OBSERVE QUOTAS
35-44	OBSERVE QUOTAS
45-54	OBSERVE QUOTAS
55-64	OBSERVE QUOTAS

65-75	OBSERVE QUOTAS
Over 75 years	DOES NOT QUALIFY
REFUSED	DOES NOT QUALIFY

IF DOES NOT QUALIFY: Unfortunately you're not one of the people we need to talk to for this particular survey. Thanks for being willing to participate.

1 Participation in nature-based outdoor recreation

Great, you're definitely one of the people we need to talk to. First, I'm going to read out a list of outdoor activities, and I'd like you to give me an estimate of **how many times** you've done them **in the last 12 months**.

If you've done the activity, I'd like to know whether that's been in the [INSERT NAME OF AREA: GREATER SYDNEY / NEW ENGLAND TABLELANDS / NORTH COAST / WESTERN NSW / SOUTH COAST / SOUTHERN TABLELANDS] area, or somewhere else in NSW, or both.

And I'd also like you to tell me **how interested** you would be in doing each activity more often, if there was nothing stopping you from doing so. I'll prompt you as we go along.

- 1.1 So, the first one is [RANDOMISE. READ OUT FIRST ACTIVITY]. How many times would you have done that in the last 12 months? [RECORD NUMBER. IF UNSURE, PROBE FOR BEST ESTIMATE. NOTE THIS QUESTION IS ABOUT NUMBER OF TIMES, NOT NUMBER OF DAYS]
- 1.2 [IF Q1.1>1. EXCEPT DO NOT ASK FOR K. SNOW SPORTS UNLESS IN SOUTHERN TABLELANDS.] Was that in your local area, or further away, or both. [IF Q1.1=1 EXCEPT DO NOT ASK FOR K. SNOW SPORTS UNLESS IN SOUTHERN TABLELANDS. Was that in your local area or further away] [RECORD CODE LOCAL AREA=1, FURTHER AFIELD=2, BOTH=3.] [IF QUERIED, LOCAL AREA IS WITHIN 100KM FROM WHERE YOU LIVE]
- 1.3 And how interested would you be in [READ OUT FIRST ACTIVITY] more often, on a scale of 0 to 10, where 0 is not at all interested and 10 is extremely interested? [RECORD RATING] [NOTE FOR INTERVIEWERS: *Where an activity category includes multiple types of pursuits, e.g. snow sports, record level of interest for the one they are most interested in doing more often.*]

[GO THROUGH Q1.1, Q1.2 AND Q1.3 FOR EACH ACTIVITY IN LIST.]

Activity [RANDOMISE ORDER. RETAIN ORDER FOR SUBSEQUENT SECTIONS.]	Q1.1 Frequency in last 12	Q1.2 Local area or further	Q1.3 Interest in doing more
---	---------------------------------	-------------------------------------	--------------------------------------

	months	away or both	often
HIGH INCIDENCE ACTIVITIES			
a. Bush or nature walking for less than two hours on trails, tracks or boardwalks			
b. Bushwalking or hiking for two hours or more, but not overnight			
c. Cycling or mountain biking on an unsealed road or track			
d. Cycling on roads or footpaths for recreation, not just to get to and from places [NOTE FOR INTERVIEWERS: <i>This includes cycling on roads, in dedicated cycle lanes and on footpaths where cycling is allowed</i>]			
e. Cycling on a sealed bike path or track [NOTE FOR INTERVIEWERS: <i>This includes any cycling on sealed paths or tracks away from roads and footpaths, e.g. in a park</i>]			
f. Water sports, including outdoor swimming, snorkelling, surfing, bodyboarding, wind surfing and kite surfing			
g. Picnicking, including outdoor social gatherings like weddings, family reunions, club fun days, etc.			
h. Car camping, that is, camping within easy walking distance of your car			
LOW INCIDENCE ACTIVITIES			
i. Bushwalking or hiking with overnight camping			
J. Walking on roads or footpaths for recreation, not just to get to and from places			
k. Running or jogging outdoors			
l. Snow sports, including skiing, snowboarding, tobogganing		only ask if Southern Tablelands	
m. Sports involving motorised watercraft, including motorboating, speedboating, jet skiing, water-skiing and wakeboarding			
n. Sports involving non-motorised watercraft, including sailing, canoeing, rowing, kayaking and rafting			

o. Scenic driving with a car or motorbike			
p. Four-wheel driving on unsealed roads or tracks			
q. Trail bike or quad bike riding			
r. Rock climbing, abseiling, caving or canyoning			
s. Visiting landmarks, lookouts and scenery			
t. Visiting Aboriginal and other cultural heritage sites			
u. Nature study, including bird or other wildlife watching, tree and flora appreciation, nature photography or painting/drawing			
v. Volunteer work for the environment, for example, bush regeneration			
w. Attending outdoor concerts/music festivals			
x. Fishing			
y. Horse riding			

1.4 [If 1 to 5 activities are given a rating of 5 or more at Q1.3, include all of these activities at this question, regardless of whether they are high or low incidence. If more than 5 activities are given a rating of 5 or more at Q1.3, observe the following selection criteria:

- o Where **1, 2 or 3 low** incidence activities and **more than 2 high** incidence activities are rated 5 or higher, include **all of the low** incidence activities, and **4, 3 or 2 activities randomly selected from the high** incidence activities (for a total of 5 activities),
- o Where **1 or 2 high** incidence activities and **more than 3 low** incidence activities are rated 5 or higher, include **all of the high** incidence activities and **4 or 3 randomly selected from the low** incidence activities (for a total of 5 activities),
- o Where **more than 3 low** incidence activities and **more than 2 high** incidence activities are rated 5 or higher, include **a random selection of 3 low and 2 high** incidence activities.
- o Where **0 low** incidence are rated 5 or higher, include **a random selection of 5 high** incidence activities

- o Where **0 high** incidence are rated 5 or higher, include **a random selection of 5 low incidence activities.**]

You said that you'd be interested in [READ OUT FIRST ACTIVITY] more often. What are some of the **things** stopping you from doing so? [RECORD VERBATIM. PROBE FOR DETAILED RESPONSES. IF RESPONSE IS VAGUE OR UNCLEAR, ASK: What do you mean by [RESPONSE]?] What else? [REPEAT FOR SUBSEQUENT ACTIVITIES.]

[NOTE FOR INTERVIEWERS: *The list below provides examples of the types of responses we are expecting to give you an idea of the level of detail required from responses.* **DO NOT CODE RESPONSES.**]

LACK OF TIME DUE TO WORK COMMITMENTS
LACK OF TIME DUE TO FAMILY COMMITMENTS
LACK OF TIME (NOT FURTHER SPECIFIED)
UNAWARE OF LOCAL OPPORTUNITIES TO DO ACTIVITY
LACK OF OPPORTUNITIES/FACILITIES TO DO IT IN LOCAL AREA
COST OF ENTRY FEE
COST OF CAR PARKING
AVAILABILITY OF CAR PARKING
COST OF GETTING THERE (PETROL OR PUBLIC TRANSPORT)
COST OF EQUIPMENT REQUIRED TO DO ACTIVITY
COST OF PARTICIPATING IN ACTIVITY (PER EPISODE/OCCASION)
NOT SUITABLE FOR CHILDREN/CAN'T TAKE CHILDREN ALONG
HAVE NO ONE TO DO THIS ACTIVITY WITH
THE WEATHER/BAD WEATHER/RAIN
HEALTH PROBLEMS
DON'T HAVE THE RIGHT EQUIPMENT
DON'T HAVE TRANSPORT/NO WAY TO GET THERE
NOT FIT ENOUGH TO DO THIS ACTIVITY
FEAR OF GETTING INJURED
FEAR OF WILDLIFE / GETTING BITTEN/STUNG ETC

FEAR OF BEING ISOLATED
FEAR FOR OWN SAFETY AMONG STRANGERS
TOO BUSY DOING OTHER RECREATIONAL ACTIVITIES
LOCATION IS TOO CROWDED
OPENING HOURS NOT CONVENIENT
LACK OF MOTIVATION

1.5 [If 1 to 5 activities are given a rating of 5 or more at Q1.3, or frequency greater than 0 at 1.1, include all of these activities at this question, regardless of whether they are high or low incidence. If more than 5 activities are given a rating of 5 or more at Q1.3, or frequency greater than 0 at 1.1,, observe the following selection criteria:

- o Where **1, 2 or 3 low** incidence activities and **more than 2 high** incidence activities are rated 5 or higher, include **all of the low** incidence activities, and **4, 3 or 2 activities randomly selected from the high** incidence activities (for a total of 5 activities),
- o Where **1 or 2 high** incidence activities and **more than 3 low** incidence activities are rated 5 or higher, include **all of the high** incidence activities and **4 or 3 randomly selected from the low** incidence activities (for a total of 5 activities),
- o Where **more than 3 low** incidence activities and **more than 2 high** incidence activities are rated 5 or higher, include **a random selection of 3 low and 2 high** incidence activities.
- o Where **0 low** incidence are rated 5 or higher, include **a random selection of 5 high incidence activities**
- o Where **0 high** incidence are rated 5 or higher, include **a random selection of 5 low incidence activities**.

WHERE POSSIBLE, GENERATE SELECTION THAT IS DIFFERENT FROM THAT USED AT Q1.4]

Now I'm going to ask you about some of the activities that you have done in the last 12 months, or that you would be interested in doing more often. For each activity, I'd like you to imagine that you were going to do it in a National Park, State Conservation Area,

State Forest or Nature Reserve in your region. I DON'T mean local council parks or botanical gardens.

I'd like you to tell me what would be the main features (either natural or man-made) that you would want if you were going to do the activity in one of these locations.

So, the first one is [READ OUT FIRST ACTIVITY]. What would be the natural or man-made main features you would want? [RECORD VERBATIM. PROBE FOR DETAILED RESPONSES. What do you mean by [RESPONSE]?] What other natural or man-made features would you want? [REPEAT FOR SUBSEQUENT ACTIVITES.]

[NOTE FOR INTERVIEWERS: *The list below provides examples of the types of responses we are expecting to give you an idea of the level of detail required from responses. DO NOT CODE RESPONSES*]

TOILETS
SHOWERS
CHANGE ROOMS
PICNIC TABLES AND CHAIRS
BBQS AND OTHER FOOD PREPARATION AREAS
WATER / TAPS
CLEARED PATHS OR TRAILS THROUGH THE BUSH (UNSEALED)
SEALED PATHS OR BOARDWALKS
HAND RAILS
SHOPS OR KIOSKS
CAFES OR RESTAURANTS
CHILDREN'S PLAYGROUNDS OR PLAY AREAS
SIGNAGE
VISITORS' CENTRE
INFORMATION BOARDS
GUIDED TOURS
BROCHURES OR MAPS
RANGER / MANAGEMENT PRESENCE



CAMPSITES
POWERED CAMPSITES
CABINS
OTHER ACCOMMODATION (E.G. HOSTELS, MOTELS, ETC)
ISOLATION / INFREQUENT TO NO CONTACT WITH OTHER PEOPLE
NOT TOO CROWDED
OTHER PEOPLE PRESENT (FELLOW RECREATIONISTS)
SWIMMING AREAS
GOOD ROAD CONDITIONS
PARKING
PUBLIC TRANSPORT
LOOKOUTS
SCENERY/ VIEWS (E.G. WATERFALLS)
ABORIGINAL HERITAGE SITES
HISTORIC HERITAGE SITES
FLORA/NATIVE TREES, PLANTS AND FLOWERS
FAUNA/NATIVE ANIMALS
NO EVIDENCE OF HUMAN INTERFERENCE IN LANDSCAPE / COMPLETELY UNSPOILT SURROUNDINGS
LEAFY BACKGROUND
TREES
GARBAGE BINS
PICNIC SHELTERS
SHADE
MOBILE PHONE COVERAGE
ACCESS TO EMERGENCY SERVICES



2 Motivations

2.1 Now I'm going to read out some statements. Using a scale of 0 to 10, I'd like you to tell me how much each statement describes you, where 0 is not at all and 10 is very much.
[RANDOMISE ORDER.]

a. I seek isolation and escape in the outdoors.
b. I enjoy getting outdoors to spend time with my family or friends.
c. I'm willing to travel a bit further to find more untouched places for outdoor activities.
d. I find the opportunities for adventure and challenge in the outdoors appealing.
e. I'm interested in learning about the history or cultural heritage of places I visit in the outdoors.
f. I enjoy learning about the animals and plants of places I visit in the outdoors.
g. I like to spend time outdoors to get a break from my day-to-day routine.
h. I like to get outdoors for the health benefits, like breathing the fresh air.
i. I like to get outdoors for the peace and quiet.
j. I prefer to exercise in the outdoors rather than inside.

3 Demographics

Thanks for that. We're almost finished. Just a few final questions, to make sure we've spoken to a good cross-section of people.

3.1 What is the highest level of education that you have attained? [SINGLE RESPONSE. DO NOT READ OUT, BUT PROMPT AS NECESSARY.]

No formal schooling	1
Primary school	2
Junior high school (Years 7-10)	3
Senior high school (Years 11-12)	4
TAFE/Technical college	5
University	6
Something else [RECORD VERBATIM]	7

REFUSED	98
CAN'T SAY / DON'T KNOW	99

3.2 Which of the following best describes your household? [READ OUT]

A solo household (just you)	1
A couple	2
A family group	3
A shared household	4
Or something else? [RECORD VERBATIM]	5
REFUSED	98

3.3 [IF Q3.2=3, 4, 5] How many children younger than 18 years live in your household?
[RECORD NUMBER. CODE '98' IF REFUSED]

3.4 [IF Q3.3>0] And of these children, how many are aged ... [READ OUT AGE GROUPS.
RECORD NUMBERS UNTIL TOTAL=Q3.3.]

0-2	[RECORD NUMBER]
3-5	[RECORD NUMBER]
6-12	[RECORD NUMBER]
13-15	[RECORD NUMBER]
16-17	[RECORD NUMBER]

3.5 In what countries were your mother and father born? [RECORD CODES]

	Mother	Father
Australia	1	1
United Kingdom	2	2
New Zealand	3	3
Italy	4	4
China	5	5

Vietnam	6	6
India	7	7
Philippines	8	8
Greece	9	9
South Africa	10	10
Germany	11	11
Malaysia	12	12
Netherlands	13	13
Lebanon	14	14
Hong Kong	15	15
Other [RECORD VERBATIM]	16	16
REFUSED	98	98
CAN'T SAY / DON'T KNOW	99	99

4 Closing

That's the end of our survey. Thanks for helping us out. We are conducting this survey on behalf of NSW National Parks. The findings will be used to help decide what sorts of outdoor activities and facilities to provide, so that they are in line with what people want.

B

APPENDIX B: POSTCODE DEFINING REGIONS

Greater Sydney

2000	2044	2090	2131	2170	2219	2569	2784
2006	2045	2092	2132	2171	2220	2570	2785
2007	2046	2093	2133	2172	2221	2571	2786
2008	2047	2094	2134	2173	2222	2572	2845
2009	2048	2095	2135	2174	2223	2745	
2010	2049	2096	2136	2175	2224	2747	
2011	2050	2097	2137	2176	2225	2748	
2015	2060	2099	2138	2177	2226	2749	
2016	2061	2100	2140	2178	2227	2750	
2017	2062	2101	2141	2179	2228	2752	
2018	2063	2102	2142	2190	2229	2753	
2019	2064	2103	2143	2191	2230	2754	
2020	2065	2104	2144	2192	2231	2755	
2021	2066	2105	2145	2193	2232	2756	
2022	2067	2106	2146	2194	2233	2757	
2023	2068	2107	2147	2195	2234	2758	
2024	2069	2108	2148	2196	2250	2759	
2025	2070	2109	2150	2197	2251	2760	
2026	2071	2110	2151	2198	2256	2761	
2027	2072	2111	2152	2199	2257	2762	
2028	2073	2112	2153	2200	2258	2763	
2029	2074	2113	2154	2203	2260	2765	
2030	2075	2114	2155	2204	2261	2766	
2031	2076	2115	2156	2205	2508	2767	
2032	2077	2116	2157	2206	2555	2768	
2033	2079	2117	2158	2207	2556	2770	
2034	2080	2118	2159	2208	2557	2773	
2035	2081	2119	2160	2209	2558	2775	
2036	2082	2120	2161	2210	2559	2775	
2037	2083	2121	2162	2211	2560	2776	
2038	2084	2122	2163	2212	2563	2777	
2039	2085	2125	2164	2213	2564	2778	
2040	2086	2126	2165	2214	2565	2779	
2041	2087	2127	2166	2216	2566	2780	
2042	2088	2128	2167	2217	2567	2782	
2043	2089	2130	2168	2218	2568	2783	



North Coast

2259	2294	2320	2428	2460	2485
2262	2295	2321	2429	2462	2486
2263	2296	2322	2430	2463	2487
2264	2297	2323	2431	2464	2488
2265	2298	2324	2439	2465	2489
2267	2299	2325	2440	2466	2490
2278	2300	2326	2441	2469	2898
2280	2302	2327	2443	2470	
2281	2303	2330	2444	2471	
2282	2304	2331	2445	2472	
2283	2305	2334	2446	2473	
2284	2306	2335	2447	2474	
2285	2307	2415	2448	2477	
2286	2311	2420	2449	2478	
2287	2312	2421	2450	2479	
2289	2315	2422	2452	2480	
2290	2316	2423	2453	2481	
2291	2317	2424	2454	2482	
2292	2318	2425	2455	2483	
2293	2319	2426	2456	2484	

Northern Tablelands

2328	2341	2352	2361	2382	2403	2475
2329	2342	2353	2365	2388	2404	2476
2333	2343	2354	2369	2390	2405	
2336	2344	2355	2370	2397	2406	
2337	2345	2356	2371	2399	2408	
2338	2346	2358	2372	2400	2409	
2339	2347	2359	2380	2401	2410	
2340	2350	2360	2381	2402	2411	

South Coast

2500	2517	2528	2536	2545	2573
2502	2518	2529	2537	2546	2574
2505	2519	2530	2538	2548	2575
2506	2525	2533	2539	2549	2576
2515	2526	2534	2540	2550	2577
2516	2527	2535	2541	2551	2578



Southern Tablelands

2579	2603	2622	2643	2665	2794
2580	2604	2623	2644	2666	2803
2581	2605	2624	2645	2668	2807
2582	2606	2625	2646	2700	2808
2583	2607	2626	2647	2701	2900
2584	2609	2627	2649	2702	2902
2585	2611	2628	2650	2703	2903
2586	2612	2629	2652	2720	2904
2587	2614	2630	2653	2722	2905
2588	2615	2631	2655	2725	2906
2590	2617	2632	2656	2726	2911
2594	2618	2633	2658	2727	2912
2600	2619	2640	2659	2729	2913
2601	2620	2641	2660	2730	2914
2602	2621	2642	2663	2793	

Western NSW

2357	2707	2736	2806	2834	2865	3644
2379	2710	2737	2809	2835	2866	
2386	2711	2738	2810	2836	2867	
2387	2712	2739	2820	2839	2868	
2395	2713	2787	2821	2840	2869	
2396	2714	2790	2823	2842	2870	
2648	2715	2791	2824	2843	2871	
2669	2716	2792	2825	2844	2873	
2671	2717	2795	2827	2846	2874	
2672	2721	2797	2828	2847	2875	
2675	2731	2798	2829	2848	2876	
2680	2732	2799	2830	2849	2877	
2681	2733	2800	2831	2850	2878	
2705	2734	2804	2832	2852	2879	
2706	2735	2805	2833	2864	2880	

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PARTICIPATION

Table 1. Participation rates for outdoor recreation activities by age and gender

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Picnicking	92%	94%	82%	79%	70%	93%	94%	81%	85%
Visiting landmarks, lookouts and scenery	75%	69%	94%	71%	90%	76%	70%	71%	74%
Walking on roads or footpaths for recreation	63%	72%	65%	59%	100%	82%	73%	74%	70%
Scenic driving with a car or motorbike	71%	69%	76%	61%	80%	71%	64%	67%	67%
Bushwalking for <2 hrs	58%	47%	71%	47%	60%	53%	61%	49%	52%
Water sports	67%	69%	62%	30%	50%	69%	73%	39%	49%
Fishing	58%	75%	65%	40%	70%	62%	42%	21%	44%
Four-wheel driving	63%	66%	41%	50%	60%	29%	45%	29%	43%
Nature study	25%	19%	35%	51%	40%	40%	39%	44%	41%
Attending outdoor concerts/music festivals	46%	44%	35%	30%	30%	53%	36%	39%	38%
Car camping	54%	59%	56%	32%	60%	33%	42%	22%	37%
Bushwalking for 2+ hrs, but not overnight	42%	31%	50%	38%	40%	22%	36%	29%	34%
Running or jogging outdoors	75%	63%	41%	25%	60%	47%	27%	18%	34%
Visiting Aboriginal & other cultural heritage sites	50%	31%	32%	37%	30%	22%	42%	26%	32%
Cycling on roads or footpaths for recreation	42%	41%	53%	22%	60%	38%	18%	22%	30%
Trail bike or quad bike riding	71%	41%	53%	28%	40%	24%	24%	6%	27%
Sports involving motorised watercraft	67%	53%	38%	17%	40%	22%	30%	14%	26%
Cycling on a sealed bike path or track	29%	34%	53%	13%	50%	27%	15%	13%	22%
Sports involving non-motorised watercraft	25%	31%	50%	16%	40%	11%	18%	11%	19%
Volunteer work for the environment	8%	9%	18%	24%	30%	4%	24%	23%	19%
Hiking with overnight camping	38%	25%	29%	17%	50%	9%	18%	9%	18%
Mountain biking	38%	25%	35%	12%	30%	22%	12%	10%	17%
Horse riding	38%	22%	15%	12%	20%	11%	18%	8%	14%
Rock climbing, abseiling, caving or canyoning	42%	22%	38%	6%	30%	9%	9%	4%	13%

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Snow sports	21%	3%	18%	6%	30%	11%	15%	3%	9%



Table 2. Frequency of participation in outdoor recreation activities by age and gender (participants only)

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Nature study	17	17	48	145	8	36	49	133	102
Walking on roads or footpaths for recreation	41	39	70	112	107	113	87	130	102
Horse riding	82	13	82	52	13	6	73	77	55
Trail bike or quad bike riding	60	70	16	71	4	52	87	11	53
Running or jogging outdoors	53	51	24	46	105	30	59	52	47
Four-wheel driving	20	48	46	55	8	26	52	35	43
Cycling on roads or footpaths for recreation	25	20	14	62	11	27	76	29	34
Bushwalking for <2 hrs	11	6	15	43	33	42	11	26	27
Water sports	12	26	25	30	10	40	19	20	25
Cycling on a sealed bike path or track	3	15	30	46	10	20	29	23	25
Mountain biking	7	6	16	55	14	18	93	12	25
Fishing	20	40	13	32	4	8	13	9	21
Volunteer work for the environment	3	4	9	25	14	8	33	16	19
Scenic driving with a car or motorbike	10	19	19	18	30	11	9	10	14
Sports involving motorised watercraft	25	19	4	15	12	5	11	8	13
Bushwalking for 2+ hrs, but not overnight	3	6	7	24	28	6	6	10	13
Picnicking	10	16	13	11	31	9	10	8	11
Visiting landmarks, lookouts and scenery	10	7	8	14	8	6	6	9	10
Sports involving non-motorised watercraft	2	6	6	13	4	2	4	8	7
Car camping	8	10	4	7	5	5	6	5	6
Visiting Aboriginal & other cultural heritage sites	3	3	7	7	5	3	7	4	6
Hiking with overnight camping	3	6	6	5	7	5	9	5	5
Rock climbing, abseiling, caving or canyoning	4	2	5	9	17	2	2	4	5
Snow sports	2	2	3	3	1	2	1	4	2
Attending outdoor concerts/music festivals	2	2	2	3	3	2	2	2	2

Table 3. Frequency of participation in outdoor recreation activities by age and gender (participants and non-participants)

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Walking on roads or footpaths for recreation	26	28	45	66	107	93	63	96	71
Nature study	4	3	17	74	3	15	19	58	42
Four-wheel driving	12	31	19	28	5	7	24	10	18
Running or jogging outdoors	40	32	10	12	63	14	16	9	16
Trail bike or quad bike riding	43	28	8	20	2	13	21	1	14
Bushwalking for <2 hrs	6	3	11	20	20	22	6	13	14
Water sports	8	18	16	9	5	28	14	8	12
Cycling on roads or footpaths for recreation	10	8	8	14	7	10	14	6	10
Scenic driving with a car or motorbike	7	13	14	11	24	8	6	7	10
Picnicking	9	15	10	9	22	8	9	7	9
Fishing	12	30	9	13	3	5	6	2	9
Horse riding	31	3	12	6	3	1	13	6	8
Visiting landmarks, lookouts and scenery	8	5	8	10	7	5	4	7	7
Cycling on a sealed bike path or track	1	5	16	6	5	5	4	3	5
Bushwalking for 2+ hrs, but not overnight	1	2	3	9	11	1	2	3	4
Mountain biking	3	1	6	6	4	4	11	1	4
Volunteer work for the environment	0	0	2	6	4	0	8	4	4
Sports involving motorised watercraft	17	10	2	3	5	1	3	1	3
Car camping	4	6	2	2	3	2	2	1	2
Visiting Aboriginal & other cultural heritage sites	1	1	2	3	1	1	3	1	2
Sports involving non-motorised watercraft	1	2	3	2	2	0	1	1	1
Hiking with overnight camping	1	2	2	1	3	0	2	0	1
Attending outdoor concerts/music festivals	1	1	1	1	1	1	1	1	1
Rock climbing, abseiling, caving or canyoning	2	0	2	1	5	0	0	0	1
Snow sports	0	0	1	0	0	0	0	0	0

Table 4. Total participation in outdoor recreation activities in the last 12 months (in millions)*

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Walking on roads or footpaths for recreation	0.4	0.6	1.2	4.5	1.6	2.0	1.7	6.4	18.3
Nature study	0.1	0.1	0.4	5.1	0.0	0.3	0.5	3.9	10.4
Four-wheel driving	0.2	0.7	0.5	1.9	0.1	0.2	0.6	0.7	4.8
Running or jogging outdoors	0.6	0.7	0.3	0.8	0.9	0.3	0.4	0.6	4.6
Trail bike or quad bike riding	0.7	0.6	0.2	1.4	0.0	0.3	0.6	0.0	3.7
Bushwalking for <2 hrs	0.1	0.1	0.3	1.4	0.3	0.5	0.2	0.9	3.6
Water sports	0.1	0.4	0.4	0.6	0.1	0.6	0.4	0.5	3.1
Scenic driving with a car or motorbike	0.1	0.3	0.4	0.7	0.4	0.2	0.2	0.5	2.6
Cycling on roads or footpaths for recreation	0.2	0.2	0.2	1.0	0.1	0.2	0.4	0.4	2.6
Picnicking	0.1	0.3	0.3	0.6	0.3	0.2	0.2	0.5	2.5
Fishing	0.2	0.6	0.2	0.9	0.0	0.1	0.1	0.1	2.4
Horse riding	0.5	0.1	0.3	0.4	0.0	0.0	0.4	0.4	2.1
Visiting landmarks, lookouts and scenery	0.1	0.1	0.2	0.7	0.1	0.1	0.1	0.4	1.9
Cycling on a sealed bike path or track	0.0	0.1	0.4	0.4	0.1	0.1	0.1	0.2	1.5
Bushwalking for 2+ hrs, but not overnight	0.0	0.0	0.1	0.6	0.2	0.0	0.1	0.2	1.2
Mountain biking	0.0	0.0	0.1	0.4	0.1	0.1	0.3	0.1	1.2
Volunteer work for the environment	0.0	0.0	0.0	0.4	0.1	0.0	0.2	0.2	1.0
Sports involving motorised watercraft	0.3	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.9
Car camping	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.6
Visiting Aboriginal & other cultural heritage sites	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.5
Sports involving non-motorised watercraft	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.4
Hiking with overnight camping	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Attending outdoor concerts/music festivals	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Rock climbing, abseiling, caving or canyoning	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Snow sports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

* No significance testing done for this table

INTEREST

Table 5. Interest in more frequent participation in outdoor recreation activities by age and gender

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Picnicking	6.6	7.3	6.0	5.7	7.3	7.3	7.8	5.9	6.3
Visiting landmarks, lookouts and scenery	5.5	5.3	6.5	5.9	7.6	6.5	6.0	6.2	6.1
Scenic driving with a car or motorbike	5.8	5.5	6.9	5.6	6.3	5.6	6.1	5.8	5.8
Walking on roads or footpaths for recreation	4.0	4.8	5.0	4.5	5.6	7.0	6.0	5.5	5.2
Attending outdoor concerts/music festivals	6.6	5.8	5.1	4.1	6.6	6.6	5.8	4.7	5.1
Bushwalking for <2 hrs	4.1	4.7	5.8	4.6	4.7	5.5	5.0	5.0	4.9
Water sports	5.9	6.8	5.8	3.6	6.7	6.6	6.5	3.8	4.9
Fishing	6.6	7.0	5.4	5.3	5.4	5.4	4.0	2.9	4.8
Car camping	4.9	6.5	5.4	4.6	5.4	5.2	4.9	3.6	4.7
Nature study	2.5	3.1	3.3	4.7	4.1	4.2	3.8	4.5	4.1
Bushwalking for 2+ hrs, but not overnight	3.7	3.6	5.7	4.2	3.8	4.1	3.8	3.8	4.1
Visiting Aboriginal & other cultural heritage sites	4.0	3.8	3.9	3.9	3.2	4.6	4.6	4.0	4.1
Four-wheel driving	5.7	5.7	4.2	4.1	4.8	3.7	4.0	2.9	3.9
Volunteer work for the environment	4.3	2.9	3.8	4.0	5.0	4.4	4.0	3.6	3.9
Hiking with overnight camping	4.5	3.7	5.1	3.5	5.8	3.8	3.4	2.4	3.5
Sports involving motorised watercraft	6.7	6.0	4.5	2.8	6.2	3.7	3.6	1.7	3.4
Sports involving non-motorised watercraft	3.1	4.5	4.9	2.9	5.1	4.1	4.2	2.2	3.3
Cycling on roads or footpaths for recreation	3.1	3.9	4.6	2.5	4.2	4.9	3.5	2.6	3.2
Cycling on a sealed bike path or track	3.0	3.4	4.4	2.4	3.9	4.5	3.8	2.5	3.1
Trail bike or quad bike riding	7.4	5.2	5.5	2.7	3.6	3.5	3.0	1.0	3.1
Snow sports	5.4	4.6	3.9	1.6	6.1	4.4	4.9	1.7	3.0
Running or jogging outdoors	4.8	4.0	3.4	2.4	5.4	4.3	2.8	1.4	2.8
Rock climbing, abseiling, caving or canyoning	5.5	3.8	4.3	1.9	5.4	3.3	3.2	1.3	2.7
Horse riding	3.8	2.8	2.3	1.7	3.3	3.9	4.3	2.2	2.6
Mountain biking	4.0	3.6	3.6	1.7	4.7	3.4	2.5	1.4	2.4

BARRIERS AND PREFERENCES

Table 6. Barriers to more frequent participation in outdoor recreation averaged over activities

Barriers	%
Lack of time	82.1%
Lack of local opportunities	54.6%
Cost of participating	28.8%
Bad weather (including rain or drought)	24.0%
Don't have the right equipment	22.4%
Fatigue/lack of motivation	20.7%
Health problems	16.8%
Have no one (including pets) to do this activity with	14.3%
Transport costs (including petrol or public transport)	12.8%
Don't have transport/no way to get there/accessibility	12.8%
Not fit enough to do this activity	11.0%
Not suitable for children/can't take children along	8.4%
Unaware of local opportunities to do activity	6.9%
Too busy doing other recreational activities	6.6%
Lack of occasions/invitations presenting (external)	4.8%
Fear of getting injured	4.1%
Age/getting old	3.3%
Need to organise	3.1%
Lack of variety/bored with local opportunities	2.8%
Cost of equipment required to do activity	2.6%
Poor quality/maintenance of roads/paths; no suitable walking paths	2.6%
Seasonal/prefer warmer weather	2.3%
Restrictions on activity	2.0%
Only do this when travelling	1.8%
No experience/skilled	1.8%
No music i like on offer	1.8%
Opening hours not convenient	1.0%
Traffic	1.0%
No licence	1.0%
No lighting/dark when i want	0.8%
Accommodation	0.8%
Cost of entry fee	0.5%
Safety concerns	0.5%
No toilets	0.5%
No amenities	0.5%
Fear of wildlife / getting bitten/stung etc	0.3%
Location is too crowded	0.3%
Cannot take pets along	0.3%
Difficulty using/carrying equipment	0.3%
Pollution	0.3%
Environmental concern	0.3%

Table 7. Preferences for participation in outdoor recreation averaged over activities

Preference	%
No additional facilities	50.1%
Toilets	49.1%
Scenery/ views (eg waterfalls)	39.6%
Cleared paths or trails through the bush (unsealed)	30.8%
Good road conditions/accessibility	29.3%
Rest areas/seats/picnic tables	27.8%
Completely unspoilt surroundings	22.1%
Sealed paths or boardwalks	21.8%
Fauna/native animals	21.8%
BBQs and other food preparation areas	21.3%
Water / taps	21.1%
Shelters	17.8%
Signage	17.5%
Flora/native trees, plants and flowers	15.8%
Flat/cleared ground (wheelchair friendly) smooth water	13.3%
Information boards	13.0%
Trees	13.0%
Clean, well maintained environment	13.0%
Safety (general)	12.5%
Amenities / facilities (not further specified)	11.8%
Shade	10.5%
Equipment hire / access to equipment	10.5%
Showers	9.8%
Brochures or maps/online info/promotion	9.3%
Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	8.8%
Campsites	8.3%
Swimming areas	7.3%
Parking	7.3%
Cafes or restaurants	7.0%
Children playgrounds or play areas	6.5%
Other	6.5%
Historic heritage sites	6.3%
Boat ramp / boat access	6.3%
Lookouts	6.0%
Shops or kiosks	5.8%
Leafy background	5.5%
Garbage bins	5.5%
Aboriginal heritage sites	5.0%
Isolation / infrequent to no contact with other people	4.5%
Not too crowded	4.5%
Ranger / management presence	4.0%
Beach/sandy areas	3.5%
Visitors' centre	3.3%
Instructors / coaches / training	3.3%
Access to emergency services	3.0%
Other accommodation (eg hostels, motels, etc)	2.8%
Other people present (fellow recreationists)	2.8%
Ease restrictions	2.8%
Separate wide paths away from traffic/cycles	2.8%
Garden	2.3%
Guided tours/audioguides	2.0%
Hand rails/fence	1.8%
Mobile phone coverage	1.8%
Ski lifts	1.8%
Change rooms	1.5%
Public transport	1.5%
Powered campsites	1.3%
Cabins	1.3%
Jetty	1.3%
More restrictions	0.8%
Events	0.5%

Preference	%
Fish cleaning areas	0.3%
Lighting	0.3%
Increased opening times	0.3%



Table 8. Barriers and preferences - Attending outdoor concerts and music festivals

Barriers	%	Preferences	%
Lack of local opportunities	63%	Toilets	30%
Lack of time	35%	No additional facilities	19%
Cost of participating	24%	Other	14%
No music i like on offer	9%	Shops or kiosks	10%
Transport costs (including petrol or public transport)	6%	Rest areas/seats/picnic tables	9%
Accommodation	4%	Shade	8%
Not suitable for children/can't take children along	3%	Shelters	8%
Bad weather (including rain or drought)	3%	Cafes or restaurants	8%
Health problems	3%	Flat/cleared ground (wheelchair friendly) smooth water	7%
Opening hours not convenient	3%	Amenities / facilities (not further specified)	7%
Fatigue/lack of motivation	3%	Good road conditions/accessibility	6%
Have no one (including pets) to do this activity with	1%	Scenery/ views (eg waterfalls)	5%
Don't have transport/no way to get there/accessibility	1%	Parking	4%
Too busy doing other recreational activities	1%	Safety (general)	3%
Seasonal/prefer warmer weather	1%	Clean, well maintained environment	2%
Need to organise	1%	Garbage bins	2%
		Public transport	2%
		Not too crowded	2%
		Other accommodation (eg hostels, motels, etc)	2%
		Brochures or maps/online info/promotion	2%
		Water / taps	2%
		Events	1%
		More restrictions	1%
		Ease restrictions	1%
		Trees	1%
		Other people present (fellow recreationists)	1%
		Campsites	1%
		Ranger / management presence	1%
		Hand rails/fence	1%
		Showers	1%

Table 9. Barriers and preferences - Bushwalking for less than two hours

Barriers	%	Preferences	%
Lack of time	56%	Scenery/ views (eg waterfalls)	20%
Lack of local opportunities	18%	No additional facilities	16%
Health problems	13%	Cleared paths or trails through the bush (unsealed)	16%
Have no one (including pets) to do this activity with	6%	Toilets	14%
Too busy doing other recreational activities	6%	Fauna/native animals	12%
Fatigue/lack of motivation	6%	Completely unspoilt surroundings	12%
Cost of participating	5%	Signage	11%
Not suitable for children/can't take children along	5%	Flora/native trees, plants and flowers	8%
Bad weather (including rain or drought)	4%	Water / taps	8%
Don't have transport/no way to get there/accessibility	2%	Sealed paths or boardwalks	6%
Age/getting old	2%	Rest areas/seats/picnic tables	5%
Need to organise	2%	Good road conditions/accessibility	4%
Unaware of local opportunities to do activity	1%	Historic heritage sites	4%
Transport costs (including petrol or public transport)	1%	Information boards	4%
Cost of equipment required to do activity	1%	Hand rails/fence	4%
Fear of wildlife / getting bitten/stung etc	1%	Clean, well maintained environment	3%
Poor quality/maintenance of roads/paths; no suitable walking paths	1%	Safety (general)	3%
Seasonal/prefer warmer weather	1%	Trees	3%
Lack of variety/bored with local opportunities	1%	Garbage bins	2%
Only do this when travelling	1%	Parking	2%
		Isolation / infrequent to no contact with other people	2%
		Brochures or maps/online info/promotion	2%
		Garden	1%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	1%
		Mobile phone coverage	1%
		Shade	1%
		Aboriginal heritage sites	1%
		Lookouts	1%
		Public transport	1%
		Not too crowded	1%
		Children playgrounds or play areas	1%
		Shops or kiosks	1%
		BBQs and other food preparation areas	1%

Table 10. Barriers and preferences - Bushwalking for more than two hours, but not overnight

Barriers	%	Preferences	%
Lack of time	60%	Cleared paths or trails through the bush (unsealed)	21%
Lack of local opportunities	11%	Toilets	20%
Health problems	11%	No additional facilities	18%
Have no one (including pets) to do this activity with	10%	Scenery/ views (eg waterfalls)	18%
Too busy doing other recreational activities	6%	Completely unspoilt surroundings	12%
Unaware of local opportunities to do activity	5%	Rest areas/seats/picnic tables	12%
Bad weather (including rain or drought)	5%	Fauna/native animals	11%
Fatigue/lack of motivation	5%	Signage	11%
Not fit enough to do this activity	4%	Water / taps	9%
Need to organise	4%	Good road conditions/accessibility	8%
Don't have transport/no way to get there/accessibility	3%	Information boards	7%
Only do this when travelling	3%	Brochures or maps/online info/promotion	5%
No toilets	3%	BBQs and other food preparation areas	5%
Transport costs (including petrol or public transport)	1%	Shelters	4%
Cost of participating	1%	Flora/native trees, plants and flowers	4%
Don't have the right equipment	1%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	3%
Age/getting old	1%	Safety (general)	3%
Lack of variety/bored with local opportunities	1%	Trees	3%
No lighting/dark when i want	1%	Access to emergency services	2%
No amenities	1%	Shade	2%
Difficulty using/carrying equipment	1%	Garbage bins	2%
		Campsites	2%
		Sealed paths or boardwalks	2%
		Amenities / facilities (not further specified)	1%
		Instructors / coaches / training	1%
		Mobile phone coverage	1%
		Aboriginal heritage sites	1%
		Lookouts	1%
		Parking	1%
		Other people present (fellow recreationists)	1%
		Not too crowded	1%
		Isolation / infrequent to no contact with other people	1%
		Visitors' centre	1%
		Cafes or restaurants	1%
		Hand rails/fence	1%
		Showers	1%

Table 11. Barriers and preferences - Car camping

Barriers	%	Preferences	%
Lack of time	74%	Toilets	42%
Cost of participating	25%	Showers	25%
Lack of local opportunities	9%	Water / taps	19%
Bad weather (including rain or drought)	9%	BBQs and other food preparation areas	17%
Not fit enough to do this activity	8%	No additional facilities	14%
Have no one (including pets) to do this activity with	4%	Campsites	12%
Too busy doing other recreational activities	4%	Amenities / facilities (not further specified)	11%
Fatigue/lack of motivation	4%	Scenery/ views (eg waterfalls)	11%
Transport costs (including petrol or public transport)	3%	Good road conditions/accessibility	10%
Not suitable for children/can't take children along	3%	Flat/cleared ground (wheelchair friendly) smooth water	6%
Health problems	3%	Beach/sandy areas	5%
Don't have the right equipment	2%	Swimming areas	5%
Don't have transport/no way to get there/accessibility	2%	Rest areas/seats/picnic tables	5%
Fear of getting injured	2%	Clean, well maintained environment	4%
Age/getting old	1%	Safety (general)	4%
		Parking	4%
		Not too crowded	4%
		Children playgrounds or play areas	4%
		Other	2%
		Equipment hire / access to equipment	2%
		Access to emergency services	2%
		Shade	2%
		Shelters	2%
		Garbage bins	2%
		Completely unspoilt surroundings	2%
		Fauna/native animals	2%
		Flora/native trees, plants and flowers	2%
		Powered campsites	2%
		Ranger / management presence	2%
		Brochures or maps/online info/promotion	2%
		Shops or kiosks	2%
		Firewood	1%
		Events	1%
		Separate wide paths away from traffic/cycles	1%
		Ease restrictions	1%
		Garden	1%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	1%
		Lookouts	1%
		Other people present (fellow recreationists)	1%
		Isolation / infrequent to no contact with other people	1%
		Information boards	1%
		Visitors' centre	1%
		Signage	1%

		Cleared paths or trails through the bush (unsealed)	1%
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Table 12. Barriers and preferences - Cycling on a sealed bike path or track

Barriers	%	Preferences	%
Lack of local opportunities	43%	Sealed paths or boardwalks	40%
Lack of time	37%	Cleared paths or trails through the bush (unsealed)	34%
Don't have the right equipment	15%	No additional facilities	14%
Health problems	9%	Scenery/ views (eg waterfalls)	9%
Fatigue/lack of motivation	7%	Toilets	9%
Not suitable for children/can't take children along	4%	Good road conditions/accessibility	8%
Don't have transport/no way to get there/accessibility	4%	Water / taps	8%
Not fit enough to do this activity	4%	Flora/native trees, plants and flowers	6%
Fear of getting injured	4%	Separate wide paths away from traffic/cycles	5%
Too busy doing other recreational activities	4%	Fauna/native animals	5%
Unaware of local opportunities to do activity	2%	Children playgrounds or play areas	5%
Cost of participating	2%	Rest areas/seats/picnic tables	5%
Have no one (including pets) to do this activity with	2%	Flat/cleared ground (wheelchair friendly) smooth water	3%
Bad weather (including rain or drought)	2%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	3%
Age/getting old	2%	Shade	3%
		Trees	3%
		Completely unspoilt surroundings	3%
		Cafes or restaurants	3%
		Safety (general)	2%
		Access to emergency services	2%
		Historic heritage sites	2%
		Lookouts	2%
		Parking	2%
		Signage	2%
		Shops or kiosks	2%

Table 13. Barriers and preferences - Cycling on roads or footpaths for recreation

Barriers	%	Preferences	%
Lack of time	47%	Sealed paths or boardwalks	53%
Lack of local opportunities	27%	Cleared paths or trails through the bush (unsealed)	39%
Don't have the right equipment	19%	Good road conditions/accessibility	12%
Bad weather (including rain or drought)	10%	Scenery/ views (eg waterfalls)	11%
Not suitable for children/can't take children along	9%	No additional facilities	9%
Fear of getting injured	9%	Water / taps	7%
Fatigue/lack of motivation	9%	Toilets	7%
Not fit enough to do this activity	4%	Separate wide paths away from traffic/cycles	5%
Health problems	3%	Safety (general)	5%
Traffic	3%	Flora/native trees, plants and flowers	5%
Seasonal/prefer warmer weather	3%	Signage	5%
Cost of participating	1%	Leafy background	4%
No lighting/dark when i want	1%	Completely unspoilt surroundings	4%
Need to organise	1%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	2%
		Shelters	2%
		Trees	2%
		Fauna/native animals	2%
		Public transport	2%
		Brochures or maps/online info/promotion	2%
		Information boards	2%
		Rest areas/seats/picnic tables	2%

Table 14. Barriers and preferences - Fishing

Barriers	%	Preferences	%
Lack of time	67%	Fauna/native animals	20%
Lack of local opportunities	24%	No additional facilities	16%
Bad weather (including rain or drought)	9%	Boat ramp / boat access	13%
Don't have transport/no way to get there/accessibility	9%	Water / taps	12%
Cost of participating	8%	Toilets	9%
Have no one (including pets) to do this activity with	8%	Completely unspoilt surroundings	8%
Health problems	4%	Good road conditions/accessibility	8%
Transport costs (including petrol or public transport)	3%	Garbage bins	5%
Don't have the right equipment	3%	BBOs and other food preparation areas	5%
Restrictions on activity	3%	Rest areas/seats/picnic tables	5%
Fatigue/lack of motivation	2%	Other	3%
Not suitable for children/can't take children along	1%	Ease restrictions	3%
Not fit enough to do this activity	1%	Shade	3%
Fear of getting injured	1%	Isolation / infrequent to no contact with other people	3%
Location is too crowded	1%	Campsites	3%
Seasonal/prefer warmer weather	1%	Jetty	2%
No experience/skilled	1%	Instructors / coaches / training	2%
Lack of occasions/invitations presenting (external)	1%	Equipment hire / access to equipment	2%
No licence	1%	Safety (general)	2%
Environmental concern	1%	Shelters	2%
		Historic heritage sites	2%
		Parking	2%
		Ranger / management presence	2%
		Children playgrounds or play areas	2%
		Showers	2%
		Beach/sandy areas	1%
		Flat/cleared ground (wheelchair friendly) smooth water	1%
		More restrictions	1%
		Fish cleaning areas	1%
		Amenities / facilities (not further specified)	1%
		Mobile phone coverage	1%
		Trees	1%
		Flora/native trees, plants and flowers	1%
		Scenery/ views (eg waterfalls)	1%
		Signage	1%

Table 15. Barriers and preferences - Four-wheel driving

Barriers	%	Preferences	%
Lack of time	65%	No additional facilities	17%
Don't have the right equipment	33%	Signage	16%
Cost of participating	13%	Scenery/ views (eg waterfalls)	15%
Transport costs (including petrol or public transport)	8%	Good road conditions/accessibility	13%
Don't have transport/no way to get there/accessibility	6%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	9%
Lack of local opportunities	4%	Shelters	7%
Bad weather (including rain or drought)	4%	Brochures or maps/online info/promotion	7%
Have no one (including pets) to do this activity with	2%	Clean, well maintained environment	6%
		Cleared paths or trails through the bush (unsealed)	6%
		BBQs and other food preparation areas	6%
		Rest areas/seats/picnic tables	6%
		Toilets	6%
		Ease restrictions	5%
		Safety (general)	3%
		Completely unspoilt surroundings	3%
		Ranger / management presence	3%
		Equipment hire / access to equipment	2%
		Fauna/native animals	2%
		Swimming areas	2%
		Sealed paths or boardwalks	2%
		Increased opening times	1%
		Flat/cleared ground (wheelchair friendly) smooth water	1%
		Garbage bins	1%
		Leafy background	1%
		Historic heritage sites	1%
		Isolation / infrequent to no contact with other people	1%
		Campsites	1%
		Information boards	1%
		Children playgrounds or play areas	1%
		Water / taps	1%

Table 16. Barriers and preferences - Hiking with overnight camping

Barriers	%	Preferences	%
Lack of time	69%	Toilets	41%
Cost of participating	12%	Showers	23%
Unaware of local opportunities to do activity	7%	Scenery/ views (eg waterfalls)	20%
Not suitable for children/can't take children along	7%	Campsites	16%
Health problems	7%	Equipment hire / access to equipment	14%
Don't have the right equipment	7%	No additional facilities	11%
Lack of local opportunities	5%	Good road conditions/accessibility	11%
Have no one (including pets) to do this activity with	5%	Cleared paths or trails through the bush (unsealed)	11%
Bad weather (including rain or drought)	5%	Water / taps	11%
Don't have transport/no way to get there/accessibility	5%	Trees	9%
Cost of equipment required to do activity	2%	Rest areas/seats/picnic tables	9%
Not fit enough to do this activity	2%	Access to emergency services	7%
Too busy doing other recreational activities	2%	Completely unspoilt surroundings	7%
Fatigue/lack of motivation	2%	Cabins	7%
Age/getting old	2%	BBQs and other food preparation areas	7%
No amenities	2%	Mobile phone coverage	5%
		Fauna/native animals	5%
		Flora/native trees, plants and flowers	5%
		Powered campsites	5%
		Amenities / facilities (not further specified)	2%
		Safety (general)	2%
		Shelters	2%
		Historic heritage sites	2%
		Aboriginal heritage sites	2%
		Cafes or restaurants	2%

Table 17. Barriers and preferences - Horse riding

Barriers	%	Preferences	%
Lack of time	45%	No additional facilities	33%
Don't have the right equipment	45%	Cleared paths or trails through the bush (unsealed)	15%
Lack of local opportunities	11%	Instructors / coaches / training	8%
Cost of participating	11%	Safety (general)	8%
Health problems	11%	Good road conditions/accessibility	8%
No experience/skilled	5%	Water / taps	8%
Unaware of local opportunities to do activity	3%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	5%
Transport costs (including petrol or public transport)	3%	Clean, well maintained environment	5%
Cost of equipment required to do activity	3%	Equipment hire / access to equipment	5%
Have no one (including pets) to do this activity with	3%	Leafy background	5%
Fatigue/lack of motivation	3%	Flora/native trees, plants and flowers	5%
Age/getting old	3%	Scenery/ views (eg waterfalls)	5%
		Rest areas/seats/picnic tables	5%
		Ease restrictions	3%
		Amenities / facilities (not further specified)	3%
		Shelters	3%
		Trees	3%
		Completely unspoilt surroundings	3%
		Fauna/native animals	3%
		Parking	3%
		Campsites	3%
		Ranger / management presence	3%
		Brochures or maps/online info/promotion	3%
		Visitors' centre	3%
		Signage	3%
		Cafes or restaurants	3%
		Toilets	3%

Table 18. Barriers and preferences - Mountain biking

Barriers	%	Preferences	%
Lack of time	66%	Cleared paths or trails through the bush (unsealed)	23%
Lack of local opportunities	31%	Scenery/ views (eg waterfalls)	20%
Don't have the right equipment	20%	Sealed paths or boardwalks	20%
Not suitable for children/can't take children along	17%	No additional facilities	11%
Health problems	6%	Fauna/native animals	11%
Not fit enough to do this activity	6%	Rest areas/seats/picnic tables	11%
Bad weather (including rain or drought)	3%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	9%
Too busy doing other recreational activities	3%	Not too crowded	9%
Fatigue/lack of motivation	3%	Signage	9%
		Separate wide paths away from traffic/cycles	6%
		Completely unspoilt surroundings	6%
		Flora/native trees, plants and flowers	6%
		Good road conditions/accessibility	6%
		Water / taps	6%
		Toilets	6%
		Mobile phone coverage	3%
		Shade	3%
		Shelters	3%
		Trees	3%
		Aboriginal heritage sites	3%
		Isolation / infrequent to no contact with other people	3%
		Campsites	3%
		Information boards	3%

Table 19. Barriers and preferences - Nature study

Barriers	%	Preferences	%
Lack of time	65%	Scenery/ views (eg waterfalls)	18%
Fatigue/lack of motivation	15%	Fauna/native animals	15%
Health problems	11%	No additional facilities	14%
Cost of participating	7%	Flora/native trees, plants and flowers	14%
Lack of local opportunities	5%	Lookouts	12%
Too busy doing other recreational activities	4%	Completely unspoilt surroundings	11%
Age/getting old	4%	Trees	9%
Unaware of local opportunities to do activity	2%	Good road conditions/accessibility	8%
Transport costs (including petrol or public transport)	2%	Sealed paths or boardwalks	8%
Cost of equipment required to do activity	2%	BBQs and other food preparation areas	6%
Have no one (including pets) to do this activity with	2%	Rest areas/seats/picnic tables	6%
Bad weather (including rain or drought)	2%	Toilets	6%
Not fit enough to do this activity	2%	Isolation / infrequent to no contact with other people	5%
Poor quality/maintenance of roads/paths; no suitable walking paths	2%	Information boards	5%
		Cleared paths or trails through the bush (unsealed)	5%
		Amenities / facilities (not further specified)	3%
		Clean, well maintained environment	3%
		Safety (general)	3%
		Shelters	3%
		Leafy background	3%
		Parking	3%
		Brochures or maps/online info/promotion	3%
		Signage	3%
		Other	2%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	2%
		Equipment hire / access to equipment	2%
		Shade	2%
		Garbage bins	2%
		Historic heritage sites	2%
		Swimming areas	2%
		Other people present (fellow recreationists)	2%
		Ranger / management presence	2%
		Visitors' centre	2%
		Water / taps	2%

Table 20. Barriers and preferences - Picnicking

Barriers	%	Preferences	%
Lack of time	65%	Toilets	36%
Have no one (including pets) to do this activity with	14%	Rest areas/seats/picnic tables	29%
Lack of occasions/invitations presenting (external)	12%	BBQs and other food preparation areas	26%
Lack of local opportunities	11%	Shelters	17%
Cost of participating	9%	Scenery/ views (eg waterfalls)	15%
Bad weather (including rain or drought)	7%	No additional facilities	15%
Health problems	6%	Water / taps	13%
Fatigue/lack of motivation	6%	Flat/cleared ground (wheelchair friendly) smooth water	11%
Transport costs (including petrol or public transport)	1%	Shade	10%
Not suitable for children/can't take children along	1%	Trees	9%
Don't have the right equipment	1%	Amenities / facilities (not further specified)	6%
Don't have transport/no way to get there/accessibility	1%	Clean, well maintained environment	6%
Not fit enough to do this activity	1%	Swimming areas	6%
Need to organise	1%	Children playgrounds or play areas	6%
		Good road conditions/accessibility	4%
		Garden	4%
		Leafy background	4%
		Fauna/native animals	4%
		Parking	4%
		Cafes or restaurants	4%
		Garbage bins	3%
		Completely unspoilt surroundings	3%
		Flora/native trees, plants and flowers	3%
		Equipment hire / access to equipment	2%
		Isolation / infrequent to no contact with other people	2%
		Cleared paths or trails through the bush (unsealed)	2%
		Beach/sandy areas	2%
		Shops or kiosks	2%
		Safety (general)	1%
		Historic heritage sites	1%
		Not too crowded	1%
		Signage	1%
		Lighting	1%
		Lookouts	1%
		Public transport	1%
		Other people present (fellow recreationists)	1%
		Information boards	1%
		Hand rails/fence	1%
		Change rooms	1%
		Showers	1%

Table 21. Barriers and preferences - Rock climbing, abseiling, or canyoning

Barriers	%	Preferences	%
Lack of time	38%	No additional facilities	20%
Lack of local opportunities	38%	Good road conditions/accessibility	20%
Don't have transport/no way to get there/accessibility	18%	Toilets	20%
Don't have the right equipment	13%	Equipment hire / access to equipment	10%
Age/getting old	10%	Completely unspoilt surroundings	10%
Have no one (including pets) to do this activity with	8%	Scenery/ views (eg waterfalls)	10%
No experience/skilled	8%	Water / taps	10%
Transport costs (including petrol or public transport)	5%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	7%
Health problems	3%	Safety (general)	7%
Not fit enough to do this activity	3%	Shelters	7%
Restrictions on activity	3%	Brochures or maps/online info/promotion	7%
No licence	3%	Information boards	7%
		BBQs and other food preparation areas	7%
		Ease restrictions	3%
		Amenities / facilities (not further specified)	3%
		Clean, well maintained environment	3%
		Parking	3%
		Other people present (fellow recreationists)	3%
		Not too crowded	3%
		Campsites	3%
		Guided tours/audioguides	3%
		Signage	3%
		Sealed paths or boardwalks	3%
		Rest areas/seats/picnic tables	3%

Table 22. Barriers and preferences - Running or jogging outdoors

Barriers	%	Preferences	%
Lack of time	36%	Cleared paths or trails through the bush (unsealed)	36%
Not fit enough to do this activity	21%	No additional facilities	26%
Fatigue/lack of motivation	19%	Scenery/ views (eg waterfalls)	15%
Health problems	17%	Rest areas/seats/picnic tables	11%
Lack of local opportunities	12%	Flat/cleared ground (wheelchair friendly) smooth water	6%
Bad weather (including rain or drought)	12%	Toilets	6%
Not suitable for children/can't take children along	5%	Safety (general)	4%
Have no one (including pets) to do this activity with	2%	Trees	4%
Fear of getting injured	2%	Completely unspoilt surroundings	4%
Too busy doing other recreational activities	2%	Fauna/native animals	4%
Safety concerns	2%	Flora/native trees, plants and flowers	4%
		Sealed paths or boardwalks	4%
		Water / taps	4%
		Separate wide paths away from traffic/cycles	2%
		Garden	2%
		Shelters	2%
		Garbage bins	2%
		Aboriginal heritage sites	2%
		Good road conditions/accessibility	2%
		Isolation / infrequent to no contact with other people	2%
		Signage	2%

Table 23. Barriers and preferences - Scenic driving with a car or motorbike

Barriers	%	Preferences	%
Lack of time	69%	Scenery/ views (eg waterfalls)	30%
Transport costs (including petrol or public transport)	15%	No additional facilities	20%
Cost of participating	13%	Good road conditions/accessibility	19%
Don't have transport/no way to get there/accessibility	7%	Completely unspoilt surroundings	12%
Don't have the right equipment	5%	Fauna/native animals	8%
Fatigue/lack of motivation	5%	Signage	7%
Bad weather (including rain or drought)	5%	Rest areas/seats/picnic tables	7%
Lack of local opportunities	4%	Toilets	6%
Health problems	4%	Leafy background	5%
Too busy doing other recreational activities	2%	Flora/native trees, plants and flowers	5%
Age/getting old	2%	Lookouts	5%
No licence	2%	Safety (general)	4%
Cost of equipment required to do activity	1%	Trees	4%
Not suitable for children/can't take children along	1%	Cafes or restaurants	4%
Not fit enough to do this activity	1%	Historic heritage sites	3%
Fear of getting injured	1%	Parking	3%
Traffic	1%	Visitors' centre	3%
Restrictions on activity	1%	Cleared paths or trails through the bush (unsealed)	3%
		BBQs and other food preparation areas	3%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	2%
		Amenities / facilities (not further specified)	2%
		Shelters	2%
		Shops or kiosks	2%
		Sealed paths or boardwalks	2%
		Separate wide paths away from traffic/cycles	1%
		Garden	1%
		Boat ramp / boat access	1%
		Instructors / coaches / training	1%
		Equipment hire / access to equipment	1%
		Access to emergency services	1%
		Mobile phone coverage	1%
		Garbage bins	1%
		Other people present (fellow recreationists)	1%
		Powered campsites	1%
		Campsites	1%
		Ranger / management presence	1%
		Brochures or maps/online info/promotion	1%
		Information boards	1%
		Water / taps	1%

Table 24. Barriers and preferences - Snow sports

Barriers	%	Preferences	%
Lack of local opportunities	55%	No additional facilities	21%
Lack of time	45%	Ski lifts	18%
Cost of participating	43%	Other accommodation (eg hostels, motels, etc)	18%
Bad weather (including rain or drought)	10%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	8%
Not suitable for children/can't take children along	7%	Equipment hire / access to equipment	8%
Have no one (including pets) to do this activity with	5%	Safety (general)	8%
Not fit enough to do this activity	5%	Parking	8%
Transport costs (including petrol or public transport)	2%	Good road conditions/accessibility	8%
Cost of equipment required to do activity	2%	Toilets	8%
Don't have the right equipment	2%	Shelters	5%
Don't have transport/no way to get there/accessibility	2%	Completely unspoilt surroundings	5%
Fear of getting injured	2%	Flora/native trees, plants and flowers	5%
Fatigue/lack of motivation	2%	Cabins	5%
		Powered campsites	5%
		Children playgrounds or play areas	5%
		Amenities / facilities (not further specified)	3%
		Instructors / coaches / training	3%
		Fauna/native animals	3%
		Scenery/ views (eg waterfalls)	3%
		Not too crowded	3%
		Campsites	3%
		Brochures or maps/online info/promotion	3%
		Visitors' centre	3%
		Cafes or restaurants	3%
		Shops or kiosks	3%
		Water / taps	3%

Table 25. Barriers and preferences - Sports involving motorised watercraft

Barriers	%	Preferences	%
Lack of time	46%	Toilets	23%
Cost of participating	21%	Boat ramp / boat access	21%
Bad weather (including rain or drought)	21%	BBQs and other food preparation areas	18%
Lack of local opportunities	19%	No additional facilities	15%
Don't have the right equipment	13%	Water / taps	15%
Don't have transport/no way to get there/accessibility	10%	Equipment hire / access to equipment	10%
Have no one (including pets) to do this activity with	8%	Shelters	10%
Cost of equipment required to do activity	6%	Rest areas/seats/picnic tables	10%
Not suitable for children/can't take children along	6%	Flat/cleared ground (wheelchair friendly) smooth water	8%
Transport costs (including petrol or public transport)	4%	Clean, well maintained environment	8%
Health problems	4%	Safety (general)	5%
Fear of getting injured	4%	Scenery/ views (eg waterfalls)	5%
Fatigue/lack of motivation	4%	Good road conditions/accessibility	5%
Cost of entry fee	2%	Cafes or restaurants	5%
		Showers	5%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	3%
		Amenities / facilities (not further specified)	3%
		Jetty	3%
		Shade	3%
		Parking	3%
		Other people present (fellow recreationists)	3%
		Other accommodation (eg hostels, motels, etc)	3%
		Campsites	3%
		Ranger / management presence	3%
		Signage	3%
		Children playgrounds or play areas	3%
		Shops or kiosks	3%

Table 26. Barriers and preferences - Sports involving non-motorised watercraft

Barriers	%	Preferences	%
Lack of time	55%	No additional facilities	15%
Lack of local opportunities	25%	Flat/cleared ground (wheelchair friendly) smooth water	10%
Don't have transport/no way to get there/accessibility	20%	Good road conditions/accessibility	10%
Don't have the right equipment	14%	Toilets	10%
Cost of participating	12%	Amenities / facilities (not further specified)	7%
Fatigue/lack of motivation	12%	Equipment hire / access to equipment	7%
Bad weather (including rain or drought)	8%	Fauna/native animals	7%
Not suitable for children/can't take children along	4%	Water / taps	7%
Have no one (including pets) to do this activity with	4%	Clean, well maintained environment	5%
Health problems	4%	Boat ramp / boat access	5%
Not fit enough to do this activity	2%	Leafy background	5%
		Completely unspoilt surroundings	5%
		Scenery/ views (eg waterfalls)	5%
		Swimming areas	5%
		Not too crowded	5%
		Campsites	5%
		Children playgrounds or play areas	5%
		BBQs and other food preparation areas	5%
		Events	2%
		Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	2%
		Jetty	2%
		Shade	2%
		Shelters	2%
		Garbage bins	2%
		Trees	2%
		Flora/native trees, plants and flowers	2%
		Parking	2%
		Cafes or restaurants	2%
		Rest areas/seats/picnic tables	2%
		Change rooms	2%

Table 27. Barriers and preferences - Trail or quad bike riding

Barriers	%	Preferences	%
Lack of time	53%	No additional facilities	24%
Don't have the right equipment	27%	Cleared paths or trails through the bush (unsealed)	21%
Cost of participating	11%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	10%
Restrictions on activity	7%	Scenery/ views (eg waterfalls)	9%
Not suitable for children/can't take children along	4%	Flat/cleared ground (wheelchair friendly) smooth water	7%
Health problems	4%	Equipment hire / access to equipment	7%
Too busy doing other recreational activities	4%	Safety (general)	7%
Fatigue/lack of motivation	4%	Completely unspoilt surroundings	7%
Unaware of local opportunities to do activity	2%	Fauna/native animals	5%
Lack of local opportunities	2%	Good road conditions/accessibility	5%
Cost of equipment required to do activity	2%	Signage	5%
Have no one (including pets) to do this activity with	2%	Toilets	5%
Don't have transport/no way to get there/accessibility	2%	Ease restrictions	3%
Not fit enough to do this activity	2%	Information boards	3%
Fear of getting injured	2%	Children playgrounds or play areas	3%
		Water / taps	3%
		Amenities / facilities (not further specified)	2%
		Clean, well maintained environment	2%
		Shelters	2%
		Flora/native trees, plants and flowers	2%
		Lookouts	2%
		Brochures or maps/online info/promotion	2%
		Sealed paths or boardwalks	2%

Table 28. Barriers and preferences - Visiting Aboriginal and other cultural heritage sites

Barriers	%	Preferences	%
Lack of time	45%	Information boards	26%
Lack of local opportunities	29%	Aboriginal heritage sites	20%
Unaware of local opportunities to do activity	16%	Completely unspoilt surroundings	17%
Cost of participating	12%	No additional facilities	9%
Transport costs (including petrol or public transport)	8%	Toilets	9%
Have no one (including pets) to do this activity with	6%	Brochures or maps/online info/promotion	8%
Health problems	6%	Guided tours/audioguides	8%
Fatigue/lack of motivation	5%	Clean, well maintained environment	7%
Not suitable for children/can't take children along	3%	Scenery/ views (eg waterfalls)	7%
Don't have transport/no way to get there/accessibility	3%	Good road conditions/accessibility	7%
Opening hours not convenient	3%	Campsites	7%
Lack of variety/bored with local opportunities	3%	Signage	7%
Bad weather (including rain or drought)	1%	Visitors' centre	5%
Not fit enough to do this activity	1%	Other	4%
Too busy doing other recreational activities	1%	Amenities / facilities (not further specified)	4%
Seasonal/prefer warmer weather	1%	Safety (general)	4%
Only do this when travelling	1%	Isolation / infrequent to no contact with other people	3%
Need to organise	1%	Sealed paths or boardwalks	3%
		Water / taps	3%
		Rest areas/seats/picnic tables	3%
		Instructors / coaches / training	1%
		Shade	1%
		Shelters	1%
		Garbage bins	1%
		Trees	1%
		Fauna/native animals	1%
		Flora/native trees, plants and flowers	1%
		Historic heritage sites	1%
		Parking	1%
		Swimming areas	1%
		Not too crowded	1%
		Ranger / management presence	1%
		Cleared paths or trails through the bush (unsealed)	1%
		BBQs and other food preparation areas	1%

Table 29. Barriers and preferences - Visiting landmarks, lookouts and scenery

Barriers	%	Preferences	%
Lack of time	65%	Scenery/ views (eg waterfalls)	22%
Cost of participating	20%	No additional facilities	19%
Lack of local opportunities	16%	Toilets	15%
Transport costs (including petrol or public transport)	10%	Good road conditions/accessibility	12%
Lack of variety/bored with local opportunities	6%	Signage	10%
Health problems	6%	Information boards	9%
Don't have transport/no way to get there/accessibility	6%	Historic heritage sites	8%
Have no one (including pets) to do this activity with	5%	Rest areas/seats/picnic tables	7%
Too busy doing other recreational activities	4%	Completely unspoilt surroundings	6%
Not suitable for children/can't take children along	2%	Amenities / facilities (not further specified)	5%
Bad weather (including rain or drought)	2%	Safety (general)	5%
Fatigue/lack of motivation	2%	Lookouts	5%
Seasonal/prefer warmer weather	2%	BBQs and other food preparation areas	5%
Only do this when travelling	2%	Clean, well maintained environment	4%
Need to organise	2%	Flora/native trees, plants and flowers	4%
Unaware of local opportunities to do activity	1%	Sealed paths or boardwalks	4%
Cost of entry fee	1%	Water / taps	4%
Not fit enough to do this activity	1%	Shelters	3%
Traffic	1%	Trees	3%
Poor quality/maintenance of roads/paths; no suitable walking paths	1%	Parking	3%
		Brochures or maps/online info/promotion	3%
		Flat/cleared ground (wheelchair friendly) smooth water	2%
		Leafy background	2%
		Fauna/native animals	2%
		Visitors' centre	2%
		Children playgrounds or play areas	2%
		Cafes or restaurants	2%
		Shops or kiosks	2%
		Cleared paths or trails through the bush (unsealed)	2%
		Garden	1%
		Boat ramp / boat access	1%
		Equipment hire / access to equipment	1%
		Shade	1%
		Garbage bins	1%
		Aboriginal heritage sites	1%
		Not too crowded	1%
		Isolation / infrequent to no contact with other people	1%
		Other accommodation (eg hostels, motels, etc)	1%
		Campsites	1%
		Guided tours/audioguides	1%

Table 30. Barriers and preferences - Volunteer work for the environment

Barriers	%	Preferences	%
Lack of time	61%	No additional facilities	34%
Health problems	13%	Trees	10%
Lack of local opportunities	12%	Toilets	10%
Unaware of local opportunities to do activity	7%	Flora/native trees, plants and flowers	8%
Bad weather (including rain or drought)	6%	Equipment hire / access to equipment	6%
Cost of participating	4%	Water / taps	5%
Too busy doing other recreational activities	4%	Other	4%
Fatigue/lack of motivation	4%	Clean, well maintained environment	4%
Need to organise	3%	Instructors / coaches / training	4%
Transport costs (including petrol or public transport)	1%	Fauna/native animals	4%
Not suitable for children/can't take children along	1%	Good road conditions/accessibility	4%
Not fit enough to do this activity	1%	Other people present (fellow recreationists)	4%
Seasonal/prefer warmer weather	1%	Ranger / management presence	4%
Only do this when travelling	1%	Brochures or maps/online info/promotion	4%
No experience/skilled	1%	Amenities / facilities (not further specified)	3%
Lack of occasions/invitations presenting (external)	1%	Completely unspoilt surroundings	3%
		Scenery/ views (eg waterfalls)	3%
		BBQs and other food preparation areas	3%
		Rest areas/seats/picnic tables	3%
		Safety (general)	1%
		Shade	1%
		Shelters	1%
		Garbage bins	1%
		Information boards	1%
		Children playgrounds or play areas	1%
		Hand rails/fence	1%
		Cleared paths or trails through the bush (unsealed)	1%

Table 31. Barriers and preferences - Walking on roads or footpaths for recreation

Barriers	%	Preferences	%
Lack of time	54%	Cleared paths or trails through the bush (unsealed)	40%
Lack of local opportunities	17%	No additional facilities	15%
Health problems	16%	Scenery/ views (eg waterfalls)	15%
Fatigue/lack of motivation	13%	Toilets	8%
Bad weather (including rain or drought)	12%	Safety (general)	8%
Poor quality/maintenance of roads/paths; no suitable walking paths	8%	Fauna/native animals	8%
Not fit enough to do this activity	4%	Sealed paths or boardwalks	8%
Too busy doing other recreational activities	3%	Rest areas/seats/picnic tables	8%
Not suitable for children/can't take children along	2%	Flora/native trees, plants and flowers	7%
Only do this when travelling	2%	Garden	5%
Cost of participating	1%	Signage	5%
Have no one (including pets) to do this activity with	1%	Brochures or maps/online info/promotion	4%
Don't have transport/no way to get there/accessibility	1%	Information boards	4%
Safety concerns	1%	Good road conditions/accessibility	3%
Seasonal/prefer warmer weather	1%	Water / taps	3%
Cannot take pets along	1%	Variety of terrain/ interesting/ challenging terrain/ obstacles/ jumps etc	2%
No lighting/dark when i want	1%	Shade	2%
		Flat/cleared ground (wheelchair friendly) smooth water	2%
		More restrictions	2%
		Trees	2%
		Completely unspoilt surroundings	2%
		Isolation / infrequent to no contact with other people	2%
		Cafes or restaurants	2%
		Lighting	1%
		Amenities / facilities (not further specified)	1%
		Clean, well maintained environment	1%
		Shelters	1%
		Lookouts	1%
		Not too crowded	1%
		Shops or kiosks	1%
		BBQs and other food preparation areas	1%
		Showers	1%

Table 32. Barriers and preferences - Water sports

Barriers	%	Preferences	%
Lack of local opportunities	53%	No additional facilities	21%
Lack of time	33%	Toilets	21%
Bad weather (including rain or drought)	20%	Swimming areas	14%
Not fit enough to do this activity	12%	Clean, well maintained environment	13%
Cost of participating	7%	Shelters	9%
Fatigue/lack of motivation	6%	Safety (general)	8%
Health problems	5%	Completely unspoilt surroundings	8%
Don't have the right equipment	3%	Scenery/ views (eg waterfalls)	7%
Unaware of local opportunities to do activity	2%	BBQs and other food preparation areas	7%
Transport costs (including petrol or public transport)	2%	Rest areas/seats/picnic tables	7%
Have no one (including pets) to do this activity with	2%	Showers	7%
Cost of equipment required to do activity	1%	Beach/sandy areas	6%
Not suitable for children/can't take children along	1%	Fauna/native animals	5%
Fear of getting injured	1%	Good road conditions/accessibility	5%
Age/getting old	1%	Signage	5%
Pollution	1%	Equipment hire / access to equipment	4%
		Amenities / facilities (not further specified)	3%
		Access to emergency services	3%
		Shade	3%
		Flora/native trees, plants and flowers	3%
		Information boards	3%
		Cafes or restaurants	3%
		Shops or kiosks	3%
		Change rooms	3%
		Flat/cleared ground (wheelchair friendly) smooth water	3%
		Isolation / infrequent to no contact with other people	3%
		Cleared paths or trails through the bush (unsealed)	3%
		Water / taps	3%
		Boat ramp / boat access	2%
		Garbage bins	2%
		Trees	2%
		Parking	2%
		Other people present (fellow recreationists)	2%
		Campsites	2%
		Brochures or maps/online info/promotion	2%
		Jetty	1%
		Instructors / coaches / training	1%
		Historic heritage sites	1%
		Public transport	1%
		Not too crowded	1%
		Ranger / management presence	1%
		Children playgrounds or play areas	1%
		Sealed paths or boardwalks	1%

Table 33. Actionable barriers for outdoor recreation activities by age and gender*

	Male				Female				Total
	18-24	25-34	35-44	45-75	18-24	25-34	35-44	45-75	
Attending outdoor concerts/music festivals	83%	33%	60%	74%	67%	57%	63%	53%	60%
Snow sports	100%	29%	50%	33%		100%	50%	58%	55%
Water sports	57%	70%	60%	40%	75%	25%	50%	59%	52%
Cycling on a sealed bike path or track	67%	43%	50%	44%		43%	33%	40%	44%
Visiting Aboriginal & other cultural heritage sites	100%	0%	60%	41%	100%	27%	14%	47%	41%
Rock climbing, abseiling, caving or canyoning	50%	33%	60%	33%		25%	0%	36%	37%
Mountain biking	33%	0%	0%	30%	100%	44%	20%	33%	30%
Cycling on roads or footpaths for recreation	0%	22%	33%	19%	0%	21%	38%	38%	26%
Sports involving non-motorised watercraft	0%	44%	50%	22%	0%	13%	14%	27%	25%
Fishing	29%	0%	27%	38%	50%	11%	50%	7%	23%
Sports involving motorised watercraft	0%	25%	33%	18%	0%	22%	33%	17%	19%
Bushwalking for <2 hrs	40%	33%	0%	16%	0%	9%	0%	24%	18%
Volunteer work for the environment	20%	0%	50%	11%	0%	25%	33%	14%	17%
Visiting landmarks, lookouts and scenery	20%	22%	17%	14%	0%	20%	22%	16%	16%
Bushwalking for 2+ hrs, but not overnight	17%	13%	0%	15%	50%	29%	33%	12%	15%
Horse riding	0%	50%	0%	0%	0%	0%	20%	21%	13%
Hiking with overnight camping	25%	0%	11%	7%	0%	0%	0%	40%	11%
Running or jogging outdoors	33%	40%	0%	9%	0%	11%	0%	0%	11%
Picnicking	25%	0%	15%	5%	0%	7%	13%	11%	10%
Car camping	17%	17%	11%	9%	0%	8%	10%	0%	8%
Walking on roads or footpaths for recreation	100%	0%	0%	8%	0%	0%	20%	0%	8%
Nature study	0%	0%	0%	0%	100%	20%	17%	3%	6%
Trail bike or quad bike riding	0%	0%	0%	0%	100%	0%	17%	0%	4%
Scenic driving with a car or motorbike	13%	13%	0%	4%	0%	13%	0%	0%	3%
Four-wheel driving	0%	17%	0%	7%	0%	0%	0%	0%	3%

* No significance testing done for this table, as base varies

MOTIVATIONS

Table 34. Motivations among participants in activities

	I like to get outdoors for the health benefits, like breathing the fresh air	I enjoy getting outdoors to spend time with my family or friends	I like to spend time outdoors to get a break from my day-to-day routine	I like to get outdoors for the peace and quiet	I prefer to exercise in the outdoors rather than inside	I'm willing to travel a bit further to find more untouched places for outdoor activities	I'm interested in learning about the history or cultural heritage of places I visit in the outdoors	I enjoy learning about the animals and plants of places I visit in the outdoors	I find the opportunities for adventure and challenge in the outdoors appealing	I seek isolation and escape in the outdoors
Walking on roads or footpaths for recreation	8.2	8.4	8.1	8.0	7.8	6.8	7.1	7.3	7.1	6.3
Bushwalking for <2 hrs	8.1	8.3	8.0	8.1	8.0	7.1	7.2	7.4	7.2	6.6
Bushwalking for 2+ hrs, but not overnight	8.0	8.5	8.1	8.2	8.1	7.3	7.3	7.7	7.4	6.7
Hiking with overnight camping	8.1	8.4	8.3	7.9	8.4	7.4	7.1	7.5	7.5	6.9
Running or jogging outdoors	7.7	8.4	8.0	7.9	8.0	6.7	6.7	6.9	7.2	6.2
Cycling on roads or footpaths for recreation	7.9	8.6	8.2	7.7	8.0	6.9	6.6	6.8	7.4	6.2
Cycling on a sealed bike path or track	8.0	8.7	8.2	7.9	8.2	7.1	6.7	7.0	7.5	6.3
Mountain biking	8.2	8.8	8.5	8.0	8.7	7.1	7.0	7.0	7.9	6.8
Picnicking	8.0	8.4	7.8	8.0	7.8	6.8	7.0	7.2	7.0	6.4
Car camping	8.2	8.9	8.4	8.4	8.3	7.7	7.2	7.7	7.8	7.2
Snow sports	8.3	8.9	8.1	7.6	8.4	6.8	6.1	6.3	7.3	5.7
Water sports	8.1	8.6	8.0	8.1	7.9	6.8	6.8	7.2	7.2	6.2
Sports involving motorised watercraft	7.9	8.8	8.0	7.9	8.2	7.1	6.5	6.9	7.4	6.5
Sports involving non-motorised watercraft	8.1	8.6	8.1	8.1	8.2	7.2	7.0	7.4	7.7	6.5
Scenic driving with a car or motorbike	8.1	8.5	8.2	8.2	7.8	7.2	7.1	7.4	7.2	6.5
Four-wheel driving	8.0	8.5	8.1	8.2	8.1	7.5	7.0	7.5	7.5	6.6

Trail bike or quad bike riding	7.7	8.4	8.1	8.0	8.0	6.9	6.6	6.7	7.3	6.6
Rock climbing, abseiling, caving or canyoning	8.0	8.7	8.1	8.4	8.6	7.8	7.0	7.3	8.2	6.8
Visiting landmarks, lookouts and scenery	8.1	8.4	8.0	8.1	7.9	7.1	7.3	7.5	7.1	6.4
Visiting Aboriginal & other cultural heritage sites	8.4	8.5	8.2	8.4	8.1	7.7	7.8	7.7	7.5	6.7
Nature study	8.7	8.6	8.3	8.7	8.2	7.3	7.6	8.4	7.5	7.0
Volunteer work for the environment	8.5	8.5	7.8	8.2	8.0	7.3	7.6	8.1	7.6	6.8
Attending outdoor concerts/music festivals	8.2	8.3	8.2	8.1	7.8	7.0	7.0	7.2	7.1	6.6
Fishing	8.1	8.7	8.3	8.3	8.2	7.4	7.0	7.4	7.5	6.9
Horse riding	7.7	8.4	8.4	8.0	8.2	6.8	7.3	7.6	7.5	6.5

* No significance testing done for this table



Table 35. Motivations among those very interested in doing activities more often

	I like to get outdoors for the health benefits, like breathing the fresh air	I enjoy getting outdoors to spend time with my family or friends	I like to spend time outdoors to get a break from my day-to-day routine	I like to get outdoors for the peace and quiet	I prefer to exercise in the outdoors rather than inside	I'm willing to travel a bit further to find more untouched places for outdoor activities	I'm interested in learning about the history or cultural heritage of places I visit in the outdoors	I enjoy learning about the animals and plants of places I visit in the outdoors	I find the opportunities for adventure and challenge in the outdoors appealing	I seek isolation and escape in the outdoors
Walking on roads or footpaths for recreation	8.9	8.9	8.8	8.6	8.1	7.3	7.8	7.6	7.4	6.8
Bushwalking for <2 hrs	8.5	8.4	8.8	9.0	8.6	7.6	7.6	8.2	8.0	7.7
Bushwalking for 2+ hrs, but not overnight	8.8	8.4	8.8	9.0	8.7	7.9	8.0	8.5	8.3	7.9
Hiking with overnight camping	8.7	8.7	8.7	9.0	8.7	7.9	7.5	8.5	8.5	8.1
Running or jogging outdoors	8.4	9.0	8.8	8.0	8.5	7.0	7.0	7.5	8.3	6.1
Cycling on roads or footpaths for recreation	9.3	9.5	9.4	8.9	8.8	7.7	8.0	8.0	8.9	7.3
Cycling on a sealed bike path or track	8.7	8.7	9.1	9.2	8.4	7.5	7.4	7.9	8.1	7.3
Mountain biking	9.4	8.3	8.8	8.7	9.0	7.1	8.3	8.6	8.3	7.6
Picnicking	8.6	9.2	8.3	8.6	8.0	7.5	7.5	8.0	7.5	6.8
Car camping	8.7	9.0	8.8	8.9	8.4	8.2	7.4	8.4	8.6	7.6
Snow sports	8.5	9.0	8.7	8.6	9.0	7.0	6.6	6.9	7.9	6.5
Water sports	8.5	8.8	8.3	8.5	7.9	7.3	7.1	7.2	7.8	6.7
Sports involving motorised watercraft	8.5	9.1	8.2	8.4	8.2	8.1	6.8	7.1	7.8	7.0
Sports involving non-motorised watercraft	8.3	8.8	8.4	8.5	8.2	7.5	6.4	7.7	8.4	7.0
Scenic driving with a car or motorbike	8.8	8.7	8.4	8.6	8.1	8.1	7.9	8.0	7.5	7.1
Four-wheel driving	8.7	9.0	8.5	8.6	8.4	8.3	7.1	8.1	8.1	7.6

Trail bike or quad bike riding	7.9	8.8	8.6	8.0	8.0	7.8	6.3	6.5	7.6	6.8
Rock climbing, abseiling, caving or canyoning	9.2	9.5	9.3	8.4	9.2	8.3	7.6	7.6	8.8	7.3
Visiting landmarks, lookouts and scenery	9.2	8.8	8.7	9.0	8.1	8.0	7.8	8.5	8.1	7.5
Visiting Aboriginal & other cultural heritage sites	9.0	8.9	9.0	9.0	9.0	8.4	9.0	8.7	8.3	8.0
Nature study	9.2	8.7	8.6	8.9	8.8	7.4	8.0	9.0	7.9	8.0
Volunteer work for the environment	9.4	9.1	8.4	9.2	8.3	8.2	8.6	9.4	8.9	7.6
Attending outdoor concerts/music festivals	8.6	8.9	8.2	8.5	8.1	7.3	7.2	7.7	7.6	7.0
Fishing	8.5	9.2	8.4	8.8	8.3	7.6	7.1	8.1	8.0	7.5
Horse riding	8.3	8.6	8.7	8.7	8.6	6.9	7.3	8.3	7.6	7.1

* No significance testing done for this table



D

APPENDIX D: FORECASTING METHODOLOGY

The forecasted populations for the demographic and cohort approach are found in the tables below. The percentage increase is the estimated increase in that age by gender group across the NSW population, as modeled by the Australian Bureau of Statistics³. This percentage was then applied as a weight to the 2009 population figures for Western NSW to derive the 2018 estimated population.

Forecasted population - Demographic approach

		2009	2018 estimate	% increase
Male	18-24	15,429	16,084	4%
	25-34	20,992	24,336	16%
	35-44	25,686	26,704	4%
	45-54	27,509	28,048	2%
	55-64	23,649	26,950	14%
Female	18-24	14,601	15,157	4%
	25-34	21,440	24,385	14%
	35-44	26,519	27,301	3%
	45-54	26,499	27,160	2%
	55-64	22,426	26,246	17%
	65-75	17,601	24,500	39%
Total		259,842	291,403	12%

³ Based on Australian Bureau of Statistics 3222.0 Population Projections, Australia, TABLE B1. Population projections, By age and sex, New South Wales - Series B. Series B largely reflects current trends in fertility, life expectancy at birth, net overseas migration and net interstate migration.

Forecasted population - Cohort approach

		2009	2018 estimate	% increase
Male	18-33	33,822	37,487	11%
	34-43	25,369	26,663	5%
	44-53	27,774	28,133	1%
	54-63	24,289	27,468	13%
	64-73	16,850	23,240	38%
	74-75	2,652	3,703	40%
Female	18-33	33,530	36,707	9%
	34-43	26,187	27,186	4%
	44-53	26,929	27,453	2%
	54-63	22,891	26,504	16%
	64-73	16,673	23,036	38%
	74-75	2,876	3,860	34%
Total		259,842	291,440	12%

Scenario 2: Actionable barriers are addressed and both participation and frequency increase

Method for estimating frequency

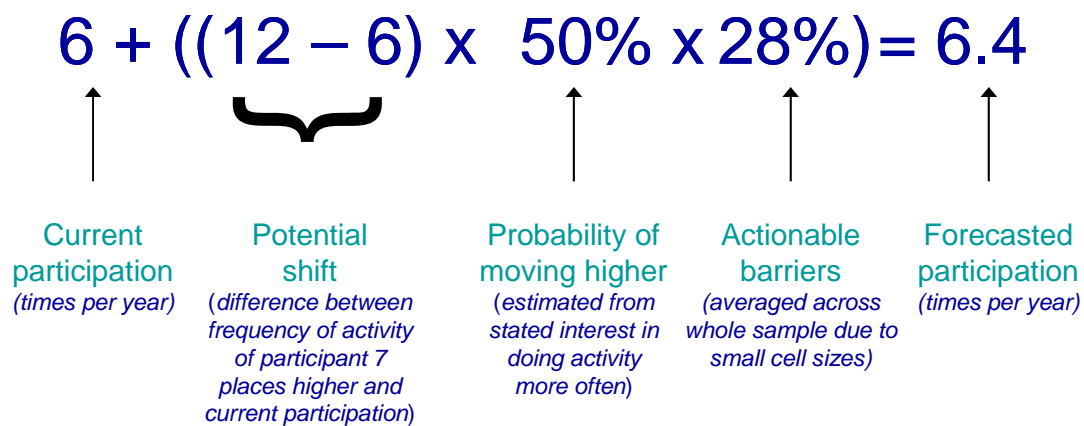
Interest in doing an activity more often was converted into a probability, according to the following scale:

Stated interest	Probability
0-4	0%
5	16.66666667%
6	33.33333333%
7	50%
8	66.66666667%
9	83.33333333%
10	100%

- For non-participants, this probability was multiplied by the proportion that cited at least one of the two 'actionable barriers' (averaged across the total sample, due to low cell sizes). Recall that barriers were only asked of those whose stated interest was at least five, as it was assumed that those who had a stated interest of lower would not actually participate more in the future.
- For current participants, their highest possible level of future participation was estimated to be that of the participant 10% higher. For example, for an activity with 100 current participants, if these participants were lined up from least to most frequent, the participant will move up 10 places (10%) along this 'line'. This would be their highest possible level of future participation. So the least frequent participant, at the start of the line, would in the future, shift to participate at the level of the 11th person along the line.
 - Similarly to the calculation for non-participants, the extent of a participant's shift was reduced by multiplying by probability and by the proportion who cited

actionable barriers. For example, for an activity, one current participant has a stated interest of 7 and does the activity 6 times a year. When the participants are ordered from least to most frequent, this participant is 57th along the line. As the activity has 70 participants, the highest possible level of future participation is that of the 64th person along the line, which is 12 times per year. From their stated interest, we estimate that their probability of shifting to 12 times per year (the highest possible level of future participation) is 50%. Across the whole sample, 28% cited an actionable barrier for this activity. The final estimate is calculated as shown in the diagram below

Figure D1. Calculation of forecasted participation for current participants



- o In cases where the participant 10% further up 'the line' had the same level of participation, the highest possible level of participation was assumed to be 1 time per year higher.
- o For those in the top 10% of participation, the cut-off values were used as the highest possible level of future participation (see Section 4.2, Table 4.2.2, Data Trimming).



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