

South East Queensland Outdoor Recreation Demand Study

2007



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Section 1

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Section 2

Executive summary

The 2007 South East Queensland Outdoor Recreation Demand Study (SEQORDS) investigated the nature and extent of participation in outdoor recreation activities¹ by the residents of South East Queensland (SEQ). This study is based on two similar surveys of people living in SEQ: the first undertaken in 1997 and published in 1998; and the second undertaken in 2001. In mid 2007, a total of 1334 people participated in a telephone survey that recorded details regarding their participation in a range of outdoor recreation activities, how often they had participated, their desire to participate further, and their motivation². In addition, this survey examined the different types of recreation settings³ in which people choose to recreate, and the characteristics of these recreation settings. The results of the survey are provided in this report.

The participants in the 2007 study were a randomly chosen sample of the population of SEQ. The sample was also stratified⁴ so that the sample represented the demographics of this population with respect to location, age and gender. Statistical validity was achieved for the population as a whole, as well as for the individual Regional Organisations of Councils (Brisbane, WesROC, NorsROC and SouthROC). (See Section 6 Methodology)

The findings of the 2007 SEQORDS are largely similar to those of the previous studies, a result that attests to the reliability of all studies. Like the 2001 and 1997 studies, the 2007

study has found that large numbers of people currently participate in a variety of outdoor recreation activities in a range of settings, but that potential demand is likely to put more pressure on very natural and totally natural settings. (See Section 10 Trends and Implications)

One example of this finding, based on the current population of SEQ (according to the Australian Bureau of Statistics, this was 2,189,599 individuals aged 15 or over on June 30th 2005), is that currently 30% of adults over 15, or 666400 individuals, participate in camping, with an average frequency of participation of 3.7 times per year and a median⁵ participation of 2 per year. Sixty five percent of these camping events took place in *very natural* or *totally natural* surroundings. Seventy five percent of these participants would also like to go camping more often, but are prevented mainly because of lack of 'time'. If they could go camping more often, 80% would prefer this to be in a *very natural* or *totally natural* setting. Of those people who do not currently go camping, 36% would like to participate (but are prevented mainly because of lack of 'time'), and of these 74% would prefer this to be in a *very natural* or *totally natural* environment.

Table 1 provides details of current participation, with 2001 figures shown in brackets for comparison, and the median frequency of



participation for each activity investigated. The product of the actual SEQ population represented by the percentage of participation and the median participation gives the number of activity-events that occurred during the 12 months previous to the survey. In addition, Table 1 provides details of the recreation settings that are currently used for these activities, also with 2001 figures provided in brackets for comparison. Statistically significant changes in setting use are indicated by an asterisk, where * indicates moderate significant difference ($p < .05$) between the figures highlighted in bold type.

¹ See Section 4 Clarification of Key Terms for a definition of outdoor recreation activities

² See Section 4 for an explanation of the use of motivation in this study

³ See Section 4 for a description of recreation settings

⁴ See Section 6 for an explanation of stratified sampling technique

⁵ For an explanation of this and any other statistical terms, please see Appendix A, Glossary.

Section 2

Executive summary cont.

Table 1: Incidence and frequency of participation over the past 12 months, and the recreation setting in which this occurred

Activities	Percentage who participated in previous 12 months (2001 figures in brackets)	Actual population represented (based on ABS 2005 data)	Frequency (Median)	Activity-Events per Year (Population multiplied by median)	Recreation Setting a (2001 figures in brackets)		
					Somewhat natural %	Very natural %	Totally Natural %
Picnicking	58% (67%)	1,278,634	3	3,835,902	66 (59)%	26 (33)%	8 (8)%
Walking or Nature Study*	35% (49%)	771,448	5	3,857,240	47 (49)%	36 (34)%	15 (17)%
Camping	30% (33%)	666,400	2	1,332,799	33 (29)%	45 (51)%	20 (20)%
Bicycle Riding	29% (26%)	610,593	12	7,327,114	76 (83)%	18 (15)%	4 (2)%
Horse Riding*	7% (7%)	160,855	3	482,565	47 (27)%	44 (46)%	8 (27)%
Water Activities*	54% (56%)	1,188,358	8	9,506,865	71 (62)%	21 (31)%	7 (7)%
Driving 2WD Vehicles *	15% (24%)	331,558	4	1,326,234	43 (35)%	45 (57)%	14 (8)%
Driving 4WD Vehicles	23% (23%)	505,545	3	1,516,634	25 (19)%	53 (63)%	21 (18)%
Driving Other Vehicles *	11% (7%)	233,076	5	1,165,379	33 (39)%	43 (52)%	24 (9)%
Riding on Motorised Watercraft *	21% (27%)	462,869	4	1,851,475	52 (40)%	34 (46)%	14 (14)%
Riding on Non-Motorised Watercraft *	17% (19%)	377,517	2	755,034	50 (39)%	36 (47)%	14 (14)%
Abseiling/rock-climbing	6% (6%)	132,952	2	265,903	45 (52)%	32 (24)%	23 (24)%
Total activity-events per year				33,223,144			

^a This is expressed as a percentage of the amount of time spent in all settings. The percentages provided for each of the three recreation settings add up to 100%

As depicted in Table 1, picnicking remains the most popular activity in SEQ with 58% of respondents having participated in the previous year. However, the median rate of participation was only 3 times per year. Walking or nature study and water activities on the other hand, whilst slightly less popular (35% and 54% respectively), were engaged in more frequently, both having a median of 5 and 8 times respectively per year. (See Section 8 Current Participation)

The number of activity-events that have occurred during the 12 months previous to the 2007 survey, indicates the scale of outdoor recreation participation in SEQ. Total activity-events for all outdoor recreation activities in 2001 was 43 697 335. In 2007 the total was 33 223 144. This represents a 33% decrease. The major contribution to the decrease was walking or nature study where there was a 22% decrease in activity-events. Further research is needed to determine the exact cause but preliminary analysis points towards a decline in participation rate and frequency of participation in the 40-64 year age group. In addition to 'time constraint', the constraints of 'nowhere to go' and 'health' appears to be a major cause of the decline. Not all activities had a decline in activity-events. Bicycling, camping and driving other vehicles (eg. trail bikes) saw an increase in activity-events. (See Section 8 Current Participation)

Participation in activities also differed significantly across the sub-regions within SEQ. Camping, water activities, bicycle riding and driving both two-wheel drive and four-wheel drive vehicles were most popular with people from NorsROC. The WesROC population appeared to be more involved in picnicking, horse riding and driving other vehicles. WesROC also shared with the NorsROC population a higher incidence of driving two-wheel drive vehicles on unsealed roads. Walking or nature study was most popular amongst the Brisbane based population. (See Section 8 Current Participation)

The findings for motivations of participants and potential participants in the 2007 study were similar to the results of the 2001 study. The predominant motivation for participation was for leisure and the least popular reason was competition. Participants expressed no desire to make their participation more competitive. (See Section 8 Current Participation and Section 9 Latent Participation)

In the 2001 SEQORDS it was reported that if the population in SEQ increases, the problems of crowding and lack of places to go, already being reported by participants, will be exacerbated. As evidenced in the decrease in participation rates and frequency of participation of some activities, it is not implausible to draw the conclusion that the problems identified in 2001 are now being experienced by the people in SEQ. Further research is

needed to explore the issues of constraints to differentiate between the problems of population growth and other changes in the social dimensions of society. (See Section 10 Trends and Implications)

Further confirmation of the usage of *totally natural* areas for outdoor recreation purposes occurs in the 2007 study. Current participation in *totally natural* settings increased or remained the same for all activities, except horse riding where there was a decrease. For *very natural* settings there were some significant decreases but this did not translate into a significant increase in any activity usage of *somewhat natural* settings. Overall the results highlight a continued preference of the SEQ population to make use of natural environments for recreation. The data confirms that given a choice, most outdoor recreation participants prefer more natural settings than those that they currently use. (See Section 10 Trends and Implications).

Whilst further research is necessary to confirm the respondents' understanding of the setting definitions, it remains clear that participants prefer to recreate in settings that they perceive to be more natural in character. When this preference is considered together with the current high participation rates and the increasing population in SEQ, the problem of meeting these preferences through the provision of a range of recreation opportunities becomes urgent. (See Section 3 Key Recommendations)

Section 3

Key recommendations

In general terms, the 2007 SEQORDS has confirmed the results of the 2001 Study. For this reason and because some of the recommendations from the 2001 SEQORDS have not yet been undertaken, the recommendations of the 2001 SEQORDS remain pertinent. Refer to Appendix C for a copy of the recommendations from the 2001 Study.

Specific recommendations arising from the 2007 SEQORDS are as follows:

Recommendations for planning and management for outdoor recreation:

1. That state and local government agencies responsible for recreation services note the magnitude and diversity of the demand for outdoor recreation as indicated by the data and key findings. That this information be used to coordinate planning and delivery of outdoor recreation services within the framework of a regional outdoor recreation strategy.
2. That state and local government agencies responsible for recreation services note the general preference for outdoor recreation within more natural rather than less natural settings and the variable understanding of the three recreation settings used in the survey.
3. Given that the SEQ Regional Plan (2005) acknowledges that the natural environment underpins the region's liveability and that it will be protected from urban development and rural residential subdivision, the data and findings relating to setting preference in the 2007 SEQORDS should be used to guide the identification and selection of future outdoor recreation areas to meet the growing outdoor recreation demand in order to maintain the region's liveability.
4. Given the identified decrease in places to undertake outdoor recreation⁶, state and local government agencies responsible for recreation services, use this information as a rationale to coordinate planning and delivery of outdoor recreation services to maintain current outdoor recreation opportunities.
5. That the Moreton Bay Waterways and Catchments Partnership recognises the high levels of both current and latent demand for outdoor recreation water activities requiring primary contact with water (eg. swimming in places other than constructed swimming pools, body surfing, snorkelling and SCUBA diving) as a significant issue in planning the integrated management of the waterways of SEQ.
6. That the existing demand for outdoor recreation be used to help predict likely future outdoor recreation demand within the framework of the SEQ Regional Plan (2005).

Recommendations for future related research:

1. That the cycle of future outdoor recreation demand studies in SEQ be increased to 7 years, to allow identification and confirmation of any trends.
2. That the research methodology of future outdoor recreation demand studies be modified to provide:
 - more information on specific activities within the activity classifications currently used;
 - more details of the attributes of the places currently used including land tenure;
 - a more detailed demographic profile of participants; and
 - information on the relationship between constraints and people who do not participate and do not wish to participate in outdoor recreation.
3. That the research methodology be modified to ensure that data relating to settings can be confidently interpreted.

⁶ It was found that for the constraint - 'nowhere to go' - there were increases in all activities for current participants.

4. That the methodology developed for the SEQORDS be endorsed as the framework for defining outdoor recreation activities and settings for future regional and sub-regional planning and the preferred approach for local government recreation planning within SEQ.
5. That, in view of relatively high participation rates in outdoor recreation, the significance of outdoor recreation on the quality of life of SEQ residents and the liveability of the region be identified and analysed.
6. That research exploring the reasons for the apparent decrease in activity-events of certain outdoor recreation activities is conducted. Impacts associated with population growth should form the basis of the research questions.



Section 4

Clarification of key terms

Outdoor recreation activities, recreation settings, and motivation are key concepts that are fundamental to this study. The following definitions serve to clarify the meanings of these terms. For definitions of other terms, please see the Glossary in Appendix A.

4.1 Outdoor recreation activities

Outdoor recreation activities are undertaken outside the confines of buildings and may be undertaken without the existence of any built facility or infrastructure. They may require large areas of land, water and/or air, which may need to be predominantly unmodified or natural (Batt, 2000). As a subset of leisure, outdoor recreation provides opportunities for people to enhance their quality of life through activities that are enjoyable and relaxing, foster relationships both with other people and with the biophysical environment, and may contribute significantly to an individual's identity (Haggard and Williams, 1992). The outdoor recreation activities focused on in the 2007 Study are listed in Table 2.

Table 2: Outdoor recreation activities

Picnicking
Walking or Nature Study (eg bird watching, photography)
Camping
Bicycle Riding
Horse Riding
Water Activities (eg swimming [excluding constructed pools], snorkelling and scuba diving)
Driving 2WD Vehicles on Unsealed Roads
Driving 4WD Vehicles on Unsealed Roads
Driving Other Vehicles on Unsealed Roads (trail bikes, quads or trikes)
Riding on Motorised Watercraft (eg speed boat, jet ski)
Riding on Non-Motorised Watercraft (eg canoe, sailing, kayak)
Abseiling/rock-climbing
Other Activities

4.2 Recreation settings

Recreation activities occur within a specific context or recreation setting. A recreation setting is defined through the particular biophysical, social, cultural and managerial attributes of a place in which recreation takes place (Clark and Stankey, 1979). These attributes determine the type of recreation opportunity that is afforded by a setting. For example, water activities can be enjoyed in a crowded public swimming pool, in a local farmer's dam, or in a remote mountain lake. The degree of "naturalness" of the setting does not change the activity, but does alter the experience of the individual engaged in this activity.

A landscape classification system has been developed (originally by Clark and Stankey, 1979) in order to describe the degree of naturalness of recreation settings. The classification system currently used by Queensland Parks and Wildlife

employs nine settings, ranging from “Wild Natural Remote (Landscape Class 1) to “Urban Developed Built” (Landscape Class 9). A full description of these landscape classes is provided in Appendix B.

For the purposes of this study, a simplified system of three landscape settings was used. The landscape settings that were focused on in the study are described in Table 3. Each of these settings was used in conjunction with each of the activities listed in Table 2.

Table 3: Landscape Settings

Somewhat Natural Landscape	A <i>somewhat natural</i> landscape is close to suburbs or cleared farmland, which is accessible by conventional vehicles or vessels, has buildings highly visible and other people are usually present. (Equivalent to Landscape Classes 5 and 6 – see Appendix B)
Very Natural Landscape	A <i>very natural</i> landscape is away from suburbs and cleared farmland, which may be difficult to access by vehicles or vessels, has few built structures visible and few other people present. (Equivalent to Landscape Classes 3 and 4 – see Appendix B)
Totally Natural Landscape	A <i>totally natural</i> landscape is far from suburbs and cleared farmland, which has no access by vehicles or vessels, there are no built structures visible and little or no evidence of other people. (Equivalent to Landscape Classes 1 and 2 – see Appendix B)

4.3 Motivations

Motivation is described as that which “impels people to action and gives direction to that action once it is aroused” (Mannell and Kleiber, 1997). Motivation can be described as intrinsic or extrinsic. Intrinsic motivation is the state in which an individual engages in activity because of the rewards that are inherent in the activity itself. Extrinsic motivation on the other hand, is the state in which an individual engages in an activity in order to achieve some other goal. For example, a person might go for a bicycle ride for the simple fun of riding a bike (intrinsic motivation) or to become absorbed in something other than work (intrinsic motivation) or to increase fitness (extrinsic motivation) or to compete in a race (extrinsic motivation).

Intrinsic motivation forms an essential component of leisure (Neulinger, 1981). In this study, motivations for participation were classified into intrinsic (leisurely) motivations or extrinsic (goal focused or competitive) motivations. These motivation classes are described in Table 4. Each of these motivation classes was used in conjunction with activities 4-12 described in Table 2.

Table 4: Motivations

Leisurely	Sightseeing, looking, learning, unwinding, escaping, relaxing, experiencing peace and quiet (but may still involve hard exertion)
Goal focused	Fitness, skills improvement, test equipment, challenge, conquering nature
Competitively	Maximum distance, minimum time, fastest, most accurate, most difficult, training for competition

Section 5

Background and objectives

The Enviroplan adopted by the Ipswich City Council is an example of careful planning to secure large areas of land that are important for conservation, water management, biodiversity, aesthetic or recreation reasons. Through the Enviroplan Levy, the residents of Ipswich fund the purchase and management of such land.

Flinders Peak is an example of land that has been purchased and is managed through the Enviroplan Levy.



A view from Flinders Peak, Ipswich

The 2007 SEQORDS replicated the studies conducted in the same region in 2001 and 1997 to confirm the findings of these studies, particularly the trends that were identified in the 2001 study with respect to outdoor recreation participation. The information gained through this study will be used to inform outdoor recreation planning, management and policy development by state and local government and the private sector.

As described in Section 4 of this report, outdoor recreation activities are undertaken outside the confines

of buildings and may be undertaken without the existence of any built facility or infrastructure. Outdoor recreation activities may require large areas of land, water and/or air, which may, or may not, need to be predominantly unmodified from their natural condition. Places with these attributes are also in demand for other (i.e. non-recreation) land uses, such as agriculture, housing development, forestry, cultural heritage, and airports. However, the use of land for these important functions often means that it can no longer be used for outdoor recreation⁷. For this reason, a conscious decision has to be made to identify, secure and manage areas of open space for outdoor recreation through land use planning.

Such a decision is based on the belief that outdoor recreation is important. With the increasing pressure on land availability resulting from SEQ's growing population, it becomes imperative to justify this belief. The present population of SEQ is 2,683,900 people, and it is expected to increase to 3,843,900 within twenty years. The infrastructure required to provide housing, schools, transport and jobs for almost an extra million people will put enormous pressure on the available land. The projected growth

⁷ This is not always the case, since land use for forestry and cultural heritage can be entirely compatible with outdoor recreation. However, land use for developments such as housing estates, airports, industrial areas and roads are not usually compatible.

⁸ *Queensland Government Population Projections to 2051*: Queensland and Statistical Divisions (2006)
www.oesr.qld.gov.au/queensland-by-theme/demography/population/regular-publications/qld-govt-pop-proj-2051-qld-sd/qld-govt-pop-proj-2051-qld-sd-2006.pdf

is mostly expected to occur in the Moreton statistical division, where it is predicted that the population will increase by 56.1%, compared to the 37.3% increase expected in the Brisbane statistical division^a. This expectation is particularly disturbing for outdoor recreation, since most available land of any size is situated in the Moreton statistical division. The need to conserve some of this land in order to provide outdoor recreation opportunities often ranks at a low priority given the urgent necessity for housing and industrial infrastructure.

In the foreword to the 2nd Edition of the *Queensland Government Population Projections to 2051: Queensland and Statistical Divisions* (2006), the Honourable Anna Bligh, MP (Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation) makes this crucial point:

“The coming decades will no doubt bring more change to Queensland. The challenge we all face is managing this change to ensure that the things we love about Queensland are maintained while we continue to grow and prosper. However, our biggest test over the coming years will be to ensure that the legacy we leave our children is an asset and not a liability.”

In support of this point, the following objectives of the *SEQ Regional Plan (2005-2026)* are relevant to the future of outdoor recreation in Queensland:

- determining appropriate developable land to meet future population growth (objective 1);

- protecting and enhancing the region’s natural environment, biodiversity and natural resources (objective 4); and
- maintaining and enhancing the quality of life for the existing and future communities (objective 5).

In determining the importance or otherwise of outdoor recreation, the issue becomes one of determining the relative importance it plays in our current lifestyle: how important is outdoor recreation to this lifestyle? What kind of outdoor recreation opportunities must be retained in order to “maintain and enhance” our quality of life, and how does this impact on the determination of “appropriate developable land”?

The previous SEQORDS (2001 and 1997) indicated that outdoor recreation plays a large part in the lifestyle of many Queenslanders. For example, the 2001 study indicated that almost half the population of SEQ (49% or 931,348 people) had participated in walking or nature study activities, on average, seventy times in the previous 12 months, and almost 630,000 people (one-third of the population) had been camping, on average, more than five times in the previous 12 months. Follow up focus group studies cast more light on these findings, with participants explaining that two kinds of outdoor recreation opportunities were important to them: city-based settings, with many facilities, for frequent use during everyday life; and wilderness-based settings, with few facilities, for occasional visits on holidays. We can conclude that many SEQ residents visit their local



green places for simple activities such as walking on a regular basis, whilst also engaging, less often and in more remote areas, in more complex activities such as camping.

These participants noted that crowding was already an issue with both types of recreation settings. The 2001 study showed a trend (as yet insignificant) towards increasing percentages of the population involved in outdoor recreation, and this, together with the absolute increase in population numbers, has led to increased pressure on available places. Conflict amongst incompatible user groups was also becoming an issue.

Section 5

Background and objectives cont.



The potential impact of some outdoor recreation activities adds to the complexity of planning.

Perhaps because of this, the 2001 study showed a significant trend towards seeking out recreation areas that are more natural. All activities showed increased numbers of people recreating in very natural landscapes, and, for bicycle riding, horse riding, driving four-wheel drive vehicles on unsealed surfaces, and riding on both motorised and non-motorised watercraft, the shift from *somewhat natural* landscapes to *very natural* was significant.

The 2001 study also indicated an increase (not significant) in the percentage of people who reported that the lack of places to go was a constraint for some activities. Horse

riding and driving activities were the most affected by this problem, a result that may reflect a tightening of regulations on activities that have a potentially high impact on the natural surroundings. As unmodified landscapes become scarcer, high impact activities become untenable in such areas. By far the greatest constraint, however, was the lack of *'time'*, which was reported as a problem by well over half the participants in every activity – an increase, though not significant, over the 1997 results.

In summary, the previous studies indicated that outdoor recreation is an important part of our lifestyle, with a large proportion of the population regularly participating in different activities. In response to their hectic lifestyle, many people are seeking out more natural places to recreate, but, at the same time, the lack of such places to go, as well as crowding and conflict in popular areas, are becoming more of an issue for many participants.

These issues and trends formed the background for the 2007 study, which, like the previous two studies, was designed to provide data about current and likely demand for specific combinations of recreation activities and settings. A key recommendation of the 2001 study was that “the cycle of future outdoor recreation demand studies in SEQ be increased to 5-7 years, to allow identification and confirmation of any trends”. This recommendation has been fulfilled through the current project.

The aims of the project were:

- To conduct a 2007 SEQORDS that is directly comparable with the 1997 and 2001 South East Queensland Outdoor Recreation Demand Studies; and
- To identify and confirm trends that have occurred over the last six years.

To realise these aims, this study had the following objectives:

1. To estimate the proportion of the total population in SEQ currently participating in each outdoor recreation activity;
2. To estimate the proportion of the total population in SEQ currently undertaking each outdoor recreation activity in each of the three landscape settings;
3. To estimate the proportion of the total population in SEQ currently participating in each of three motivation categories;
4. To estimate the proportion of the total population in SEQ that would participate in each outdoor recreation activity but are prevented from doing so for some reason (latent demand);
5. To estimate the proportion of the total population in SEQ that would participate in each outdoor recreation activity in each of the three landscape settings, but are prevented from doing so for some reason (latent demand);
6. To identify key trends in SEQ outdoor recreation demand in the last six years; and
7. To compare findings with the results of previous studies in order to confirm enduring trends in SEQ outdoor recreation demand.

According to these stated objectives, factors to be considered included:

- The nature of the activity;
- The setting of the activity;
- Current outdoor recreation demand (i.e. how many people currently participated in each activity);
- Latent outdoor recreation demand (i.e. how many people would like to participate in each activity but are prevented from doing so for some reason); and
- The motivation of people who choose to undertake particular activities in particular settings.

The target population for this study was the population of SEQ. Figure 1 illustrates the regional areas that constituted the target population.

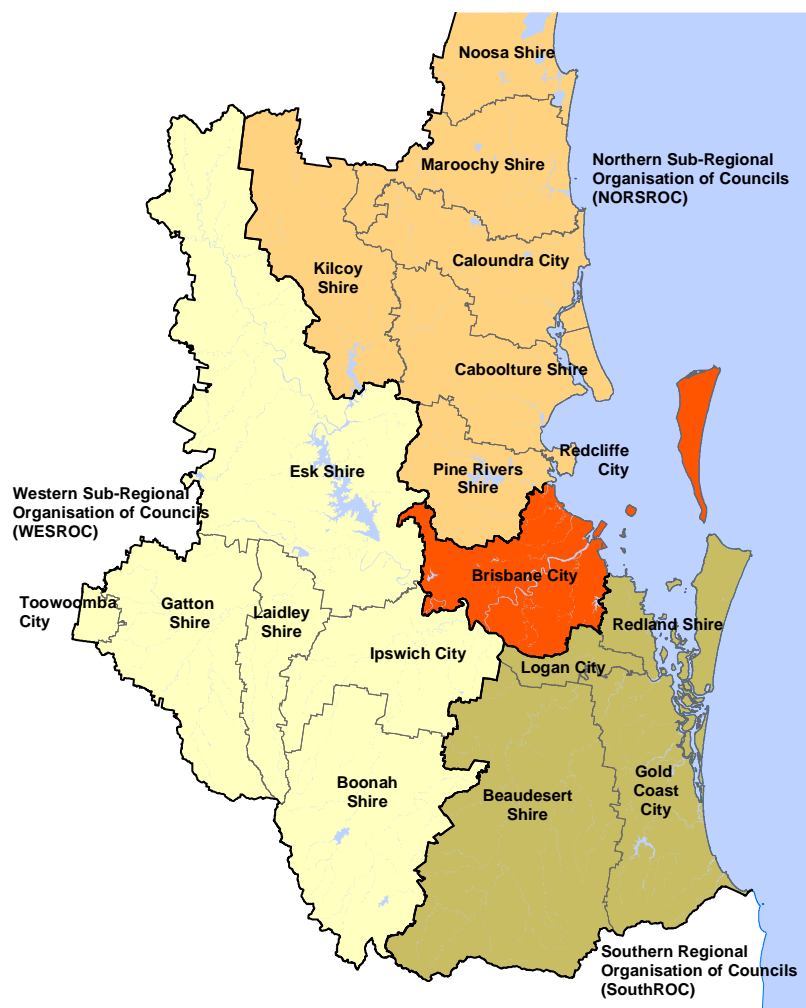
This report will assist the planning and provision of outdoor recreation by local government, state agencies, tourism and leisure industries, community groups, the Queensland Outdoor Recreation Federation (QORF), and people who participate in outdoor recreation. Specifically, it is understood that the study will be used to:

- Help ensure that Government expenditure on outdoor recreation services achieves the maximum possible benefit;
- Inform local and state government planning;
- Provide better advice to the private sector on investment and marketing opportunities;
- Provide information that can be used to guide cross-government decision-makers across SEQ in the allocation of project money to outdoor recreation planning,

infrastructure and organisational development;

- Assist representatives of the outdoor recreation industry to voice their needs; and
- Assist in outdoor recreation management and planning of public sector open space areas (e.g. national parks and local government freehold).

Figure 1: Target populations of the 2007 SEQORDS: The regions of SEQ



Section 6

Methodology

6.1 The survey instrument

A telephone survey was used to gather the quantitative data. The survey was based on the surveys used in the previous demand studies in SEQ (2001 and 1997) and Central Queensland (2000).

The survey took 10-15 minutes to complete. Participants were asked to record which outdoor recreation activities they had participated in during the 12 months prior to the survey, the settings in which these had occurred, and their motivations for participating. Statistics generated through this data provide a picture of the current demand for outdoor recreation in SEQ. Participants were also asked which activities they would like to participate in, the setting in which they would prefer to participate, and their likely motivation in doing so. In the script of the interview the term landscape was used to help the respondent define the place where they undertook the outdoor recreation activities. This term was used to ensure that people could readily understand the concept of differing landscape settings. In this report however, the term 'setting' will be used in favour of 'landscape' to reflect the formal categorisation of landscapes.

Results for this second set of questions provide a picture of the latent demand for outdoor recreation in SEQ. Other questions examined the constraints on participation in outdoor activities.

The final form of the survey appears in Appendix D. In the 2001 survey, two main modifications had been made to previous surveys, and these modifications were retained for the 2007 survey. These modifications were as follows:

1. The fourth activity, entitled "Swimming" in the 1997 SEQ survey, was retitled "Water Activities", and included "Swimming, snorkelling and SCUBA, excluding in constructed pools".
2. The list of motivations was changed from the 1997 SEQ survey in accordance with the 2000 Central Queensland survey. This meant that the second of the motivations was changed from "actively" (fitness, skills improvement, test equipment, challenge, conquering nature) to "goal focused" (fitness, conquering or challenging nature, testing equipment, and practising techniques). The other two categories (leisurely and competitively) remained the same, although their descriptions altered slightly.

6.2 The sample

The fundamental goal of any survey is to come up with the same results that would have been obtained had every single member of a population been interviewed. The key to reaching this goal is a basic principle called "equal probability of selection", which states that if

every member of a population has an equal probability of being selected in a sample, then that sample will be representative of the population. This means that, providing it is randomly selected, a small percent of a population of people can represent the attitudes, opinions, or projected behaviour of all of the people.

A stratified random sample was generated from an electronic version of the white pages of each of the participating areas. The sample was stratified in terms of gender, age and representation from regional areas. The aim of stratification was to gain a sufficient male to female ratio as well as an exact representation from each region and age group. By doing so the sample population more accurately reflects the actual population.

Table 5 lists the shires and cities of SEQ that were included in the sample⁹.

Calls were made during the hours of 9am to 8pm on weekdays. A small number of calls were made between the hours of 10am to 5pm on weekends. Where calls were unanswered, 3 further attempts were made at later times before the number was discarded. A total of 1334 surveys were completed.

⁹ The 2007 SEQORDS was conducted prior to the commencement of the local government amalgamations of 2007.

Table 5: local government Authorities within the survey

Regional Organisation	Constituent Local Government Authorities
Brisbane	Brisbane City
WesROC	Boonah Esk Gatton Ipswich Laidley Toowoomba
SouthROC	Beaudesert Gold Coast Logan Redland
NorsROC	Caboolture Caloundra Kilcoy Maroochy Noosa Pine Rivers Redcliffe

6.3 Analysis of quantitative data

The quantitative data was collected by a professional telephone calling service (Boulder Communications - Callrite), which developed the questionnaire into a computerised script so that data was entered directly into an Excel spreadsheet. Statistical analysis of this data was done through SPSS (Statistical Package for the Social Sciences)

and Excel software. Analysis included measures of frequencies, calculation of measures of central tendency (means and medians), and tests for significant differences between the frequencies of different variables. Tests of significance were conducted using a chi-squared formula and a fisher exact test when values were less than 10.

In Sections 7, 8 and 9, results have been tabulated and illustrated with the use of charts.

Major findings have been summarised. Summary tables of current and latent participation data for each activity are provided in Appendix F.

6.4 Limitations of the study

The reliability and validity of the 2007 SEQORDS is similar to the 2001 SEQORDS. The methods used in the 2007 study mirrored the methods of the 2001 study.

However, a number of limitations emerged, which have some implications for the results of the 2007 study. These are as follows:

1. A totally random sample of the population of SEQ was not possible, given the nature of the survey (telephone call), which limited the sample firstly to those who have a telephone, and secondly to those who are listed in the white pages.
2. The major increase in telephone marketing that has occurred since the time of the first SEQORDS in 1997 means that people have become less likely to respond favourably to a phone interview.
3. Mobile phone sales have increased and land telephone lines may not be the principal point of contact, particularly for younger age groups.

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Methodology cont.

4. There were many refusals. There was a refusal rate of 74% of all calls made. There was also a full-quota rate of 4%, in that 4% of all calls were not continued because the respondent was not needed to fill a gender or regional category quota.
5. The survey required participants to quickly understand the simplified landscape classification system (See Appendix B and Appendix D), and be able to accurately classify their recreation settings according to this system. Qualitative data from the 2001 study indicated that participants' classification of recreation settings tended to be subjective, rather than matching the criteria that they had just listened to. For example, a setting described by a participant as *totally natural* was more accurately situated as *very natural* according to the landscape classification scheme used as a basis for this study.
6. Due to a technical problem the 15-17 age class was aggregated with the 18-24 year age class. In the 2001 SEQORDS these age groups were separated.

Table 6: Population by shire or city

Shire or City	Population	% Actual Population over 15 Years
Beaudesert	46 525	2.12%
Boonah	6 802	0.31%
Brisbane	800 904	36.58%
Caboolture	100 975	4.61%
Caloundra	72 778	3.32%
Esk	12 194	0.56%
Gatton	13 054	0.60%
Gold Coast	392 780	17.94%
Ipswich	107 883	4.93%
Kilcoy	2 801	0.13%
Laidley	10 920	0.50%
Logan	132 943	6.07%
Maroochy	116 527	5.32%
Noosa	39 149	1.79%
Pine Rivers	109 837	5.02%
Redcliffe	43 748	2.00%
Redland	103 007	4.70%
Toowoomba	76 772	3.51%
Total	2 189 599	100%

Section 7

Results of the survey

sample population profile

Table 7: Sample Number by ROC

ROC	Shire represented	Number of participants in sample	% of Actual Population (15 years of age or over)
Brisbane	Brisbane City	490	0.07%
WesROC	Ipswich City	141	0.06%
	Boonah Shire		
	Esk Shire		
	Gatton Shire		
	Laidley Shire		
	Toowoomba City		
NorsROC	Caboolture Shire	296	0.06%
	Caloundra Shire		
	Kilcoy Shire		
	Maroochy Shire		
	Noosa Shire		
	Pine Rivers Shire		
	Redcliffe City		
SouthROC	Beaudesert Shire	408	0.06%
	Gold Coast City		
	Logan City		
	Redland Shire		
Total		1334	0.06%

7.1 Local areas

The sample was taken from the shires that comprise SEQ. Table 6 lists the population according to the shire or city in which the respondent lived. The percentage of each shire's population within SEQ is also shown.

Brisbane and the Gold Coast are by far the largest local government

areas. However because some of the sample numbers of the individual shires (not shown) are so small, valid statistical analysis cannot be undertaken. For this reason, shires have been grouped into their respective Regional Organisation of Councils (or ROC's) for further statistical description. Sample frequencies for each ROC are provided in Table 7.

7.2 Statistical validity

Different sample sizes provide different levels of confidence in the validity of the statistics generated by the sample. Big sample sizes are more likely to reflect the actual population, whilst small sample sizes may not. The term "confidence level" refers to how confident the sample reflects what is happening in

Section 7

Results of the survey sample population profile cont.

the actual population. Statistically, the term means that there is a 95% chance that a result will fall within a designated range. For example, if we find that 67% of people have participated in bushwalking in the past 12 months, and our total sample of 1334 provides us with a confidence interval of plus or minus 2.5, then we can say that there is a 95% chance that between 64.5% and 69.5% of the population in SEQ went bushwalking in the past 12 months.

The confidence interval is determined partly by the number in the sample, but also partly by the percentage found in the results. As a general rule, larger percentages have smaller confidence intervals. As is illustrated in Table 8, for a sample of 1334, a result of 50% will have a confidence interval of plus or minus 2.7, but a result of 95% will have a confidence interval of plus or minus 1.2.

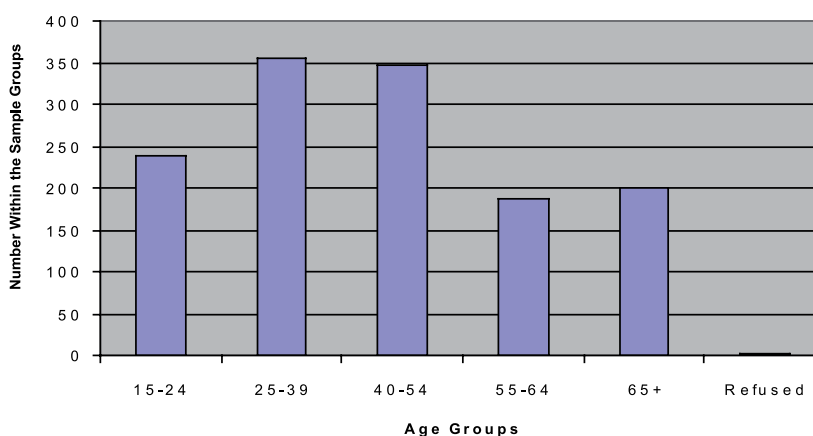
Table 8 provides the confidence intervals for the sample figures within each ROC.

Smaller confidence intervals means greater precision in reporting results (i.e. the results have greater validity). The table indicates that the largest confidence interval would occur for a result of 50% in WesROC, when we could be 95% sure that the actual result occurred within the range of 41.7% and 58.3%. For the total sample population, however, the confidence interval is never larger than plus or minus 2.7. These figures indicate a relatively high degree of statistical precision in the results. The confidence intervals are slightly higher than the 2001 study because

Table 8: Confidence Intervals for the Sample

Sample Group	Percentages found from sample ("results")					
	50%	40% or 60%	30% or 70%	20% or 80%	10% or 90%	5% or 95%
Brisbane (n=490)	4.4%	4.3%	4.1%	3.5%	2.7%	1.9%
WesROC (n=141)	8.3%	8.1%	7.6%	6.6%	5%	3.6%
NorsROC (n=296)	5.7%	5.6%	5.2%	4.6%	3.4%	2.5%
SouthROC (n=408)	4.9%	4.8%	4.4%	3.9%	2.9%	2.1%
Total (n=1334)	2.7%	2.6%	2.5%	2.1%	1.6%	1.2%

Figure 2: Age groups within the sample population



of the slightly lower sample size in the 2007 study. The difference will not adversely impact on comparisons between 2001 and 2007 data.

7.3 Age groups

The ranges for each age group are shown graphically in Figure 2.

The percentage that each age group represents of the total sample population is illustrated in Table 9. In this table, 2001 figures are provided for comparison, as well as the actual percentage of each age group within the SEQ population 15 years of age or over. Three people refused to disclose their age.

Table 9: Comparison of population profile by age for 2007 and 2001 studies

Age range	2007 study	2001 study	SEQ population over 15
15-24 years	18%	14%	18%
25-39 years	27%	29%	27%
40-54 years	26%	31%	26%
55-64 years	14%	13%	14%
65+ years	15%	13%	15%

The age groupings of the sample population are commensurate with the actual population of SEQ. Stratified sampling technique was used to obtain similar proportions between sample and actual populations proportions. This was conducted on the overall sample proportions to ensure the validity of the smaller sample size used for the 2007 study.

The age profile of the sample population is further considered with ROC categories, as illustrated in Table 10, which also provides comparative actual population figures. In Table 10, the frequency of each age group is given as a percentage of the total sample population (and actual population over 15) for each ROC.

Table 10: Age groups within the ROC's

Age range	Brisbane		WesROC		NorsROC		SouthROC	
	Sample pop. %	Actual pop. %	Sample pop. %	Actual pop. %	Sample pop. %	Actual pop. %	Sample pop. %	Actual pop. %
15-24	18%	19%	18%	20%	19%	16%	18%	18%
25-39	27%	29%	25%	26%	22%	24%	27%	26%
40-54	26%	25%	26%	26%	28%	28%	26%	27%
55-64	14%	12%	16%	13%	15%	15%	14%	14%
65+	15%	15%	16%	15%	16%	17%	15%	15%

Figures 3, 4, 5 and 6 display this information graphically.

Section 7

Results of the survey sample population profile cont.

Figure 3: Comparison of sample population with actual population for Brisbane across the age groups.

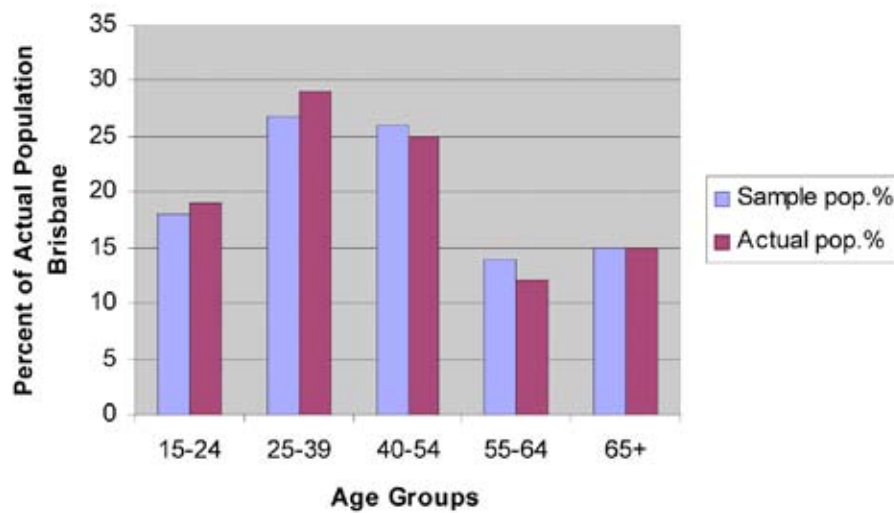


Figure 4: Comparison of sample population with actual population for WesROC across the age groups.

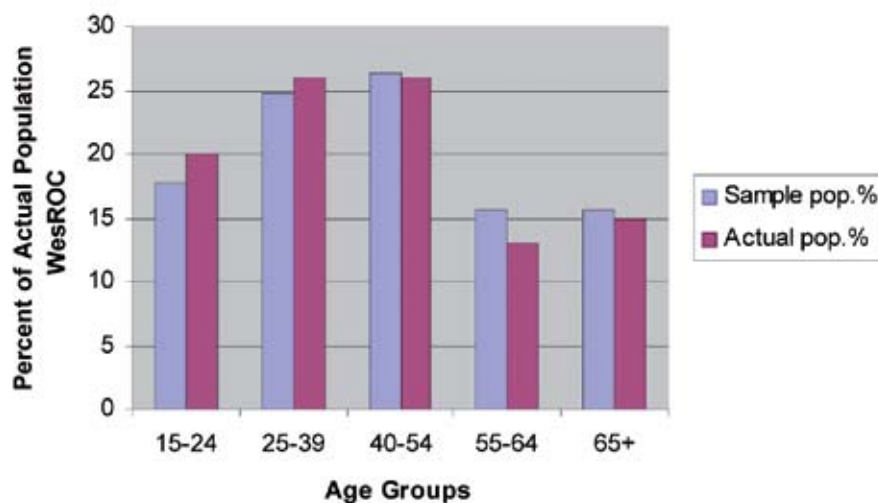


Figure 5: Comparison of sample population with actual population for NorsROC across the age groups.

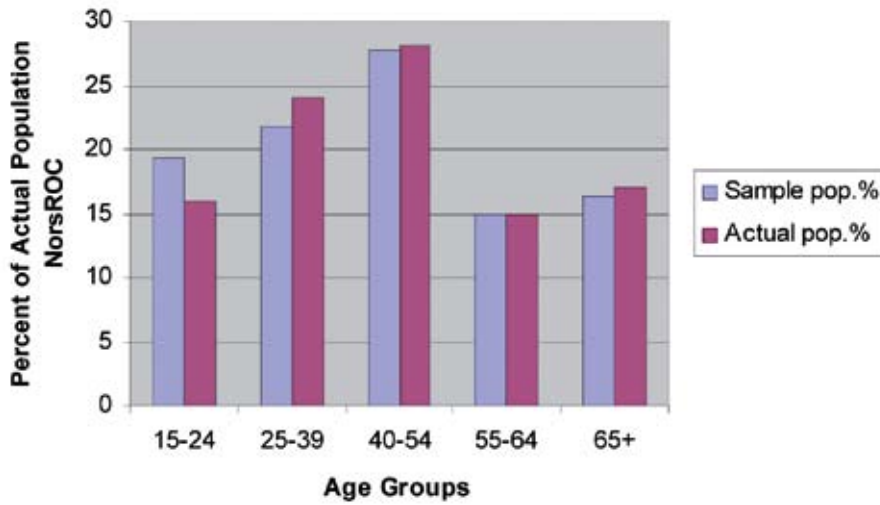
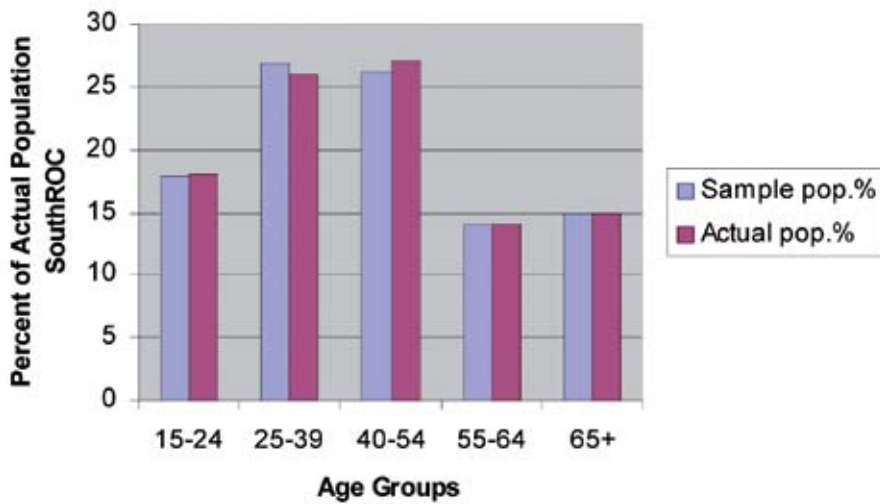


Figure 6: Comparison of sample population with actual population for SouthROC across the age groups.



Section 7

Results of the survey

sample population profile cont.

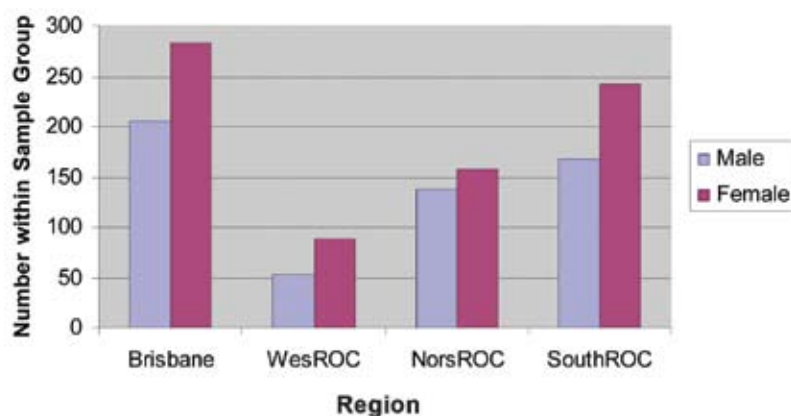
7.4 Gender

More females than males responded to the survey. The total percentage response of all regions was 58% female and 42% males. Table 11 provides details of the gender of the sample population across the regions, whilst Figure 7 provides this information graphically.

Table 11: Gender of each population category

Area	Male	Female	Total
Brisbane	205	283	488
WesROC	52	88	140
NorsROC	138	158	296
SouthROC	167	243	410
Total	562	772	1334

Figure 7: Graphic representation of gender of sample population.



For each of the regions, the differences in responses for gender were: 16% more females than males responded in Brisbane; 26% more females in WestROC; 7% more females in NorsROC and 18% more females than males in SouthROC. In the 2001 study the percentages for males and females were 40% and 60% respectively.

7.5 Summary

The demographic characteristics of the sample population, with respect to location, age and gender indicate broad agreement with the actual population of SEQ (ABS: Population Estimates by Age and Sex, June 30 2005). Statistical validity was achieved at the ROC level, with sample figures of (n=490), (n=141), (n=296) and (n=408) for Brisbane, WesROC, NorsROC, and SouthROC respectively. These sample figures represent a proportion of the populations of these groups that ranges from .07 (Brisbane) to .06 (WesROC, NorsROC, and SouthROC). Stratified sampling approach was used to obtain equal proportions across regions in light of the lower sample size for the 2007 study. This enabled more valid comparisons with the previous 1997 and 2001 SEQORDS.

Section 8

Results of the survey

current participation

In section 8 the results of the survey on current participation in outdoor recreation in SEQ are presented. Notable features in aspects of participation and changes in participation rates will be discussed.

8.1 Incidence of participation over the past 12 months

The interviewees were asked if they had participated in a given activity within the past 12 months. The responses from this question are presented below.

Table 12 lists the incidence of participation in each of the nominated activities over the past 12 months as reported by respondents. Incidence of participation is reported for the entire SEQ area, as well as for each sub-region. Comparative figures from the 2001 study are shown in brackets. Statistically significant differences amongst the ROC's are indicated with an asterisk, where an * indicates an inter-ROC significant difference ($P < 0.05$) using a Chi Squared test. This means that the noted ROC is significantly different to the lowest ROC in that activity.

Table 12: Incidence of participation over the past 12 months (expressed as a percentage of the sample population for each region)

(Note: the numbers in brackets are the results for 2001 study.)

Activity	Brisbane	Wes ROC	Nors ROC	South ROC	Total pop.
Picnicking	57%	63%*	58%	59%	58% (67%)
Walking or Nature Study	38%*	35%	38%*	32%	35% (49%)
Camping	28%	32%	37%*	29%	30% (33%)
Bicycle Riding	28%	26%	30%*	27%	29% (26%)
Horse Riding#	6%	9%	7%	9%	7% (7%)
Water Activities	54%	42%	58%	56%	54% (56%)
Driving 2WD Vehicles	14%	20%	20%	12%	15% (24%)
Driving 4WD Vehicles	20%	27%	30%	21%	23% (23%)
Driving other Vehicles	7%	14%	14%	12%	11% (7%)
Riding on Motorised Watercraft	15%	14%	27%*	27%*	21% (27%)
Riding on Non-Motorised Watercraft	18%	11%	19%*	16%	17% (19%)
Abseiling/rock-climbing	6%	8%*	7%	5%*	6% (6%)

* indicates an inter-ROC significant difference ($p < 0.05$) with relevant figures in bold.

A significant difference was found between regions for horse riding. However, a more appropriate test when there are rates that are less than 10 is a Fisher Exact test. This test indicated that the difference was attributed to small ratios of participants and not a change in rate of participation.

These figures indicate that there are some significant differences amongst the sub-regions with respect to participation in specific activities. Camping, bicycle riding, and using non-motorised watercraft are most popular with people from NorsROC. In fact NorsROC had the highest or equal highest participation rate in 9 of the 12 activities.

Section 8

Results of the survey current participation cont.

Water based recreation, as well as using motorised watercraft is also most popular amongst the NorsROC population, as well as SouthROC, both of which include a number of coastal local governments. The WesROC population appears to be more involved in picnicking and horseriding. They also share with the NorsROC population a higher incidence of driving other vehicles. Walking or nature study is most popular amongst the Brisbane based population.

In terms of differences between the 2007 study and the 2001 study, there were mixed changes. Increases were observed in driving other vehicles and bicycle riding. Substantial decreases in participation were reported in walking or nature study, picnicking, driving 2WD vehicles, and riding on motorised watercraft.

8.2 Incidence of participation – by gender

Table 13 and Figure 8 illustrate the gender differences in participation in each of the activities, according to the percentage of women and the percentage of men who stated that they had participated in each activity in the past 12 months. Statistically significant differences ($p < 0.05$) are illustrated by an asterisk (*).

Figure 8 illustrates the gender differences graphically.

As illustrated in the table and graph, males are more likely to be involved in camping, bicycle riding*, all types of driving*, using both motorised and non-motorised watercraft*, and abseiling/rock-climbing. Females

are more likely to be involved in picnicking*, walking or nature study and horse riding.

As in the 2001 study, these findings show that fewer women are involved in activities that involve strong physical exertion (although some types of walking or nature study, such as bushwalking, can be very strenuous) or mechanical equipment. Since these results do not reflect the proportion of females and males in the SEQ population, it suggests that participation by females and males in each of the 12 surveyed activities is influenced by other factors. Causal factors may be partly explained by the constraints identified and discussed elsewhere in this survey but other survey techniques are needed to understand these influences.

Figure 8: Incidence of participation – by gender

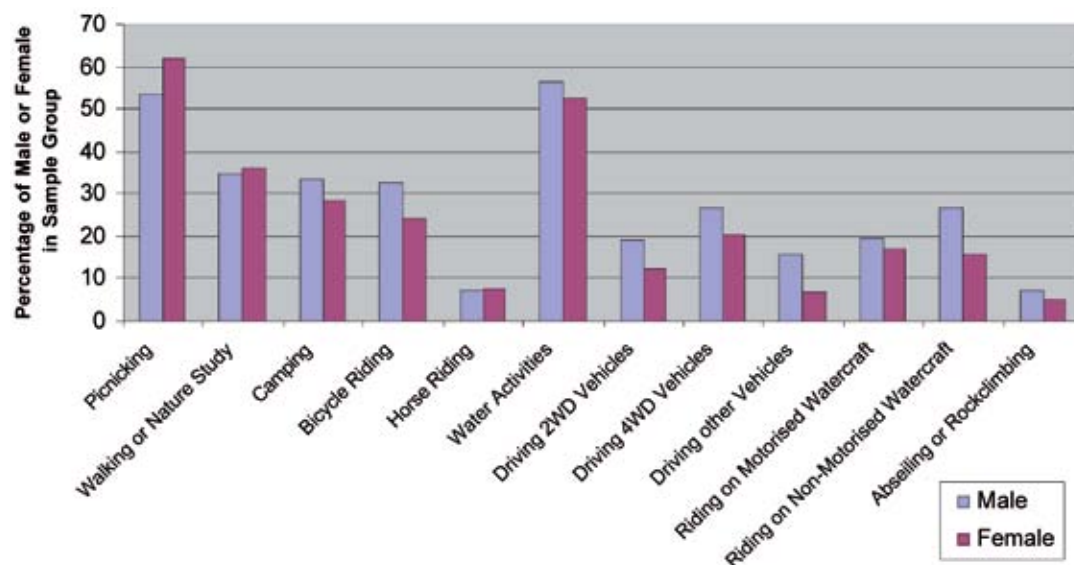


Table 13: Incidence of participation by gender

Activity	Male participation (expressed as % of male sample)	Female participation (expressed as % of female sample)
Picnicking *	54%	62%
Walking or Nature Study	35%	36%
Camping	33%	28%
Bicycle Riding *	33%	24%
Horse Riding	7%	8%
Water Activities	56%	53%
Driving 2WD Vehicles *	19%	12%
Driving 4WD Vehicles	27%	20%
Driving other Vehicles	16%	7%
Riding on Motorised Watercraft	20%	17%
Riding on Non-Motorised Watercraft *	27%	16%
Abseiling/rock-climbing	7%	5%

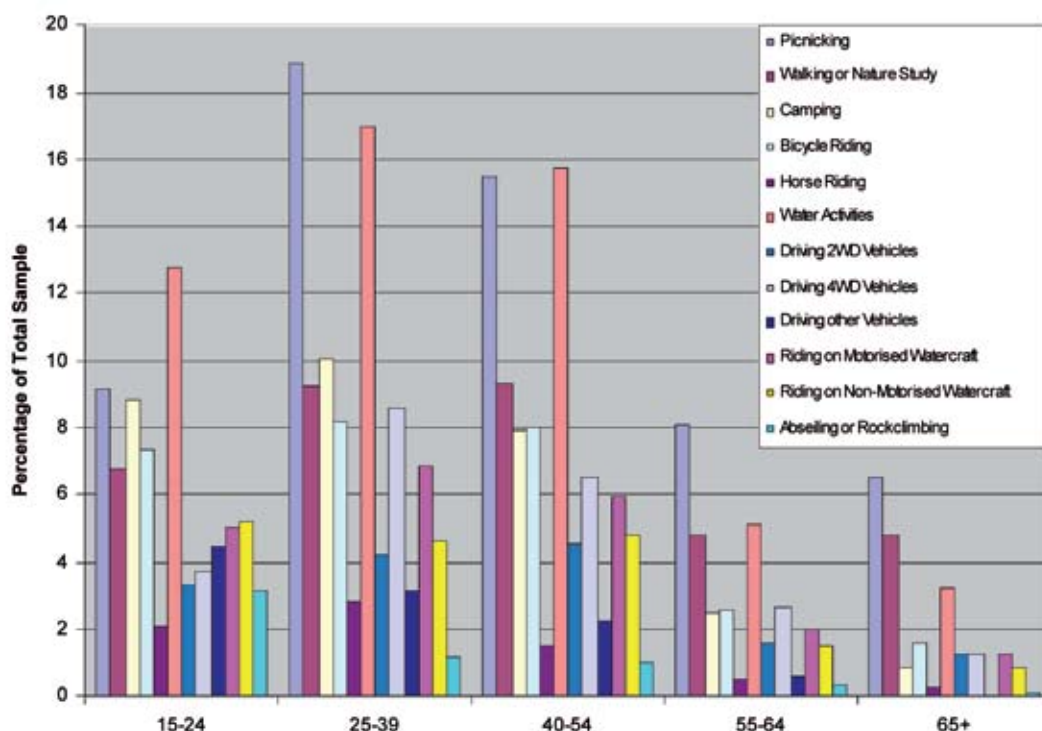
Table 14: Incidence of participation across the age groups, expressed as a percentage of the participation rate of the entire sample group.

Activity	15-24	25-39	40-54	55-64	65+
Picnicking	9%	19%	16%	8%	7%
Walking or Nature Study	7%	9%	9%	5%	5%
Camping	9%	10%	8%	3%	1%
Bicycle Riding	7%	8%	8%	3%	2%
Horse Riding	2%	3%	2%	1%	<1%
Water Activities	13%	17%	16%	5%	3%
Driving 2WD Vehicles	3%	4%	5%	2%	1%
Driving 4WD Vehicles	4%	9%	7%	3%	1%
Driving other Vehicles	4%	3%	2%	1%	<1%
Riding on Motorised Watercraft	5%	7%	6%	2%	1%
Riding on Non-Motorised Watercraft	5%	5%	5%	2%	1%
Abseiling/rock-climbing	3%	1%	1%	< 1%	<1%

Section 8

Results of the survey current participation cont.

Figure 9: Incidence of participation across the age groups, expressed as a percentage of the entire sample group¹¹



8.2.1 Incidence of participation – by age

Table 14 and Figure 9 illustrate the changes in incidence of participation over the different age groups. Incidence of participation is expressed as a percentage of the incidence within the sample population.

As illustrated by the table and the graph, the most common age groups for participation in picnicking, water activities, four-wheel driving and riding on motorised watercraft was the 25-39 and 40-54 age groups. For abseiling/rock-climbing, as well as driving other vehicles, the younger

age group of 15-24 were more likely to be participants. Whilst participation in all activities was much less for the older groups, they were most likely to participate in picnicking and walking or nature study.

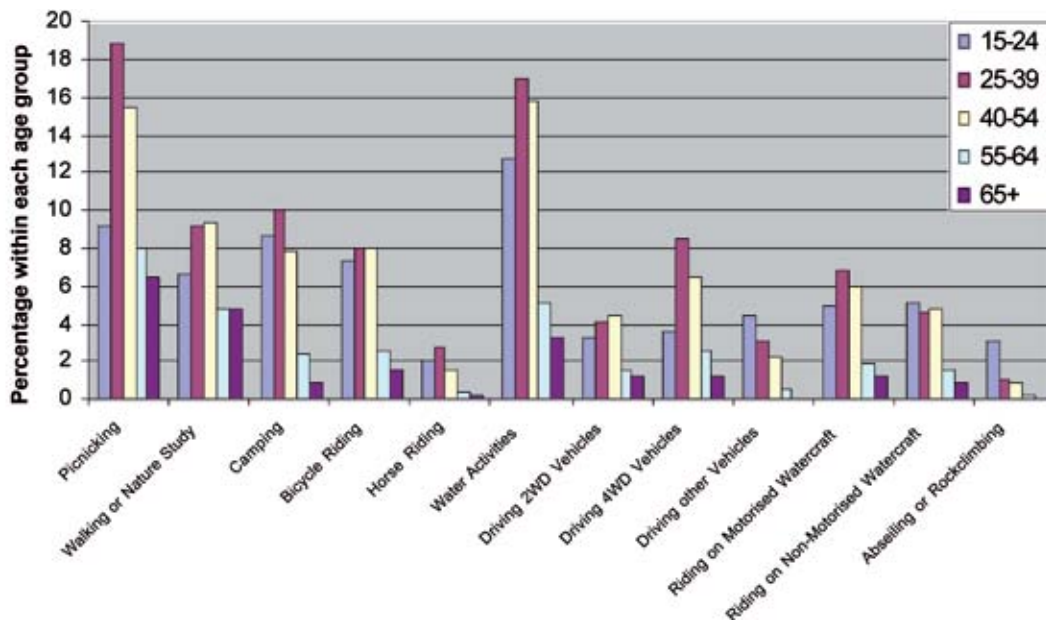
These results, however, reflect the age group distribution across the population. Since the middle age groups represent a larger proportion of the population (the 25-54 age group represents 53% of the population over 15), they will naturally tend to be more numerous across activities. Figure 10, however, shows the incidence of participation across the age groups by outdoor recreation activity.

Figure 10 indicates the following tendencies:

- The 15-24 age group is more interested than other age groups in driving other vehicles, using non-motorised watercraft and abseiling/rock-climbing;
- The 25-39 age group is more interested than other age groups in picnicking, camping, water activities, driving 4wd vehicles, and using motorised watercraft;
- The 40-54 age group is more interested than other age groups in bike riding and driving 2wd vehicles; and

¹¹ The activity legend is displayed on the graph from left to right within each age group. This rule applies to all graphs throughout this report.

Figure 10: Incidence of participation by age across the activity groups.



- The 65+ age group has a lower percentage of participation than other age groups in every activity, except walking. The 65+ age group had the same participation rate as the 55-64 year olds.

Whilst these results indicate outdoor recreation activity preference, they do not necessarily imply overwhelming popularity of the activity amongst the particular age group. For example, although more young people participate in abseiling/rock-climbing than any other age group, only 3% of this group had participated in this activity in the past 12 months.

8.3 Incidence of participation – frequency in the past 12 months

The interviewee was asked how often they had participated in an activity over the past 12 months. Table 15 illustrates the average (or mean) and median number of times that respondents participated in each activity over the past 12 months. For ease of comparison, the mean and median frequencies for the 2001 study are provided in brackets. The representative population is also provided. This has been calculated

from an estimated population of 2,189,599 individuals aged 15 or over living in SEQ.

As illustrated in this table, the average and median for a number of activities differ greatly. For example, the average frequency for walking or nature study is 43.7 times in a year, whilst the median is only 5. Similarly, the average for horse riding is 20, whilst the median is 3. This discrepancy is caused by a small number of people who engage in the activity very frequently, and consequently skew the results.

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Results of the survey current participation cont.

Table 15: Frequency of participation during past 12 months

Activity	Representative of population in S.E.Qld	Mean	Median
Picnicking (n=779)	1 278 634	6.6 (6.9)	3 (4)
Walking or Nature Study (n=470)	771 448	43.7 (71.7)	5 (12)
Camping (n=406)	666 400	3.7 (5.2)	2 (2)
Bicycle Riding (n=372)	610 593	40.1 (43.5)	12 (11)
Horse Riding (n=98)	160 855	20.6 (23.9)	3 (2)
Water Activities (n=724)	1 188 358	19.5 (28.2)	8 (12)
Driving 2WD Vehicles (n=202)	331 558	20.1 (25.2)	4 (5)
Driving 4WD Vehicles (n=308)	505 545	13.8 (16.3)	3 (4)
Driving other Vehicles (n=142)	233 076	30.6 (20.4)	5 (5)
Riding on Motorised Watercraft (n=282)	462 869	11.6 (12.2)	4 (4)
Riding on Non-Motorised Watercraft (n=230)	377 517	14.4 (16.1)	2 (2)
Abseiling/rock-climbing (n=81)	132 952	9.1 (3.9)	2 (2)

The median, which represents the dividing point between the most active (in this activity) fifty percent of the population and the least active fifty percent, is the better measure in this case. The median of 12 for bicycle riding, for example, indicates that 50% of those people that have participated in riding bicycles in the past 12 months did so more than 12 times, and the other 50% of bicycle riders participated less than 12 times in the year.

Frequency of participation in activities was generally similar to the 2001 study, although a decrease was noted in walking or nature study as well as water activities.

Knowledge of the percentage of individuals who are involved in an outdoor recreation activity, as well as the number of times per year that

participation in the activity occurs, provides an opportunity to calculate the number of activity-events that happen in each 12 month period. Table 16 displays the results for the number of occurrences of each activity per year.

Table 16: Activity-events for each activity per year

Activity	No. of participants	Median participation per year	Total number of activity-events/year
Picnicking	1 278 634	3	3 835 902
Walking or Nature Study	771 448	5	3 857 240
Camping	666 400	2	1 332 799
Bicycle Riding	610 593	12	7 327 114
Horse Riding	160 855	3	482 565
Water Activities	1 188 358	8	9 506 865
Driving 2WD Vehicles	331 558	4	1 326 234
Driving 4WD Vehicles	505 545	3	1 516 634
Driving other Vehicles	233 076	5	1 165 379
Riding on Motorised Watercraft	462 869	4	1 851 475
Riding on Non-Motorised Watercraft	377 517	2	755 034
Abseiling/rock-climbing	132 952	2	265 903
Total			33 223 144

8.3.1 Frequency of participation – by gender

Table 17 and Figure 11 illustrate the gendered differences in the frequency of participation in each activity.

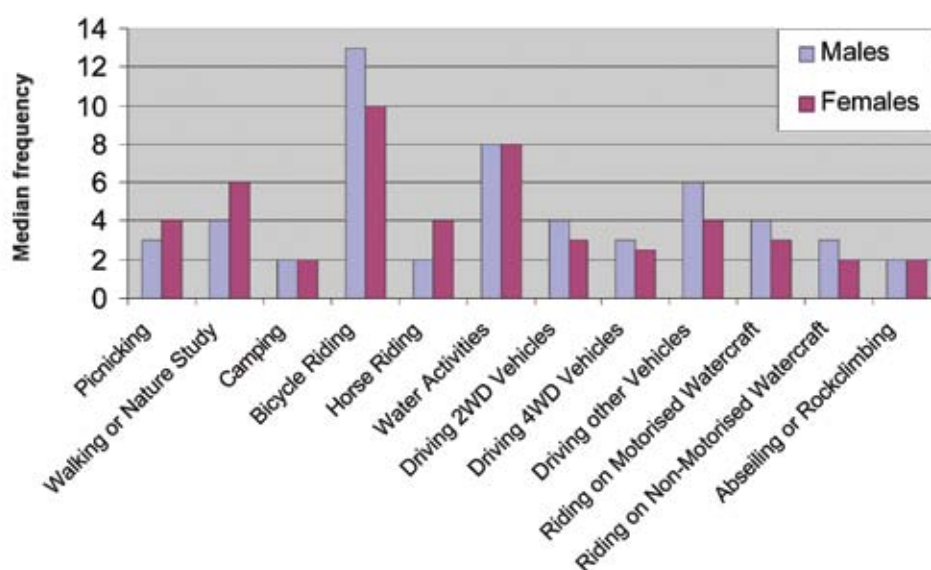
Table 17: Differences in median and mean frequency of participation by gender

Activity	Participation by Gender			
	Median Males	Median Female	Mean Male	Mean Female
Picnicking	3	4	6.3	6.8
Walking or Nature Study	4	6	37.1	48.3
Camping	2	2	4.6	3.1
Bicycle Riding	13	10	51.4	3.2
Horse Riding	2	4	8.6	29.1
Water Activities	8	8	22.8	16.9
Driving 2WD Vehicles	4	3	24.2	15.4
Driving 4WD Vehicles	3	2.5	16.8	10.9
Driving other Vehicles	6	4	27.9	35.1
Riding on Motorised Watercraft	4	3	12.1	11.1
Riding on Non-Motorised Watercraft	3	2	15.4	13.4
Abseiling/rock-climbing	2	2	13.4	4.6

Section 8

Results of the survey current participation cont.

Figure 11: Differences in median frequency of participation by gender.



As illustrated in Table 17 and Figure 11, males participate in all activities more frequently than females, with the exception of picnicking, walking or nature study and horse riding. The activities in which these tendencies occurred match those of actual participation, so that not only do more women participate in these particular activities, they also tend to participate more often than the male participants. Similarly, more males participate in riding bicycles, driving activities, watercraft activities and abseiling/rock-climbing, and they also tend to participate more often than female participants.

8.3.2 Frequency of participation – by age

Table 18 indicates how the frequency of participation (based on medians) changes with age.

The results indicate that, although the numbers of people participating in the different activities are generally smaller for the younger and older age groups (see Figure 9), the frequency of participation for actual participants from these age groups is certainly no less than the frequency of participation of those in the two age brackets from 25-54. In fact, in the case of walking or nature study, the 65+ group participated far more frequently than any other age group. At 13, their median frequency of participation was much higher than the other median frequencies for this activity. This age group also

had a higher median frequency of participation in horse riding, water activities and riding non-motorised watercraft. An interesting feature of the frequency of participation data occurs in bicycle riding in the 55-64 age group. It was found that people in this age class had a median frequency of 20 trips per year.

8.4 Activity participation – the setting where activities were undertaken

Each participant was read a description of the three categories of *somewhat natural*, *very natural*, or *totally natural* settings. They were then asked to estimate what percentage of the times that they participated in each activity was in each of these three settings (the percentages had to add up to 100).

Table 18: Median frequency of participation by age.

Activity	15-24	25-39	40-54	55-64	65+
Picnicking	3	4	4	4	3
Walking or Nature Study	3	4.5	6	10	13
Camping	2	2	2	2	1
Bicycle Riding	10	10	12	20	12
Horse Riding	2.5	2	2	3	25#
Water Activities	7	10	7	6	11
Driving 2WD Vehicles	4	3	4	4	6
Driving 4WD Vehicles	2.5	3	3.6	2.5	2
Driving other Vehicles	5	6	5	5.5	1
Riding on Motorised Watercraft	2.5	3.5	5	6	3
Riding on Non-Motorised Watercraft	2	3	3	2	3.5
Abseiling/rock-climbing	1	3	2	1	1.5

(# There were 4 people participating in horse riding in the 65+ age class. All four people in that category regularly participated and thus skewed the result)

Table 19: Activity participation – the setting where activities were undertaken.

Activity	Representative of Population in S.E.Qld	Somewhat Natural	Very Natural	Totally Natural
Picnicking	1 278 634	66 (59)%	26 (33)%	8 (8)%
Walking or Nature Study	771 448	47 (49)%	36 (34)%	15 (17)%
Camping	666 400	33 (29)%	45 (51)%	20 (20)%
Bicycle Riding	610 593	76 (83)%	18 (15)%	4 (2)%
Horse Riding	160 855	47 (27)%	44 (46)%	8 (27)%*
Water Activities	1 188 358	71 (62)%	21 (31)%*	7 (7)%
Driving 2WD Vehicles	331 558	43 (35)%	45 (57)%*	14 (8)%*
Driving 4WD Vehicles	505 545	25 (19)%	53 (63)%	21 (18)%
Driving other Vehicles	233 076	33 (39)%	43 (52)%	24 (9)%*
Riding Motorised Watercraft	462 869	52 (40)%	34 (46)%	14 (14)%
Riding Non-Motorised Watercraft	377 517	50 (39)%	36 (47)%*	14 (14)%
Abseiling/rock-climbing	132 952	45 (52)%	32 (24)%	23 (24)%

Section 8

Results of the survey current participation cont.

Table 19 indicates the settings where each of the activities was undertaken.

Figure 12 shows the trends in participation within the settings more clearly by extending the data to include the 1997 study as well as the data collected in 2001.

Significant differences have occurred in a number of activities. The use of *totally natural* settings by horse riders has decreased. This may be explained by changes to protected area land tenure and thus the decrease is a change in access for horse riding opportunities. It could also be a change in perception for this group.

Water activities in *very natural* settings have decreased which may be linked to the SEQ drought in 2007. Riding non motorised watercraft has also seen a decrease in the use of *very natural* settings.

Driving 2wd vehicles and driving other vehicles in *totally natural* settings has increased. Additionally, four wheel driving and bike riding also show an increase (although not statistically significant) in the percentage of activities conducted in *totally natural* settings.

It is assumed that drivers of four-wheel drive vehicles who participate in *totally natural* settings drive on

beaches or on other unmade or unformed roads. However, the claim that 14 percent of those who drive two-wheel vehicles participate in *totally natural* settings is particularly problematic, since this does not seem to be possible. A similar result occurred in the 2001 study, and this was clarified to some extent through the qualitative findings, which indicated that the claim was based on the drivers' subjective perception of the landscape surrounding the road. The same conclusion could be made about people driving 4wd vehicles (21%) and driving other vehicles (24%) in *totally natural* settings.

Figure 12: The setting where activities were undertaken – comparison of data collected 2007, 2001 and 1997.

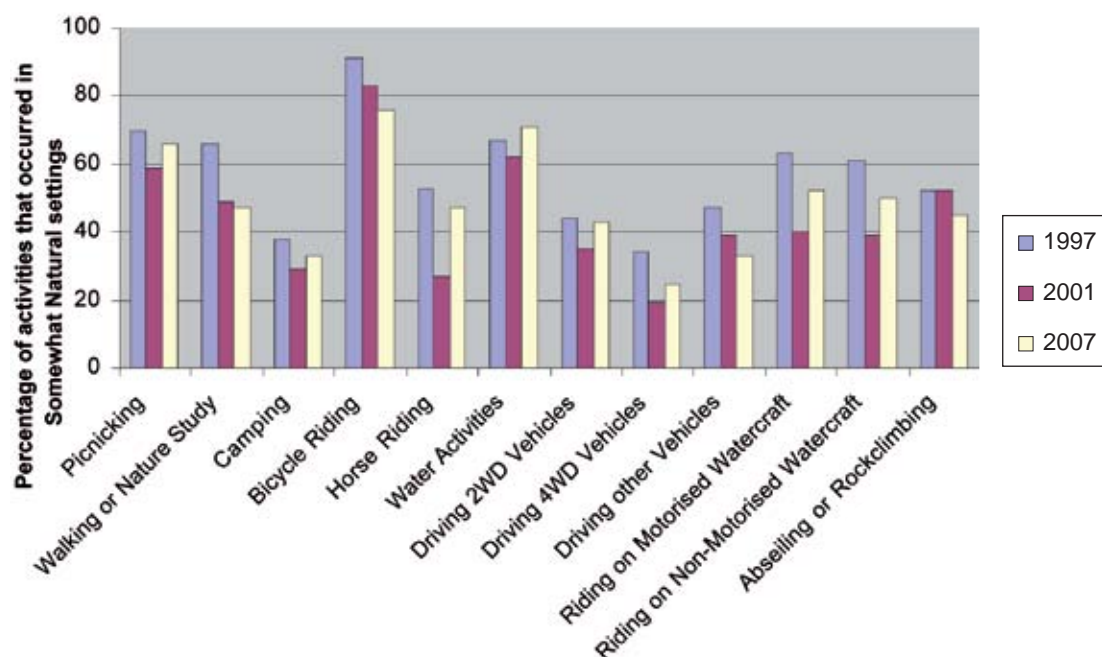
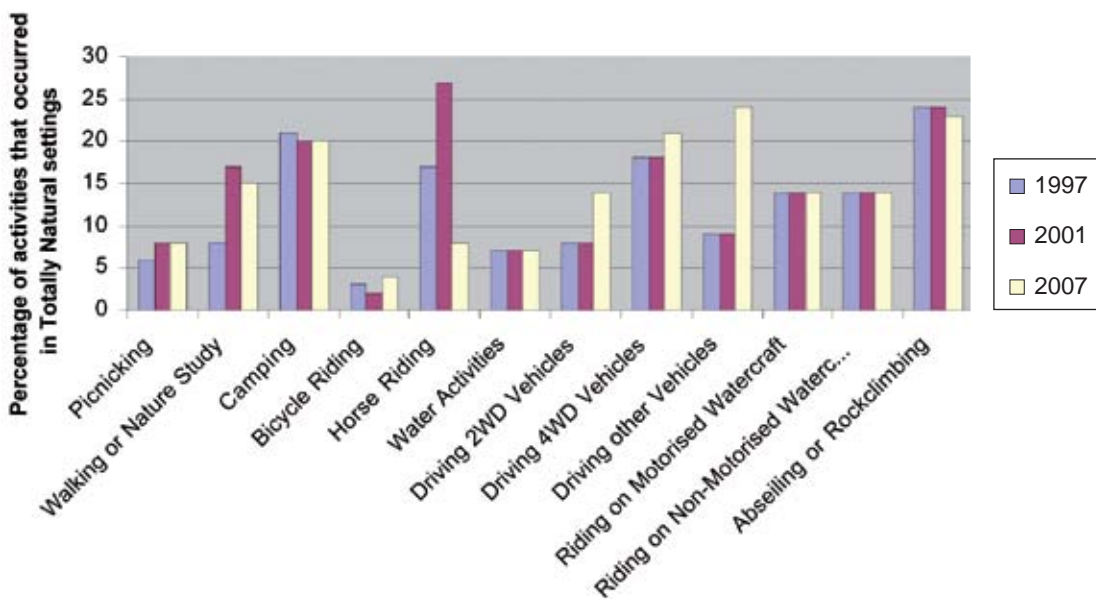
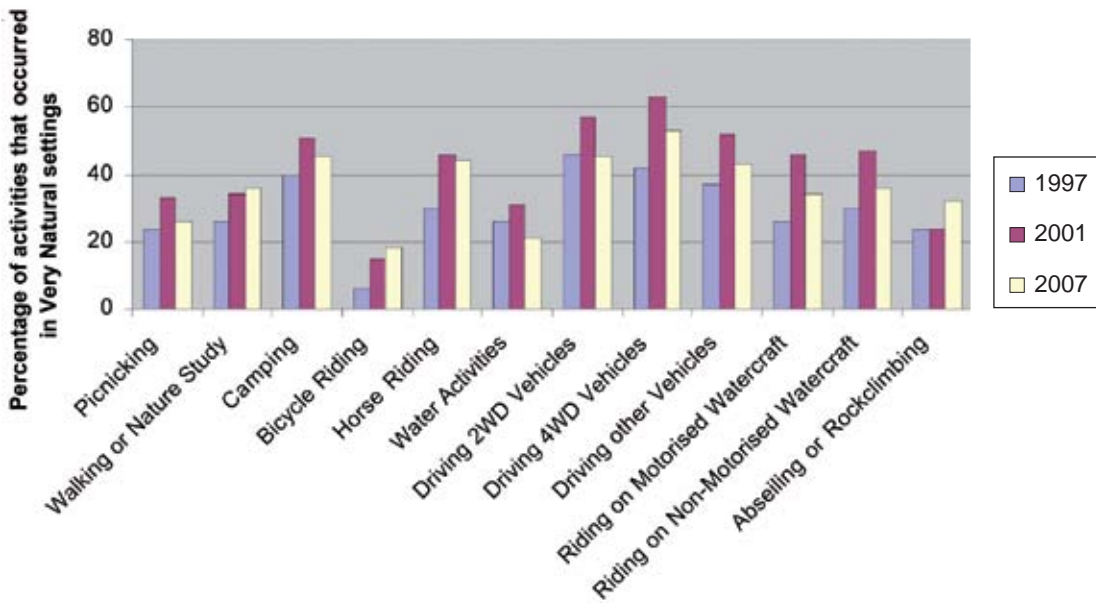


Figure 12 cont.



Section 8

Results of the survey current participation cont.

The 2001 qualitative findings (see the 2001 SEQORDS) indicate that the individual conclusions need to be treated with caution. The tendency of participants to use subjective, rather than normative definitions of somewhat, very, and *totally natural* setting, means that a setting described as *totally natural* is one that offers a perception that it is remote and pristine, whatever the reality.

Table 20 provides a further application of this information, through its calculation of the number of activity-events that occur each year within settings perceived to be *somewhat*, *very*, or *totally natural*. The product of the number of activity-events per year and the percentage of times this activity occurs in each setting provides the number of times that the setting is used for each activity. As depicted in Table 20, individual outdoor recreation activities total well into the millions, with hundreds of thousands of these events occurring in what participants perceive to be *very natural* or *totally natural* settings. Despite the subjective nature of these perceptions, the results generally emphasise the need for continued provision of settings that retain very and more natural characteristics.

8.5 Activity participation by motivation

To determine the motivation of participants, each respondent was read a description of the three broad motivations for undertaking an outdoor recreation activity. These were: Leisurely (sightseeing, unwinding, relaxing); Goal-focused (fitness, conquering or challenging nature, testing equipment, practising techniques); and competitively (maximum distance, minimum time, formal organised competition). Respondents were then asked to indicate which descriptor best described their motivation for undertaking each activity in which they participated.

Table 21 indicates the motivation of respondents for participation in each of the activities. In line with the previous SEQORDS (1997 and 2001) the first three activities (picnicking; camping; and walking or nature study) were not tested for motivation. Figures from the 2001 study are offered for comparison.

Results for the 2007 study are very similar to the 2001 study, with "Leisurely" being by far the most common motivation for participation in these activities. Very few participants were motivated by reasons of competition. "Goal-focused" was more important (though still less than 22%) for participants involved in bicycle riding, driving two and four wheel drive vehicles, and abseiling/rock-climbing. There were no statistically significant changes in motivation between 2001 and 2007.

8.6 Those who currently participate and who are interested in participating more often

Current participants were asked to indicate if they were interested in participating in an activity more often, but are prevented from doing so for some reason.

Table 22 provides details regarding the desire of those who currently participate in each activity to participate in the same activity more often. Figures from the 2001 study are offered for comparison.

The percentages for 2007 are generally similar to those found in the 2001 study. As for this previous study, the activity of camping is the most popular in terms of people wanting to do it more often. The 2001 figure of 68% of people wanting to go camping more often has decreased to 64%.

8.7 The main reasons preventing people from participating in a chosen activity more often

By far the most reported reason that prevents people from participating in an activity more often is that they are too busy and do not have enough time. Table 23 provides the percentage of people who offered this reason as the main constraint on increased participation.

Table 20: Number of activity-events occurring within each setting

Activity	No. of activity-events per year	No of activity-events occurring in a particular setting		
		Somewhat natural setting	Very natural setting	Totally natural setting
Picnicking	3 835 902	2 531 695	997 334	306 872
Walking or Nature Study	3 857 240	1 812 903	1 388 606	578 586
Camping	1 332 799	439 824	599 760	266 560
Bicycle Riding	7 327 114	5 568 607	1 318 881	293 085
Horse Riding	482 565	226 806	212 329	38 605
Water Activities	9 506 865	6 749 874	1 996 442	665 481
Driving 2WD Vehicles	1 326 234	570 281	596 805	185 673
Driving 4WD Vehicles	1 516 634	379 158	803 816	318 493
Driving other Vehicles	1 165 379	384 575	501 113	279 691
Riding on Motorised Watercraft	1 851 475	962 767	629 502	259 207
Riding on Non-Motorised Watercraft	755 034	377 517	271 812	105 705
Abseiling/rock-climbing	265 903	119 656	85 089	61 158
Total	33 223 144			

Table 21: Activity participation by motivation

Activity	Leisurely	Goal-focused	Competitively
Bicycle Riding	77 (83)%	17 (16)%	1 (1)%
Horse Riding	90(87)%	6 (6)%	2(6)%
Water Activities	90(94)%	8 (6)%	1(0.5)%
Driving 2WD Vehicles	84(81)%	15 (18)%	1(1)%
Driving 4WD Vehicles	75(91)%	22 (9)%	3 (0.5)%
Driving other Vehicles	85(88)%	11 (9)%	4(3)%
Riding on Motorised Watercraft	88(94)%	10 (5)%	2(1)%
Riding on Non-Motorised Watercraft	86(91)%	10 (5)%	4(4)%
Abseiling/rock-climbing	71(85)%	18 (14)%	5(1)%

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Results of the survey current participation cont.

Table 22: Those who currently participate and who are interested in participating more often.

Activity	Percentage wishing to participate more often (2007)	Percentage wishing to participate more often (2001)
Picnicking	48%	46%
Walking or Nature Study	49%	42%
Camping	64%	68%
Bicycle Riding	44%	45%
Horse Riding	43%	55%
Water Activities	44%	45%
Driving 2WD Vehicles	29%	29%
Driving 4WD Vehicles	44%	56%
Driving other Vehicles	46%	53%
Riding on Motorised Watercraft	47%	56%
Riding on Non-Motorised Watercraft	39%	55%
Abseiling/rock-climbing	46%	46%

Table 23: Percentage of people who would like to participate in each activity more often but are too busy and do not have enough time

Activity	Percentage who are too busy or do not have enough time to participate more often
Picnicking	73%
Walking or Nature Study	63%
Camping	75%
Bicycle Riding	59%
Horse Riding	40%
Water Activities	66%
Driving 2WD Vehicles	59%
Driving 4WD Vehicles	52%
Driving other Vehicles	35%
Riding on Motorised Watercraft	43%
Riding on Non-Motorised Watercraft	60%
Abseiling/rock-climbing	49%

Table 24 and Figure 13 indicate the less frequently reported reasons for not participating in a chosen activity more often. These constraints have been mapped separately from the major constraint of *'time'* in order to view them more clearly. Figure 13 displays these constraints.

As indicated by Table 24 and Figure 13, constraints varied with the activity. For example, *'nowhere to go'* was more important for activities such as bike riding, horse riding, driving other vehicles, and abseiling/rock-climbing. *'Cost'* factors were more important for those who participated in vehicular activities, horse riding, motorised watercraft or climbing and abseiling. *'Family'* responsibilities were more of a problem for people who would like to participate in picnics and

walking or nature study more often. *'Health'* constraints were more often a problem for those who would like to participate in walking or water activities more often.

A small number of other participants mentioned their fear of walking alone. Other constraints included the weather (most commonly mentioned with respect to water activities); lack of companions; no facilities; difficulties with transport; distance from venue; work responsibilities; too old; motivation/laziness; lack of skill; and bureaucratic restrictions. Figure 14 shows a further analysis of the major constraint (*'no time/too busy'*) according to the age of the participants.

As illustrated in this graph, the *'time'* constraint is pertinent for

people in the 25-39 and 40-54 age groups. This result, together with the fact that SEQ has an aging population, has implications for the growth in popularity of outdoor recreation activities. As the population ages, *'time'* constraints are no longer so pertinent, and so more people will be able to indulge in their preferred outdoor recreation activity more often than they do. This is assuming other constraints, not previously encountered by the population, do not increase.

The 15-24 age groups displayed high rates of *'time'* constraints for driving other vehicles and abseiling/rock-climbing. This result may be attributed to the lack of accessibility to activity venues combined with transport constraints for young drivers.

Table 24: Reasons preventing people from participating in a chosen activity more often (excluding *'no time/too busy'*)

	<i>'Family responsibilities'</i>	<i>'Health'</i>	<i>'Can't afford it'</i>	<i>'Nowhere to go'</i>	<i>'No equipment'</i>
Picnicking	9	7	2	5	3
Walking or Nature Study	9	11	2	11	2
Camping	7	3	5	3	4
Bicycle Riding	4	5	1	15	10
Horse Riding	5	2	10	26	17
Water Activities	6	6	4	11	4
Driving 2WD Vehicles	3	2	8	12	10
Driving 4WD Vehicles	7	1	7	8	22
Driving other Vehicles	2	3	8	38	15
Riding on Motorised Watercraft	3	2	14	6	27
Riding on Non-Motorised Watercraft	6	3	3	10	13
Abseiling/rock-climbing	3	3	11	24	11

Section 8

Results of the survey current participation cont.

Figure 13: Reasons preventing people from participating in a chosen activity more often (excluding 'no time/too busy')

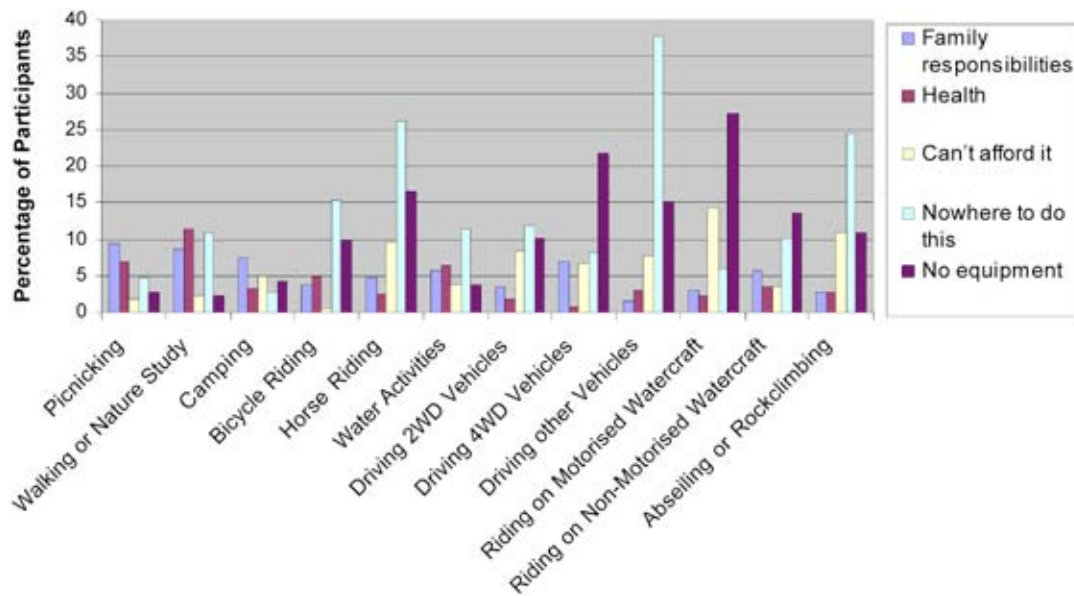
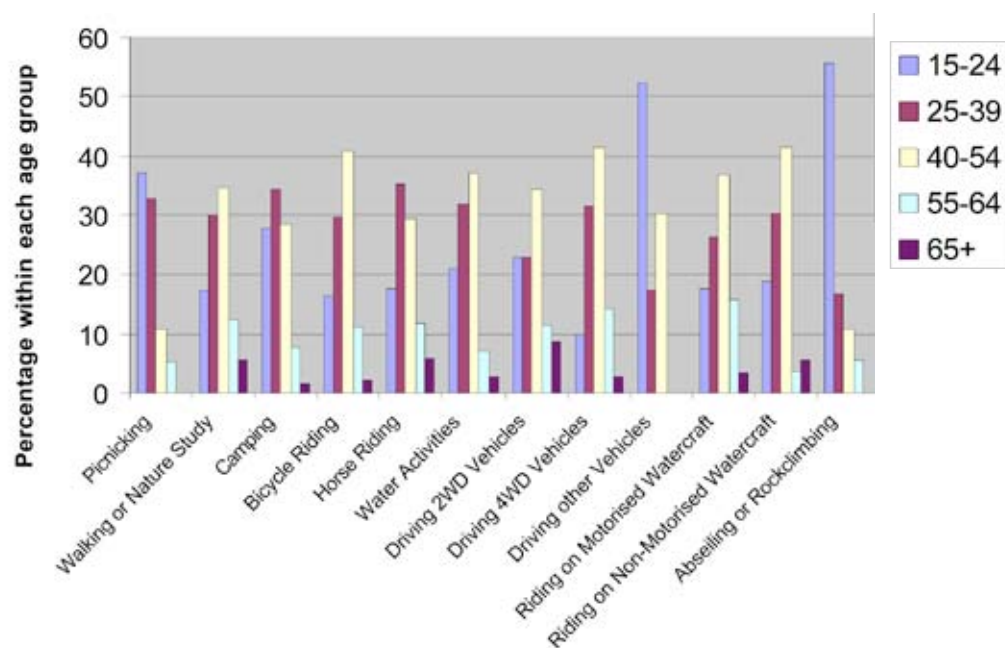


Figure 14: 'Time' constraint according to age



8.8 Preferred setting of those interested in participating in an activity more often

Each person who had indicated that they would like to undertake an activity more often was asked to choose a preferred setting for that

increased participation. Table 25 displays the result of both the current usage as well as the preferred usage indicated by participants. Figure 15 portrays this information graphically.

There are two major themes documented in Table 25 and Figure 15. Firstly, for people who do not participate but would like

to participate more often, people generally would prefer more natural settings to undertake the activity. Secondly, people who do participate but would like to participate more often, there is a preference for participation in a more natural setting than the one they presently use.

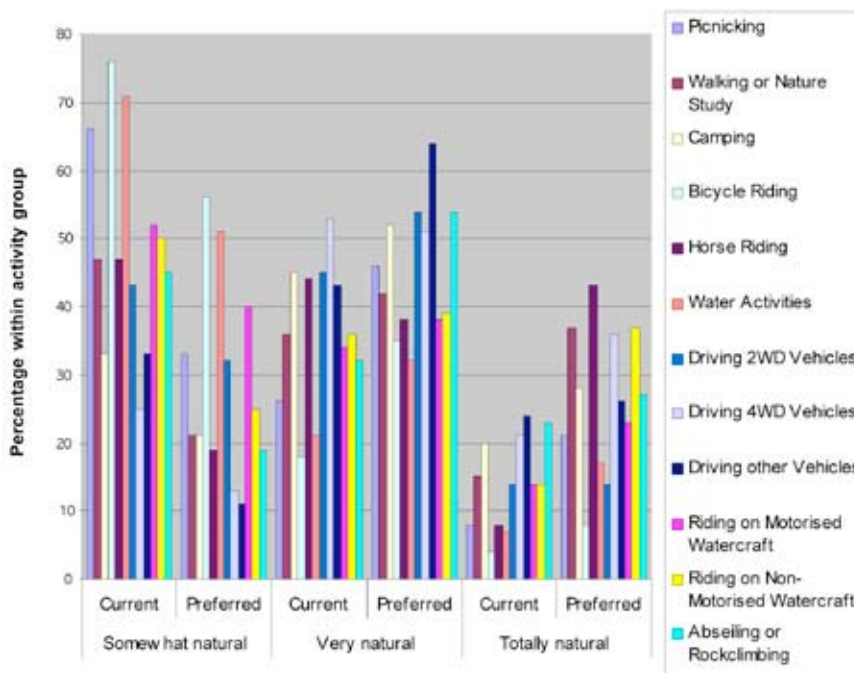
Table 25: Preferred setting of those interested in participating in an activity more often (expressed as a percentage of interested participants)

Activity	Pop. Participating.	Somewhat natural		Very natural		Totally natural	
		Current	Preferred	Current	Preferred	Current	Preferred
Picnicking	1 278 634	66%	33%	26%	46%	8%	21%
Walking or Nature Study	771 448	47%	21%	36%	42%	15%	37%
Camping	666 400	33%	21%	45%	52%	20%	28%
Bicycle Riding	610 593	76%	56%	18%	35%	4%	8%
Horse Riding	160 855	47%	19%	44%	38%	8%	43%
Water Activities	1 188 358	71%	51%	21%	32%	7%	17%
Driving 2WD Vehicles	331 558	43%	32%	45%	54%	14%	14%
Driving 4WD Vehicles	505 545	25%	13%	53%	51%	21%	36%
Driving other Vehicles	233 076	33%	11%	43%	64%	24%	26%
Riding on Motorised Watercraft	462 869	52%	40%	34%	38%	14%	23%
Riding on Non-Motorised Watercraft	377 517	50%	25%	36%	39%	14%	37%
Abseiling/rock-climbing	132 952	45%	19%	32%	54%	23%	27%

Section 8

Results of the survey current participation cont.

Figure 15: Preferred setting of those interested in participating in an activity more often (compared with current usage)



8.9 Likely motivation of those interested in participating in an activity more often

People who had indicated that they would like to undertake a chosen activity more often were asked to describe their likely motivation for increased participation. Results are listed in Table 26.

These results generally indicate that participants have overwhelmingly adopted a leisurely style to their current participation in all activities, and would prefer to increase this style if they could. There is one exception to this trend. Horse riders would prefer to become more goal-focused and/or competitive.

8.10 Summary

The results recorded in this section indicate that participation in outdoor recreation activities remains high compared to the results of previous studies. Picnicking is the activity most commonly engaged in by participants, involving 58% of the population (or 1 278 634 people) in the previous 12 months. Water activities (54%) are the next most popular activity, followed by walking or nature study (34%). Significant differences in participation have been noted with respect to location, age, and gender.

There were differences between the various ROC's. Camping, bicycle riding, and using non-motorised watercraft are most popular with people from

NorsROC. Water based recreation, as well as using motorised watercraft is also most popular amongst the NorsROC population, as well as SouthROC, both of which include a number of coastal local governments. The WesROC population appears to be more involved in picnicking and abseiling/rock-climbing. They also share with the NorsROC population a higher incidence of driving other vehicles. Walking or nature study is most popular amongst the Brisbane based population.

Participation by gender (and frequency of participation) followed stereotypical expectations, in that women were significantly more involved in activities that did not involve strong physical exertion or mechanical equipment. They participated more often in picnicking,

Table 26: Likely motivation of those interested in participating in an activity more often (expressed as a percentage)

Activity	Pop. Participating	Leisurely		Goal-focused		Competitively	
		Current	Preferred	Current	Preferred	Current	Preferred
Bicycle Riding	610 593	77%	81%	21%	18%	1%	1%
Horse Riding	160 855	92%	86%	6%	7%	2%	7%
Water Activities	1 188 358	90%	97%	8%	3%	1%	1%
Driving 2WD Vehicles	331 558	84%	92%	15%	8%	1%	0%
Driving 4WD Vehicles	505 545	75%	97%	22%	2%	3%	1%
Driving other Vehicles	233 076	85%	89%	11%	8%	4%	3%
Riding on Motorised Watercraft	462 869	88%	93%	10%	5%	2%	1%
Riding on Non-Motorised Watercraft	377 517	86%	88%	10%	11%	4%	1%
Abseiling/rock-climbing	132 952	71%	76%	18%	19%	5%	5%

walking or nature study (it is acknowledged that this activity may involve strenuous exertion) and horse riding. Men were significantly more involved in camping, bicycle riding, all types of driving, using both motorised and non-motorised watercraft, and abseiling/rock-climbing. Where women were involved in these activities, they participated less often.

Participation in activities was also affected by the age of the participant. The youngest age group (15-24) showed proportionately more interest than other groups in abseiling/rock-climbing and driving other vehicles. Picnicking, walking or nature study, camping, bike riding, horse riding, four-wheel drive vehicles and using motorised watercraft were more popular amongst the 24-39 age group. The 40-54 age group participated in driving two-wheel drive vehicles more than any other age group. Picnicking, walking or nature study, and water activities were the most

popular activities within the 40-54 year olds, whilst the 55-64 and 65+ age groups had a lower percentage of participation than other age groups in every activity.

This lower participation rate amongst the oldest age group, however, was offset by their frequency of participation. The people in the older age group who did participate in an activity, participated on average more frequently than any other age group in a number of activities, including walking or nature study, non-motorised watercraft, water activities and two-wheel driving. This frequency might be a result of a decrease in commitments: by far the largest constraint on increased participation that was reported by all age groups was being too busy and having no 'time'. This constraint was particularly pertinent to the 25-39 and 40-54 age groups, a result that has implications for an increased demand and the type of service provisions for outdoor recreation as the population ages.

Results indicate an already heavy demand on the natural settings, with the likelihood that such usage will continue. In comparison with the 1997 and the 2001 study, the current usage of *totally natural* settings has remained constant for almost all activities. The exceptions were for people driving 2wd vehicles and those driving other vehicles where a statistically significant increase occurred. There has been a statistically significant decrease in usage of *totally natural* settings for horse riding. There have been some changes between *somewhat natural* and *very natural* setting usage but there is no discernable trend in the changes.

The trend in preferred settings reflects the results of the 2001 study, with a continued preference for more natural settings. The style in which people undertook outdoor recreation was leisurely. People generally indicated that they would prefer this type of engagement.

Section 9

Results of the survey

latent participation

To determine latent participation the respondents were asked a series of questions regarding their interest in future participation in this activity. These questions included: issues preventing them from participating in this activity; their preferred setting for possible future participation and motivation for possible future participation.

9.1 Current non-participants and their interest in participation

Each person who had not undertaken an activity was asked whether they were interested in participating in that activity. Results are presented in Table 27, with 2001 results shown in brackets.

Latent interest in each activity has largely remained the same compared to the results from the 2001 study. Slight decreases should be noted in camping, water activities, and motorised watercraft. As indicated by the actual population figures, there are a substantial number of non-participants in each activity who have interest in pursuing the activity.

9.2 Latent participation – by gender

Table 28 lists the latent interest in each activity according to the percentage of female non-participants and percentage of male non-participants who are interested in participating in each activity. Statistically significant differences between male and female interest are indicated with an asterisk, where an asterisk (*) indicates significant difference ($P < 0.05$).

A graphical illustration of this information is presented in Figure 16.

As illustrated by Table 28 and Figure 16, women are significantly more interested in becoming involved in picnicking, walking or nature study and horse riding. Men are more interested in camping, all types of driving, and riding on motorised watercraft. These results reflect a similar gendered division of interest as that found for current participation (See Section 8).

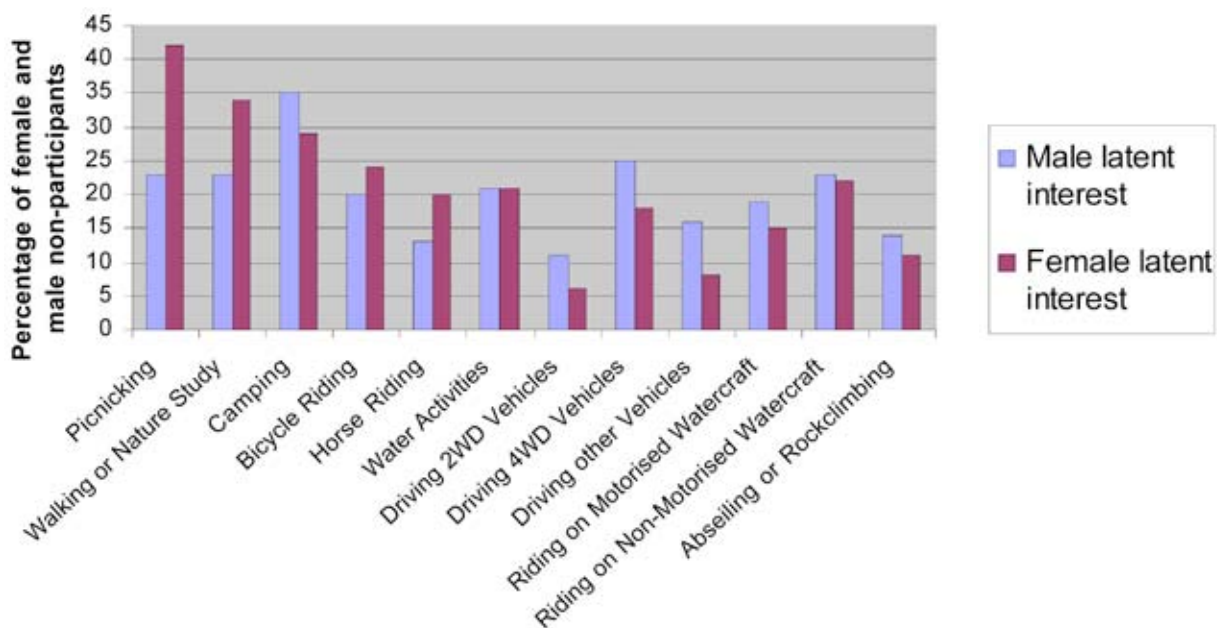
Table 27: Current non-participants and their interest in participating in each activity:

Activity	Percentage of non-participants with interest	Representative actual population of non-participants with interest
Picnicking	33% (35)	303230
Walking or Nature Study	30% (30)	420053
Camping	31% (36)	482278
Bicycle Riding	22% (21)	353978
Horse Riding	17% (18)	349273
Water Activities	21% (26)	214652
Driving 2WD Vehicles	8% (11)	151260
Driving 4WD Vehicles	20% (20)	343443
Driving other Vehicles	11% (8)	223975
Riding on Motorised Watercraft	17% (25)	299259
Riding Non-Motorised Watercraft	21% (23)	385203
Abseiling/rock-climbing	12% (13)	251323

Table 28: Current non-participants and their interest in participating according to gender

Activity	Male latent interest	Female latent interest
Picnicking*	23%	42%
Walking or Nature Study*	23%	34%
Camping*	35%	29%
Bicycle Riding	20%	24%
Horse Riding*	13%	20%
Water Activities	21%	21%
Driving 2WD Vehicles*	11%	6%
Driving 4WD Vehicles*	25%	18%
Driving other Vehicles*	16%	8%
Riding on Motorised Watercraft	19%	15%
Riding Non-Motorised Watercraft	23%	22%
Abseiling/rock-climbing	14%	11%

Figure 16: Current non-participants and their interest in participating according to gender



Section 9

Results of the survey

latent participation cont.

9.3 Latent participation – by age

Table 29 lists the percentage of non-participants within each age group who are interested in participating in each activity.

This information is graphically presented in Figure 17.

As illustrated by Table 29 and Figure 17, different activities appeal to different age groups.

In general, latent interest in all activities is strongest amongst the younger age groups, reaching a peak amongst the 25-39 year olds. Exceptions occur in walking or nature study and picnicking, where latent interest is proportionately higher amongst older age groups.

9.4 The main reasons preventing non-participants from participating in an activity

Figure 18 and Table 30 illustrate the main reasons that prevent non-participants (who expressed an interest in the activity) from actually participating in this activity.

Once again the reason of “no time/too busy” is the most likely constraint that prevents people from participating in activities. Equipment becomes more important in the case of four-wheel driving, bicycle

riding, other driving activities, and using motorised watercraft. ‘Health’ becomes a noticeable constraint for walking or nature study, bicycle riding and horse riding, which is possibly due to the older age groups that wish to participate in this activity. ‘Nowhere to go’ is most problematic for horse riding, water activities, abseiling/rock-climbing and walking or nature study. ‘Family’ responsibilities are a noticeable constraint on camping activities, walking and nature study and bicycle riding.

9.5 The preferred setting of non-participants interested in participating in an activity

Each respondent who had not undertaken an activity, but who indicated that they were interested in doing so, nominated the preferred setting in which they would like to undertake this activity. Results are shown in Table 31, with results from the 2001 study shown in brackets for comparison. Results are expressed as the percentage of interested non-participants that nominated this landscape category as their preferred setting.

The findings show that there is a slight decrease in *totally natural* preferred settings and that this decrease manifests itself in an increased preference for *somewhat natural* settings and to a lesser degree

very natural settings. More analysis of the trend in latent setting preference is undertaken in Section 10.

It must be noted that, as for current participants, it is likely that latent participants are working from a subjective impression of landscape rather than the normative guidelines that they were given. Even so, the fact that 51% of interested people said that they would prefer to drive other vehicles in *very natural* settings has significant implications for management.

9.6 The likely motivation of current non-participants interested in participating in an activity

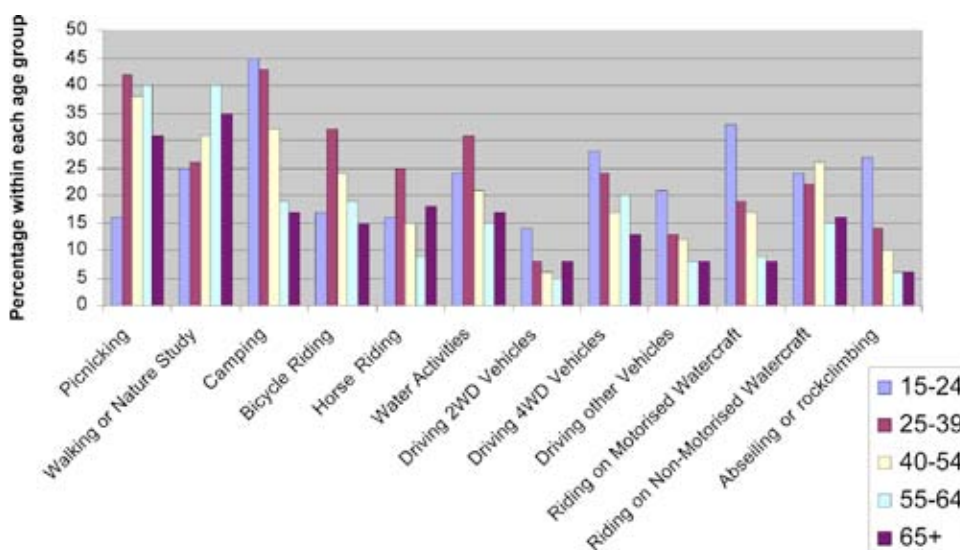
Current non-participants who had indicated that they were interested in participating in a particular activity were asked about their likely motivation for participation. Results are shown in Table 32. Results are expressed as a percentage of non-participants interested in pursuing each activity.

As for the current participation, latent participation is dominated by leisurely motives. Very little desire is evidenced to use these activities to achieve other goals, and even less to engage in the activities on a competitive basis. In other words, non-participants who expressed a desire to engage in these activities were motivated by the intrinsic nature of the activity itself.

Table 29: Current non-participants and their interest in participating, according to age group

Activity	Percentage of non-participants in each age group with an interest in participating				
	15-24	25-39	40-54	55-64	65+
Picnicking	16%	42%	38%	40%	31%
Walking or Nature Study	25%	26%	31%	40%	35%
Camping	45%	43%	32%	19%	17%
Bicycle Riding	17%	32%	24%	19%	15%
Horse Riding	16%	25%	15%	9%	18%
Water Activities	24%	31%	21%	15%	17%
Driving 2WD Vehicles	14%	8%	6%	5%	8%
Driving 4WD Vehicles	28%	24%	17%	20%	13%
Driving other Vehicles	21%	13%	12%	8%	8%
Riding Motorised Watercraft	33%	19%	17%	9%	8%
Riding Non-Motorised Watercraft	24%	22%	26%	15%	16%
Abseiling/rock-climbing	27%	14%	10%	6%	6%

Figure 17: Current non-participants and their interest in participating according to age group



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Results of the survey

latent participation cont.

Figure 18: Constraints that prevented participation in activities

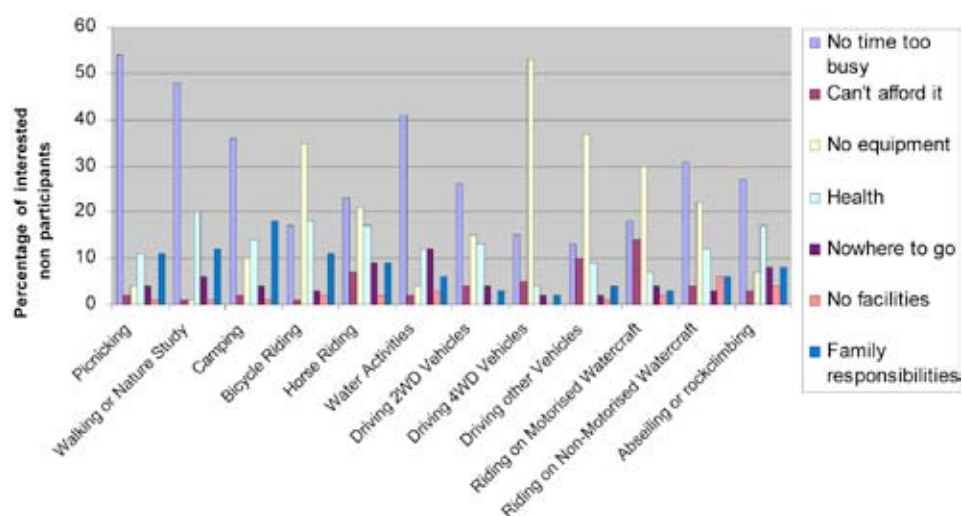


Table 30: Constraints that prevented participation in activities, shown as a percentage of those non-participants who had expressed an interest in participating in an activity

Activity	'No time'	'Can't afford it'	'No equipment'	'Health'	'Nowhere to go'	'No facilities'	'Family Responsibilities'
Picnicking	54%	2%	4%	11%	4%	1%	11%
Walking or Nature Study	48%	1%	1%	20%	6%	1%	12%
Camping	36%	2%	10%	14%	4%	1%	18%
Bicycle Riding	17%	1%	35%	18%	3%	2%	11%
Horse Riding	23%	7%	21%	17%	9%	2%	9%
Water Activities	41%	2%	4%	12%	12%	3%	6%
Driving 2WD Vehicles	26%	4%	15%	13%	4%	0%	3%
Driving 4WD Vehicles	15%	5%	53%	4%	2%	0%	2%
Driving other Vehicles	13%	10%	37%	9%	2%	1%	4%
Riding on Motorised Watercraft	18%	14%	30%	7%	4%	2%	3%
Riding on Non-Motorised Watercraft	31%	4%	22%	12%	3%	6%	6%
Abseiling/rock-climbing	27%	3%	7%	17%	8%	4%	8%

Table 31: Preferred setting of non-participants interested in participating in an activity

Activity	Latent Participation	Preferred Setting		
		<i>Somewhat natural</i>	<i>Very natural</i>	<i>Totally natural</i>
Picnicking	303230	39 (33)%	36 (39)%	21 (28)%
Walking or Nature Study	420053	25 (19)%	41 (35)%	33 (46)%
Camping	482278	25 (18)%	43 (47)%	31 (35)%
Bicycle Riding	353978	67 (60)%	26 (30)%	6 (10)%
Horse Riding	349273	23 (14)%	45 (37)%	26 (49)%
Water Activities	214652	42 (32)%	40 (37)%	15 (30)%
Driving 2WD Vehicles	151260	35 (19)%	36 (48)%	27 (32)%
Driving 4WD Vehicles	343443	18 (14)%	42 (42)%	37 (44)%
Driving other Vehicles	223975	26 (23)%	51 (37)%	23 (40)%
Riding on Motorised Watercraft	299259	45 (31)%	37 (46)%	18 (23)%
Riding on Non-Motorised Watercraft	385203	33 (25)%	38 (42)%	28 (33)%
Abseiling/rock-climbing	251323	46 (36)%	31 (30)%	21 (34)%

Table 32: Likely motivation of current non-participants interested in participating in an activity

Activity	Latent Participation	Likely Motivation		
		<i>Leisurely</i>	<i>Goal-focused</i>	<i>Competitively</i>
Bicycle Riding	353978	89%	10%	1%
Horse Riding	349273	96%	2%	1%
Water Activities	214652	93%	6%	1%
Driving 2WD Vehicles	151260	93%	3%	2%
Driving 4WD Vehicles	343443	92%	6%	2%
Driving other Vehicles	223975	93%	4%	3%
Riding on Motorised Watercraft	299259	98%	1%	1%
Riding on Non-Motorised Watercraft	385203	92%	6%	2%
Abseiling/rock-climbing	251323	88%	11%	2%

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latent participation cont.

9.7 Summary

The results of this section have supported the results recorded in Section 8, in that non-participants who have expressed interest in participating in an activity show similar characteristics to current participants. Non-participants show a similar gendered division of interests to participants, with women showing most interest in activities such as picnicking, walking or nature study, and horse riding. Men are more interested in activities that involve high levels of exertion (such as abseiling/rock-climbing), or machinery (such as driving and motorised watercraft). Interest in activities is also age dependent, with young people most interested in camping, motorised watercraft, and abseiling/rock-climbing. Older groups are more interested in picnicking and walking or nature study.

The lack of *'time'* is the most important reason that prevents people from getting involved in activities. However, lack of equipment is also important for certain activities such as driving four-wheel drive vehicles, bicycle riding and driving other vehicles. Those interested in horse riding were constrained by the difficulties of finding somewhere to go, although perhaps the fact that many of them stated that they preferred to do this activity in a *totally natural* environment had something to do with this. *'Nowhere to go'* also features as a constraint for water activities, which, given the current drought conditions, is likely to be associated with low levels or non-existent water in inland reservoirs. Health was an issue for those involved in walking or nature study, which may be a reflection of the older age group that would like to participate in this activity.

The difference between the 2001 and the 2007 latent setting preference may be due to the increased constraints of *'time'*, *'family responsibilities'*, *'cost'* and *'nowhere to go'*. Thus, increase in a preference for *somewhat natural* (local) settings, might be related to the easy access and lower cost of these settings.

Section 10

Trends and implications

In Sections 8 and 9, some comparisons have been drawn between the results found in the present 2007 study and the results found in the 2001 SEQORDS. This section will further extend this comparison to include the 1997 SEQORDS, and discuss the implications of the findings.

10.1 Incidence of participation over the past 12 months

10.1.1 Key trends

This study has indicated that a high proportion of the population in SEQ continues to enjoy a variety of outdoor recreation activities. A comparison of the 2007, 2001, and 1997 participation rates in all activities is provided in Table 33 and Figure 19.

There were a number of activities that were significantly different ($p < 0.05$) when the rates of participation were compared between 2001 and 2007. These are indicated with an asterisk (*). A chi-square analysis was used to test for independence. In the 2001 study it was reported that there were no significant differences between 1997 results and 2001. In 2007 picnicking remains the most popular activity amongst the sample populations of all studies, despite having decreased slightly to 58%. Water activities (54% in 2007) are the next most popular activity and despite the recent drought has maintained a similar participation rate to 2001. Walking or nature study is the third most popular activity, remaining at 35% for 2007 despite a declining rate of participation since 1997.

Also in decline is driving 2WD vehicles where there was a decreasing trend since 1997. Just over a quarter of participants are involved in using motorised watercraft. Participation in this activity is in decline as indicated by the significant difference between 2001 and 2007 rates. One third of the population participates in camping, which has a stable participation rate. The 2007 result in driving other vehicles is significantly higher than 2001 data. This was the only statistically significant increase in the activities between 2001 and 2007. In addition to the statistically significant increases, Table 33 and Figure 19 display small non-statistically significant increases in participation rates in other activities. Since 2001 there has also been an increasing trend in bicycle riding. Stable rates of participation in activities are noted in abseiling/rock-climbing and horse riding (6% and 7% respectively).

Changes in participation according to gender preferences are illustrated in Table 34 and Figures 20 and 21.

Table 33: A comparison of participation rates from 1997 to 2007 (expressed as a percentage)

Activity	Participation 1997	Participation 2001	Participation 2007
Picnicking	65%	67%	58%
Walking or Nature Study	60%	49%	35%*
Camping	25%	33%	30%
Bicycle Riding	25%	26%	29%
Horse Riding	7%	7%	7%
Water Activities	39%	56%	54%
Driving 2WD Vehicles	31%	24%	15%*
Driving 4WD Vehicles	20%	23%	23%
Driving other Vehicles	7%	7%	11%*
Riding on Motorised Watercraft	26%	27%	21%*
Riding on Non-Motorised Watercraft	17%	19%	17%*
Abseiling/rock-climbing	7%	6%	6%

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Trends and implications cont.

Figure 19: Comparison of outdoor recreation participation rates from 1997, 2001 and 2007.

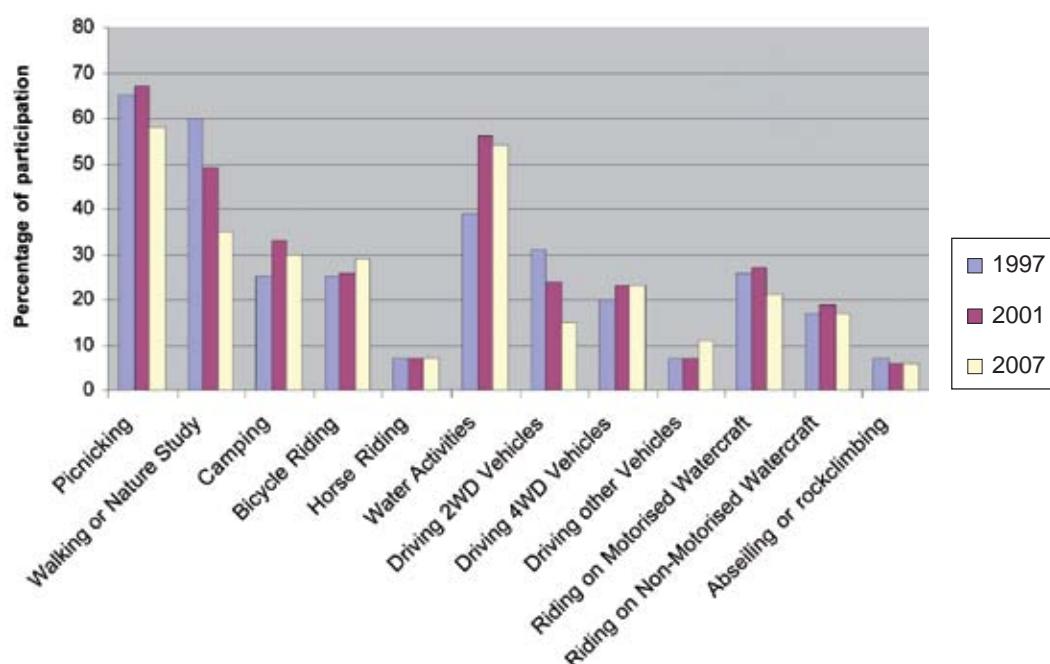


Table 34: Gender preferences in outdoor recreation from 1997 to 2007

Activity	Female participation			Male participation		
	1997	2001	2007	1997	2001	2007
Picnicking	65%	70%	62%	64%	63%	54%
Walking or Nature Study	62%	52%	36%	59%	45%	35%
Camping	19%	31%	28%	31%	37%	33%
Bicycle Riding	20%	22%	24%	30%	33%	33%
Horse Riding	8%	8%	8%	6%	6%	7%
Water Activities	35%	56%	53%	44%	57%	56%
Driving 2WD Vehicles	25%	20%	12%	37%	30%	19%
Driving 4WD Vehicles	18%	19%	20%	23%	28%	27%
Driving other Vehicles	5%	5%	7%	10%	11%	16%
Riding Motorised Watercraft	21%	23%	17%	30%	35%	20%
Riding Non-Motorised Watercraft	14%	16%	16%	21%	24%	27%
Abseiling/rock-climbing	5%	5%	5%	10%	7%	7%

Figure 20: Women's participation in outdoor activities, 1997-2007

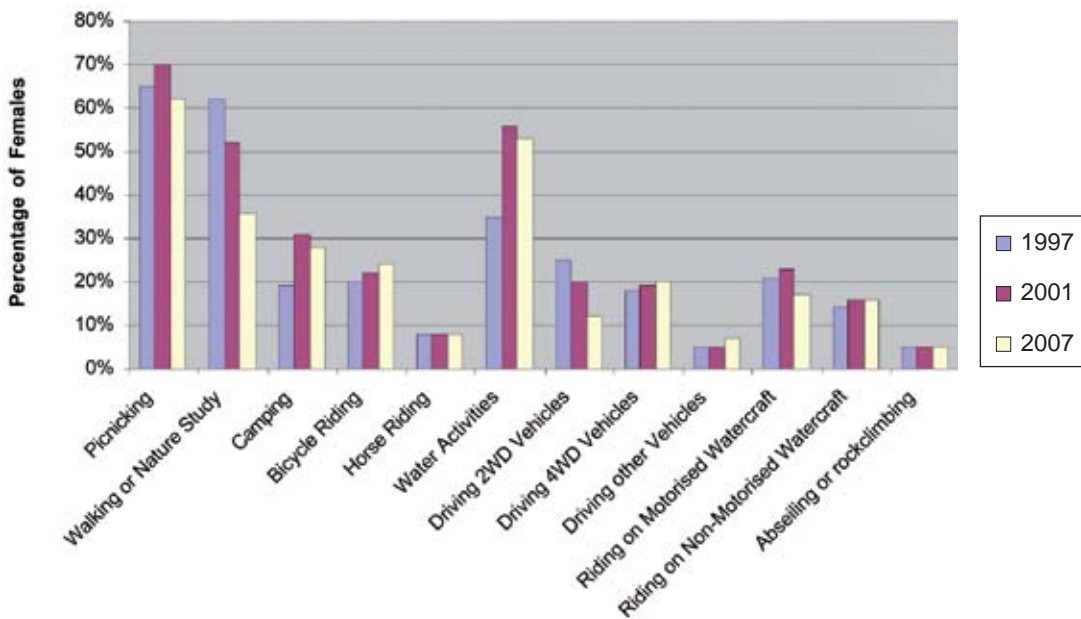
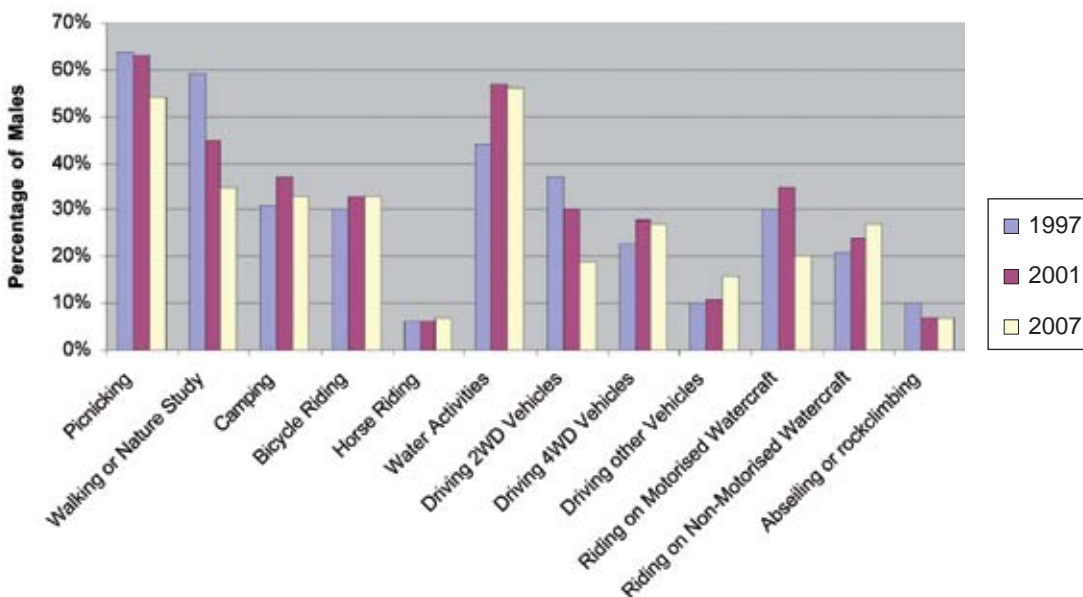


Figure 21 Men's participation in outdoor activities 1997-2007



Section 10

Trends and implications cont.

An analysis of participation according to gender preferences shows a clear pattern over the years, in that males are more likely to be involved in camping, bicycle riding, all types of driving, riding on motorised or non-motorised watercraft, and abseiling/rock-climbing. Females are more likely to be involved in picnicking, walking or nature study, and horse riding. The fact that women's participation in a large number of activities seems to be constrained is a matter of some concern, although it is possible that women are more active in activities not surveyed in this study. Of more concern is the fact that walking or nature study, one of the few activities favoured by women, is showing decline in numbers across the three studies.

All studies have found that age, as well as gender, are a major influence on the incidence of participation. Results of participation across age groups are summarised in Table 35.

The data from Table 35 is displayed in the three graphs in Figure 22.

Since the 1997 study, there have been some notable changes in participation rates across the age groups. There appears to be a decreasing trend in participation in older age groups (55-64 and 65+). The exception is bicycle riding which showed an increase in both age groups over the three studies. Additionally, for many activities in the 2007 study, participation rates peak in the younger age groups, whereas in the 1997 study the peak in overall outdoor recreation activity was in

the 25-39 year old age group. This may be due to the 25-39 age group becoming constrained in ways not previously experienced by this age group. It may also be an indication of less interest in outdoor recreation activities by the 25-39 age group.

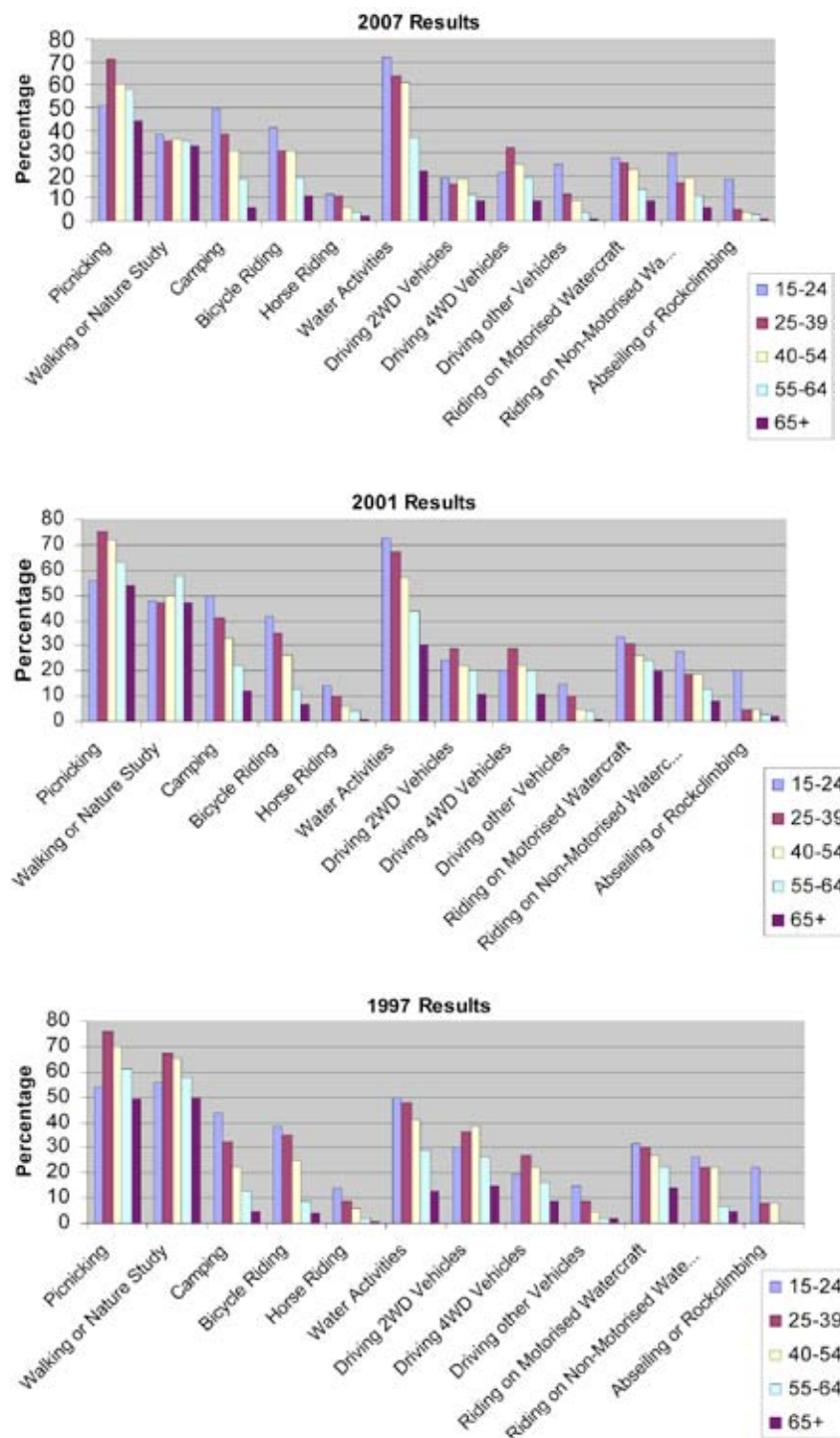
Other hypothesised reasons for this may be: 1) increased work hours which impact work-life balance, 2) Increased leisure time spent on home entertainment and Internet based activities and 3) changes to the dynamics of family leisure time impacted through the two above mentioned aspects.

Whatever the reason, this change contributes to the decline in overall participation rates and participation frequencies for certain activities as noted in table 33.

Table 35: Incidence of participation across age groups (expressed as a percentage)

	15-24			25-39			40-54			55-64			65+		
	97	01	07	97	01	07	97	01	07	97	01	07	97	01	07
Picnicking	56%	56%	51%	76%	75%	71%	70%	72%	60%	61%	63%	58%	49%	54%	44%
Walking or Nature Study	56%	48%	38%	67%	47%	35%	65%	50%	36%	58%	58%	35%	50%	47%	33%
Camping	44%	50%	49%	32%	41%	38%	22%	33%	31%	13%	22%	18%	5%	12%	6%
Bicycle Riding	39%	42%	41%	35%	35%	31%	25%	26%	31%	9%	13%	19%	4%	7%	11%
Horse Riding	14%	14%	12%	9%	10%	11%	6%	6%	6%	2%	4%	4%	1%	1%	2%
Water Activities	50%	73%	72%	48%	67%	64%	41%	57%	61%	29%	44%	37%	13%	30%	22%
Driving 2WD Vehicles	30%	24%	19%	36%	29%	16%	38%	22%	18%	26%	20%	12%	15%	11%	9%
Driving 4WD Vehicles	20%	21%	21%	27%	29%	32%	22%	22%	25%	16%	20%	19%	9%	11%	9%
Driving other Vehicles	15%	15%	25%	9%	10%	12%	5%	5%	9%	2%	4%	4%	2%	1%	1%
Riding on Motorised Watercraft	32%	34%	28%	30%	31%	26%	27%	26%	23%	22%	24%	14%	14%	20%	9%
Riding on Non-Motorised Watercraft	26%	28%	29%	22%	19%	17%	22%	19%	19%	7%	13%	11%	5%	8%	6%
Abseiling/rock-climbing	22%	21%	18%	8%	5%	5%	8%	5%	4%	1%	3%	3%	0%	2%	1%

Figure 22: Comparison of outdoor recreation participation age groups across the three studies



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Trends and implications cont.

Table 36 displays some changes to frequency of participation in some of the activities. Whilst not statistically significant there have been some increases in the frequency of participation since 1997. Driving other vehicles and abseiling/rock-climbing has increased from 4.2 in 1997 to 6 in 2007.

A large decrease in frequency of participation occurred in walking or nature study where there has been a drop in the rate from 10.3 in 1997 to 5 in 2007 (after a peak in 2001 of 12). It should be noted that a decline in participation rates coupled with declining rates of frequency of participation impacts greatly on the number of activity-events. Another declining (minor) trend in participation frequency can be noted in bicycle riding.

Figure 23 illustrates graphically the changes in number of activity-events that have occurred since 1997. Activity-events are calculated by multiplying the number of participants in an activity by the median number of times participants engaged in this activity over the previous 12 months.

Overall there has been a decrease in activity-events. Since 2001 there has been a decrease of 33% from 43 697 335 activity-events in 2001 to 33 223 144 activity-events in 2007. Most of the decrease can be attributed to a decline in one specific activity. Furthermore, as can be seen in figure 23, there are increases in some activities.

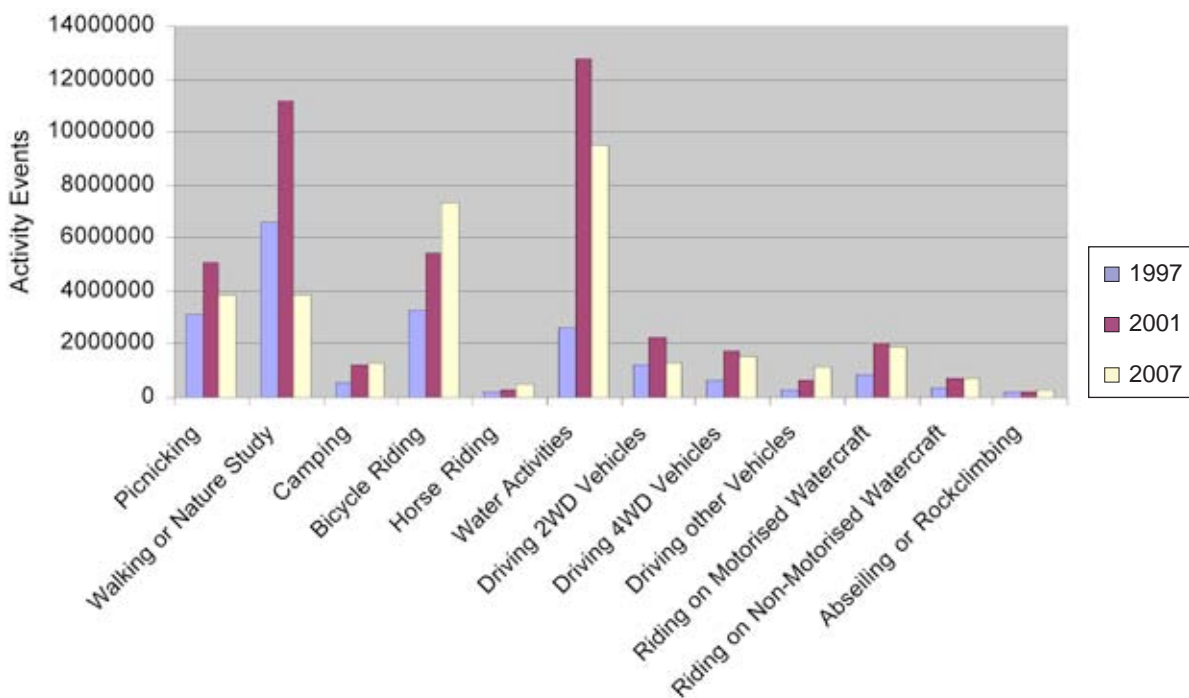
There have been increases in activity-events for bicycle riding, driving other vehicles and camping. Of more significance is the decrease in activity-events for walking or nature study (-22%), picnicking (-4%), water activities (-10%) and driving 2wd vehicles (-3%). In the case of walking or nature study further comparisons of the 2007 results with the 2001 results have revealed that the 25-39, 40-54 and 55-64 age groups have large decreases in participation rates. This identifies the source of the decline but there is still conjecture as to why this age group has declined in participation and frequency. Further analysis of this issue will occur in the Outdoor Recreation Trends in SEQ¹².

Table 36: A comparison of median participation frequency since 1997

Activity	1997	2001	2007
Picnicking	4.5	4	4
Walking or Nature Study	10.3	12	5
Camping	2.1	2	2
Bicycle Riding	12.2	11	10
Horse Riding	2.4	2	2
Water Activities	6.3	12	10
Driving 2WD Vehicles	3.7	5	3
Driving 4WD Vehicles	3.1	4	3
Driving other Vehicles	4.2	5	6
Riding on Motorised Watercraft	3.3	4	3.5
Riding on Non-Motorised Watercraft	2.5	2	3
Abseiling/rock-climbing	1.8	2	3

¹² A further analysis of trends in the outdoor recreation activities in SEQ has been conducted in 2007. Using the data from the three SEQ Outdoor Recreation studies an exploration of selected trends in the outdoor recreation activities in SEQ will be undertaken.

Figure 23: Activity-events of outdoor recreation activities



10.2 Implications

The major implication that can be drawn from these trends is that participation rates and frequency of participation have combined to produce a decreased number of activity-events for a number of activities. The exceptions to the decline are bicycle riding, camping and driving other vehicles. One consequence of the increase in activity rates is that site usage rates in bicycle riding, camping and driving other vehicles are increasing.

Thus, the increase will result in increasing pressure upon the currently available places to undertake these activities.

Based on the constraints (outlined in section 10.4) it appears that the accessibility of locations to undertake the activities combined with other changes in society has driven the change. The causes of decline are difficult to ascertain using the present findings. More research is needed to determine the causes of the decline.

10.3 Recreation settings

10.3.1 Key trends

Reported preferences for different recreation settings indicate that there has been a continuation of the trend identified in the 2001 study. During the period 1997 to 2001, significant shifts occurred from *somewhat natural* toward *very natural* and *totally natural* settings. More recently, from 2001 to 2007, significant differences have again occurred in *very natural* and *totally natural* settings. Some of these changes will be presented and discussed below.

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Trends and implications cont.

Table 35: Activity participation - Setting where activities were undertaken

Activity	Somewhat natural			Very natural			Totally natural		
	1997	2001	2007	1997	2001	2007	1997	2001	2007
Picnicking	70	59	66	24	33	26	6	8	8
Walking or Nature Study	66	49	47	26	34	36	8	17	15
Camping	38	29	33	40	51	45	21	20	20
Bicycle Riding	91	83	76	6	15	18	3	2	4
Horse Riding	53	27	47	30	46	44	17	27	8*
Water Activities	67	62	71	26	31	21*	7	7	7
Driving 2WD Vehicles	44	35	43	46	57	45*	8	8	14*
Driving 4WD Vehicles	34	19	25	42	63	53	18	18	21
Driving other Vehicles	47	39	33	37	52	43	9	9	24*
Riding Motorised Watercraft	63	40	52	26	46	34	14	14	14
Riding Non-Motorised Watercraft	61	39	50	30	47	36*	14	14	14
Abseiling/rock-climbing	52	52	45	24	24	32	24	24	23

Figure 24: Changes in somewhat natural setting preferences for current participation 1997-2007

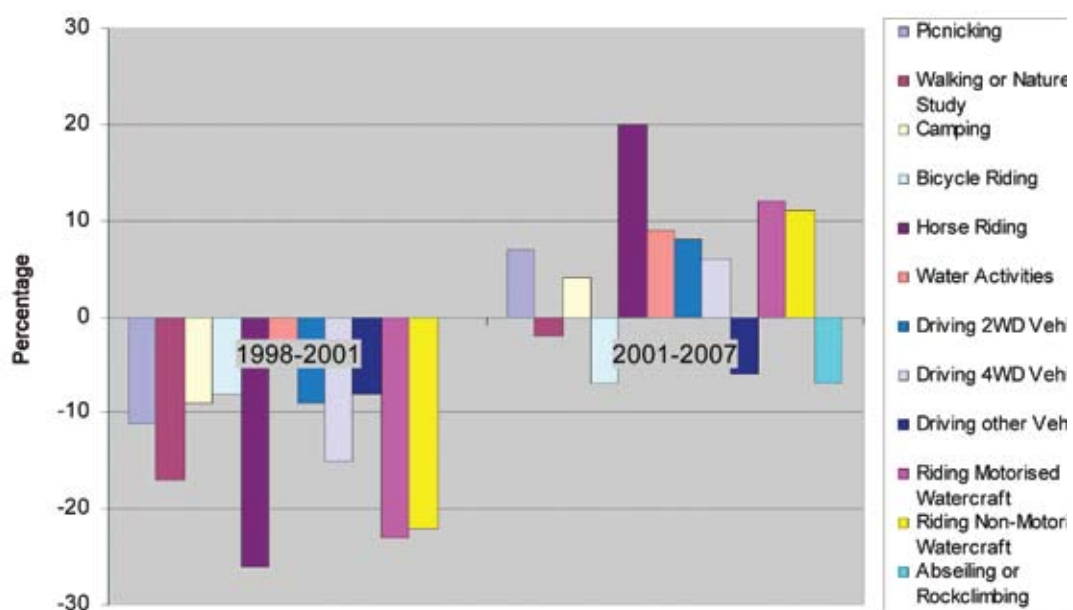
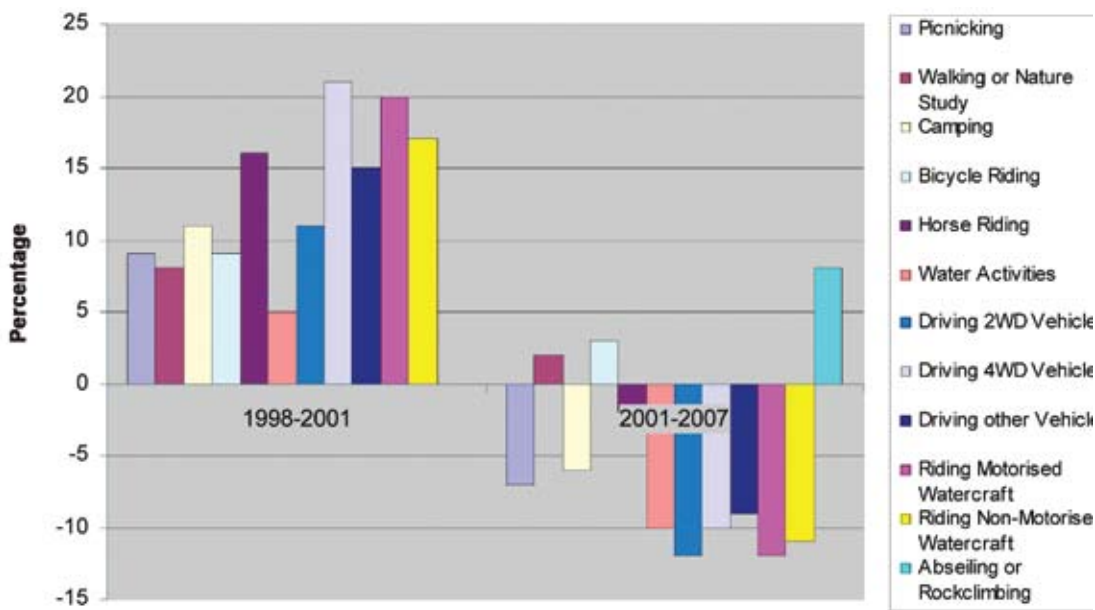


Figure 25: Changes in *very natural* setting preferences for current participation 1997-2007



The changes noted by the 1997, 2001 and 2007 studies are illustrated by the graphs in Figures 24, 25 and 26. These graphs are derived from Table 37. Figure 24 shows the percentage change of current participants' use of *somewhat natural* settings. Figure 25 shows the percentage change of current participants' use of *very natural* setting. Figure 26 shows the percentage change of current participants' use of *very natural* settings. Using Chi Squared analysis, statistically significant changes in 2007 are noted with an asterisk (*) that indicates significant difference ($P < 0.05$). Figure 24 shows the changes in participation rates for

somewhat natural settings between the three studies. No significant changes in participation rates occurred between 2001 and 2007.

Significant decreases in participation rates between the 2001 and 2007 study occurred in driving 2WD vehicles (57% to 45%), water activities (31% to 21%) and riding motorised watercraft (46% to 34%).

The changes between the 2001 and 2007 results for the *totally natural* setting were mixed. In the case of horse riding there was a significant decrease in the preference of *totally natural* settings (27% to 8%).

However, there was a statistically significant increase in driving other vehicles (9% to 24%) and driving 2WD vehicles (8% to 14%). Latent participation site preferences were also compared across the three studies. The comparison can be seen graphically in Figures 27, 28 and 29.

As indicated in Figures 27, 28 and 29, for non-participants there has been a general shift away from *totally natural* setting preferences towards *somewhat natural* settings and *very natural* settings. This result conflicts with the results of the 2001 study where there was a shift in preference towards *totally natural* settings.

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Figure 26: Changes in *totally natural* setting preferences for current participation 1997-2007

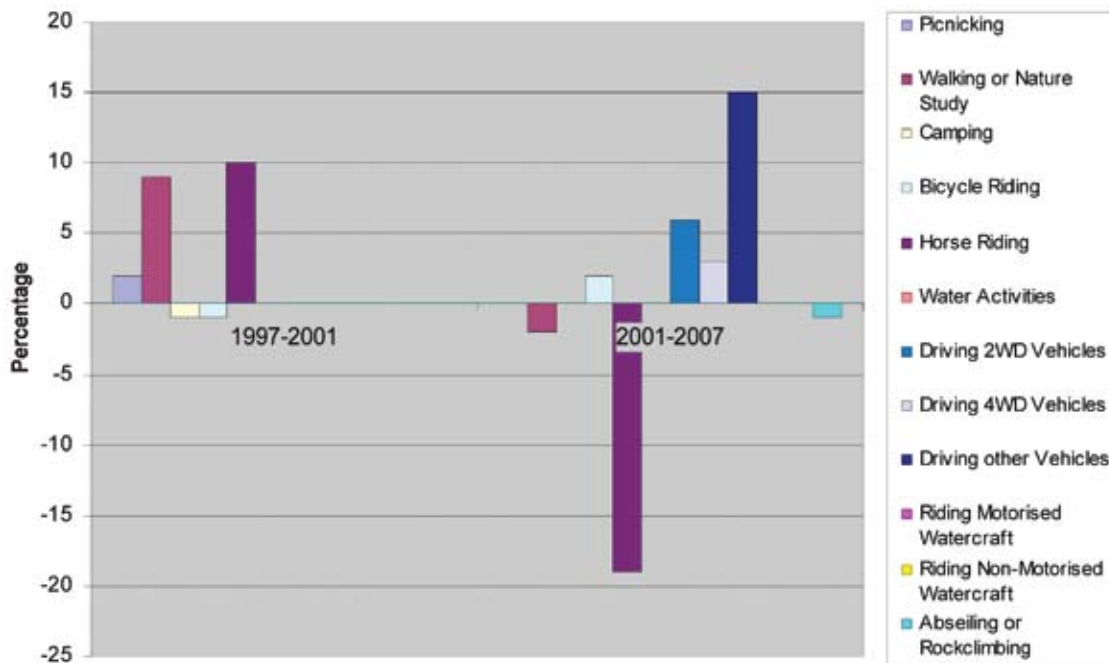


Figure 27: Site preference trends for interested non-participants (1997-2007) with respect to *somewhat natural* settings

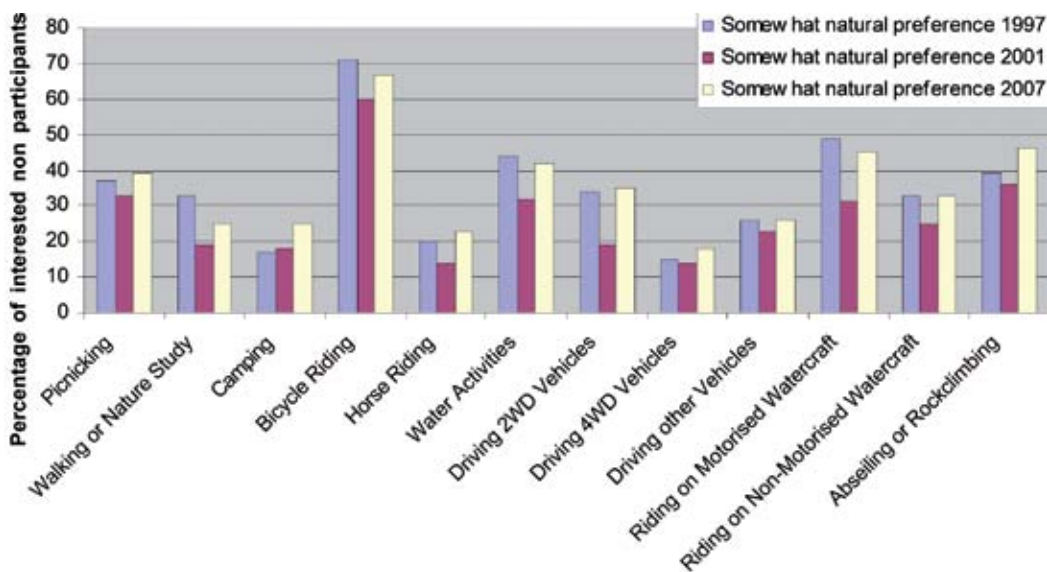


Figure 28: Site preference trends for interested non-participants (1997-2007) with respect to *very natural* settings

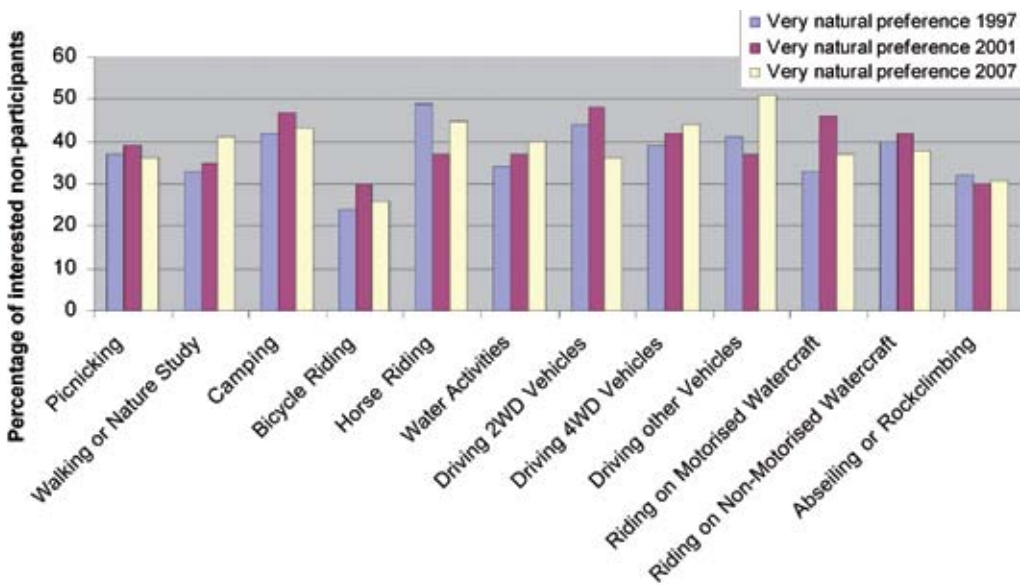
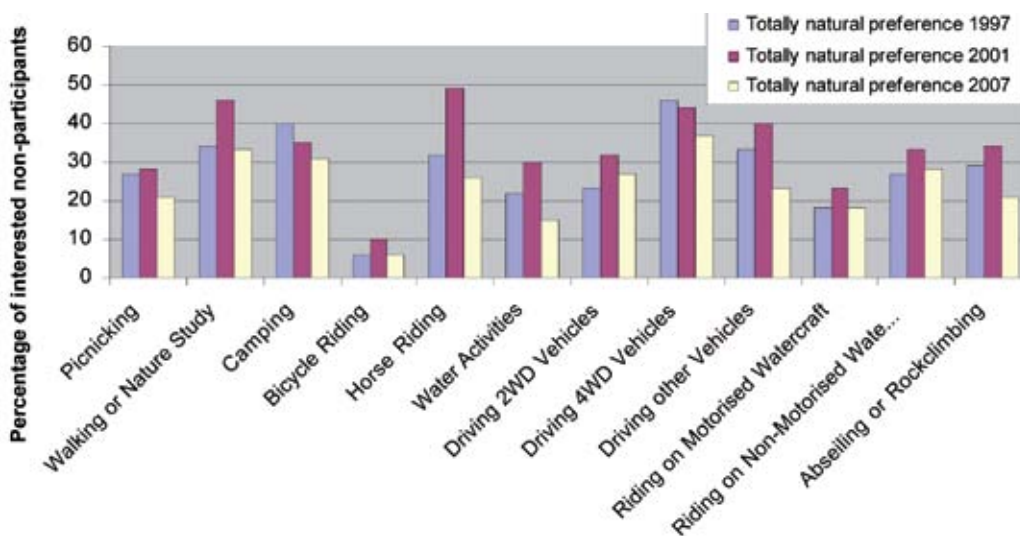


Figure 29: Site preference trends for interested non-participants (1997-2007) with respect to *totally natural* settings



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Trends and implications cont.

The difference between the 2001 and the 2007 latent setting preference changes may be due to the fact that the constraints of 'time', 'family responsibilities', 'cost' and 'nowhere to go' are increasing so that local, *somewhat natural* settings are becoming more important settings to access. However, it is likely that latent participants are working from a subjective impression of landscape rather than the normative guidelines that they were given.

10.4 Implications

Three major implications from the findings will be discussed below.

Firstly, the data indicate that a significant proportion of current participants in all activities would prefer to recreate in settings (places) which are more "natural" than the places where they currently recreate. While this could be accepted at face value, there are some confusing results. In particular, users of motorised vehicles and vessels indicated that they would prefer to recreate in *totally natural* settings (which were defined in the setting descriptions provided at the beginning of the interviews to exclude access by motorised vehicles and vessels). Presumably, people using motorised equipment would not deliberately express a preference for settings which are not accessible using their motorised equipment.

This inconsistency could be re-interpreted as a preference for places that people perceive to be

more "natural" than the settings they currently use while still allowing for the motorised vehicles or vessels that they want to use. There may be some inconsistent interpretation of the concept of "naturalness" as used in the survey.

Irrespective of how the data is interpreted, the apparent preference for recreation settings which are more natural than the places currently being used by a large proportion of outdoor recreation participants has been maintained in all three surveys (1997, 2001 and 2007). This indicates the need to identify, plan for and manage landscapes which match the definitions of *somewhat*, *very* and *totally natural* settings (i.e. classes 1 to 6 of the QPW Landscape Classification System). This has major implications for outdoor recreation policy, planning and management within SEQ.

Secondly, the shift towards *somewhat natural* setting use in current participation and non-participants' latent preferences may indicate geographic and social-environmental changes in the way in which people engage in leisure and recreation in SEQ. There may now be a shift towards *somewhat natural* places for outdoor recreation because of three interactive factors – (1) these places can be reached in tolerable travel time from the participants' place of residence; and/or (2) the lack of more natural places for outdoor recreation; and/or (3) socio-economic constraints. However, it must be noted that despite these constraints, people generally would prefer the

setting in which they recreate to be more natural than the one they presently use. These changes will be explored in the section pertaining to constraints below.

Lastly, the increase in the use of *totally natural* settings (i.e. places defined as not accessible by motorised vehicles or vessels) for outdoor recreation activities involving the use of motorised vehicles or vessels indicates two issues – (1) Most survey respondents prefer to use the relatively natural areas of SEQ landscapes for outdoor recreation; (2) the concept of naturalness may not be consistently understood by a significant proportion of respondents.

However, the fact that a substantial number of people express a desire to use what they would understand to be *totally natural* areas for motorised vehicle or vessel activities indicates a major challenge for outdoor recreation policy, planning and management. The demand for access to "natural" parts of the landscape points to the ongoing need to educate people with respect to appropriate use of "natural" areas – especially as such areas become less extensive and more isolated in the broader landscape.

The 2007 study findings indicate the need to maintain the range of settings, from local less natural "green" spaces that are easily accessible and have built facilities, to the most natural areas that are managed to maintain their uncrowded, wild and natural condition.

10.5 Motivations

10.5.1 Key trends

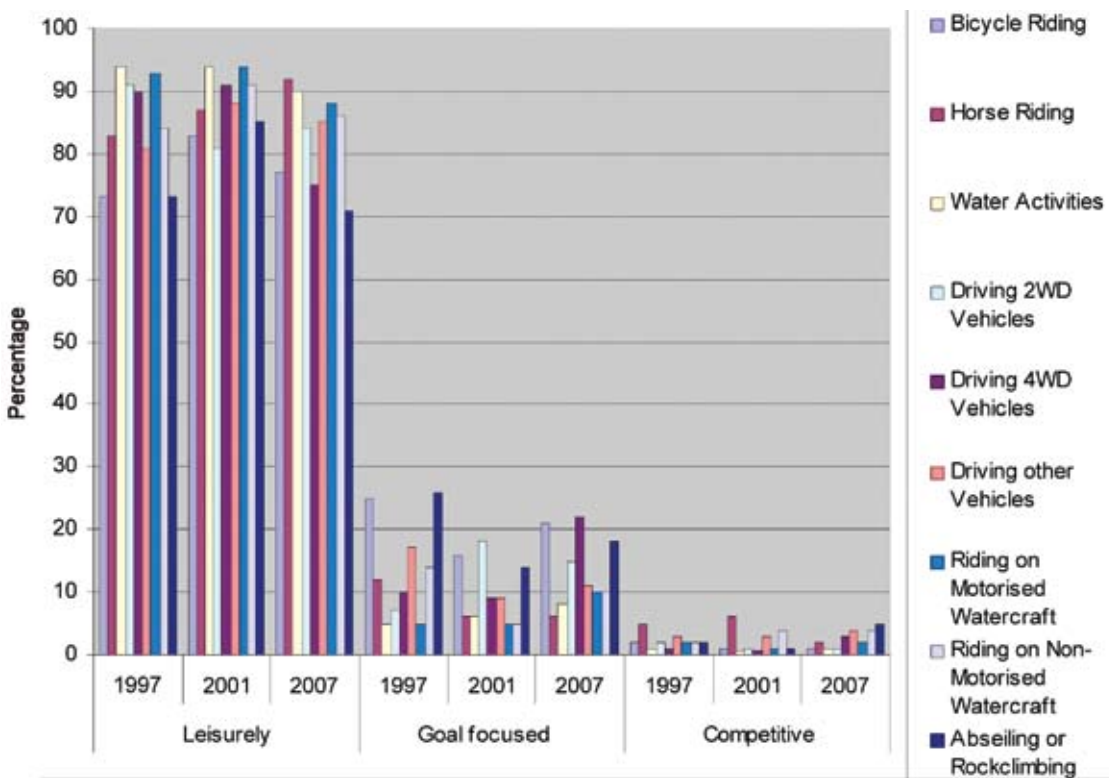
As illustrated in Figure 30, the 2007 study found that reasons for participation in outdoor recreation activities were overwhelmingly of a leisurely nature, rather than goal focused or competitive. This result reflects the results of 2001 and 1997 which have changed very little over the time period.

10.6 Implications

The implication of this finding is that men and women who are engaged in outdoor recreation activities do so for intrinsic, rather than extrinsic reasons, and prefer to keep it this way. They have no desire to make these activities more competitive or goal focused. This is an important aspect of outdoor recreation that should be considered in the management of such activities.

Intrinsic motivation means that participants gain their satisfaction from the inherent nature of the activity itself, rather than from an external goal that the activity will help them to achieve. For this reason, opportunities that are provided need to focus on intrinsically motivated events. Goal focused or competitive events do not match the aspirations of most people involved in outdoor recreation activities.

Figure 30 Changes in current motivations for participation 1997-2007 (expressed as a percentage of participants)



Section 10

Trends and implications cont.

10.7 Constraints

The following tables (Tables 38–43) provide a comparison of the constraints acting on both participants who would like to participate more often in an activity and non-participants who expressed a desire to participate in an activity. Each constraint is considered independently in order to better ascertain how it has altered over the time period. For Table 38 a Chi Squared analysis was used to test for statistically significant changes in 2007 compared to 2001. These activities are noted with an asterisk (*) that indicates a significant difference ($P < 0.05$).

Table 38: Constraint - ‘No time, too busy’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Picnicking	72%	77%	73%	61%	68%	54%
Walking or Nature Study	67%	77%	63%	59%	59%	48%*
Camping	71%	80%	75%	51%	60%	36%*
Bicycle Riding	53%	64%	59%	26%	39%	17%*
Horse Riding	39%	60%	40%*	26%	37%	23%*
Water Activities	67%	68%	66%	42%	57%	41%*
Driving 2WD Vehicles	64%	74%	59%*	34%	39%	26%*
Driving 4WD Vehicles	51%	63%	52%	15%	26%	15%*
Driving other Vehicles	49%	51%	35%*	17%	27%	13%*
Riding on Motorised Watercraft	55%	59%	43%*	21%	33%	18%
Riding on Non-Motorised Watercraft	61%	69%	60%	28%	46%	31%
Abseiling/rock-climbing	41%	59%	49%*	29%	50%	27%

Table 39: Constraint - ‘Family Responsibilities’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Picnicking	2%	6%	9%	2%	2%	11%
Walking or Nature Study	3%	4%	9%	3%	7%	12%
Camping	2%	4%	7%	8%	7%	18%
Bicycle Riding	2%	4%	4%	2%	1%	11%
Horse Riding	2%	4%	5%	2%	2%	9%
Water Activities	2%	3%	6%	2%	2%	6%
Driving 2WD Vehicles	2%	2%	3%	2%	2%	3%
Driving 4WD Vehicles	2%	2%	7%	2%	2%	2%
Driving other Vehicles	<1%	2%	2%	<1%	2%	4%
Riding on Motorised Watercraft	2%	2%	3%	2%	2%	3%

Table 40: Constraint – ‘Cost’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Camping	8%	9%	5%	<1%	<1%	2%
Horse Riding	10%	10%	10%	12%	7%	7%
Water Activities	<1%	7%	4%	12%	7%	2%
Driving 2WD Vehicles	<1%	9%	8%	<1%	<1%	4%
Driving 4WD Vehicles	8%	13%	7%	<1%	11%	5%
Driving other Vehicles	10%	8%	8%	<1%	8%	10%
Riding on Motorised Watercraft	9%	16%	14%	<1%	12%	14%
Riding on Non-Motorised Watercraft	<1%	12%	3%	<1%	<1%	4%
Abseiling/rock-climbing	<1%	13%	11%	<1%	<1%	3%

Table 41: Constraint – ‘Lack of equipment’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Camping	<1%	<1%	4%	18%	8%	10%
Bicycle Riding	9%	10%	10%	43%	33%	35%
Horse Riding	9%	14%	17%	25%	10%	21%
Driving 2WD Vehicles	7%	5%	10%	29%	22%	15%
Driving 4WD Vehicles	29%	20%	22%	71%	47%	53%
Driving other Vehicles	24%	21%	15%	56%	46%	37%
Riding on Motorised Watercraft	<1%	25%	27%	54%	36%	30%
Riding on Non-Motorised Watercraft	18%	17%	13%	44%	27%	22%
Abseiling/rock-climbing	14%	5%	11%	16%	4%	7%

Section 10

Trends and implications cont.

Table 42: Constraint – ‘Nowhere to go’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Bicycle Riding	7%	9%	15%	<1%	<1%	3%
Horse Riding	14%	16%	26%	12%	14%	9%
Water Activities	7%	9%	11%	13%	11%	12%
Driving 2WD Vehicles	<1%	8%	12%	14%	9%	4%
Driving 4WD Vehicles	<1%	8%	8%	<1%	<1%	2%
Driving other Vehicles	<1%	19%	38%	<1%	<1%	2%
Riding on Non-Motorised Watercraft	<1%	7%	10%	<1%	<1%	3%
Abseiling/rock-climbing	14%	16%	24%	12%	11%	8%

Table 43: Constraint – ‘Health’ – for participants who would like to participate more often and non-participants who would like to participate

	% of participants who would like to participate more often			% of non-participants who would like to participate		
	1997	2001	2007	1997	2001	2007
Picnicking	<1%	<1%	7%	<1%	8%	11%
Walking or Nature Study	<1%	8%	11%	<1%	18%	20%
Bicycle Riding	<1%	8%	5%	<1%	8%	18%
Horse Riding	<1%	<1%	2%	<1%	8%	17%
Water Activities	<1%	<1%	6%	<1%	8%	12%
Abseiling/rock-climbing	<1%	<1%	3%	<1%	7%	17%

10.8 Key trends

As shown in Table 38, “no time, too busy” remains the largest constraint on people’s current participation and latent participation. This has been true since 1997, but the trend appears to be that this constraint has generally decreased since the 2001 study. In some cases such as horse riding, driving 2WD vehicles, driving other vehicles, riding on motorised watercraft, and abseiling/rock-climbing, this decrease is significant ($p < 0.05$). Figure 31 displays the change in ‘time’ constraints over the three studies.

The decrease in ‘time’ constraint does not, however, necessarily mean that people are less constrained by

‘time’ in 2007 compared to 2001. In almost all activities ‘family’ commitments have increased since the 2001 study, a finding that may acknowledge that ‘family’ responsibilities impact on time budgets of people in the study.

The lack of places to do activities for people who currently participate is an increasing constraint in all activities. Participants in all activities in 2007 continue to find the shortage of places to go to be a problem, as they did in 1997 and 2001.

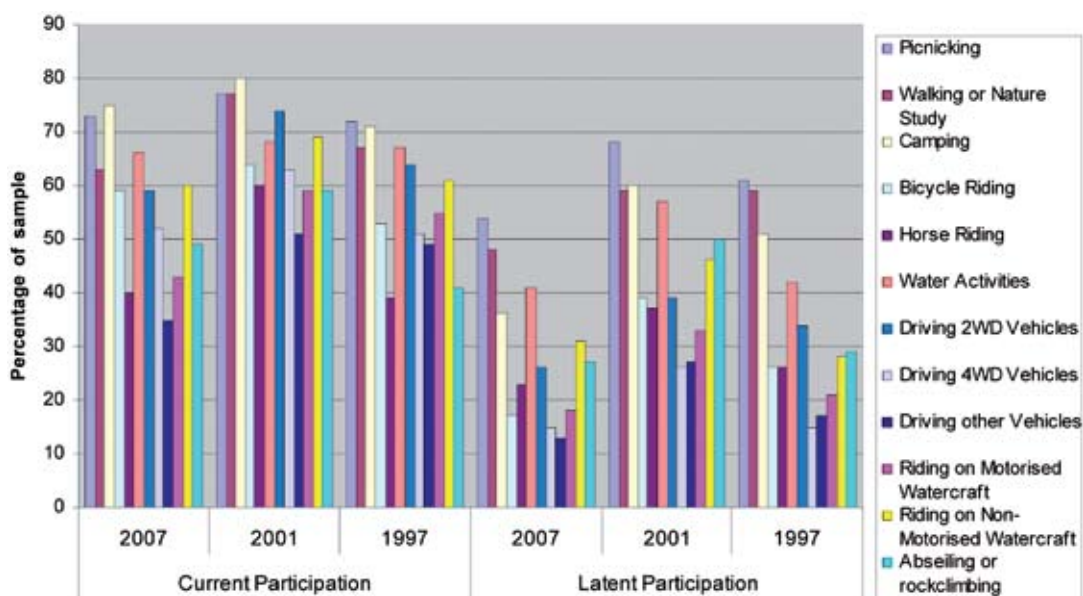
‘Cost’ constraints in all activities (participants and non-participants) did not increase between 2001 and 2007. ‘Equipment’ constraints in current participation in horse riding and riding motorised watercraft have increased over time. For

non-participants who would like to participate more often, ‘equipment’ constraints are a large constraint for almost all activities. However, there have been no discernable trends over time.

‘Health’ constraints are increasing for current participants who would like to participate more, but are more of a constraint for non-participants who would like to participate. ‘Health’ issues are most pertinent for the activity of walking or nature study, a finding that may reflect the higher proportion of older people participating in that activity.

Further analysis of age groups and constraints may reveal a more detailed picture of changes to constraints on participation rates and participation frequency.

Figure 31: Comparison of ‘time’ constraints for current participants who would like to participate more and non-participants who would like to participate



Section 10

Trends and implications cont.

10.9 Implications

The issue of a lack of *'time'* for recreation continues to be a major problem for the people of SEQ. *'Family'* responsibilities combined with the *'time'* constraint making it a significant issue that hinders outdoor recreation participation. These constraints also impact on the recreation settings that are used, in that people often lack the *'time'* to access more remote settings that they would like to use. Lack of places to undertake most outdoor recreation activity is a growing issue. It is not implausible to conclude that the problems identified in 2001 are now a major issue for participants in the 2007 study as evidenced in the decreasing participation rates and frequency of participation of some activities. For this reason, local, easily accessible spaces that have been retained in as natural a condition as possible, are becoming more important as the population grows.

10.10 Summary

Although the results of the 2007 survey are broadly similar to previous surveys, some important trends have emerged since the first SEQORDS. Outdoor recreation activities remain very popular with the population of SEQ, and have increased in popularity over the years for some activities, particularly with respect to the number of activity-events¹⁴.

Despite the continuing popularity of outdoor recreation, an alarming trend identified in the study is the decrease in participation rate and frequency of walking or nature study. The downward trend of participation rates and frequency has implications for health and well being and other benefits that walking or nature study delivers to the individual and society. Growing constraints of lack of places to go and health are important contributions to the decline for both current participant and non-participants who would like to participate more, particularly in the 55-64 and the 65+ age groups.

Another important trend has been a continued preference for more natural settings. Although there were some significant decreases in *very natural* setting preferences there were no significant increases in *somewhat natural* setting preference. *Totally natural* settings are the only setting in 2007 that has seen an increase in its appeal as a setting to undertake outdoor recreation. Given the scarcity of the *totally natural* settings and the resulting constraint of a general lack of places to participate in outdoor recreation, the need for maintenance and provision of more natural settings is of continued importance.

¹⁴ Activity-events are calculated as the number of participants times the median frequency of participation

Section 11

Conclusion

The key findings of this report are as follows:

- The rates of participation in outdoor recreation activities in SEQ remain high compared to 1997 and 2001 data;
- There were some statistically significant changes in the participation rates between the 2001 SEQORDS and the 2007 SEQORDS. There were decreases in walking or nature study, riding motorised and non-motorised watercraft, and driving 2WD vehicles. There were increases in driving other vehicles;
- The number of activity-events in some outdoor recreation activities continues to rise. Increases were noted in bicycle riding, horse riding and camping. There were decreases noted in walking or nature study, picnicking, water activities and driving 2WD vehicles;
- Choice of activity is influenced by factors such as time, location, age and gender. In 2007 *'nowhere to go'*, *'family responsibilities'* and *'health'* are growing issues that influence further participation;
- The majority of people who would like to participate more reported *'time'* to be the largest constraint but increasingly the *'lack of places'* in which to recreate, *'family responsibilities'* and *'health reasons'* are becoming an issue;
- Participants prefer to engage in outdoor recreation activities in as natural a setting as possible, given constraints of *'time'* and other commitments. Comparison of 2007 results with the results of the 2001 and 1997 SEQORDS indicates a continued or increased preference for more natural settings in all activities (except horse riding);
- Amongst non-participants, there exists a strong interest in becoming involved in outdoor recreation activities. The two largest constraints cited were lack of *'time'* due to other commitments and lack of *'equipment'*;
- The reported incidence of *'time'* pressures combined with the growing issue of lack of places and the continued current usage and preference for more natural settings means that more locally accessible, more natural areas are increasingly utilised for outdoor recreation;
- The decrease in activity-events in some outdoor recreation activities may result from increasing societal constraints outlined in this study as well as a decline in the quality of outdoor recreation experience due to crowding and accessibility issues; and
- Participants continue to prefer to engage in outdoor recreation activities for leisurely reasons, rather than for competitive or goal-focused reasons.

Section 11

Conclusion cont.

The findings of the 2007 study, as well as the previous 2001 and 1997 SEQORDS confirm the current and probable future magnitude and diversity of outdoor recreation use in SEQ. It is clear that outdoor recreation is a significant component of the lifestyle of the majority of people living in SEQ. The problems that we have as communities, governments and interest groups, in satisfying the demand for outdoor recreation, will only intensify as the population continues to grow and as land is made unavailable for outdoor recreation through land use change. If we accept that outdoor recreation contributes significantly to a person's quality of life, we must acknowledge a corresponding concern that individuals are constrained in

their participation. This concern is particularly pertinent in the case of constraints such as 'costs' and the lack of suitable sites, which are factors that are influenced by local and regional planning.

The predicted population increases in SEQ (of approximately 50,000 people per year, or an extra million people by the year 2027)¹⁵ means that experiences of crowding and conflict due to incompatible recreation use of an area, already reported by participants of the focus groups in the 2001 study, will become exacerbated. It is not implausible to conclude that the problems identified in 2001 are now being experienced

by participants in the 2007 study as evidenced in the decrease in participation rates and frequency of participation of some activities. Further research is needed to explore these factors.

The findings confirm the wide diversity of outdoor recreation participation in terms of activities, settings and motivations. People undertake outdoor recreation activities in a wide range of settings from wild, natural places that have no motorised access and few people; through rural areas where the natural landscape has been at least partially modified; to highly modified open space areas on the margins of cities that retain some remnants of their natural condition but where solitude



¹⁵ Statistics provided in SEQ Regional Plan - Part B: Growth management: <http://www.oum.qld.gov.au/?id=466> (last updated June 30th 2005)

is unlikely. Some individuals will use all of these settings at different times for different reasons.

Attempting to satisfy all of this diversity – that is, each and every combination or permutation of all of these factors – is the great challenge for outdoor recreation planning and management.

Each combination of outdoor recreation activity and setting requires a place with particular attributes (eg. size, terrain, distance from residence, facilities, plants and animals). To meet the demand for outdoor recreation now, and in the future, areas with these attributes need to be identified, protected from land use decisions that may make them unavailable for recreation, secured for outdoor recreation

use and managed to ensure continued quality, quantity and diversity. To achieve this, outdoor recreation must - like agriculture, mining, conserving nature, forestry, water catchment management, maintenance of indigenous cultures, industrial development or residential development – be recognised as a significant and legitimate land use.

This recognition needs to be expressed through land use decision-making, local regional planning and service delivery across all levels of government and between the community and government. The recommendations of this report reflect this need.

Section 12

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Section 13

Appendices

Appendix A: Glossary

Median

The median is the number in the middle of a set of numbers; that is, half the numbers have values that are greater than the median and half have values that are less. If there is an even number of numbers in the set, then we calculate the average of the two numbers in the middle (see the second example following).

Examples

Median {1,2,3,4,5} equals 3

Median {2,4,6,8,10,75} equals 7, the average of 6 and 8

Mean (Average)

The mean of a set of numbers is the average. It is calculated by adding up each element in the set, then dividing this sum by the number of the elements.

Examples

Mean {1,2,3,4,5} equals 3

[Calculated by adding 1+2+3+4+5 (=15), then dividing by 5]

Mean {2,4,6,8,10,75} equals 17.5

[Calculated by adding 2+4+6+8+10+75 (=105), then dividing by 6]

As can be seen in the second example, the last value of 75 has the effect of inflating the mean. When results have a few extreme values, it is sometimes better to use the median to provide a better indication of what the majority of the population is doing. However, if you want to make sure the extremes have an effect, then the mean is more appropriate.

Significance

In statistical terms, a result reaches significance if we can say that the probability of it occurring by

chance is very small. In this report, probability levels of .05 and .005 were selected. Moderate significance occurred when $p < .05$, which means that the probability of the result occurring by chance was less than five in one hundred. Strong significance occurred when $p < .005$, which means that the probability of the result occurring by chance was less than five in one thousand.

Chi-squared test

The Chi-squared test is used to test whether differences or changes in results are statistically significant or not. It is used particularly with discrete, rather than continuous variables. The chi-squared test compares the actual range of variables with an expected range of variables in order to determine the likelihood that the actual range might have occurred by chance. If the likelihood is less than .05 (i.e. less than five chances in a hundred), then the chi-squared test has established that the result is statistically significant.

Fisher exact test

The Fisher exact test is a statistical significance test used in the analysis of categorical data where sample sizes are small. The Fisher test is, as its name states, exact, and it can therefore be used regardless of the sample characteristics. It becomes difficult to calculate with large samples or well-balanced tables, but fortunately these are exactly the conditions where the chi-square test is appropriate.

Confidence Interval

A confidence interval is a designated range of numbers that applies to any result that emerges from data

based on a sample population. Since we can never say with any certainty that the sample population exactly matches the actual population, we can never be sure that the sample result is exactly the same as the figure that would result if we tested the entire population. However, given a particular sample size, and a particular result, we can calculate a range within which we are 95% sure the actual range will fall.

For example, given a sample population of 2000, and a result of 60%, we can be 95% sure that the actual result will fall within the range of 57.9% and 62.1%. This range {57.9,62.1} is called the confidence interval.

Subjective

In this study, the term “subjective” is used to describe an individual perception that may or may not be shared by other individuals.

Normative

The term “normative” denotes the adoption of a standard interpretation of a phrase that is otherwise open to individual and subjective interpretation. Specifically, in this study, the term is used to describe the standard interpretations of the phrases *totally natural*, *very natural*, and *somewhat natural* that are provided in Table 2 (Section 2.2). It is suggested in this study that participants were using subjective interpretations of these setting classifications, which may have differed slightly from the normative interpretations that were provided for participants’ use.

Section 13

Appendices cont.

Appendix B: Landscape Classification

The Landscape Classification Scheme is presented below.

PHYSICAL	Wild-natural-remote 1	2	3
Prevalence and permanence of recreation impacts	No impact on natural condition.	Minimal evidence of recreation impacts. Impacts which have occurred recover quickly (e.g. temporary loss of local native vegetation, scuffing of leaf litter, etc. in small areas which recover to pre-impact condition seasonally).	Temporary to minor recreation impacts evident (e.g. temporary loss of local native vegetation, scuffing of leaf litter, minor soil disturbance, etc.) Impacts not permanent. However, recovery to pre-impact levels unlikely.
Viewscape (360°)	0% of visual landscape modified from natural condition.	<1% of visual landscape modified from natural condition.	1-5% of visual landscape modified. Some structures may be evident.
Indicative appearance (360°)	A totally natural site or landscape that has not been affected by modern technological use. A wild, natural, remote area.	An almost totally natural site or landscape with very few modifications. Modifications are temporary, small/minor and very dispersed.	A very natural site or landscape. Modifications are semi-permanent, small/minor and restricted to a few dispersed nodes. Natural elements dominate away from nodes.
Prevalence and durability of impacts from non-recreation land uses	Totally natural landscape. No history of modern technological land use.	Predominantly natural landscape with some evidence of past modern, technological land use limited to a few isolated small sites that are regenerating. None of these land uses are active.	Predominantly natural landscape with evidence of past modern, technological land use limited to some small sites that are regenerating. None of these land uses are active.
Naturalness of overstorey	100% of natural vegetation intact.	97-100% of natural vegetation intact. <3% regenerating.	90-97% of natural vegetation intact. <7% regenerating.
Naturalness of understorey	100% of natural vegetation intact.	97-100% of natural vegetation intact. <3% regenerating.	90-97% of natural vegetation intact. <7% regenerating.
Water quality	Completely natural aquatic ecosystem.	No detectable effect/change in water quality or aquatic ecosystem.	Short term and relatively minor changes to natural stream dynamics or marine ecosystem and/or water chemistry (e.g. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially natural.

4	5	6
Moderate recreation impacts evident in heavily used areas. Some permanent loss of local native vegetation (e.g. herbs and forbs), loss of leaf litter, soil disturbance evident. Impacts persist at nodes and along walking tracks. Sensitive local native fauna may be displaced as a result of use. Behaviour of other local native fauna is occasionally modified. Native fauna population changes are noticeable.	Physical changes as a result of recreation use are obvious and widespread with little chance of recovery. Some altering of vegetation characteristics/ structure. A significant proportion of the local native fauna displaced. Local native fauna behaviour and population changes are obtrusive.	Physical changes as a result of recreation use are obvious, widespread and permanent – little chance of recovery. Vegetation characteristics and floral structure altered. Native fauna behaviour and population changes are obtrusive. The natural condition is unlikely to recover.
5-10% of visual landscape modified. Some structures are evident.	10-25% of visual landscape modified. Structures are evident.	25-50% of visual landscape modified. Structures are plainly evident.
A very natural appearing site or landscape. Modifications are permanent, small/minor and restricted to a few dispersed nodes. Natural elements dominate outside these nodes. Built structures are very rare, unobtrusive and rustic (e.g. graded walking tracks, narrow infrequently used vehicle tracks, timber picnic tables).	A somewhat natural appearing site or landscape. Modifications may be permanent, moderately large and obvious. Large blocks of native vegetation interspersed with small areas of cleared land. Built structures are dispersed but readily apparent (e.g. walking tracks with hardened surfaces, well maintained unsealed roads, timber picnic areas, unobtrusive facilities).	A somewhat natural appearing site or landscape. Natural elements just dominate over other elements in the landscape. For example, rural areas with large areas of remnant native vegetation separated by grassland. Built structures may be obvious and quite common (e.g. roads are sealed, picnic areas paved and facilities are in harmony with surroundings).
Regenerating natural landscape with obvious evidence of past land use (e.g. regenerating mineral exploration, selective logging, grazing, flower harvesting). Some of these land uses may be still active (covering up to 5% of the area).	Regenerating natural landscape with obvious evidence of past and present land use. Current land uses (e.g. small scale mineral exploration, quarrying, flower harvesting, apiculture) currently active in a small proportion (5-20%) of the landscape.	Part natural landscape. Land uses (e.g. mineral exploration, quarrying, flower harvesting, apiculture) currently active in a large proportion (20-50%) of the landscape.
85-90% intact or regenerating. Remainder cleared or non-endemic species.	70-85% intact or regenerating. Remainder cleared or non-endemic species.	50-70% intact or regenerating. Remainder cleared or non-endemic species.
85-90% intact or regenerating. Remainder cleared or non-endemic species.	70-85% intact or regenerating. Remainder cleared or non-endemic species.	50-70% intact or regenerating. Remainder cleared or non-endemic species.
Short term and relatively minor changes to natural stream dynamics or marine ecosystem and/or water chemistry (e.g. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially natural.	Long term and/or permanent changes to natural stream dynamics or marine ecosystem and/or water chemistry (e.g. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially modified.	Long term and/or permanent changes to natural stream dynamics or marine ecosystem and/or water chemistry (e.g. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially modified.

Continues next page



Section 13

Appendices cont.

Appendix B: Landscape Classification

Continued from previous page

7	8	9 Urban-commercial-industrial
Physical changes as a result of recreation use are obvious, widespread and permanent. Vegetation characteristics and floral structure completely altered. Native fauna dominated by one or two species. Fauna behaviour may be intimidating. Some species may display signs of aggressiveness. The natural condition exists only in very small remnant areas.	Physical changes as a result of recreation use are obvious, widespread and permanent. Vegetation characteristics and floral structure completely altered. Native fauna dominated by one or two species. Introduced species common. Fauna behaviour interfering. Some species may display signs of aggressiveness. The natural condition exists only in very small remnant areas.	Physical changes as a result of recreation use are obvious, widespread and permanent. Vegetation characteristics and floral structure completely altered. Introduced species compete with native fauna. Some species may display signs of aggressiveness. The natural condition is non-existent.
50-75% of visual landscape modified. Structures are clearly evident in landscape but do not dominate.	76-99% of visual landscape modified. Structures may or may not dominate the visual landscape.	100% of visual landscape modified. Structures dominate the visual landscape.
Managed parkland with small to large areas of open space. Built structures and other modifications to the natural landscape dominate. Natural elements exist as scattered remnants, some of which may be quite large.	Managed urban parkland with large areas of open space/playing fields. Built structures and other modifications to the natural landscape dominate. Natural elements exist as small scattered remnants.	Managed urban parkland with playing fields. Built structures and other modifications to the natural landscape dominate. Natural elements are more-or-less non-existent.
A wide range of land uses that modify the natural landscape are active. Impacts are widespread, pervasive and permanent. Part of the natural landscape remains but most of this is modified to some extent.	A wide range of land uses that modify the natural landscape are active. Impacts are widespread, pervasive and permanent. Very small areas of the natural landscape remains but most are obviously modified.	Impacts are widespread, pervasive and permanent. Land use has completely changed the natural landscape.
25-50% intact or regenerating. Remainder cleared or non-endemic species.	10-25% intact or regenerating. Remainder cleared or non-endemic species.	<10% intact or regenerating. Remainder cleared or non-endemic species.
25-50% intact or regenerating. Remainder cleared or non-endemic species.	10-25% intact or regenerating. Remainder cleared or non-endemic species.	<10% intact or regenerating. Remainder cleared or non-endemic species.
Permanent changes to natural stream dynamics or marine ecosystem, structures and/or water chemistry (e.g. increased turbidity, nutrient load, channelisation or sediment load). Aquatic ecosystem is substantially modified.	Permanent changes to natural stream dynamics or marine ecosystem, structures and/or water chemistry (e.g. increased turbidity, nutrient load, channelisation or sediment load). Aquatic ecosystem is substantially modified.	Permanent changes to natural stream dynamics or marine ecosystem, structures and water chemistry (e.g. increased turbidity, nutrient load, channelisation or sediment load). Aquatic ecosystem is completely modified.

SOCIAL	1	2	3
Evidence of use by other people (e.g. sights, sounds and smells):	Non-existent. No evidence present.	Short term and relatively minor evidence at nodes and along main routes. Nodes small, low impact and dispersed. No evidence (sights, sounds, smells) elsewhere.	Minor permanent evidence at nodes and along main routes. Nodes small, low impact and dispersed. Negligible evidence (sights, sounds, smells) elsewhere.
Sense of isolation and opportunity for solitude:	Total	High	Moderate
Interparty* encounters while at nodes and destinations	Non-existent. Chance encounters with others are rare and usually avoidable.	Low. Users are most often alone and should be surprised to have to share locations with others.	Low to moderate. Frequent opportunities for solitude. Contact with others should be expected; however, it may be avoided.
Interparty* encounters while travelling	Very few. <1 group per day.	Low. <5 groups per day.	Low to moderate. 5-10 groups per day.
Dependence upon outdoor skills	Total	Very high	High
Density/ha PAOT**	<1	1-2	3-5

Continues next page 

* A group constitutes, on average, 4 people or the equivalent of one car

** Persons at one time

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Appendices cont.

Appendix B: Landscape Classification (cont.)

Continued from previous page

4	5	6
Substantial permanent evidence at nodes and along main routes. Nodes may be moderate in size and concentrate activities and people. Some evidence (sights, sounds, smells) elsewhere.	Readily apparent evidence of use (i.e. sights, sounds, and smells) pervades use of nodes, main routes and their surrounds. Nodes may be extensive with heavy concentrations of people and activities.	
Moderate to low	Low	Very low
Moderate to high. Frequent opportunities for solitude. Contact with others should be expected and usually cannot be avoided.	High. Infrequent opportunities for solitude during the day. Frequent contact should be expected and unlikely to be avoided.	Very high. Almost no opportunity for solitude during the day. Frequent and unavoidable contacts should be expected.
Moderate to high. 10-20 groups per day.	High. 20-50 groups per day.	Very high. >50 groups per day.
Moderate	Moderate to low	Low
5-10	10-60	60-150

* A group constitutes, on average, 4 people or the equivalent of one car

** Persons at one time

7	8	9
Clearly apparent evidence of other people at nodes, along main routes and their surrounds except in relatively small remnant areas. Open areas may be extensive with heavy concentrations of people and activities.	Widespread, all-encompassing and permanent.	Widespread, all-encompassing and permanent.
Infrequent and usually short opportunities for solitude during daylight hours.	Rare opportunities for solitude.	No or very rare opportunities for solitude.
No opportunity for solitude during the day. Frequent and unavoidable contacts should be expected.	Continuous and unavoidable contacts should be expected.	Continuous and unavoidable contacts should be expected.
Usually constant.	Always constant.	Always constant.
Very low.	No specialised outdoor skills required.	No specialised outdoor skills required.
150-250	>250	Unlimited.

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Appendices cont.

Appendix B: Landscape Classification (cont.)

MANAGEMENT	1	2	3
Access:	No motorised access whatsoever. No tracks or roads. Some unmarked trails may exist.	Trails exist. Some formed and maintained trails may exist. Some evidence of vehicle tracks may exist but these are regenerating.	Rough, unsurfaced and infrequently maintained vehicle roads may exist. Formed trails present. Some unformed tracks may be present.
Evidence of management personnel:	Infrequent, usually only to monitor resource conditions.	Minimum management presence – only as necessary to achieve minimum management obligations.	Minimum management presence. Infrequent construction and maintenance activity. Infrequent patrols by enforcement staff.
Presence and extent of signage	None	Unlikely; however, signs may be present for resource protection – few and dispersed.	Minimum road and track names, regulatory notices and directional signage.
Rules, regulations and law enforcement	Communicated off site. Users not confronted by management.	Communicated off site. Infrequent patrol for sustainability monitoring and life preservation. Users mostly unaware of management.	Predominantly communicated off site. Minimum patrol for sustainability monitoring and life preservation. Users occasionally aware of management.
Presence of management and visitor infrastructure	None	Only constructed where no other alternative can be found (e.g. communication towers). Structures are inconspicuous and widely dispersed.	Only constructed where no other alternative can be found (e.g. communication towers). Structures are unobtrusive and dispersed.

4	5	6
Well maintained roads and tracks. Gravel roads following natural features with some steep grades and tight corners. Some formed tracks may be present.	Unsealed roads with engineered and modified alignments. Mostly one lane; however, some two lane sections may exist. Some narrow sealed roads may be present. Formed tracks present.	Most roads and tracks are sealed and regularly maintained. Two lane roads are common.
Some management presence. Occasional construction and maintenance activity. Occasional patrol by enforcement staff.	Management presence active. Common construction and maintenance activity. Regular patrol by enforcement staff.	
Regulatory and directional signs located at key points. Minimum interpretation signage.	Interpretation, regulatory or advisory notices, boundary, and directional signs sufficient to orientate and inform all users.	
Some on-site communication. Signage and supervision as required for safety and sustainability. Users occasionally aware of management	A strong and visible management presence. Frequent on-site communication. Users commonly aware of management.	
Structures are small but apparent. However, they are dispersed and blend into natural background.	Structures are readily apparent and can be quite large, but blend into natural background.	

Continues next page



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Appendices cont.

Appendix B: Landscape Classification (cont.)

Continued from previous page

7	8	9
Roads and tracks are usually sealed. Some use of paving may be present. Unsealed roads and tracks are maintained at a high standard. Two lane roads are common.	All roads, tracks, and paths are sealed or paved. Motorised access available in all places.	All roads, tracks, and paths are sealed or paved. Motorised access available in all places.
Management presence active. Regular construction and maintenance activity. Frequent and regular patrol by enforcement staff.	Management and enforcement personnel are obvious and permanent.	Management and enforcement personnel are obvious and permanent.
Interpretation signs and regulatory notices common. Boundary and directional signs at all intersections and along roads and tracks. Advertising signs may be present.	Interpretation signs and regulatory notices frequently encountered. Boundary and directional signs at all intersections and along roads and tracks. Advertising signs present.	Unlimited.
A strong and visible management presence. Frequent and regular on-site communication. Users commonly aware of management, rules and regulations.	Frequent and regular education, reinforcement or enforcement.	Constant education, reinforcement or enforcement.
Built structures are large and readily apparent. They may be designed to blend into the surroundings. However, some may stand out. Some infrastructure may be provided as a focus for recreational activity.	Built structures are readily apparent and often designed to stand out. Infrastructure is usually provided in all public spaces and may be the focus of recreational activity.	Large, obvious and attention grabbing. Built structures dominate all senses. Unavoidable.

Appendix C: Recommendations from 2001 SEQORDS

Recommendations for future related research:

1. That the cycle of future outdoor recreation demand studies in SEQ be increased to 5-7 years, to allow identification and confirmation of any trends.
2. That the research methodology be modified to ensure that data relating to landscape settings can be confidently interpreted.
3. That the methodology developed for the South East and Central Queensland Outdoor Recreation Demand Studies be endorsed as the framework for defining outdoor recreation activities and settings for future regional and sub-regional planning and the preferred approach for local government recreation planning within SEQ.

(Refer to Section 6: Methodology)

4. That, in view of relatively high participation rates in outdoor recreation, the significance of outdoor recreation on the quality of life of SEQ residents and the liveability of the region be identified and analysed.

(Refer to Tables 37, 38 and 39 and the associated text in Sections 11.1.1 and 11.1.2 and to Sections 11.2 and 11.4).

Recommendations for planning and management for outdoor recreation:

1. That state government agencies responsible for recreation services and local governments note the magnitude and diversity of the demand for outdoor recreation as indicated by the data and key findings and that this information be used to inform work on Priority Actions 5.4, 5.5, 5.8, 5.10, 5.11 and 11.8 in the 2021 SEQ Regional Framework for Growth Management.

(Refer to Table 1 in Section 2.1, Table 2 in Section 2.2, Tables 15 and 16 in Section 8.2, Table 27 in Section 9.1, and to Section 11.1.1).

2. That the data and findings relating to setting preference and the factors limiting participation in the 2001 SEQORDS be used to inform work on Priority Actions 5.4, 5.5, 5.8, 5.10, 5.11 and 11.8 in the 2021 SEQ Regional Framework for Growth Management.

(Refer to Table 20 in Section 8.3, Table 24, Figure 13 and Table 25 in Sections 8.5, Table 30 in Section 9.2 and Table 31 in Section 9.3 and to Sections 11.2, 11.3 and 11.4).

3. That state government agencies responsible for recreation services and local governments note the general preference for outdoor recreation within more natural rather than less natural settings and the variable understanding of the three recreation settings used in the survey.

(Refer to Table 2 in Section 2.2, Tables 34, 35 and 36 and the associated text in Section 10.1 and Sections 10.3, 11.2.1, 11.2.2 and 11.4.2).

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Appendices cont.

Appendix C: Recommendations from 2001 SEQORDS (cont.)

4. That state government agencies responsible for recreation services and local governments use the information referred to in Recommendation 3 above to help satisfy current and future demand for outdoor recreation by identifying areas with appropriate attributes and securing and making those areas available for outdoor recreation as per Priority Actions 5.4, 5.5, 5.8, 5.10, 5.11 and 11.8 in the 2021 SEQ Regional Framework for Growth Management.

(Refer to Tables 34, 35 and 36 and the text associated with these tables and Sections 10.3, 11.2.1, 11.2.2 and 11.4.2).

5. That the Moreton Bay Waterways and Catchment Partnership recognises the high levels of both current and latent demand for outdoor recreation water activities requiring primary contact with water (eg. swimming in places other than constructed swimming pools, body surfing, snorkelling and SCUBA diving) as a significant issue in planning the integrated management of the waterways of SEQ.

(Refer to Table 12 and the text associated in Section 8.1 and Tables 37 and 38 and the text associated in Sections 11.1.1 and 11.1.2 and to Table 41 and the associated text in Section 11.2)

6. That the existing demand for outdoor recreation be used to help predict likely future outdoor recreation demand up to and including 2021, in line with the regional planning time horizon of the 2021 SEQ Regional Framework for Growth Management.

Appendix D: Questionnaire SEQORDS 2007

The following questionnaire is the actual script used in the telephone interview. The bold coded text (A-N and 171-179) are the questions that each interviewee responded to. These questions (A-N and 171-179) are used as headings to tabulate the raw data.

INTRODUCTION

My name is _____ I'm calling on behalf of Griffith University.

Today we are conducting a survey on outdoor recreation to help the Queensland Government and your local council to plan for and manage outdoor recreation activities such as picnicking, bushwalking, camping, swimming, 4-wheel driving, mountain bike riding, horse riding and boating. The results will be used by your local and state Government to improve outdoor recreation opportunities in SEQ.

Could I speak to the person within your household, 18 years or older, who is having the next birthday?

The survey will take about 10 minutes and all information will remain confidential.

QUOTAS

Age: "To make sure we have a good representation of all the population, in which of the following age groups do you fall? Is it.... 15-24 years 25-39 years 40-54 years 55-64 years 65 and over?"

Postcode: "For an accurate idea of the geographic spread of respondents, could you tell me your postcode."

DESCRIBE SETTINGS

"To get started, the purpose of this is to look at people's use of the natural environment. It's about activities you might do in a natural environment, away from the city and within 4 hours drive from home:
- Its NOT about areas where there's not much natural vegetation left
- Its NOT about areas easily accessible by car or boat
- And it's NOT about areas where buildings or built structures dominate, or there are people in large numbers.

It's about the use of NATURAL settings in the last 12 months, remembering the 3 settings, and again being within 4 hours drive from home, and I'm going to describe to you 3 natural settings - these are important because we'll refer to them a number of times....

- The first is a 'somewhat natural landscape' which is a natural landscape that is close to suburbs or cleared farmland, which is accessible by conventional vehicles or vessels, has buildings highly visible, and where many other people are usually present.*
- The second setting is a 'very natural landscape' which is a natural landscape AWAY from suburbs and cleared farmland, which may be difficult to access by vehicles or vessels, has few built structures visible, and where few other people are usually present.*
- The third setting is a 'totally natural landscape' which is a natural landscape far away from suburbs and cleared farmland, which has NO access by vehicles or vessels, has NO built structures visible, and with little or no evidence of other people.*

If you undertook an outdoor recreation activity in any place which does NOT match one of these three landscape descriptions, then please identify that place to us as an "Other setting" in your responses to us.

"The first activity we will look at is picnicking..."

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Appendices cont.

Appendix D: Questionnaire SEQORDS 2007 cont.

QUESTION SERIES

The Question Series A to N (below) is repeated for each activity from the Activity List.

A – Participation-1

“Have you participated in <2nd-appearance> in a natural environment within the last 12 months? Remember the 3 settings just described, and it would have been within 4 hours drive of your home?”

YES participated > B
NO did not participate > J

B – Frequency-1

“How many times have you participated in <2nd-appearance> during the last 12 months?”

C – Setting-1

“Thinking of the 3 settings we described...”

If ONCE: *–did you go <2nd-appearance> in...*

If MULTIPLE: *–what percentage of the times you went <2nd-appearance> were you in...*

** a somewhat natural,*

** a very natural,*

** or a totally natural landscape ?*

** (or ‘Other’ landscape)*

D – Style-1

(NOT asked for picnicking, camping and walking)

“Which of the following best describes the MAIN way you participated in this activity ... was it in a leisurely way, a goal-focused way, or competitively?”

Activity List

- picnicking;
- walking or nature study, which includes activities like bird watching, landscape painting or photography;
- camping;
- bicycle riding;
- horse riding;
- abseiling/rock-climbing;
- water activities, including swimming, surfing, snorkelling and scuba diving – but in creeks, rivers, lakes, dams or the sea, rather than in constructed swimming pools;
- riding non-motorised watercraft - for example canoe, kayak, sailboat, row boat;
- riding on motorised watercraft - for example speedboat or jet ski;
- driving 2WD vehicles on unsealed roads or tracks;
- driving 4WD vehicles on unsealed roads or tracks;
- driving other motorised vehicles - for example trail bikes, quads or trikes - on unsealed roads or tracks.

[For activities 1 - 3 (picnicking, walking and camping) questions D, I and N are not asked]

Leisurely – when sightseeing, exploring, unwinding, escaping or relaxing, experiencing peace and quiet – but may still involve hard physical exertion. *Goal-focused* – involves improving fitness, skills improvement, testing equipment, challenge or conquering nature. *Competitively* – where aiming for: maximum distance, minimum time, fastest, most accurate, most difficult or training for competition]

E – Prevented-2

“Is <2nd-appearance> something you’d be particularly interested in doing more often, but for some reason are prevented from doing so?”

YES, prevented > F
NO, not prevented > Next Activity

F – Main Problem-2

“What would you say is the main thing preventing you from doing this activity more often?”

G – Secondary-2

Record secondary reason(s) if any

H – Setting-2

“Assuming you were able to go <2nd-appearance> more often, which of the following settings would you prefer to do this in? Would it be in:

- * a somewhat natural,*
- * a very natural,*
- * or a totally natural landscape ?*
- * (or ‘Other’ landscape)*

I – Style-2

(NOT asked for picnicking, camping and walking)

“Which of the following best describes the way in which you would undertake this activity...? Would it be in a leisurely way, a goal-focused way, or competitively?”

» Next Activity

J – Prevented-3

“Are you particularly interested in <2nd-appearance>, but for some reason have been prevented from doing so?”

YES > K

NO > Next Activity

K – Main Problem-3

“What is the main thing preventing you from participating?”

L - Secondary-3

Record SECONDARY factor(s) if any.

M – Setting-3

“Assuming you were able to go <2nd-appearance> more often, which of the following would be your preferred setting for doing this activity... Would it be in:

- * a somewhat natural,*
- * a very natural,*
- * or a totally natural landscape?*
- * (or ‘Other’ landscape)”*

N – Style-3

(NOT asked for picnicking, camping and walking)

“Which of the following best describes the way you would undertake this activity? Would it be in a leisurely way, a goal-focused way, or competitively?”

» Next Activity

AFTER COMPLETING ALL 12 ACTIVITIES**171 Other Activity?**

“Lastly, is there any other nature-based activity you’ve participated in within the last 12 months that have been within 4 hours drive from home?”

YES, other activity > 172

NO other > 173

172 Other Activity Noted

Note other activity(s).

173 If Active Participant

IF respondent participated in any 1 or more of all above activities?

ONE or more activities » 174

NO activity » 179

174 Focus Group?

“The Queensland Government is keen to find out more about people’s nature-based activities... if you were randomly selected, would you be willing to participate in a follow-up focus group session?”

NO, wouldn’t participate > 179

YES, focus group OK > 175

175 Focus Name

Record name

176 Focus Address

Record address

178 Focus Phone

Record phone number(s)

179 Gender

Record gender

180 END

“Thanks for helping us with this study...etc

(If you are interested the results will be available...)”

END CALL

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Appendices cont.

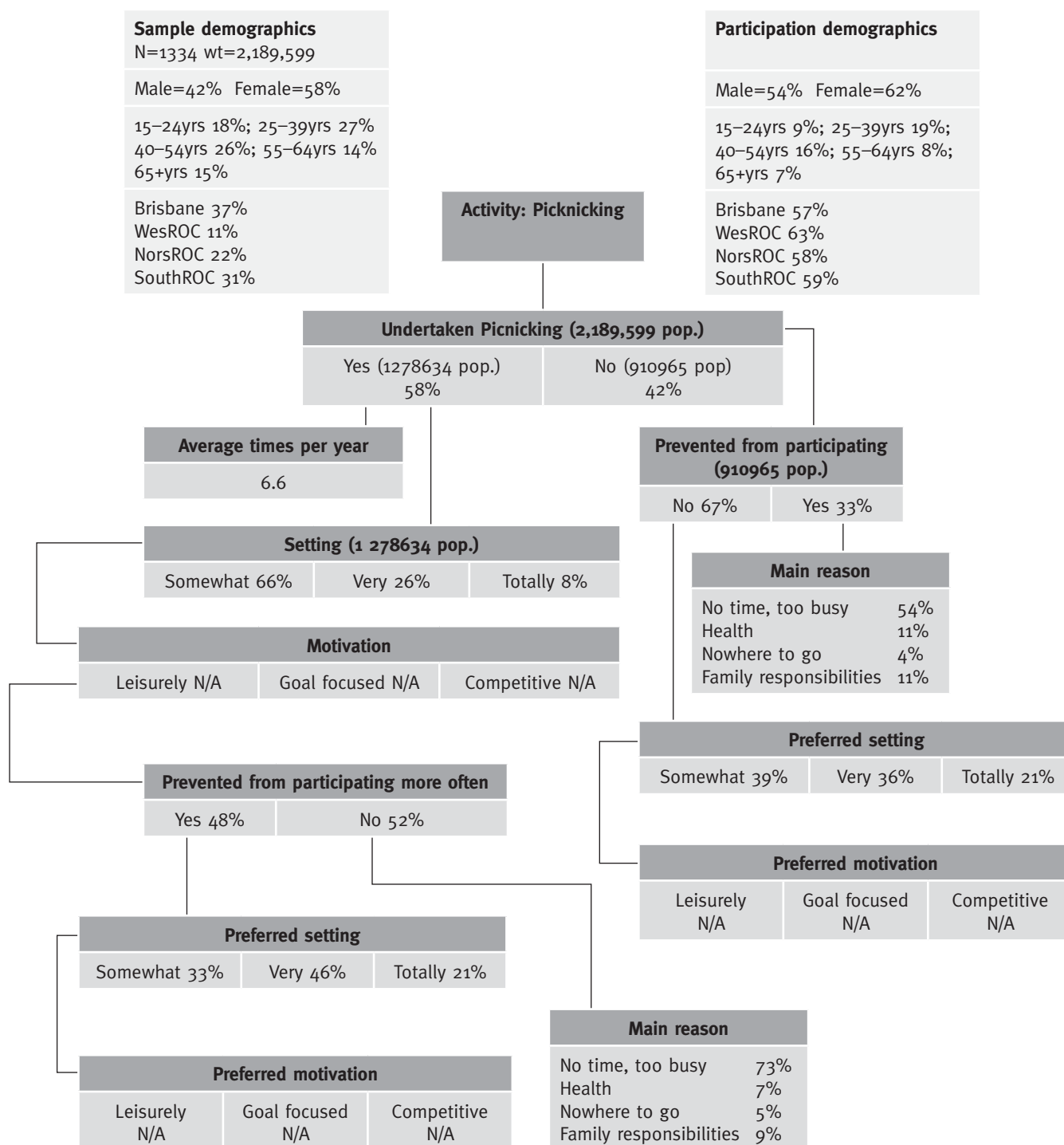
Appendix E: Other activities

The following activities were mentioned by participants as alternative outdoor recreation activities in which they participated.

Activity	Number of participants
Ballooning	1
Beach walking	2
Bird watching	1
Bush cooking	1
Bush walking	11
Conservation activities	9
Cross country running	8
Driving in country	16
Exercise (not running)	4
Fishing	122
Gardening	3
Golf	12
Hang gliding	2
Hunting	11
Kite Flying	1
Kite Surfing	1
Mountain climbing	1
Mustering	1
Observing nature	2
Orienteering	3
Paint Ball	2
Prospecting	1
Skate Boarding	1
Sky diving	5
Snow activities	2
Star watching	2
Surfing (board and body)	1
Walking Dog	3

As discussed in Section 10.1.1 (Incidence of Participation: Key Trends), a number of the activities in this list fall into the category of walking or nature study. These activities include beach walking; bird watching; bush walking; observing nature; star watching; walking; and whale watching.

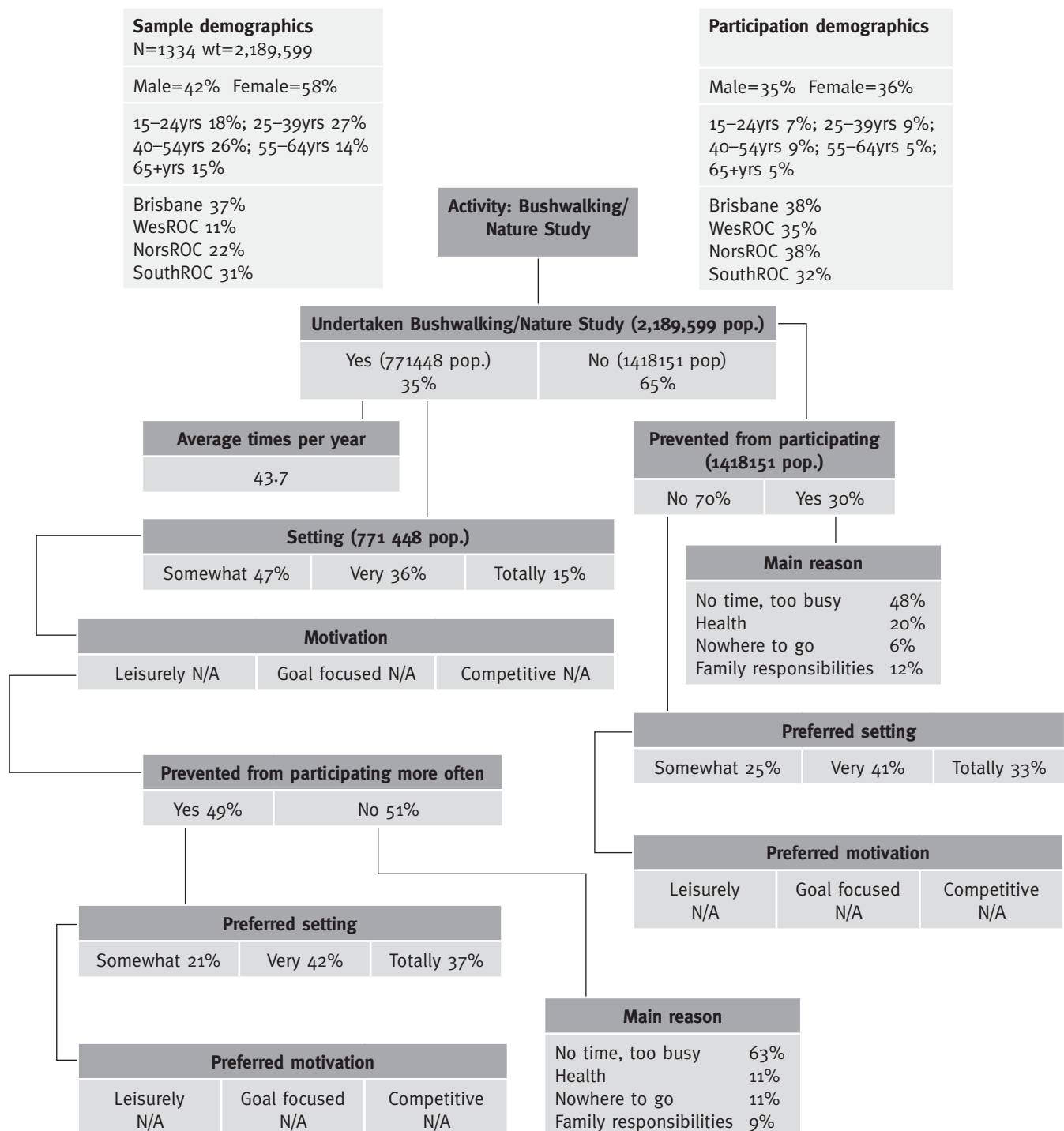
Appendix F: Current and latent participation data summary tables



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Appendices cont.

Appendix F: Current and latent participation data summary tables (cont.)



Sample demographics
N=1334 wt=2,189,599
Male=42% Female=58%
15-24yrs 18%; 25-39yrs 27%
40-54yrs 26%; 55-64yrs 14%
65+yrs 15%
Brisbane 37%
WesROC 11%
NorsROC 22%
SouthROC 31%

Participation demographics
Male=33% Female=28%
15-24yrs 9%; 25-39yrs 10%;
40-54yrs 8%; 55-64yrs 3%;
65+yrs 1%
Brisbane 28%
WesROC 32%
NorsROC 37%
SouthROC 29%

Activity: Camping

Undertaken Camping (2,189,599 pop.)
Yes (6664000 pop.) 30%
No (1523199 pop.) 70%

Average times per year
3.7

Prevented from participating (1523199 pop.)
No 69%
Yes 31%

Setting (6664000 pop.)
Somewhat 33%
Very 45%
Totally 20%

Main reason
No time, too busy 36%
Health 14%
Nowhere to go 4%
Family responsibilities 18%
No equipment 10%

Motivation
Leisurely N/A
Goal focused N/A
Competitive N/A

Preferred setting
Somewhat 25%
Very 43%
Totally 31%

Prevented from participating more often
Yes 64%
No 36%

Preferred motivation
Leisurely N/A
Goal focused N/A
Competitive N/A

Preferred setting
Somewhat 21%
Very 52%
Totally 28%

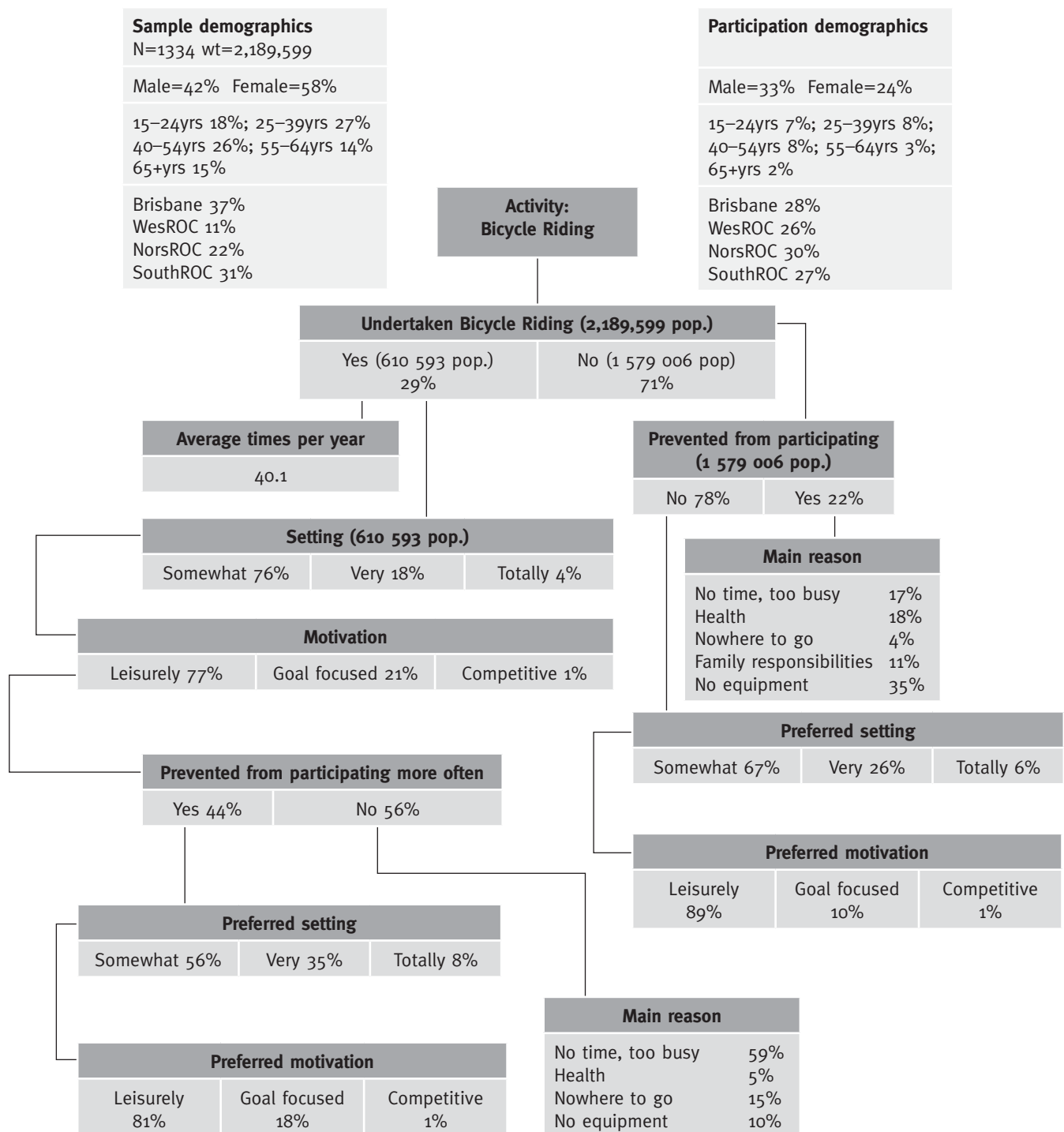
Main reason
No time, too busy 75%
Health 3%
Nowhere to go 3%
Family responsibilities 7%

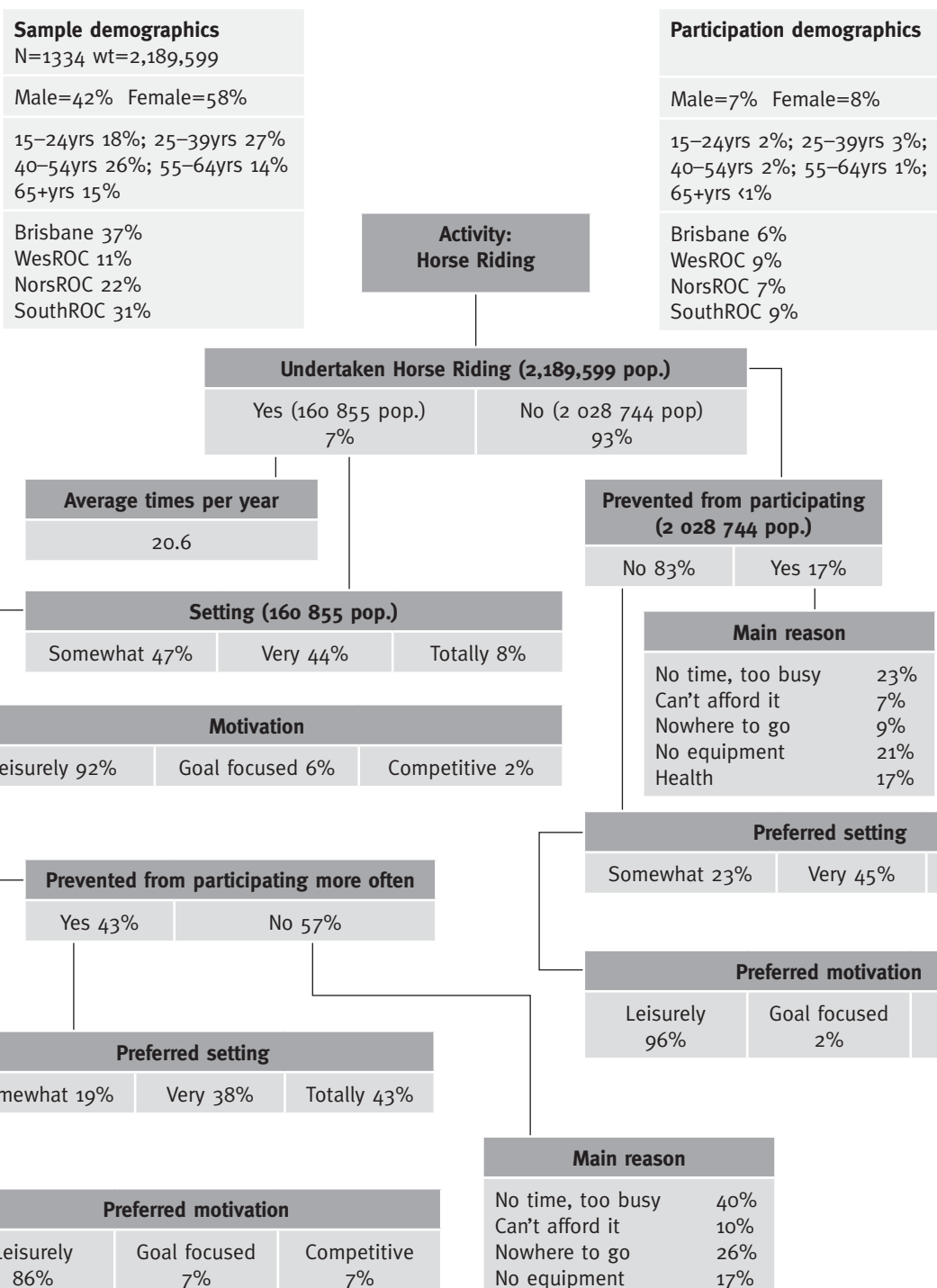
Preferred motivation
Leisurely N/A
Goal focused N/A
Competitive N/A

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Appendix F: Current and latent participation data summary tables (cont.)

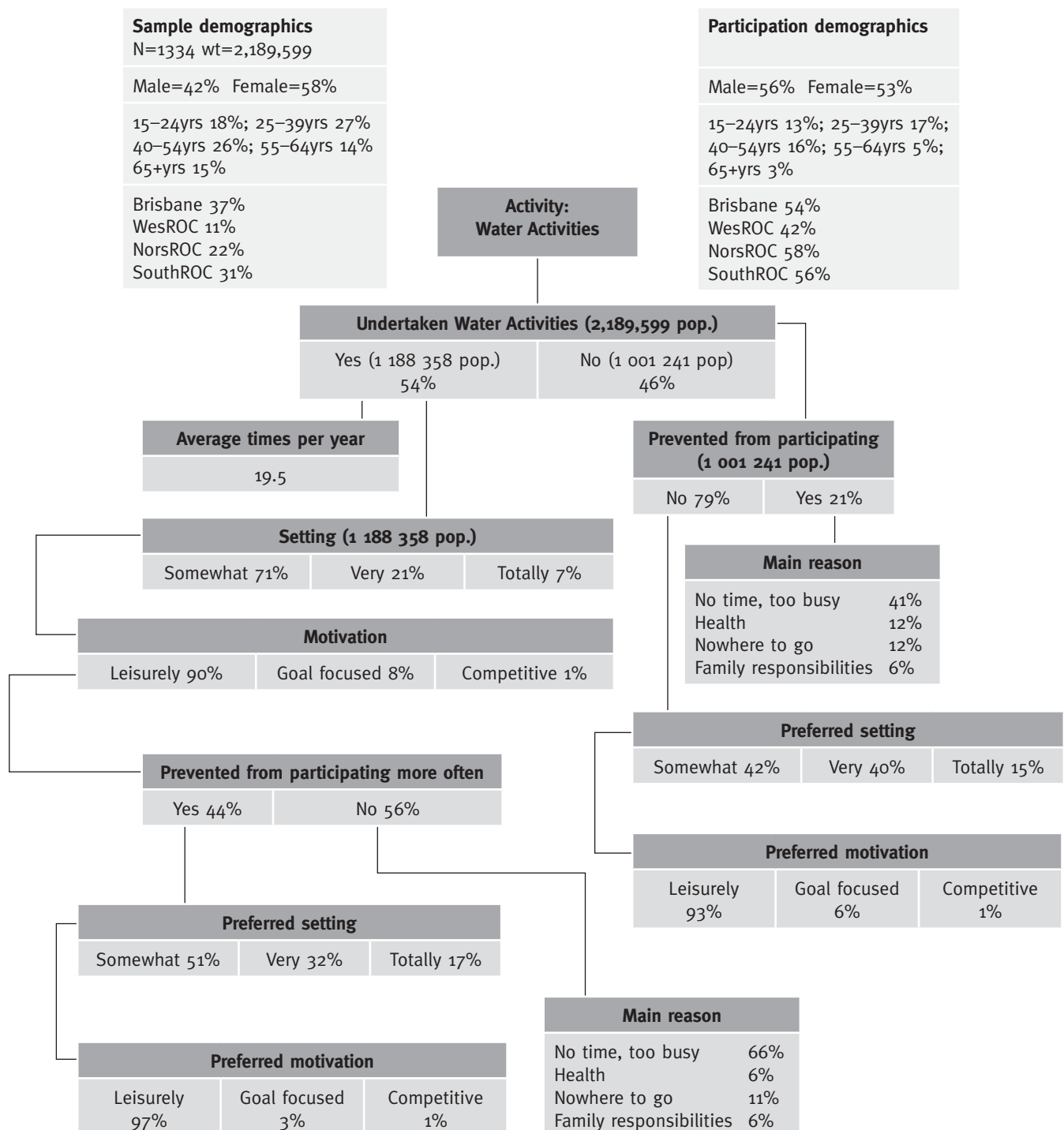




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Appendices cont.

Appendix F: Current and latent participation data summary tables (cont.)



Sample demographics
N=1334 wt=2,189,599
Male=42% Female=58%
15-24yrs 18%; 25-39yrs 27%
40-54yrs 26%; 55-64yrs 14%
65+yrs 15%
Brisbane 37%
WesROC 11%
NorsROC 22%
SouthROC 31%

Participation demographics
Male=19% Female=12%
15-24yrs 3%; 25-39yrs 4%
40-54yrs 5%; 55-64yrs 2%
65+yrs 1%
Brisbane 14%
WesROC 20%
NorsROC 20%
SouthROC 12%

**Activity:
Driving - 2WD**

Undertaken Driving - 2WD (2,189,599 pop.)

Yes (331 558 pop.) 15%	No (1 858 041 pop.) 85%
---------------------------	----------------------------

Average times per year

20.1

**Prevented from participating
(1 858 041 pop.)**

No 92%	Yes 8%
--------	--------

Setting (331 558 pop.)

Somewhat 43%	Very 45%	Totally 14%
--------------	----------	-------------

Main reason

No time, too busy	26%
Can't afford it	4%
Nowhere to go	4%
No equipment	15%
Health	13%

Motivation

Leisurely 84%	Goal focused 15%	Competitive 1%
---------------	------------------	----------------

Preferred setting

Somewhat 35%	Very 36%	Totally 27%
--------------	----------	-------------

Prevented from participating more often

Yes 29%	No 71%
---------	--------

Preferred motivation

Leisurely 93%	Goal focused 3%	Competitive 2%
---------------	-----------------	----------------

Preferred setting

Somewhat 32%	Very 54%	Totally 14%
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Main reason

No time, too busy	59%
Can't afford it	8%
Nowhere to go	12%
No equipment	10%

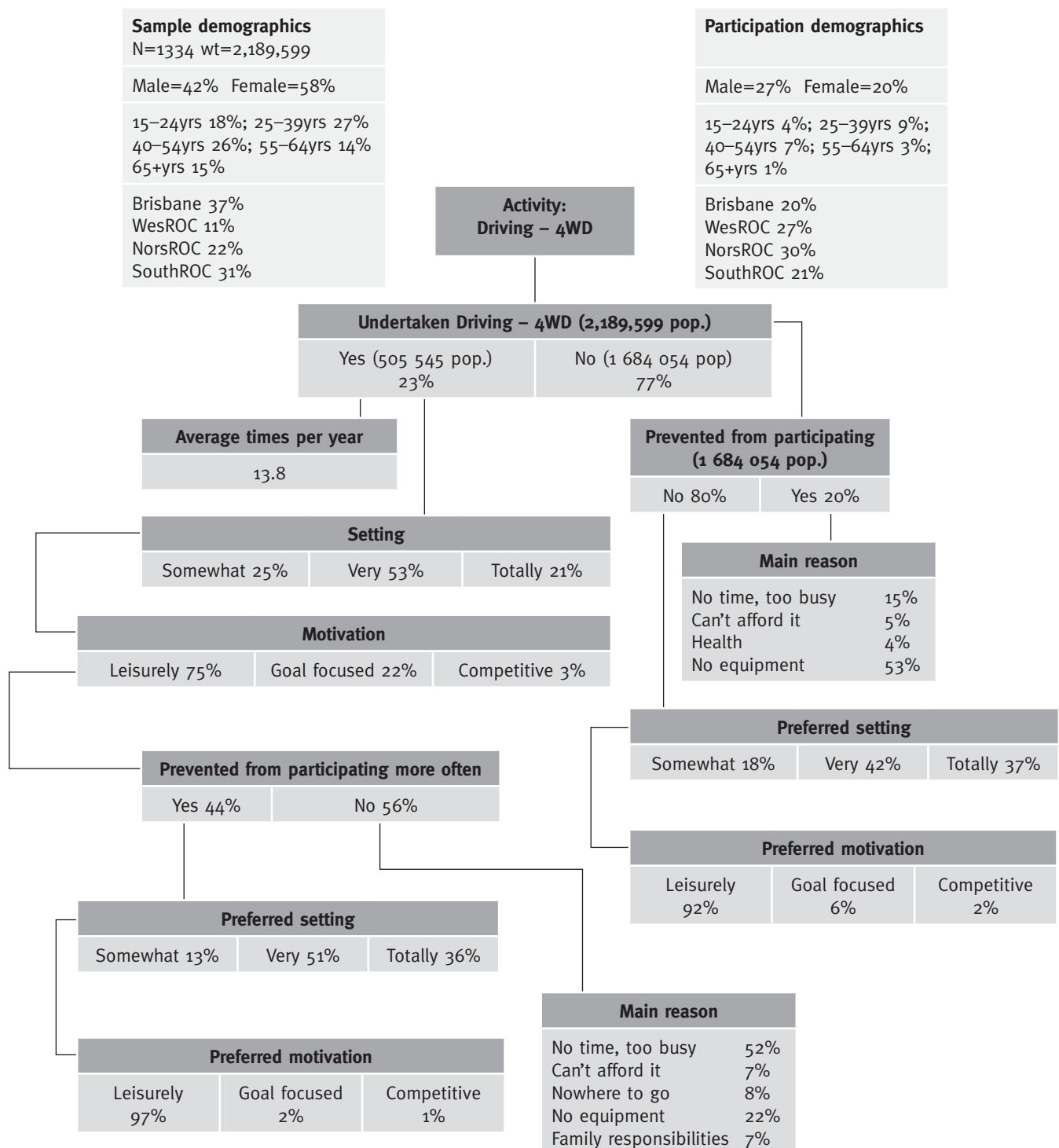
Preferred motivation

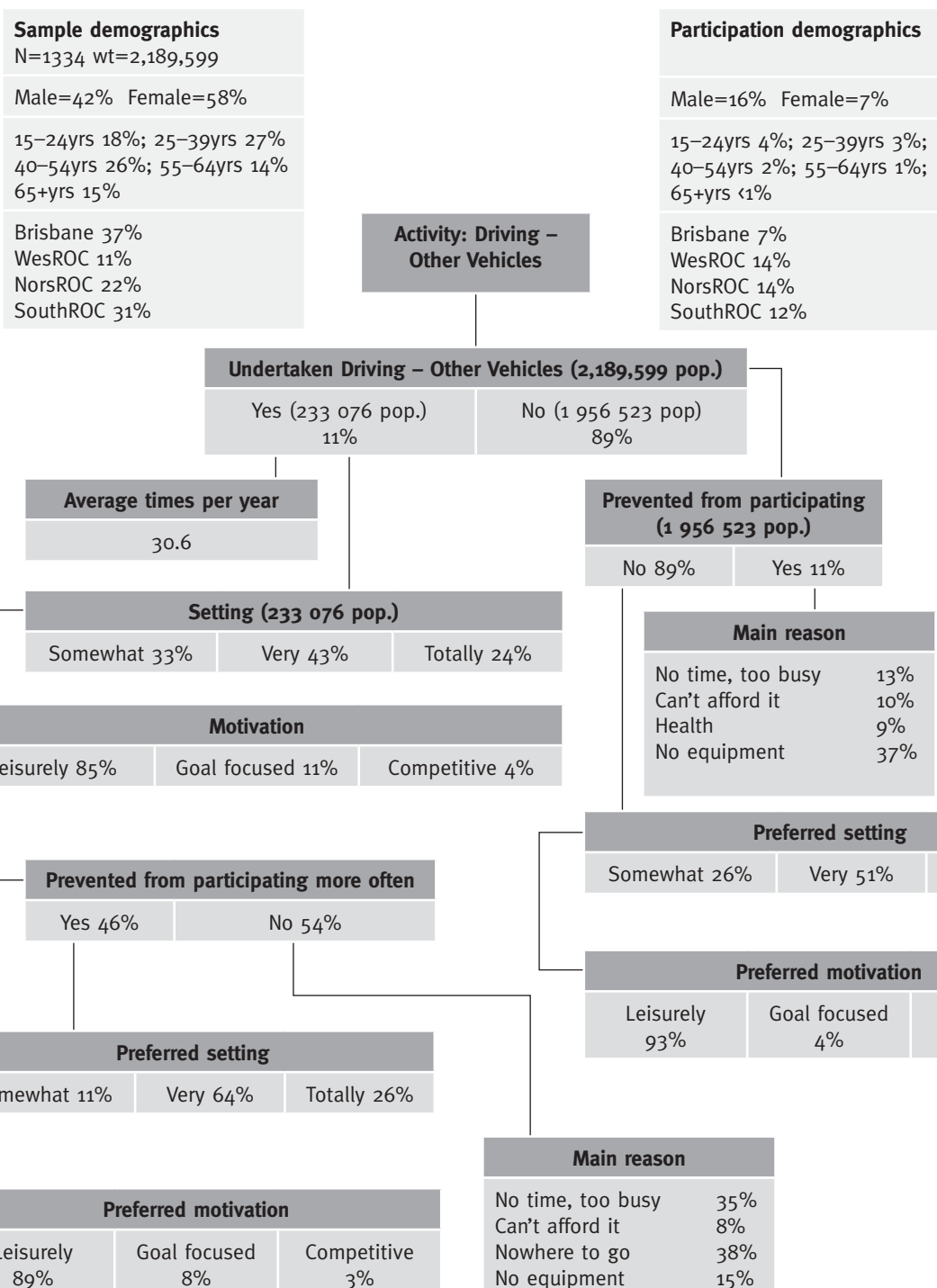
Leisurely 92%	Goal focused 8%	Competitive 0%
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Appendices cont.

Appendix F: Current and latent participation data summary tables (cont.)

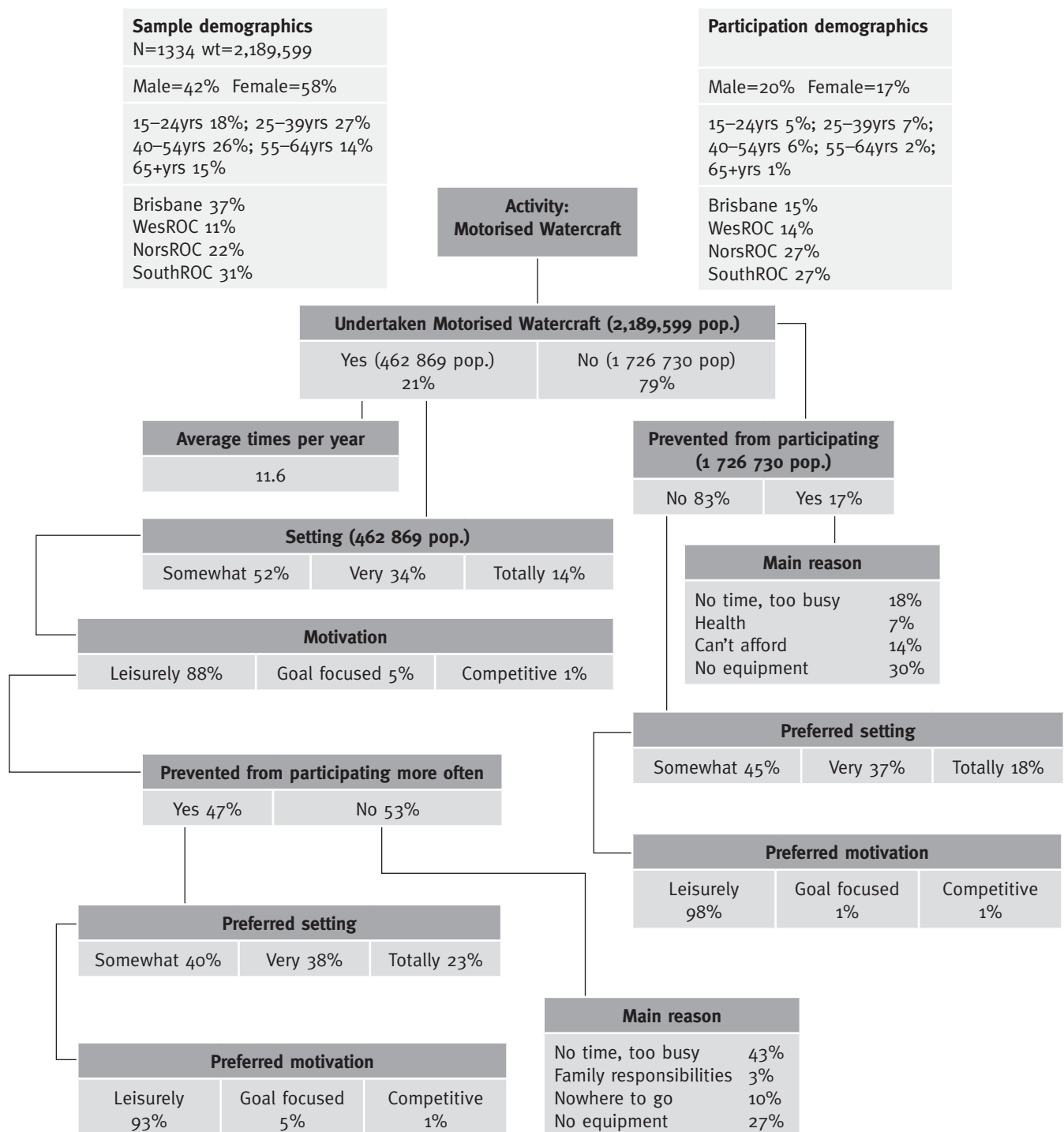


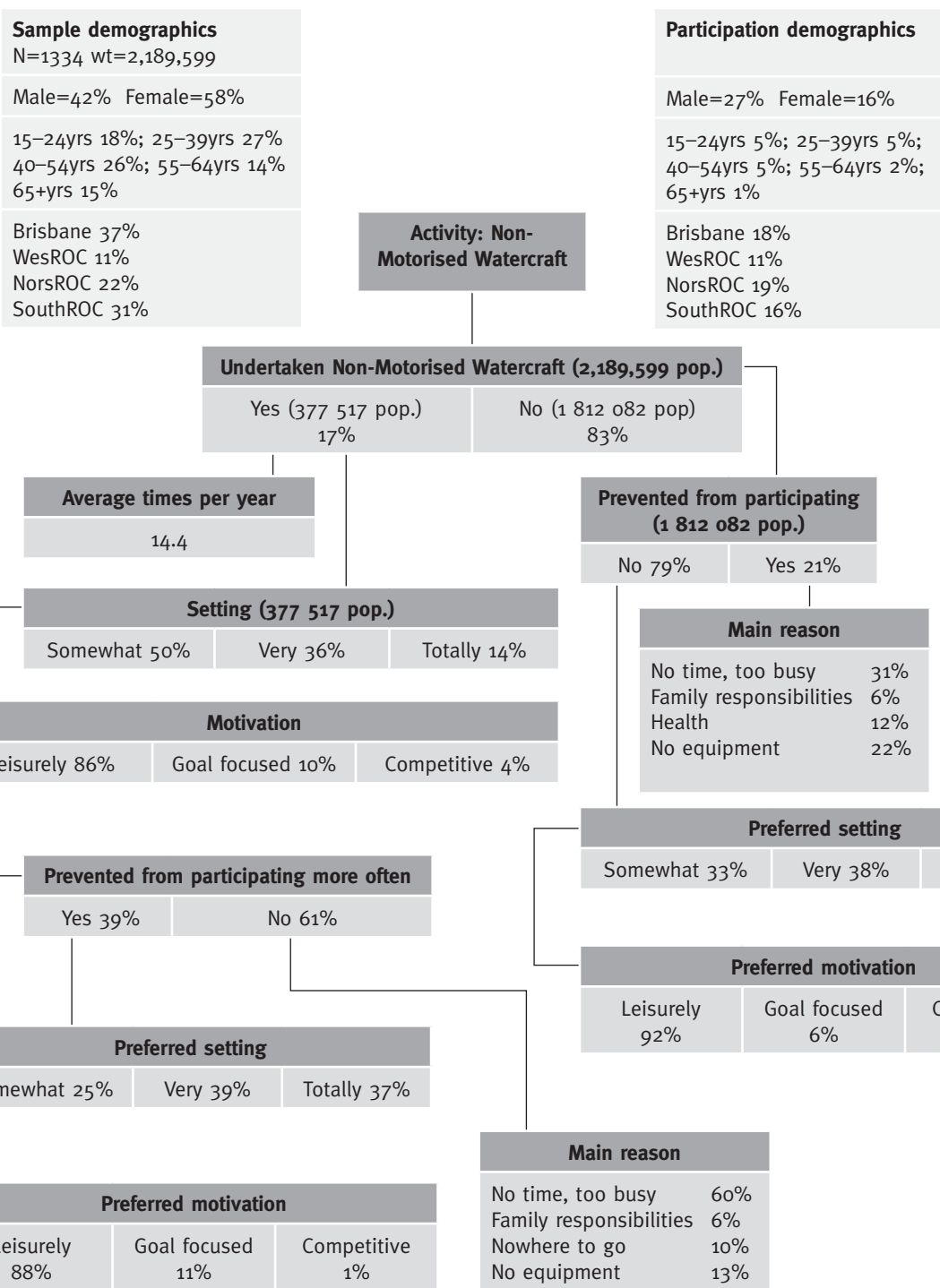


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Appendix F: Current and latent participation data summary tables (cont.)

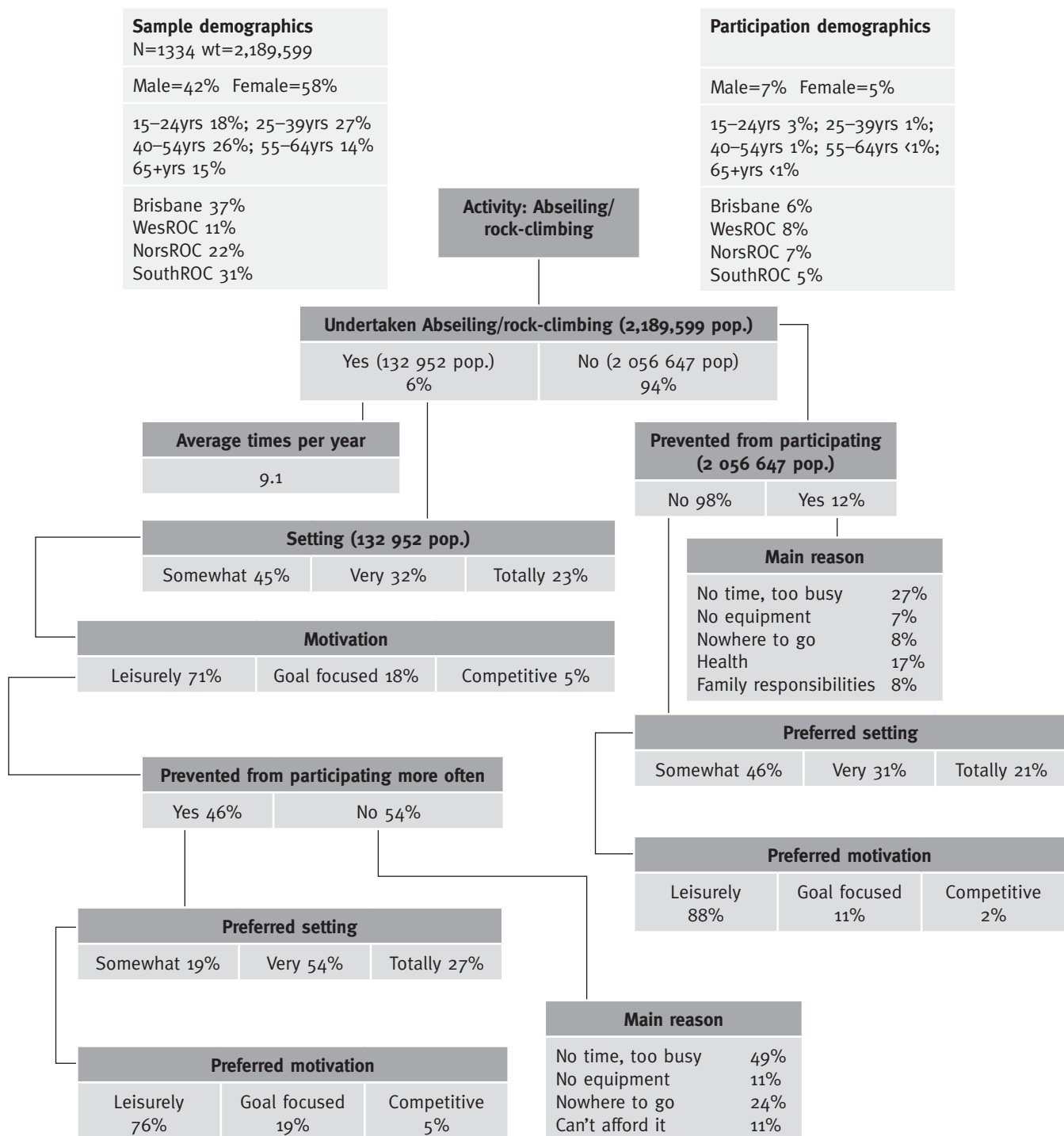




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Appendix F: Current and latent participation data summary tables (cont.)



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