

South East Queensland Outdoor Recreation Demand Study



September – November 2001

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prepared for

Queensland Outdoor Recreation Federation

by

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Councils**



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Section 1 - Acknowledgements

The 2001 South East Queensland (SEQ) Outdoor Recreation Demand Study was a joint initiative of several local and state government agencies. These agencies financed and provided expertise for the Study. Contributing agencies included:

- Sport and Recreation Queensland (a division of the Department of Innovation and Information Economy, Sport and Recreation)
- South East Queensland Regional Organisation of Councils (SEQROC), which includes the following groups:
 - West Regional Organisation of Councils (WesROC)
 - South Regional Organisation of Councils (SouthROC)
 - North Regional Organisation of Councils (NorsROC)
 - Brisbane City Council

The South East Queensland Regional Organisation of Councils is made up of the following councils:

WesROC: Boonah; Esk; Gatton; and Laidley Shire Councils; and Toowoomba and Ipswich City Councils.

SouthROC: Beaudesert and Redland Shire Councils and Gold Coast and Logan City Councils.

NorsROC: Caboolture; Caloundra; Kilcoy; Maroochy; Noosa and Pine Rivers Shire Councils and Redcliffe City Council.

Brisbane: Brisbane City Council.

The **Steering Committee** for the project was made up of the following groups and individuals:

Sport and Recreation Queensland

David Batt

Kylie Crocker

Physical Infrastructure Unit, Program Performance Branch, Queensland Parks and Wildlife Service

Brett Waring

Regional Landscape Unit, Environmental Protection Agency

Kevin Strong

Stephen MacDonald

The South East Queensland Regional Organisation of Councils

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The Queensland Outdoor Recreation Federation

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The Australian Centre for Leisure, Griffith University

Jackie Kiewa (Project Leader)

Terry Brown

Ray Hibbins

Graham Cuskelly

The Queensland Outdoor Recreation Federation (QORF) was responsible for the overall management of the project, whilst the Australian Centre for Leisure (Griffith University) undertook its execution.

The above named individuals would like to thank all respondents to the survey, as well as the participants in each of the subsequent focus groups.

Section 2 – Clarification of Key Terms

Outdoor recreation activities, recreational 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.

2.1 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 2001 Study are listed in Table 1.

Table 1: 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)
Driving 2WD Vehicles on Unsealed Roads
Driving 4WD Vehicles on Unsealed Roads
Driving Other Vehicles on Unsealed Roads
Riding on Motorised Watercraft (eg speed boat, jet ski)
Riding on Non-Motorised Watercraft (eg canoe, sailing, kayak)
Abseiling or Rockclimbing
Other Activities

2.2 Recreational Settings

Recreation activities occur within a specific context or recreational setting. A recreational setting is defined through the particular biophysical, social, cultural and managerial attributes of a place in which recreation takes place (Parkin, Batt, Wearing, Smith, and Phillips, 2001; Clark and Stankey, 1979). These attributes determine the type of recreational 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 recreational settings.

The classification system currently used by the Queensland Parks and Wildlife Service 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 2. Each of these settings was used in conjunction with each of the activities listed in Table 1.

Table 2: Landscape Settings

Somewhat Natural Landscape	A somewhat natural 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 very natural 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 totally natural 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)

2.3 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 3. Each of these motivation classes was used in conjunction with activities 4-12 described in Table 1.

Table 3: 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

2001 South East Queensland Outdoor Recreation Demand Survey

Section 3: Executive Summary

Section 3: Executive Summary

The 2001 South East Queensland Outdoor Recreation Demand Study investigated the nature and extent of participation in outdoor recreation activities¹ by the residents of South East Queensland. This study is based on a similar survey of people living in South East Queensland undertaken in 1997 and published in 1998². In late 2001, a total of 2,820 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 motivation³. In addition, this survey examined the different types of recreational environments or settings⁴ in which people choose to recreate, and the characteristics of these recreational settings. Also in late 2001, a total of three workshops were held in order to further clarify the results of the survey. The results of the survey and the workshops are provided in this report.

The participants in the 2001 study were a randomly chosen sample of the population of South East Queensland, and fitted broadly into 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).

The findings of the 2001 Outdoor Recreation Demand Study are largely similar to those of the 1998 study, a result that attests to the reliability of both studies. Like the 1998 study, the 2001 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.

Based on the current population of South East Queensland (1,900,710 individuals aged 15 or over according to the Australian Bureau of Statistics, June 30, 2000), one example of this finding is as follows: Currently, 33% of adults over 15, or 627,234 individuals participate in camping, with an average frequency of participation of 5 times per year and a median⁵ participation of twice per year. Seventy-one percent of these camping events took place in very natural or totally natural surroundings. Sixty-eight 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, 86% would prefer this to be in a very natural or totally natural setting. Of those people who do not currently go camping, 36%, or 458,451 people would like to participate (but are prevented mainly because of lack of time), and of these 82% would prefer this to be in a very natural or totally natural environment.

¹ See Section 2 Clarification of Key Terms for a definition of outdoor recreation activities

² Although this study was conducted in 1997, it has been commonly referred to as the 1998 study due to its date of publication. To avoid confusion, this report continues to use this terminology.

³ See Section 2 for an explanation of the use of motivation in this study

⁴ See Section 2 for a description of recreational settings

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

2001 South East Queensland Outdoor Recreation Demand Survey

Section 3: Executive Summary

Table 4 provides details of current participation, with 1998 figures shown in brackets for comparison, and the median frequency of participation for each activity investigated. The product of the actual South East Queensland 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 4 provides details of the recreational settings that are currently used for these activities, also with 1998 figures provided in brackets for comparison.

Statistically significant changes in landscape use are indicated by an asterisk, where

* Indicates moderate significant difference ($p < .05$)

** Indicates strong significant difference ($p < .005$).

Table 4: Incidence and frequency of participation over the past 12 months, and the recreational setting in which this occurred

Activities	Percentage who participated in previous 12 months (1998 figures in brackets)	Actual population represented (based on ABS 2000 data)	Frequency (Median)	Activity Events per Year (Population multiplied by median)	Recreational Setting ^a (1998 figures in brackets)		
					Somewhat natural %	Very natural %	Totally natural %
Picnicking	67% (65%)	1,273,476	4	5,093,904	59% (70%)	33% (24%)	8% (6%)
Walking or Nature Study	49% (60%)	931,348	12	11,176,176	49% (66%)	34% (26%)	17% (8%)
Camping	33% (25%)	627,234	2	1,254,468	29% (38%)	51% (40%)	20% (21%)
Bicycle Riding *	26% (25%)	494,185	11	5,436,035	83% (91%)	15% (6%)	2% (3%)
Horse Riding **	7% (7%)	133,050	2	266,100	27% (53%)	46% (30%)	27% (17%)
Water Activities	56% (39%)	1,064,398	12	12,772,776	62% (67%)	31% (26%)	7% (7%)
Driving 2WD Vehicles	24% (31%)	456,170	5	2,289,850	35% (44%)	57% (46%)	8% (10%)
Driving 4WD Vehicles*	23% (20%)	437,163	4	1,748,652	19% (34%)	63% (42%)	18% (24%)
Driving Other Vehicles	7% (7%)	133,050	5	665,250	39% (47%)	52% (37%)	9% (15%)
Riding on Motorised Watercraft *	27% (26%)	513,192	4	2,052,768	40% (63%)	46% (26%)	14% (11%)
Riding on Non-Motorised Watercraft *	19% (17%)	361,135	2	722,270	39% (61%)	47% (30%)	14% (9%)
Abseiling or Rockclimbing	6% (7%)	114,043	2	228,086	52% (52%)	24% (24%)	24% (25%)

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

2001 South East Queensland Outdoor Recreation Demand Survey

Section 3: Executive Summary

As depicted in Table 4, picnicking remains the most popular activity in South East Queensland, with 67% of respondents having participated in the previous year. However, the median rate of participation was only 4 times per year. Walking or nature study and water activities, on the other hand, whilst slightly less popular (49% and 56% respectively), were engaged in much more frequently, both having a median of 12 times per year.

The number of activity events that have occurred during the 12 months previous to this survey, for each activity, begin to indicate the scale of outdoor recreation participation in South East Queensland. As indicated in Table 4, for example, there were 11,176,176 walking or nature study events during the year. Assuming these participation rates remain constant, if the population in South East Queensland increases by one million people over the next twenty years⁶, the problems of crowding and lack of places to go, already being reported by participants, will be exacerbated.

These difficulties become more complex in the light of the significant increases that emerged in the 2001 study in the use of very natural and totally natural areas for recreation purposes over the 1998 study. For every activity (with the exception of abseiling or rockclimbing), a shift from somewhat natural to very natural environments has occurred. Some activities (use of watercraft, horseriding, and walking or nature study) also reported current participation shifts from very natural to totally natural environments when compared with the 1998 figures. These figures may also highlight an increasing preference of the South East Queensland population to make use of natural environments for recreation. The data confirm that, given a choice, most outdoor recreation participants prefer more natural settings than those that they currently use. 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 very or totally natural in character. When this preference is considered together with the current high participation rates and the increasing population in South East Queensland, the problem of meeting these preferences through the provision of a range of recreation opportunities becomes urgent.

Participation in activities also differed significantly across the sub-regions within South East Queensland. Picnicking, camping, and driving both two-wheel drive and four-wheel drive vehicles were most popular with people from NorsROC. Water based recreation was most popular amongst SouthROC and NorsROC, both of which include a number of coastal shires and cities. The WesROC population appeared to be more involved in horse riding and driving other vehicles on unsealed roads, though neither of these differences proved to be statistically significant. WesROC also shared with the NorsROC population a higher incidence of driving two-wheel drive vehicles on unsealed roads. Bicycle riding was most popular amongst the Brisbane based population, a result that may reflect the Brisbane City Council's continued investment in an extensive system of bikeways.

⁶ Predicted in *Population trends and prospects for Queensland 2001 edition* (Queensland Government: Department of Local Government and Planning)

2001 South East Queensland Outdoor Recreation Demand Survey

Section 3: Executive Summary

The motivations of participants and potential participants were also investigated, once again with similar results to the 1998 study. The predominant motivation for participation was for leisure (defined as some combination of all or some of the following - sightseeing, learning, looking, unwinding, escaping, relaxing, experiencing peace and quiet – but may still involve hard physical exertion), and the least popular reason was competition. Participants expressed no desire to make their participation more competitive.

The three workshops that took place after the telephone survey provided some clarification of these results. The twenty-four participants in these groups tended to apply a subjective⁷, rather than a normative framework to their understanding of natural environments. Recreational settings that were subjectively described by participants as totally or very natural were often normatively categorised as very or somewhat natural. Despite these anomalies, places described by participants as very special to them had a strong natural component. The spread of suburban development (which participants perceived to be both unchecked and largely unmanaged) was seen as a major threat to these places. Crowding and conflict due to incompatible user groups were two problems that impacted on almost all participants.

Participants also expressed a strong desire to see further development of local green spaces that are perceived to be relatively natural. Given the constraints of time, family, health and money, many participants were unable to frequently access the more remote areas (although these remained important as places for special holidays). “Quick-fix” areas that are local, safe, and still retained a sense of naturalness were seen to be extremely important in the lives of busy people who did not have the time to organise long trips for themselves or their families.

Although the results of the 2001 survey are broadly similar to the 1998 survey, some important trends have emerged over the four years that separated these studies. Outdoor recreation activities remain popular with the population of South East Queensland, and show evidence of increasing in popularity. In addition, strong evidence exists to indicate a higher rate of usage of very natural and totally natural recreational settings. The increasing scarcity of these settings, and the consequent need to travel large distances to access them, contribute to two of the major constraints on participation: the lack of time and the general lack of places to go.

⁷ Please see the Glossary for definitions of the terms “subjective” and “normative”.

Section 4: Key Recommendations

In general terms, the 2001 South East Queensland Outdoor Recreation Demand Study has confirmed the results of the 1998 Study. For this reason and because some of the recommendations from the 1998 Study have not yet been undertaken, the recommendations of the 1998 Study remain pertinent. Refer to Appendix C for a copy of the recommendations from the 1998 Study.

Specific recommendations arising from the 2001 South East Queensland Outdoor Recreation Demand Study are as follows:

Recommendations for future related research:

1. That the cycle of future outdoor recreation demand studies in South East Queensland 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 South East Queensland.

(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 South East Queensland 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 South East Queensland 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 South East Queensland Outdoor Recreation Demand

Study be used to inform work on Priority Actions 5.4, 5.5, 5.8, 5.10, 5.11 and 11.8 in the 2021 South East Queensland Regional Framework for Growth Management.

(Refer to Table 20 in Section 8.3, Table 24, Figure 13 and Table 25 in Section 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).

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 South East Queensland 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 South East Queensland.

(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 South East Queensland Regional Framework for Growth Management.

Section 5: Background and Objectives

The 2001 South East Queensland Outdoor Recreation Demand Study replicated the study conducted in the same region in 1998 (and extended it to be more inclusive of outlying shires in South East Queensland), in order to identify any trends in outdoor recreation participation over the last four years. 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 2 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. Since places with these attributes are also in demand for other (ie. non-recreation) land uses (eg. agriculture, housing development, forestry, cultural heritage, airports, etc), a conscious decision has to be made to identify, secure and manage areas of open space for outdoor recreation through land use planning.

The importance of such decision making becomes more significant when one considers the particular characteristics of outdoor recreation. The requirement for large areas of natural landscape is threatened by the growing population of South East Queensland. Queensland had the fastest population growth rate of all States in 2000, according to the Australian Bureau of Statistics (ABS) publication *Population by Age and Sex, Queensland, 30 June 2000*, and the bulk of this population remains in the south-east corner. An increasing population carries with it an increasing demand for housing, industry, roads and infrastructure – all of which require the sacrifice of bushland. It must also be understood that the natural environment is a non-renewable resource. Once modified, it is usually impossible to successfully return a natural area to its pre-impact condition. Batt (2000, p.4) concluded, "If we wish to continue to have the opportunities for outdoor recreation that we currently enjoy and if we wish to retain some options for new outdoor recreation demands in the future, we have no choice other than to preserve and skilfully manage the remaining available areas." Skilful management is also required to control the process of recreation succession, whereby sites become so impacted by recreational use that they are no longer attractive to their users. In this manner, many recreational opportunities are lost.

The need for skilful management was supported by the results of the 1998 study, which found that a high proportion of the population takes part in some form of outdoor recreation, and wishes to continue to do so. In addition, respondents indicated a preference for "very natural" and "totally natural" settings. The diversity of activity found in the 1998 study (as well as the diverse ways in which each activity may be undertaken) contributes to the complexity of management issues.

The relationship between supply and demand is one key aspect of outdoor recreation planning and management. This survey and the earlier outdoor recreation demand studies for South East Queensland and Central Queensland were designed to provide regional and sub-regional scale data about current and unmet (or latent) demand for specific combinations of recreation activities and settings (or types of places).

A key recommendation of the 1998 study was that "the demand for outdoor recreation by residents of SEQ be surveyed on a regular basis (eg. every 3-5 years) using a comparable method to allow for trends in outdoor recreation to be identified and analysed." This recommendation has been fulfilled through the current project.

The aims of the project were:

- To conduct a 2001 South East Queensland Outdoor Recreation Demand Study that is directly comparable with the 1998 South East Queensland Outdoor Recreation Demand Study; and
- To identify any trends in outdoor recreation participation over the last four years.

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

1. To estimate the proportion of the total population in South East Queensland currently participating in each outdoor recreation activity;
2. To estimate the proportion of the total population in South East Queensland currently undertaking each outdoor recreation activity in each of three landscape settings;
3. To estimate the proportion of the total population in South East Queensland currently participating in each of three motivation categories;
4. To estimate the proportion of the total population in South East Queensland 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 South East Queensland 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 South East Queensland outdoor recreation demand in the last four years; and
7. To estimate probable key trends in the South East Queensland outdoor recreation demand for the next 5 - 10 years.

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

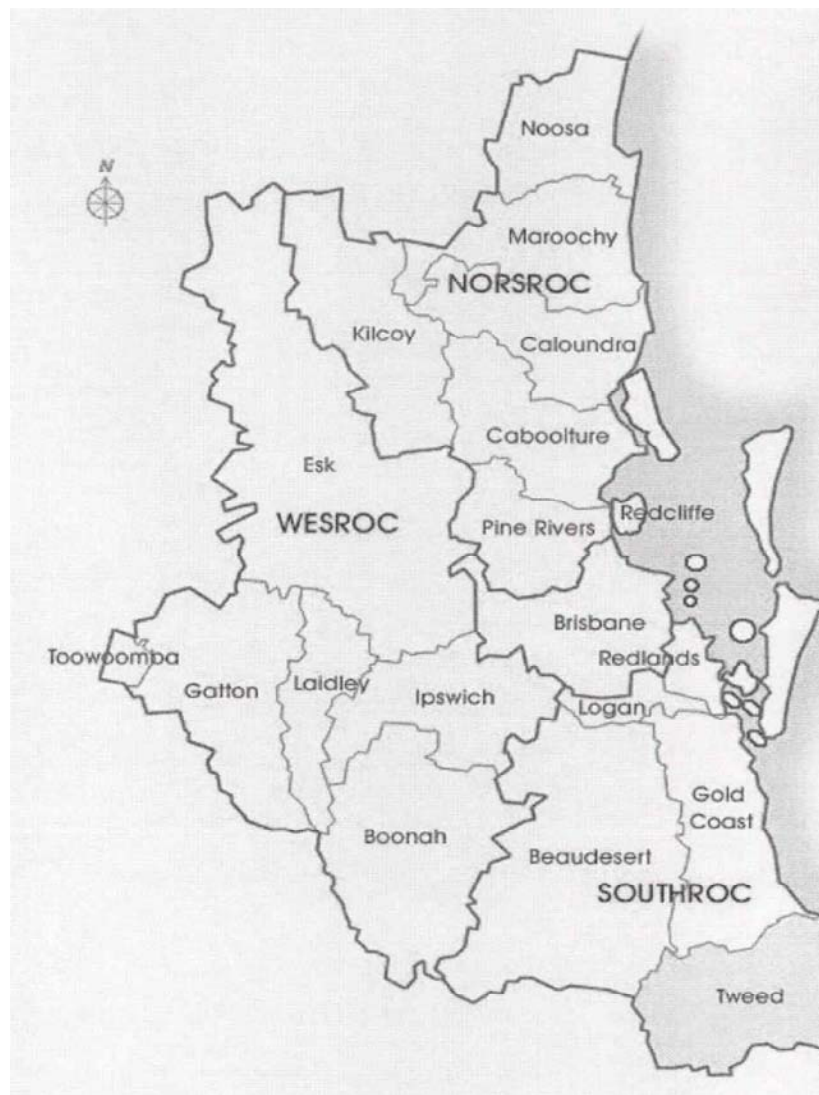
- The nature of the activity;
- The setting of the activity;
- Current outdoor recreation demand (ie. How many people currently participate in each activity);
- Latent outdoor recreation demand (ie. How many people would like to participate in each activity but are prevented from doing so for some reason);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

The target population for this study was the population of South East Queensland. 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 pursuits. 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 Government recreation 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 South East Queensland 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;
- Assist in outdoor recreation management and planning of public sector open space areas (eg. state forests, national parks and local government freehold).

Figure 1: Target population of the 2001 South East Queensland Outdoor Recreation Demand Study: The regions (and their constituents) of South East Queensland. (Source: South East Queensland Regional Organisation of Councils Website – www.seqroc.qld.gov.au/links.htm)



Section 6: Methodology

6.1 The Quantitative Survey

6.1.1 The Survey Instrument

A telephone survey instrument was used to gather the quantitative data. The survey was based on the surveys used in the previous demand studies in South East Queensland (1998) and Central Queensland (2000).

The survey took approximately 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 landscape settings in which this had occurred, and their motivations for participating. Statistics generated through this data provide a picture of the current demand for outdoor recreation in South East Queensland. Participants were also asked which activities they would like to participate in, the landscape setting in which they would prefer to participate, and their likely motivation in doing so. Results for this second set of questions provide a picture of the latent demand for outdoor recreation in South East Queensland. Other questions examined the constraints on participation in outdoor activities.

The final form of the survey appears in Appendix D. Two main modifications were made to previous surveys in the 2001 survey:

1. The fourth activity, entitled "Swimming" in the 1998 South East Queensland survey, was retitled "Water Activities", and included "Swimming, snorkelling and SCUBA, excluding in constructed pools".
2. The list of motivations was changed from the 1998 South East Queensland 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 focussed" (fitness, conquering or challenging nature, testing equipment, practising techniques). The other two categories (leisurely and competitively) remained the same, although their descriptions altered slightly.

6.1.2 The Sample

A random sample was generated from an electronic version of the white pages of each of the participating areas. Table 5 lists the shires and cities of South East Queensland that were included in the sample. A map depicting the location of these shire and city councils in South East Queensland has been provided in Section 4.

Calls were made during the hours of 3.30 pm and 8.30 pm on weekdays. A small number of calls were made between the hours of 9.00 am and 1.00 pm on weekends. Where calls were unanswered, two further attempts were made at later times before the number was discarded. A total of 2,820 surveys were completed.

Table 5: Contributing Local Government Authorities

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

6.1.3. Analysis of Quantitative Data

The quantitative data was collected by a professional telephone calling service (Callrite Business Call Solutions), 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 an SPSS (Statistical Package for the Social Sciences) package. 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.

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 are provided in Appendix H.

6.2 *The Qualitative Workshops*

6.2.1. Description of the Workshops

Following the quantitative survey, three workshops were held with a total of twenty-four randomly selected respondents to the telephone survey who had indicated their willingness to be involved in further research. A group of eight participants attended each of the three workshops, which were held in Ipswich, Morayfield (near Caboolture) and Brisbane in November, 2001.

The purpose of these workshops was to further clarify participants' understanding of "somewhat natural", "very natural" and "totally natural" landscapes, as well as to develop an understanding of the particular attributes of these settings that are most attractive to participants. In addition, further clarification of the constraints that limit participation was sought, as well as participants' negotiation of these constraints.

The following tasks were performed at each of the workshops:

Phase One: Worksheet

Participants completed a worksheet in which they described in detail two places that they regularly visited and the particular attributes of these places (See Appendix E). These worksheets were designed to gauge the ability of participants to accurately classify a particular place according to the Landscape Classification scheme (Appendix B).

Phase Two: Discussion

Participants discussed the particular features of a site that made it attractive to them, and the threats that might reduce site quality for them. Participants also discussed the particular constraints that limited their participation in outdoor recreation activities, and how they negotiated these constraints. This discussion was taped.

6.2.2. Analysis of Qualitative Data

Qualitative data provide an in-depth perspective that can clarify the numerical results of quantitative analysis. Analysis of the qualitative data followed two processes, based on the different phases.

Phase One: Worksheet

Data from the worksheets were transcribed into an Excel file for comparison and analysis.

Phase Two: Discussion

Taped data from the discussions were transcribed into a word processing package. Analysis followed the coding method developed by Strauss and Corbin (1990) as a method for developing grounded theory through qualitative data. Participants' comments were grouped into "chunks" of data and each chunk was coded according to its themes or topics. Each chunk might receive a number of codes, depending on the number of topics that it covered. For example, the following passage received five codes:

I'm not going to talk about holidays, but about a place that's quite near to where I live - and that's the local park. I go there quite often, and it's got a little creek - it's a lovely creek, with tortoise. And it's a lovely place to go, and see the ducks, with my children. But in terms of threats - you can see the amount of weeds, and rubbish - which will obviously make the creek more polluted. But it's a lovely little place. Those little places are precious.

Coding: Local; Accessible; Children in outdoors; Observation of animals; Litter

The complete list of codes is provided in Appendix F.

The second part of this analysis involved an examination of the codes in order to discover relationships among them. A complex picture of codes grouped according to relationships (a concept map) is also provided in Appendix F. Finally, a particular theme was selected as central to these relationships and used to structure the emerging story. The particular theme that emerged from these workshops was the importance of special places. This is further discussed in Section 10 of this report.

Throughout this process, data and coding were organised with the aid of NUD*IST Vivo (a software program developed for the analysis of non-numerical data).

This style of qualitative analysis preserves the rich, contextual nature of qualitative data, whilst applying a rigorous system of analysis. Reporting adopts a similar approach, in that data are organised according to a coding system, but makes strong use of quotations. This approach means that patterns in the data become immediately obvious, but the voice of the participant is not lost in the interpretation of the researcher.

6.3 Limitations of the Study

The reliability and validity of the 2001 South East Queensland Demand Study is substantiated by two major findings:

- The strong degree of concurrence between the results of the 2001 study and the 1998 study; and
- The triangulation of results, whereby the quantitative results were supported and clarified through qualitative data.

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

1. A totally random sample of the population of South East Queensland 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 sample was also limited by requiring a particular person (the next in the household to have a birthday) to be at home and prepared to answer the survey at the time of calling. It is possible that this limitation is responsible for the slight skewing of the sample, in that both women and the 40-64 age group are over-represented when compared to the proportion of the population of South East Queensland in either category.
3. The survey required participants to quickly understand the simplified landscape classification system (See Section 2), and be able to accurately classify their recreational settings according to this system. The qualitative data indicated that participants' classification of recreational settings was more subjective than normatively accurate. 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.

4. There appeared to be some confusion in interpretation of the activity “walking or nature study”. Forty-two participants named bushwalking as “other activities” (i.e. activities not included within the given categories). An additional 47 participants named activities such as bird watching or observing nature (which should also have been included within the category of “walking or nature study”). The total number of 89 participants thus wrongly excluded from this category represents 3.2% of the sample population.
5. The members of the focus groups in no way represented any representative sampling of the population, due to their small numbers, and their self-selection (which frequently meant that they had a particular interest in outdoor recreation activities and settings).

In view of these limitations, it is suggested that, in future surveys of outdoor recreation demand, consideration is given to the use of a written survey (with an incentive for its return) that might include pictorial clarification of different landscape settings, as well as extra clarification of what is included within each activity classification. This survey might also include an opportunity for added comments – a provision that would enable a wide variety of participants to contribute to the qualitative data.

Section 7: Results of the Quantitative Survey: Sample Population Profile

7.1 Local Areas

Table 6 lists the sample population according to the Shire or City in which the respondent lived.

Table 6: Sample Population by Shire or City

Shire or City	Sample Population	% Actual Population Over 15 Years
Beaudesert Shire	49	0.12%
Boonah Shire	7	0.11%
Brisbane City	1104	0.16%
Caboolture Shire	110	0.12%
Caloundra City	72	0.13%
Esk Shire	5	0.04%
Gatton Shire	12	0.10%
Gold Coast City	407	0.13%
Ipswich City	169	0.17%
Kilcoy Shire	3	0.12%
Laidley Shire	7	0.07%
Logan City	178	0.13%
Maroochy Shire	139	0.14%
Noosa Shire	62	0.18%
Pine Rivers Shire	183	0.20%
Redcliffe City	54	0.14%
Redland Shire	150	0.17%
Toowoomba City	109	0.16%
Total	2820	0.15%

Some of the sample numbers of the individual shires are so small that no valid statistical data can be drawn from them. For this reason, shires have been grouped into their respective Regional Organisation of Councils (or ROCs) for further statistical description. Sample frequencies for each ROC are provided in Table 7:

Table 7: Sample Population by ROC

ROC	Comprised of	Sample Population	% of Actual Population (15 years of age or over)
Brisbane	Brisbane City	1104	0.16%
WesROC	Ipswich City	309	0.15%
	Boonah Shire		
	Esk Shire		
	Gatton Shire		
	Laidley Shire		
	Toowoomba City		
NorsROC	Caboolture Shire	623	0.15%
	Caloundra Shire		
	Kilcoy Shire		
	Maroochy Shire		
	Noosa Shire		
	Pine Rivers Shire		
	Redcliffe City		
SouthROC	Beaudesert Shire	784	0.13%
	Gold Coast City		
	Logan City		
	Redland Shire		

7.2 Statistical Validity

Different sample sizes provide different levels of confidence in the validity of the statistics generated by the sample. The term “confidence interval” means that we can be 95% sure that a result will fall within a designated range. For example, if an analysis of our sample finds that 67% of people have participated in a picnicking activity within the past 12 months, and the sample of 2,820 provides us with a confidence interval of plus or minus 2, then we can say that we are 95% sure that between 65% and 69% of the population in South East Queensland participated in a picnicking activity in the past 12 months.

The confidence interval is determined partly by the number in the sample, and also partly by the percentage found in the result. As a general rule, larger percentages have smaller confidence intervals – so that for a sample of 2,820 a result of 50% will have a confidence interval of plus or minus 2.2, but a result of 95% will have a confidence interval of plus or minus 1.0.

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

Table 8: Confidence Intervals for the Sample

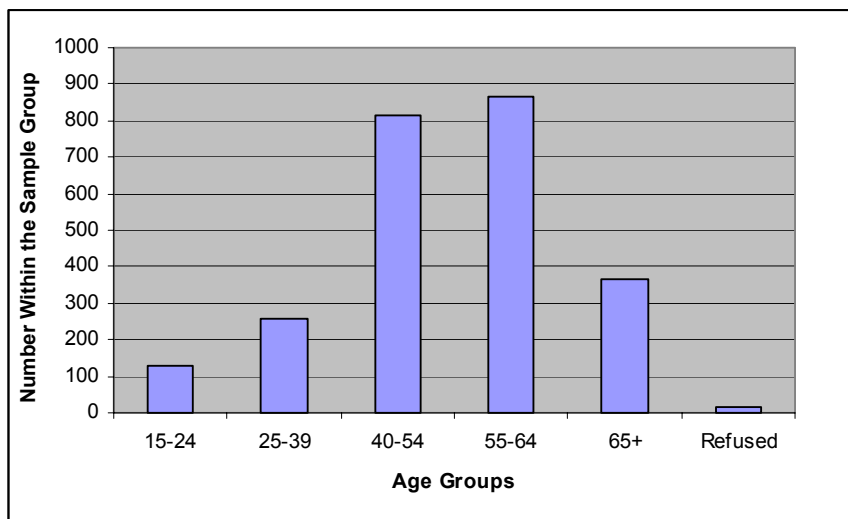
Sample group	Percentages found from sample (“results”)					
	50%	40% or 60%	30% or 70%	20% or 80%	10% or 90%	5% or 95%
Brisbane (n=1104)	3.1	3.0	2.8	2.5	1.9	1.3
WesROC (n=309)	5.7	5.5	5.2	4.5	3.4	2.5
NorsROC (n=623)	4.4	4.3	4.0	3.5	2.6	1.9
SouthROC (n=784)	3.6	3.5	3.3	2.9	2.1	1.6
Total (n=2820)	2.2	2.1	2.0	1.7	1.3	1.0

Smaller confidence intervals mean greater precision in reporting results. 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 44.3% and 55.7%. For the total sample population, however, the confidence interval is never larger than plus or minus 2.2. These figures indicate a generally high degree of statistical precision in the results.

7.3 Age Groups

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

Figure 2: Age groups within the sample population



The percentage that each age group represents of the total sample population is illustrated in Table 9. In this table, 1998 figures are provided for comparison, as well as the actual percentage of each age group within the South East Queensland population 15 years of age or over.⁸

Table 9: Comparison of population profile by age for 2001 and 1998 studies

Age range	2001 study	1998 study	Actual Pop. 15 years of age or over
15-17 years	5%	5%	9% (15-19)
18-24 years	9%	14%	9% (20-24)
25-39 years	29%	29%	29%
40-54 years	31%	25%	27%
55-64 years	13%	10%	11%
65 years or more	13%	16%	15%
Refused	17 participants	6 participants	

In general, the age groupings of the sample population are commensurate with the actual population of South East Queensland. Some difficulties arise with comparison of the younger age groups, in that ABS population statistics are only available for five-year age groups. Hence it is not possible to isolate the 15-17 age group, or the 18-24 age group within the actual population of South East Queensland. However, the two age groups considered together indicate a slight under-representation of the younger age group in the sample: the 15-24 group represents 14% of the sample population, but 18% of the actual population. In contrast, the 40-54 age group appears to be slightly over-represented, achieving 31% of the sample population whilst being only 27% of the actual population.

The age profile of the sample population is further considered within 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) for each ROC. Within this table, the two youngest age groups have been collapsed into a single age group (15-24) in order to provide accurate comparison with the actual population.

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	14%	20%	11%	11%	16%	16%	13%	18%
25-39	30%	30%	29%	28%	29%	27%	27%	28%
40-54	29%	25%	31%	26%	32%	28%	32%	28%
55-64	13%	10%	14%	11%	12%	12%	16%	12%
65+	14%	15%	14%	14%	12%	16%	12%	14%

⁸ Figures provided by the Australian Bureau of Statistics, June 30 2000.

Figures 3 to 6 display this information graphically. In these graphs, the age groups 15-17 and 18-24 have been collapsed into a single age group 15-24 in order to provide accurate comparison with the actual population.

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

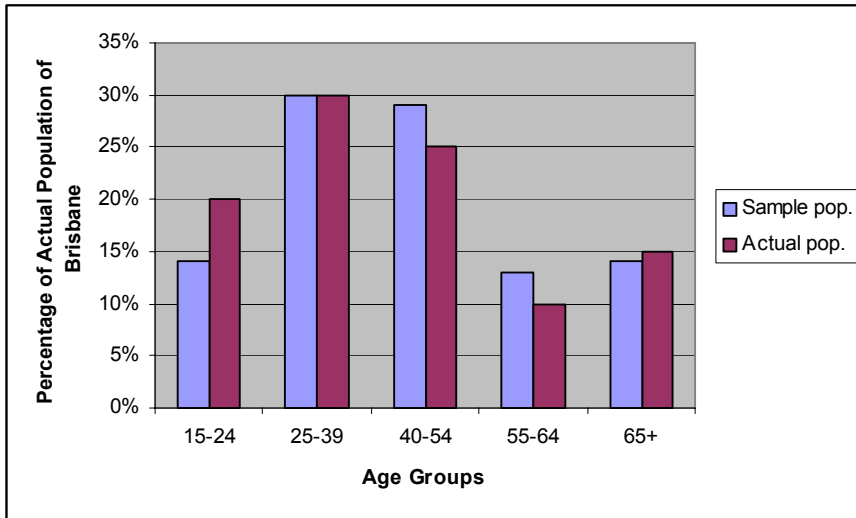


Figure 4: Comparison of sample population with actual population for WesROC across the age groups.

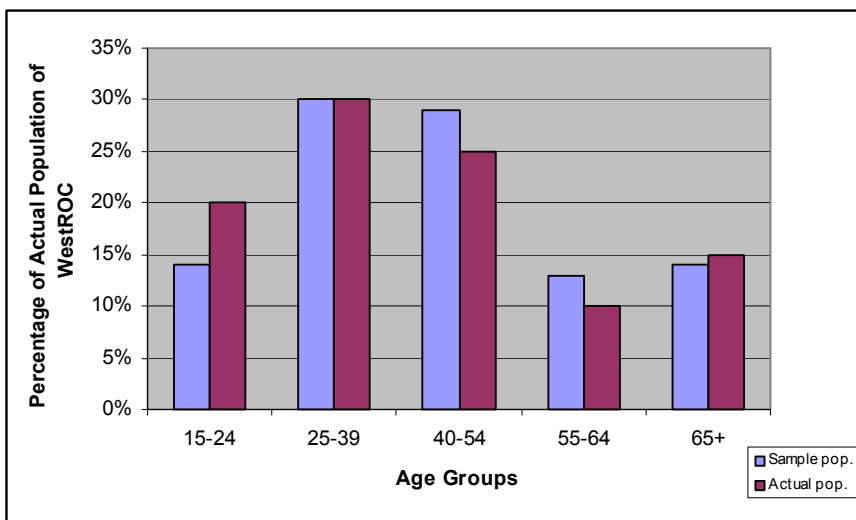


Figure 5: Comparison of sample population with actual population for NorsROC across the age groups.

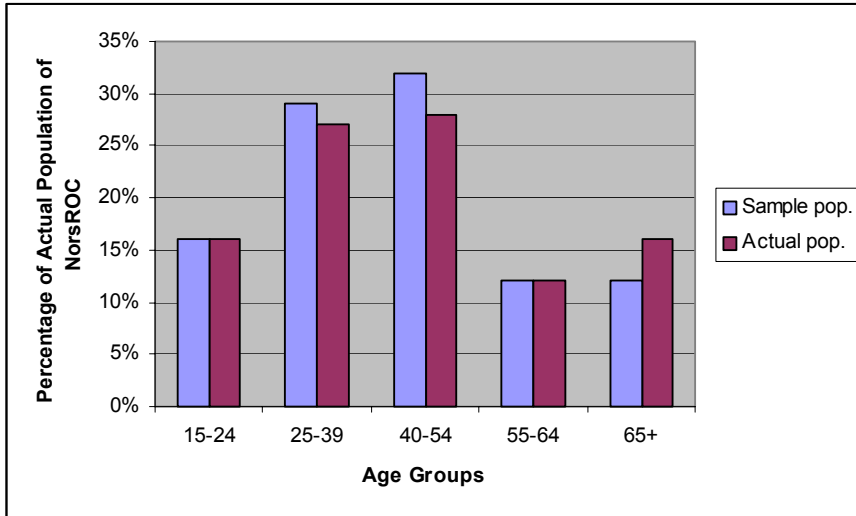
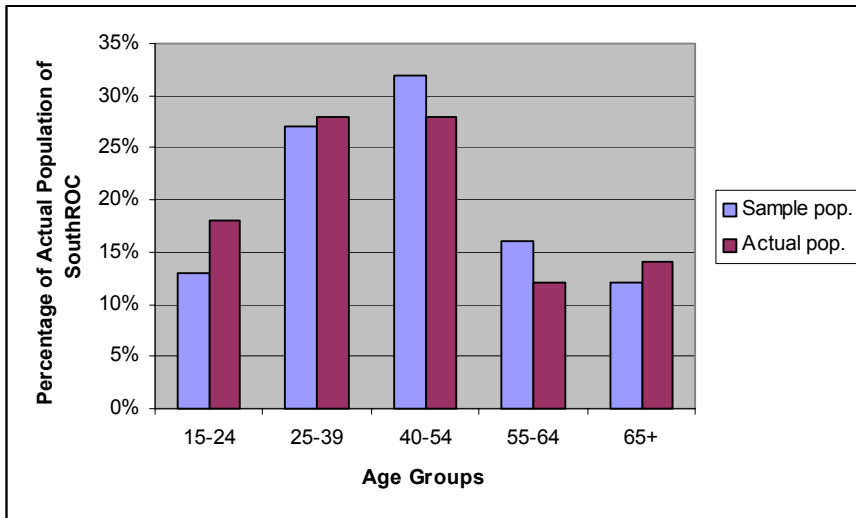


Figure 6: Comparison of sample population with actual population for SouthROC across the age groups.



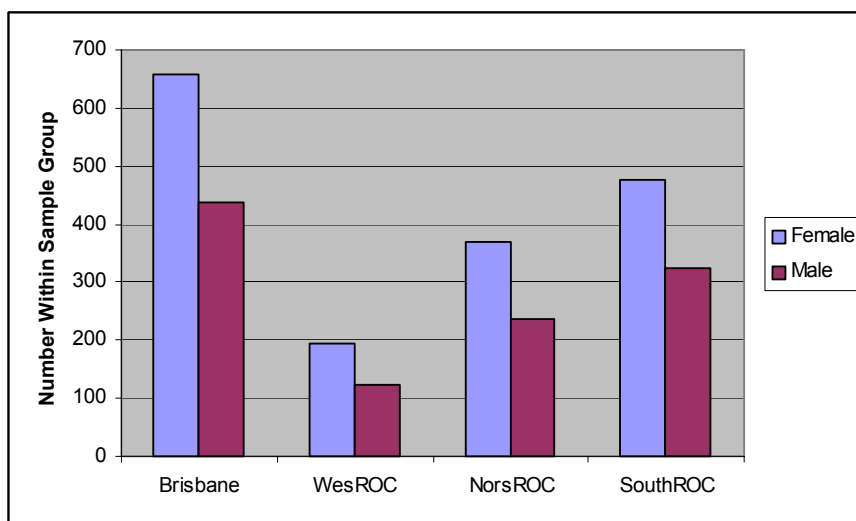
7.4 Gender

Table 11 provides details of the gender of the sample population, whilst Figure 7 provides this information graphically.

Table 11: Gender of each population category

Area	Female	Male	Total
Brisbane	658	439	1097
WesROC	193	123	316
NorsROC	370	237	607
SouthROC	477	323	800
Total	1698	1122	2820

Figure 7: Graphic representation of gender of sample population



The larger number of female respondents when compared with male respondents (60% female) represents an increase of 4% over the 1998 study (56% female). Sixty percent also indicates an over-representation of female participants in this sample, since the proportion of female residents over 15 in South East Queensland is only 51%.⁹

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 South East Queensland (ABS, June 30, 2000). Statistical validity was achieved at the ROC level, with sample figures of 1104, 309, 623 and 784 for Brisbane, WesROC, NorsROC and SouthROC respectively. These sample figures represent a proportion of the populations of these groups that ranges from 0.13% (SouthROC) to 0.16% (Brisbane).

Age group representation was in broad agreement with the actual population, although the younger age group (15-24) tended to be slightly under-represented and the older age group (40-64) was slightly over-represented. It is suggested that this disparity

⁹ Figures provided by the Australian Bureau of Statistics, June 30 2000.

might be due to the methodology (telephone survey), which favoured those age groups that spend more time at home.

Gender representation also favoured female participants (60% sample compared to 51% in the actual population). Two possible reasons are suggested for this disparity: females may spend more time at home than males, and thus be more likely to be reached by a telephone survey; and females may be less likely to refuse to participate than males. Both these suggestions are conjecture only and cannot be supported by any data.

Section 8: Results of the Quantitative Survey: Current Participation

8.1 Incidence of Participation Over the Past 12 Months

Question: "Have you participated in this activity within the past 12 months?"

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 1998 study are shown in brackets. Statistically significant differences amongst the ROC's are indicated by an asterisk, where

** Indicates highly significant inter-ROC difference with $p < .005$

* Indicates moderately significant inter-ROC difference with $p < .05$

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

Activity	Brisbane	Wes ROC	Nors ROC	South ROC	Total pop.
Picnicking**	68%	59%	73%	65%	67 % (65%)
Walking or Nature Study	52%	46%	48%	49%	49 % (60%)
Camping*	30%	34%	37%	35%	33% (25%)
Bicycle Riding**	28%	18%	25%	29%	26% (25%)
Horse Riding	7%	10%	7%	8%	7% (7%)
Water Activities**	56%	47%	58%	60%	56% (39%)
Driving 2WD Vehicles *	22%	27%	27%	23%	24% (31%)
Driving 4WD Vehicles **	20%	19%	30%	22%	23% (20%)
Driving other Vehicles	6%	11%	6%	8%	7% (7%)
Riding on Motorised Watercraft**	25%	20%	30%	32%	27% (26%)
Riding on Non-Motorised Watercraft	20%	14%	19%	20%	19% (17%)
Abseiling or Rockclimbing	7%	7%	5%	5%	6% (7%)

These figures indicate that there are some significant differences amongst the sub-regions with respect to participation in specific activities. Picnicking, camping, and driving both two-wheel drive and four-wheel drive vehicles are most popular with

people from NorsROC. Water based recreation is most popular amongst SouthROC and NorsROC, both of which include a number of coastal local governments. The WesROC population appears to be more involved in horseriding and driving in other vehicles, though neither of these differences proved to be statistically significant. They also share with the NorsROC population a higher incidence of two wheel driving. Bicycle riding is most popular amongst the Brisbane based population.

In terms of differences between the 2001 study and the 1998 study, the majority of activities show small increases in participation. Larger increases were observed in camping, which increased by 8% (from 25% to 33%) and water activities, which increased by 17% (from 39% to 56%). The increase in water activities is likely to be due to the difference in its description, which expanded to include snorkelling and SCUBA as well as swimming). Substantial decreases in participation were reported in walking and nature activities (11% decrease - from 60% to 49%) and two-wheel driving (7% decrease - from 31% to 24%).

8.1.1 Incidence of Participation - by Gender

Table 13 illustrates the gendered 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 are illustrated by an asterisk, where

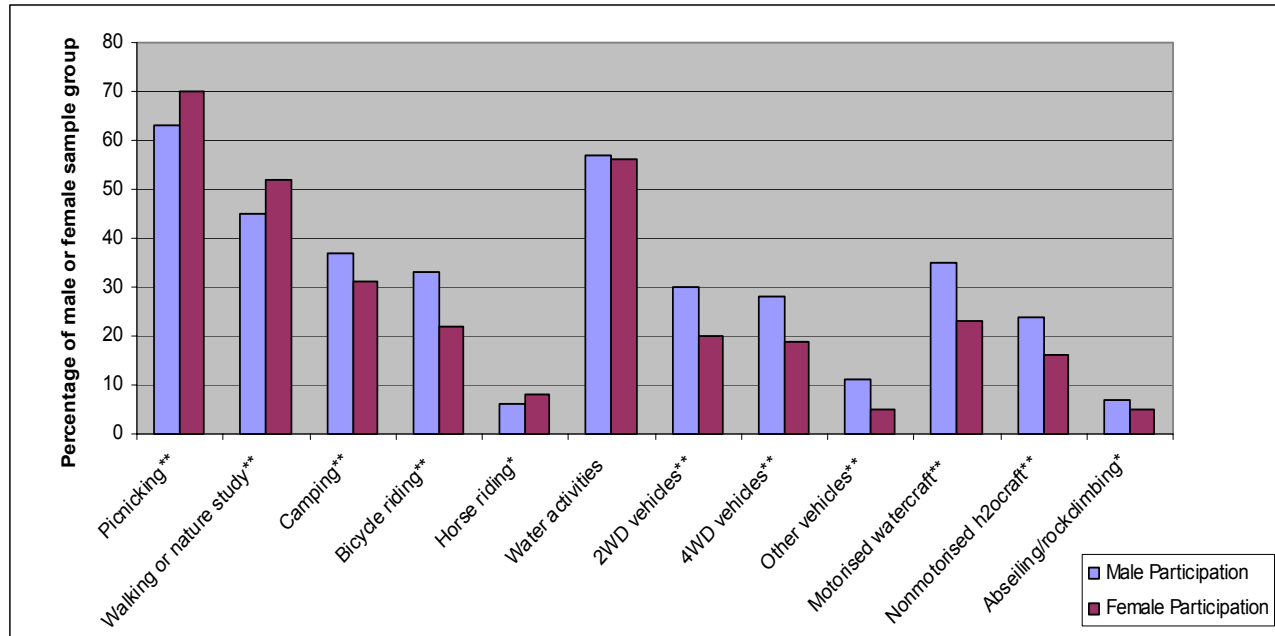
- ** indicates a high degree of significance (p<.005)
- * indicates a moderate degree of significance (p<.05)

Table 13: Incidence of participation – by gender

Activity	Male Participation (% of male sample)	Female Participation (% of female sample)
Picnicking**	63%	70%
Walking or Nature Study**	45%	52%
Camping**	37%	31%
Bicycle Riding**	33%	22%
Horse Riding*	6%	8%
Water Activities	57%	56%
Driving 2WD Vehicles **	30%	20%
Driving 4WD Vehicles **	28%	19%
Driving other Vehicles**	11%	5%
Riding on Motorised Watercraft**	35%	23%
Riding on Non-Motorised Watercraft**	24%	16%
Abseiling or Rockclimbing*	7%	5%

Figure 8 graphically illustrates the above information.

Figure 8: Incidence of participation – by gender



As illustrated in the table and graph, males are significantly more likely to be involved in camping, bicycle riding, all types of driving, using both motorised and non-motorised watercraft, and abseiling or rockclimbing. Females are significantly more likely to be involved in picnicking, walking or nature study, and horse riding. No significant difference in gendered participation in water activities was found.

These findings support gendered stereotypical attributes of men and women (Knapp, 1985; Warren, 1996), in that women are more involved in activities that do not involve strong physical exertion (although walking can be quite strenuous) or mechanical equipment.

8.1.2 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.

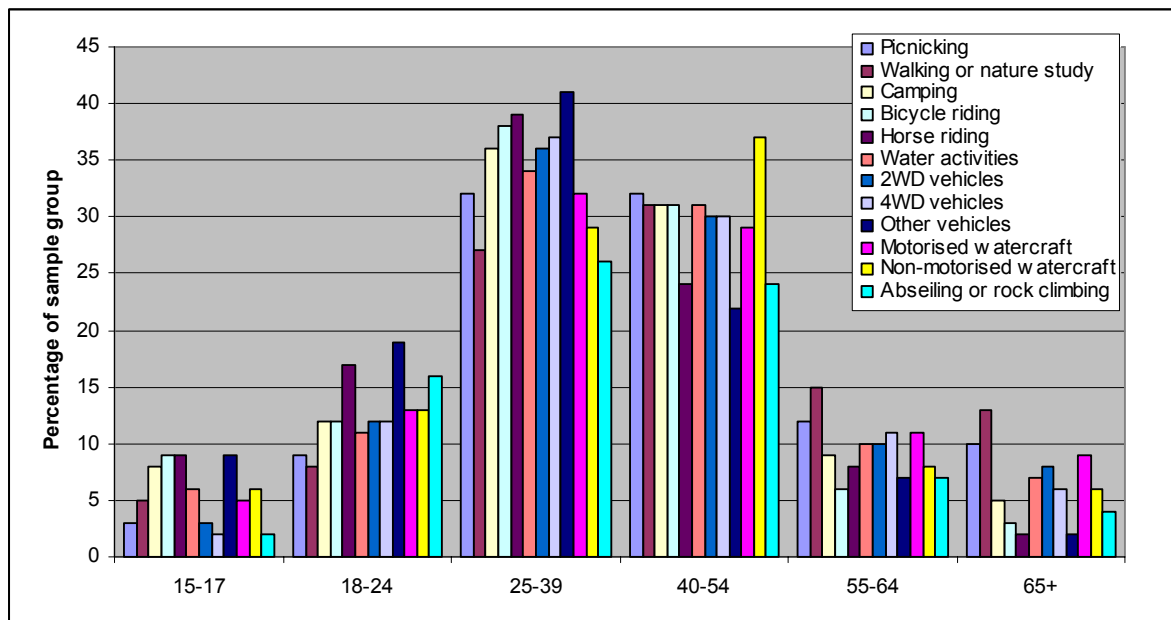
As illustrated by the table and the graph, by far the most common age groups for participation in any activity apart from abseiling/rockclimbing were the 25-39 and 45-54 age groups. For abseiling and rockclimbing the younger age group of 15-17 were more likely to be participants. Whilst participation in all activities was much less for

the older groups, they were most likely to participate in picnicking and walking or nature study.

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

Activity	15-17	18-24	25-39	40-54	55-64	65+
Picnicking	3.3%	8.5%	32.4%	32.8%	12.0%	10.4%
Walking or Nature Study	4.9%	8.1%	27.4%	31.2%	15.3%	12.5%
Camping	7.7%	12.2%	35.5%	30.8%	8.6%	4.7%
Bicycle Riding	8.6%	12.3%	38.4%	30.7%	6.3%	3.2%
Horse Riding	8.6%	16.7%	39.0%	24.3%	7.6%	2.4%
Water Activities	6.2%	11.4%	34.3%	30.7%	10.1%	7.0%
Driving 2WD Vehicles	3.1%	12.4%	35.7%	30.3%	9.9%	7.9%
Driving 4WD Vehicles	2.2%	12.2%	37.4%	30.0%	11.3%	6.3%
Driving other Vehicles	9.3%	18.6%	41.2%	22.1%	6.9%	2.0%
Riding on Motorised Watercraft	5.1%	12.5%	32.3%	29.3%	11.3%	9.3%
Riding on Non-Motorised Watercraft	6.4%	13.4%	29.0%	36.5%	8.4%	5.7%
Abseiling or Rockclimbing	23.2%	16.1%	25.6%	23.8%	7.1%	3.6%

Figure 9: Incidence of participation across the age groups, expressed as a percentage of the entire sample group¹⁰



¹⁰ The legend should be read from left to right within each age group. This rule applies to all graphs throughout this report.

These results, however, reflect the age group distribution across the population. Since the middle age groups represent a larger proportion of the population, they will naturally tend to be more numerous across all activities. Figure 10, however, shows the incidence of participation within each age group as a percentage of the age group (rather than as a percentage of the entire sample group).

Figure 10: Incidence of participation in activities within each age group, expressed as a percentage of the age group

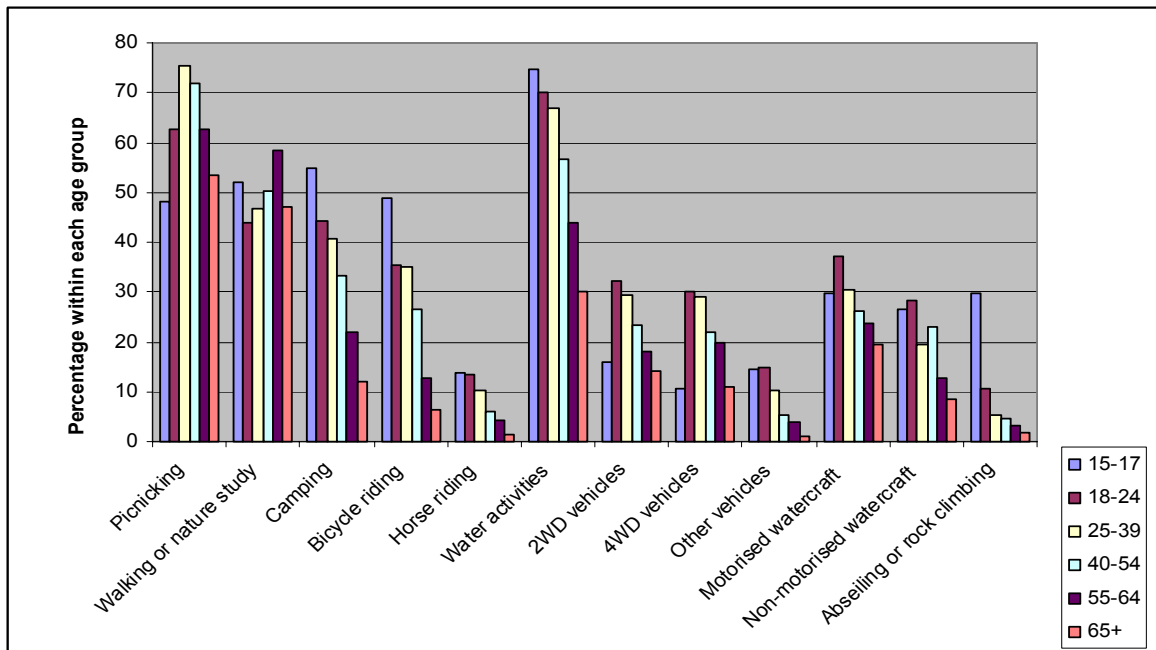


Figure 10 indicates the following tendencies:

The 15-17 age group is more interested than other age groups in camping, bicycle riding, water activities and abseiling or rockclimbing.

The 18-24 age group is more interested than other age groups in driving two-wheel drive and four-wheel drive vehicles, and in riding on motorised watercraft.

The 25-39 age group is more interested than other age groups in picnicking.

The 40-54 age group is more interested than other age groups in walking and nature study.

The 65+ age group has a lower percentage of participation than other age groups in every activity.

Whilst these tendencies are evident, they do not necessarily imply overwhelming popularity of the activity amongst the particular age group. For example, although more young people participate in rockclimbing or abseiling than any other age group, only 29.8% of this group had participated in this activity in the past 12 months - a smaller percentage than the 51.9% of 15-17 year-olds who had participated in walking or nature study in the past 12 months.

8.2 Incidence of Participation - Frequency over the Past 12 Months

Question: How often have you participated in this 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 1998 study are provided in brackets. The representative population is also provided. This has been calculated from an estimated population of 1,900, 710 individuals aged 15 or over living in South East Queensland.

Table 15: Frequency of participation during past 12 months

Activity	Representative of Population in S.E.Qld	Mean	Median
Picnicking (n=1895)	1,273,476	6.9 (7.6)	4 (4.5)
Walking or Nature Study (n=1392)	931,348	71.7 (61.4)	12 (10.3)
Camping (n=934)	627,234	5.2 (4.3)	2 (2.1)
Bicycle Riding (n=742)	494,185	43.5 (55.8)	11 (12.2)
Horse Riding (n=210)	133,050	23.9 (26.3)	2 (2.4)
Water Activities (n=1591)	1,064,398	28.2 (18.7)	12 (6.3)
Driving 2WD Vehicles (n=670)	456,170	25.2 (13.9)	5 (3.7)
Driving 4WD Vehicles (n=637)	437,163	16.3 (11.1)	4 (3.1)
Driving other Vehicles (n=204)	133,050	20.4 (16.3)	5 (4.2)
Riding on Motorised Watercraft (n=771)	513,192	12.2 (10.1)	4 (3.3)
Riding on Non-Motorised Watercraft (n=545)	361,135	16.1 (13.4)	2 (2.5)
Abseiling or Rockclimbing (n=168)	114,043	3.9 (5.9)	2 (1.8)

As illustrated in this graph, the average and median for a number of activities differ greatly. For example, the average frequency for walking or nature study is 71.7 times in a year, whilst the median is only 12. Similarly, the average for horse riding is 23.9, whilst the median is 2. This discrepancy is caused by a small number of people who engage in the activity very frequently, and consequently skew the results, so that the average is higher than it might otherwise be. 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 11 for bicycle riding means that 50% of the population participate in riding bicycles more than 11 times per year, and the other 50% of the population participate in this activity less than 11 times per year.

Frequency of participation in activities was generally similar to the 1998 study, although increases in the frequency of driving all types of vehicles are noted, from medians of 3.7 (two-wheel drive vehicles), 3.1 (four-wheel drive vehicles) and 4.2 (other vehicles) to medians of 5, 4, and 5 respectively. The other obvious increase is for water activities, from a median of 6.3 to a median of 12. This increase is probably reflective of the change in this category from the narrow category of swimming to a broader category that encompasses snorkelling and diving.

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. For example, if 67% of the population, or 1,273,476 individuals participate in picnics for a median of four times each year, the total number of “picnic events” that occur in one year in South East Queensland is 5,093,904 (the product of 1,273,476 and 4). Table 16 provides a calculation of the number of such events for each activity.

Table 16: The number of occurrences of each activity per year

Activity	No. of Participants	Median Participation per Year	Total Number of Activity Events per Year
Picnicking	1,273,476	4	5,093,904
Walking or Nature Study	931,348	12	11,176,176
Camping	627,234	2	1,254,468
Bicycle Riding	494,185	11	5,436,035
Horse Riding	133,050	2	266,100
Water Activities	1,064,398	12	12,772,776
Driving 2WD Vehicles	456,170	5	2,280,850
Driving 4WD Vehicles	437,163	4	1,748,652
Driving other Vehicles	133,050	5	665,250
Riding on Motorised Watercraft	513,192	4	2,052,768
Riding on Non-Motorised Watercraft	361,135	2	722,270
Abseiling or Rockclimbing	114,043	2	228,086

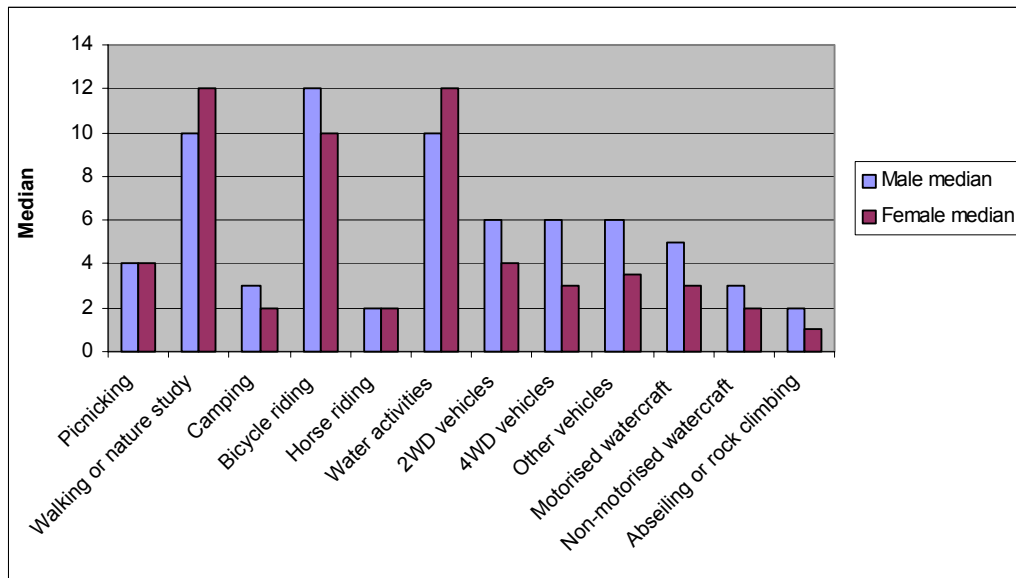
8.2.1 Frequency of Participation – by Gender

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

Table 17: Differences in median participation by gender

Activity	Median Male Participation	Median Female Participation
Picnicking	4	4
Walking or Nature Study	10	12
Camping	3	2
Bicycle Riding	12	10
Horse Riding	2	2
Water Activities	10	12
Driving 2WD Vehicles	6	4
Driving 4WD Vehicles	6	3
Driving other Vehicles	6	3.5
Riding on Motorised Watercraft	5	3
Riding on Non-Motorised Watercraft	3	2
Abseiling or Rockclimbing	2	1

Figure 11: Differences in median 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, horse riding and water activities.

8.2.2 Frequency of Participation – by Age

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

Table 18: Frequency of median participation by age

Activity	15-17	18-24	25-39	40-54	55-64	65+
Picnicking	3	3	4	4	4	4
Walking or Nature Study	3.5	5	7	12	20	100
Camping	2	2	2	2	2.5	2.5
Bicycle Riding	20	10	12	10	5	10
Horse Riding	2	4	1	2	2	9
Water Activities	10	12	12	12	12	10
Driving 2WD Vehicles	5	8	5	5	4	4
Driving 4WD Vehicles	3	3	5	4	6	3.5
Driving other Vehicles	7	4	6	5	3	8
Riding on Motorised Watercraft	2	4.5	4	4	3	3
Riding on Non-Motorised Watercraft	3	3	3	2	2	2
Abseiling or Rockclimbing	2	2	1	2	1	3

The results in this table are particularly interesting, in that they 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), for those who are participating, age does not seem to have such an effect on how often they participate. An obvious exception is walking and nature study, where the median for the 64+ age group is much higher than for any other age group. This age group also has a higher median frequency of participation in horse riding, and, surprisingly, a slightly higher median in abseiling or rockclimbing as well as driving other vehicles on unsealed roads. Median participation in bicycle riding also seems to be affected by age in that participants from the 15-17 age group engage in this activity more frequently.

8.3 Activity Participation - Landscape Setting where Activities were Undertaken

Each participant was read a description of the three landscape settings of somewhat natural, very natural or totally natural environments. They were then asked to estimate what proportion of the times that they participated in each activity in any of the three settings covered in this survey were in a somewhat natural, very natural, or totally natural setting. (Percentages must add up to 100.)

Table 19 indicates the settings where each of the activities were undertaken. These have been presented as a percentage of time spent in each setting. Figures from the 1998 study are provided in brackets for comparison, as well as an indication of the significance of this comparison. Statistically significant differences are illustrated by an asterisk, where

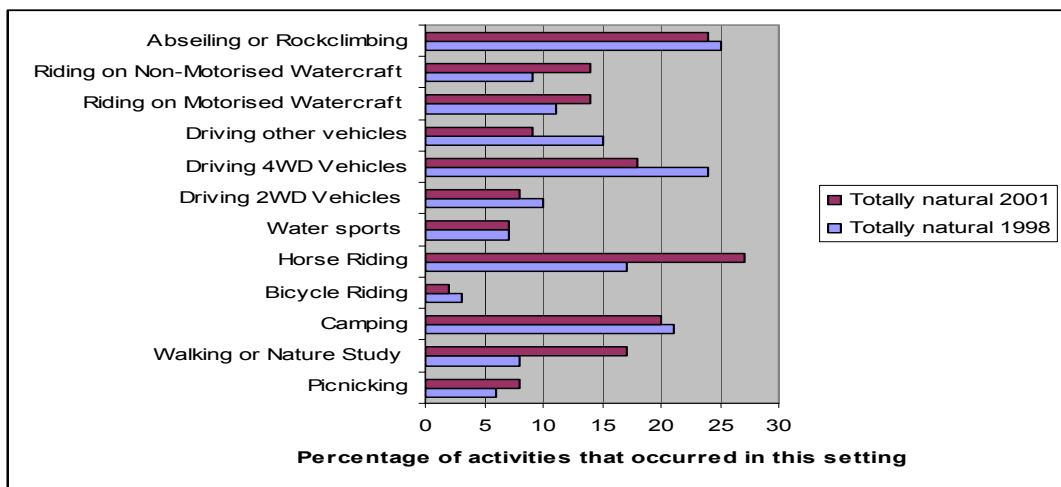
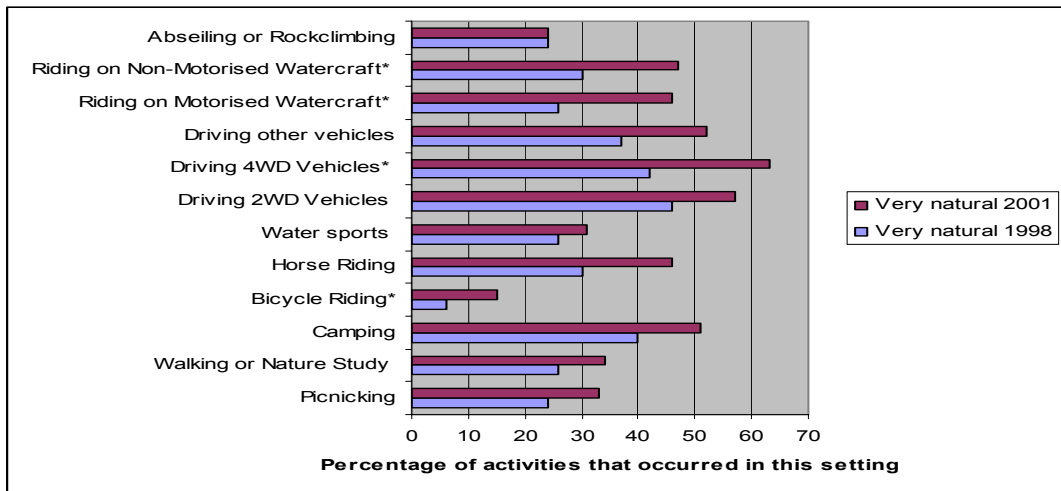
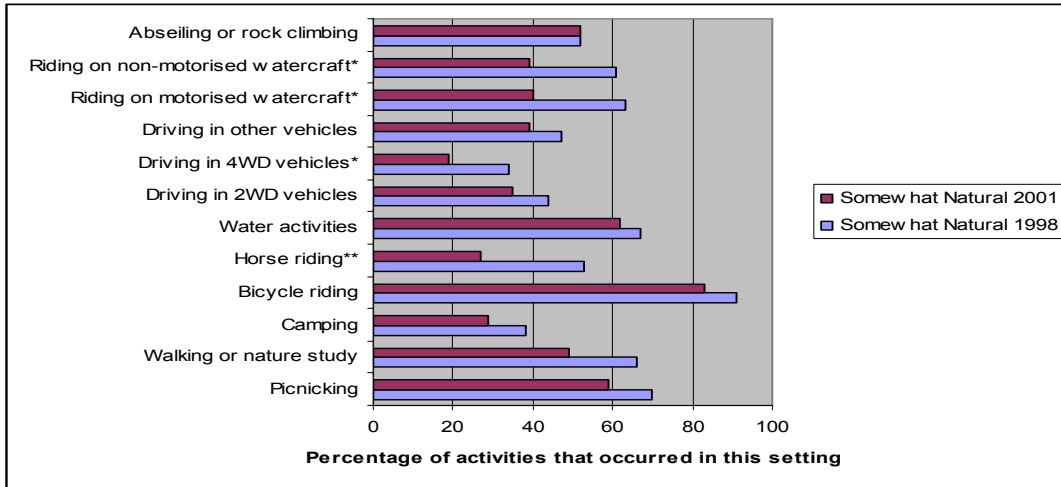
- ** indicates a high degree of significance (p<.005)
- * indicates a moderate degree of significance (p<.05)

Table 19: Activity participation - Landscape setting where activities were undertaken

Activity	Representative of Population in S.E.Qld	Somewhat Natural	Very Natural	Totally Natural
Picnicking	1,273,476	59 (70) %	33 (24) %	8 (6) %
Walking or Nature Study	931,348	49 (66) %	34 (26) %	17 (8) %
Camping	627,234	29 (38) %	51 (40) %	20 (21) %
Bicycle Riding	494,185	83 (91) %	*15 (6) %	2 (3) %
Horse Riding	133,050	**27 (53) %	46 (30) %	27 (17) %
Water Activities	1,064,398	62 (67) %	31 (26) %	7 (7) %
Driving 2WD vehicles	456,170	35 (44) %	57 (46) %	8 (10) %
Driving 4WD vehicles	437,163	*19 (34) %	*63 (42) %	18 (24) %
Driving Other Vehicles	133,050	39 (47) %	52 (37) %	9 (15) %
Riding on Motorised Watercraft	513,192	*40 (63) %	*46 (26) %	14 (11) %
Riding on Non-Motorised Watercraft	361,135	*39 (61) %	*47 (30) %	14 (9) %
Abseiling or Rockclimbing	114,043	52 (52) %	24 (24) %	24 (25) %

Figure 12 graphically illustrates the difference between 2001 and 1998 data.

Figure 12: Landscape setting where activities were undertaken: Comparison of 1998 and 2001 data



As is evident from these charts, there has been a shift from somewhat natural landscape settings to very natural landscapes for every activity, some of which are significant. Significant differences have occurred in bicycle riding, horse riding, driving four-wheel drive vehicles on unsealed surfaces, and riding on both motorised and non-motorised watercraft.

Walking or nature study and horse riding also show a strong increase (although not statistically significant) in the percentage of activities conducted in totally natural landscapes. For the driving activities, however, there has been a shift from totally natural landscapes towards very natural landscapes.

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. The claim that eight percent of those who drive two-wheel drive vehicles participate in totally natural settings is potentially problematic, but was clarified through the qualitative findings, which suggested that the claim of such drivers to be utilising a totally natural landscape is based on their subjective perception of the landscape surrounding the road. Similar results occurred in both the 1998 South East Queensland and the 2000 Central Queensland studies.

The activities most commonly undertaken in what participants perceived to be a totally natural landscape were horse riding (27%), abseiling or rockclimbing (24%) and camping (20%). The increase in use of totally natural settings by horse riders (from 17% to 27%) is also potentially problematic, but once again indicates a tendency on the part of riders to ignore the track on which they are riding as part of the landscape.

The qualitative findings (reported in detail in Section 10.1) indicate that these quantitative results need to be treated with caution. The tendency of participants to use subjective, rather than normative definitions of somewhat, very, and totally natural landscapes, means that a landscape 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 landscape 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 landscape settings. Despite the subjective nature of these perceptions, the results emphasise the need for continued provision of landscapes that retain very and totally natural characteristics.

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

Activity	No. of Activity Events per Year	No. of Activity Events Occurring in a Particular Landscape Setting		
		Somewhat Natural Setting	Very Natural Setting	Totally Natural Setting
Picnicking	5,093,904	3,005,403	1,680,988	407,512
Walking or Nature Study	11,176,176	5,476,326	3,799,900	1,899,950
Camping	1,254,468	363,796	639,779	250,894
Bicycle Riding	5,436,035	4,511,909	815,405	108,721
Horse Riding	266,100	71,847	122,406	71,847
Water Activities	12,772,776	7,919,121	3,959,561	894,094
Driving 2WD Vehicles	2,280,850	798,298	1,300,085	182,468
Driving 4WD Vehicles	1,748,652	332,244	1,101,651	314,757
Driving other Vehicles	665,250	259,448	345,930	59,873
Riding on Motorised Watercraft	2,052,768	821,107	944,273	287,388
Riding on Non-Motorised Watercraft	722,270	281,685	339,467	101,118
Abseiling or Rockclimbing	228,086	118,605	54,741	54,741

8.4 Activity Participation by Motivation

Each respondent was read a description of the three broad motivations for undertaking an outdoor recreation activity. These were: Leisurely (sightseeing, unwinding, relaxing), Goal-focussed (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 1998 South East Queensland and 2000 Central Queensland studies, the first three activities (picnicking; camping; and nature study) were not tested for motivation. Figures from the 1998 study are offered for comparison.

Table 21: Activity participation by motivation

Activity	Leisurely	Goal-focussed	Competitively
Bicycle Riding	83 (73) %	16 (25) %	1 (2) %
Horse Riding	87 (83) %	6 (12) %	6 (5) %
Water Activities	94 (94) %	6 (5) %	0.5 (1) %
Driving 2WD Vehicles	81 (91) %	18 (7) %	1 (2) %
Driving 4WD Vehicles	91 (90) %	9 (10) %	0.5 (1) %
Driving Other Vehicles	88 (81) %	9 (17) %	3 (3) %
Riding on Motorised Watercraft	94 (93) %	5 (5) %	1 (2) %
Riding on Non-Motorised Watercraft	91 (84) %	5 (14) %	4 (2) %
Abseiling or Rockclimbing	85 (73) %	14 (26) %	1 (2) %

Results for the 2001 study are very similar to the 1998 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 focussed" was more

important (though still less than 20%) for participants involved in bicycle riding, driving two-wheel drive vehicles, and abseiling or rockclimbing.

Given the change in motivation descriptors (from "Actively" to "Goal Focussed"), it is recommended that future studies include the first three activities (Picnicking; Walking or Nature Study; and Camping) as it is conceivable that these activities might be pursued in order to achieve some extrinsic goal.

8.5 Those Who Currently Participate and Who are Interested in Participating More Often

Question: Are you interested in participating in this 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 this same activity more often. Figures from the 1998 study are offered for comparison.

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

Activity	Percentage wishing to participate more often (2001)	Percentage wishing to participate more often (1998)
Picnicking	46%	51%
Walking or Nature Study	42%	48%
Camping	68%	64%
Bicycle Riding	45%	42%
Horse Riding	55%	54%
Water Activities	45%	44%
Driving 2WD Vehicles	29%	32%
Driving 4WD Vehicles	56%	52%
Driving Other Vehicles	53%	48%
Riding on Motorised Watercraft	56%	52%
Riding on Non-Motorised Watercraft	55%	52%
Abseiling or Rockclimbing	46%	47%

The percentages for 2001 are generally similar to those found in the 1998 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 1998 figure of 64% of people wanting to go camping more often has increased to 68%. In other words, 68% of the 627,234 people in South East Queensland who currently go camping on average five times a year, with a median of twice a year, would like to go camping more often.

8.5.1 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 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	77.1%
Walking or Nature Study	77.0%
Camping	79.8%
Bicycle Riding	64.2%
Horse Riding	59.5%
Water Activities	67.6%
Driving 2WD Vehicles	74.1%
Driving 4WD Vehicles	63.2%
Driving Other Vehicles	50.5%
Riding on Motorised Watercraft	59.0%
Riding on Non-Motorised Watercraft	68.7%
Abseiling or Rockclimbing	58.5%

Table 24 and Figure 13 indicate the less frequently reported reasons for not participating in a chosen activity more often. To be included in this graph, a constraint had to be mentioned by at least 5% of participants in at least one activity. These constraints have been mapped separately from the major constraint of time in order to view them more clearly.

As indicated by Table 24 and Figure 13, constraints varied with the activity. For example, cost factors were more important for those who need four-wheel drive vehicles, motorised watercraft or climbing and abseiling equipment in order to pursue their activity. Similarly, equipment needs were more important for such activities as driving four-wheel drive or other vehicles and motorised water activities. The lack of places to go was more important for activities such as horse riding, driving other vehicles, and abseiling or rockclimbing. Family responsibilities were more of a problem for people who like to participate in picnics. Health constraints were more often a problem for those participating in walking or water activities.

Fear was mentioned by a number of participants, although it only reached a noticeable percentage for the activity of abseiling or rockclimbing (7%). A small number of other participants mentioned their fear of walking alone, their fear of sharks as a constraint to water activities, and their fear of other bigger boats (motorised craft). Other constraints, which did not reach the arbitrarily determined significance mentioned above, 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.

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

Activity	Family Responsibilities	Health Reasons	Can't Afford It	Nowhere To Do This	No Equipment
Picnicking	5.5%	3.6%	2.4%	3.9%	0.3%
Walking or Nature Study	3.6%	8.1%	1.7%	5.0%	0.4%
Camping	3.7%	2.7%	8.5%	4.1%	2.9%
Bicycle Riding	3.9%	7.8%	0.9%	9.1%	9.6%
Horse Riding	3.5%	1.8%	9.5%	15.5%	13.8%
Water Activities	2.9%	3.0%	7.2%	8.6%	2.1%
Driving 2WD Vehicles	2.0%	3.6%	8.9%	8.2%	5.1%
Driving 4WD Vehicles	1.4%	2.3%	13.2%	7.5%	19.7%
Driving other Vehicles	1.9%	2.8%	8.4%	18.6%	20.6%
Riding on Motorised Watercraft	1.6%	2.6%	16.1%	5.0%	24.6%
Riding on Non-Motorised Watercraft	2.6%	1.9%	11.5%	7.4%	17.2%
Abseiling or Rockclimbing	1.3%	1.3%	13.0%	15.6%	5.2%

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

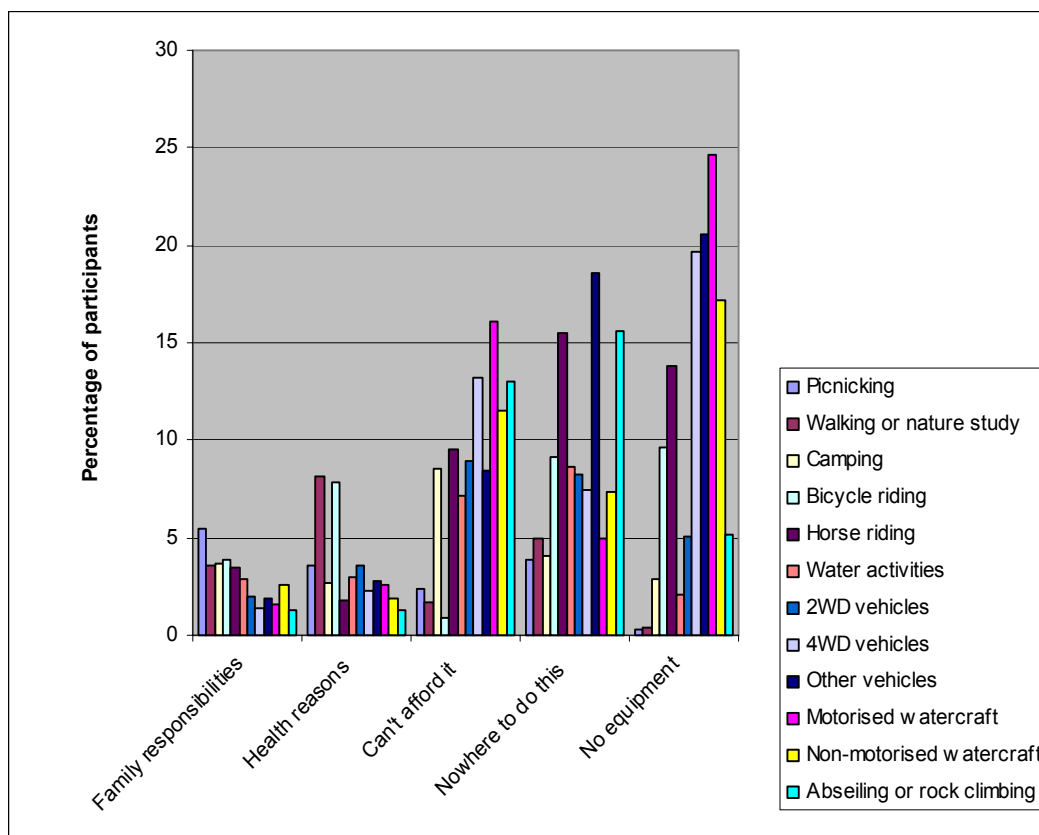
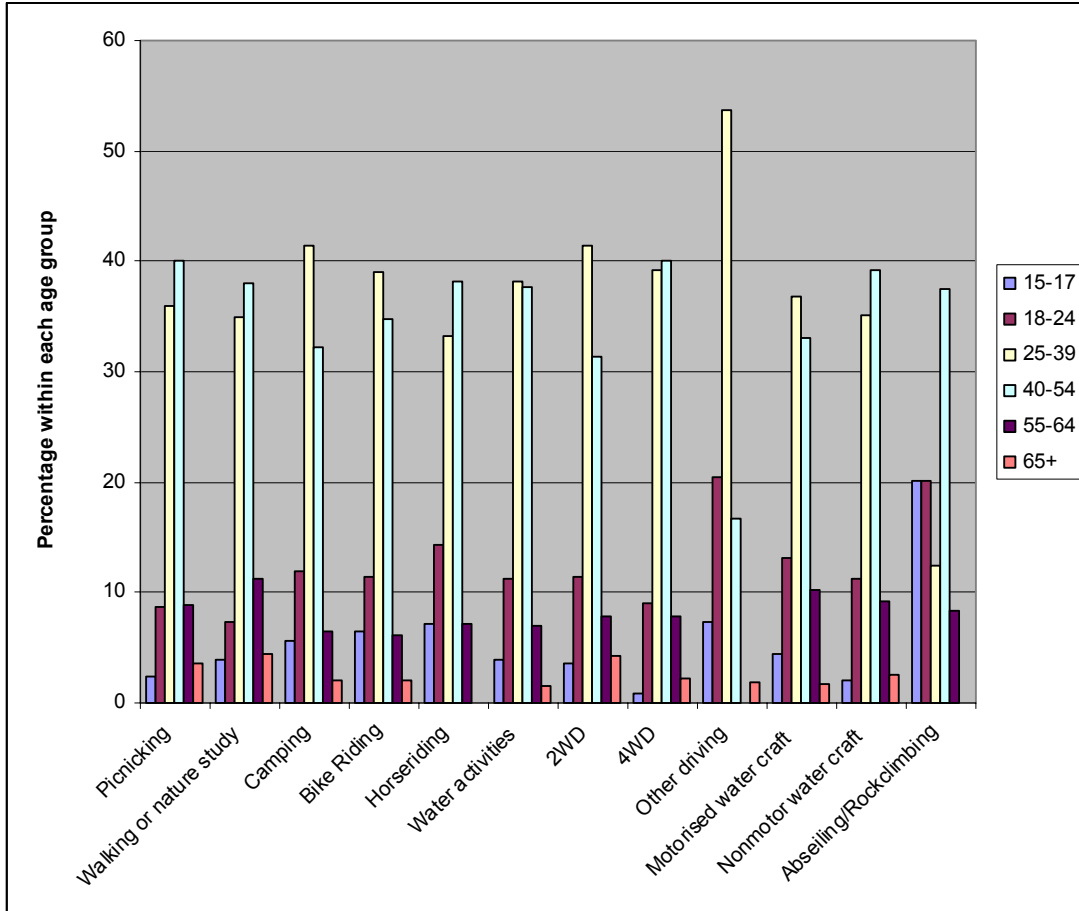


Figure 14 shows a further analysis of the major constraint (no time/too busy) according to the age of the participants.

Figure 14: Time constraint according to age



As illustrated in this graph, the time constraint is most pertinent for people in the 25-54 age groups (with some variation according to activity). This result, together with the fact that Australia as a whole 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 currently do.

8.5.2 Preferred Landscape of those Interested in Participating in an Activity More Often

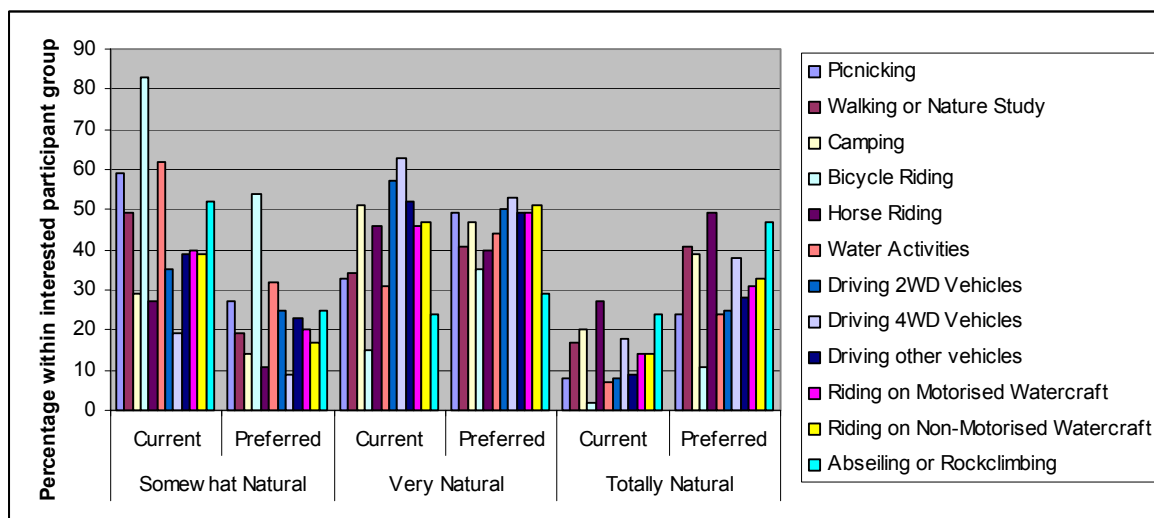
Each person who had indicated that they would like to undertake an activity more often was asked to choose a preferred landscape setting for that increased participation. Results (listed in Table 23) indicate both the current usage (previously

listed in Table 18) as well as the preferred usage indicated by participants. Figure 15 portrays this information graphically.

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

Activity	Pop. Part'g	Somewhat Natural (%)		Very Natural (%)		Totally Natural (%)	
		Current	Preferred	Current	Preferred	Current	Preferred
Picnicking	1,273,476	59%	27%	33%	49%	8%	24%
Walking or Nature Study	931,348	49%	19%	34%	41%	17%	41%
Camping	627,234	29%	14%	51%	47%	20%	39%
Bicycle Riding	494,185	83%	54%	15%	35%	2%	11%
Horse Riding	133,050	27%	11%	46%	40%	27%	49%
Water Activities	1,064,398	62%	32%	31%	44%	7%	24%
Driving 2WD Vehicles	456,170	35%	25%	57%	50%	8%	25%
Driving 4WD Vehicles	437,163	19%	9%	63%	53%	18%	38%
Driving Other Vehicles	133,050	39%	23%	52%	49%	9%	28%
Riding on Motorised Watercraft	513,192	40%	20%	46%	49%	14%	31%
Riding on Non-Motorised Watercraft	361,135	39%	17%	47%	51%	14%	33%
Abseiling or Rockclimbing	114,043	52%	25%	24%	29%	24%	47%

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



As illustrated in both Table 25 and Figure 15, the general inclination is away from a somewhat natural setting and towards totally natural settings. This is true for every activity, even bicycle riding, horse riding, and driving any vehicle (including two-wheel drive vehicles).

8.5.3 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.

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

Activity	Pop. Part'g	Leisurely (%)		Goal-focussed (%)		Competitively (%)	
		Current	Preferred	Current	Preferred	Current	Preferred
Bicycle Riding	494,185	83%	88%	16%	11%	16%	1%
Horse Riding	133,050	87%	92%	6%	4%	6%	4%
Water Activities	1,064,398	93.5%	96%	6%	4%	6%	0%
Driving 2WD Vehicles	456,170	81%	94%	18%	3%	18%	3%
Driving 4WD Vehicles	437,163	90.5%	97%	9%	2%	9%	1%
Driving Other Vehicles	133,050	88%	92%	9%	2%	9%	6%
Riding on Motorised Watercraft	513,192	94%	97%	5%	3%	5%	0%
Riding on Non-Motorised Watercraft	361,135	91%	94%	5%	3%	5%	3%
Abseiling or Rockclimbing	114,043	85%	91%	14%	9%	14%	0%

These results indicate that participants are quite happy with the leisurely nature of their current participation in all activities, and would increase it if they could. Certainly there is no desire to make their participation in any activity more competitive.

8.6 Summary

The results recorded in this section indicate that current participation in outdoor recreation activities is high. Picnicking is the activity most commonly engaged in by participants, involving 67% of the population (or 1,273,476 people) in the previous 12 months. Water activities (56%) is the next most popular activity, followed by walking or nature study (49%). Significant differences in participation have been noted with respect to location, age, and gender. Participants from the northern region are more commonly engaged in picnicking, camping, driving both two-wheel drive and four-wheel drive vehicles, and water based recreation. Southern participants are more likely to be involved with water based recreation. Participants from the western region are more involved in horse riding and driving other vehicles than are other

participants, whilst Brisbane based participants are more highly represented in bicycle riding.

Gendered participation (and frequency of participation) followed stereotyped 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, 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 or rockclimbing. 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 (15-17) showed more interest than other groups in camping, bicycle riding, water activities, and abseiling or rockclimbing. Driving two-wheel drive and four-wheel drive vehicles and using motorised watercraft were more popular amongst the 18-24 year olds. The 25-39 age group participated in picnics relatively more often than other age groups. Walking and nature study was more popular amongst the 40-54 year olds, whilst the 65+ age group 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. Those older people who did participate in an activity participated, on average, more frequently than any other age group in a number of activities, including camping, horse riding, driving other vehicles, and abseiling or rockclimbing. This frequency might be a result of a decrease in commitments: by far the largest constraint on increased participation that was reported by participants was being too busy and having no time. However, this constraint was particularly pertinent to the 25-39 and 40-54 age groups. This result has implications for an increased demand for outdoor recreation as the population ages.

Results indicate an already heavy demand on the natural landscape, with the likelihood that such usage will increase. In comparison with the 1998 study, there has been a shift from somewhat natural to very natural landscapes for every activity. This shift is statistically significant in the case of bicycle riding, horse riding, driving four-wheel drive vehicles, and using both motorised and non-motorised watercraft. Participants also indicated that they would prefer to increase their usage of very natural and totally natural landscapes.

In the case of walking or nature study, for example, 893,333 individuals over the age of 15 are involved throughout South East Queensland, 50% of whom participate at least twelve times per year. These participants presently use very natural or totally natural landscape settings for 51% of their involvement in this activity. Forty-eight percent of this group would like to increase their participation, and, of these, 82% would prefer that this occur in very natural or totally natural surroundings.

Section 9: Results of the Quantitative Survey: Latent Participation

Each interviewee who had not participated in an activity was asked a series of questions regarding their interest in future participation in this activity; issues preventing them from participating in this activity; and their preferred landscape 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 1998 results shown in brackets.

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	35 (39)%	219,532
Walking or Nature Study	30 (34)%	290,809
Camping	36 (33)%	458,451
Bicycle Riding	21 (26)%	295,370
Horse Riding	18 (20)%	318,179
Water Activities	26 (29)%	217,441
Driving 2WD Vehicles	11 (14)%	158,899
Driving 4WD Vehicles	20 (27)%	292,709
Driving Other Vehicles	8 (15)%	141,412
Riding on Motorised Watercraft	25 (32)%	346,880
Riding on Non-Motorised Watercraft	23 (33)%	354,102
Abseiling or Rockclimbing	13 (19)%	232,267

Latent interest in each activity has dropped slightly from the 1998 survey. However, as indicated by the actual population figures, there still exist a substantial number of non-participants in each activity who have interest in pursuing the activity.

9.1.1 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

** indicates a high level of significance ($p < .005$)

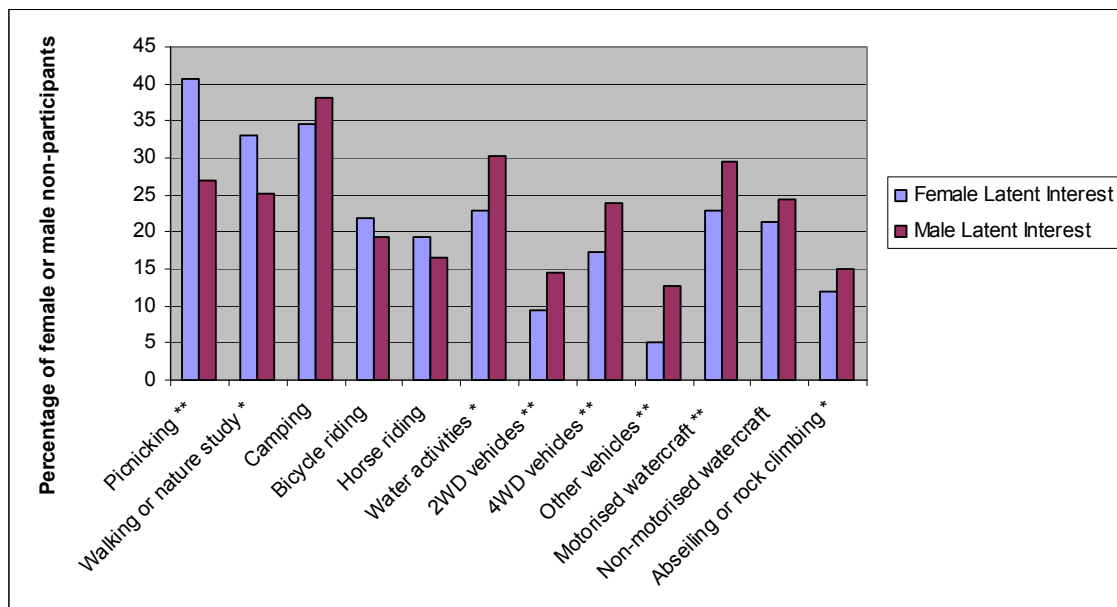
* indicates a moderate level of significance ($p < .05$)

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

Activity	Male Latent Interest	Female Latent Interest
Picnicking**	27%	41%
Walking or Nature Study*	25%	33%
Camping	38%	35%
Bicycle Riding	19%	22%
Horse Riding	16%	19%
Water Activities*	30%	23%
Driving 2WD Vehicles**	14%	10%
Driving 4WD Vehicles**	24%	17%
Driving Other Vehicles**	13%	5%
Riding on Motorised Watercraft**	30%	23%
Riding on Non-Motorised Watercraft	24%	21%
Abseiling or Rockclimbing*	15%	12%

Figure 15 provides a graphical illustration of this information.

Figure 15: Current non-participants and their interest in participating according to gender



As illustrated by Table 28 and Figure 15, women are significantly more interested in becoming involved in picnicking and walking or nature study. Men are significantly more interested in water activities, all types of driving, motorised watercraft and abseiling or rockclimbing. These results reflect a similar gendered division of interest as that found for current participation (See Section 8).

9.1.2 Latent Participation – by Age

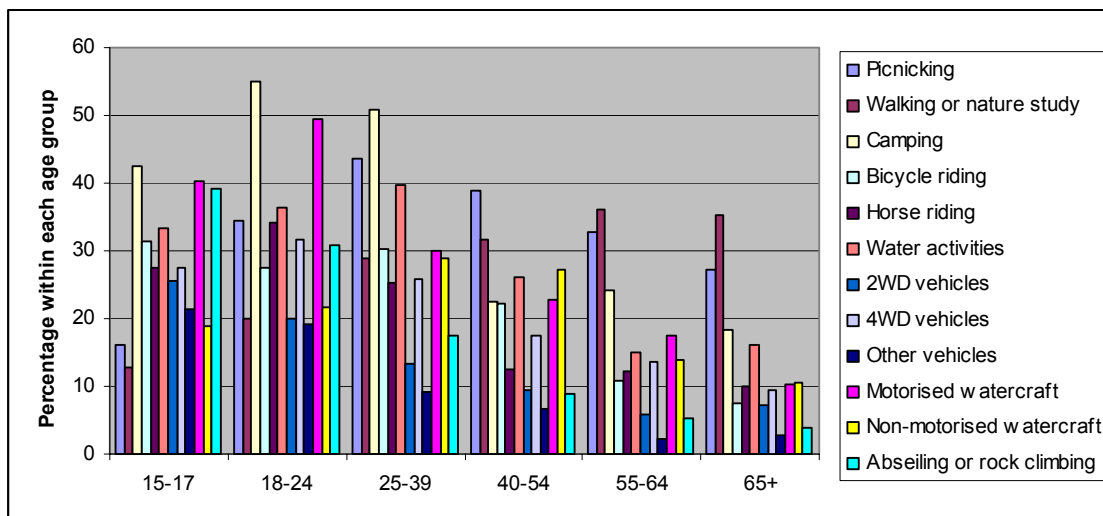
Table 29 lists the percentage of non-participants within each age group who are interested in participating in each activity.

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

Activity	15-17	18-24	25-39	40-54	55-64	65+
	Percentage of Non-participants in Each Age Group					
Picnicking	16%	34%	44%	39%	33%	27%
Walking or Nature Study	13%	20%	29%	32%	36%	35%
Camping	42%	55%	51%	23%	24%	18%
Bicycle Riding	31%	28%	30%	22%	11%	8%
Horse Riding	27%	34%	35%	12%	12%	10%
Water Activities	33%	36%	40%	26%	15%	16%
Driving 2WD Vehicles	26%	20%	13%	10%	6%	7%
Driving 4WD Vehicles	27%	32%	26%	18%	14%	9%
Driving Other Vehicles	21%	19%	9%	7%	2%	3%
Riding on Motorised Watercraft	40%	49%	30%	23%	18%	10%
Riding on Non-Motorised Watercraft	19%	22%	29%	27%	14%	11%
Abseiling or Rockclimbing	39%	31%	18%	9%	5%	4%

Figure 16 provides this information graphically.

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



As illustrated by Table 29 and Figure 16, different activities appeal to different age groups.

- 15-17 group: Most interested in camping, motorised watercraft, and abseiling or rockclimbing.
- 18-24 group: Most interested in camping and motorised watercraft.
- 25-39 group: Most interested in picnicking, camping and water activities.
- 40-54 group: Most interested in picnicking and walking or nature study.
- 55-64 group: Most interested in picnicking and walking or nature study.
- 65+ group: Most interested in picnicking and walking or nature study.

In general, latent interest in all activities is strongest amongst the younger age groups, reaching a peak amongst the 18-24 year olds. Exceptions occur in the activities of walking or nature study, where latent interest is stronger amongst older age groups.

9.2 The Main Reasons Preventing Non-Participants from Participating in an Activity

Figure 17 and Table 30 illustrate the main reasons that prevent non-participants (who expressed an interest in pursuing an 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, other driving activities, and using motorised watercraft. Health becomes a noticeable constraint for walking or nature study, which is possibly due to the older age groups that participate in this activity. The lack of somewhere to do the activity is most problematic for horse riding, water activities, and abseiling or rockclimbing.

Figure 17: Constraints that prevented participation in activities

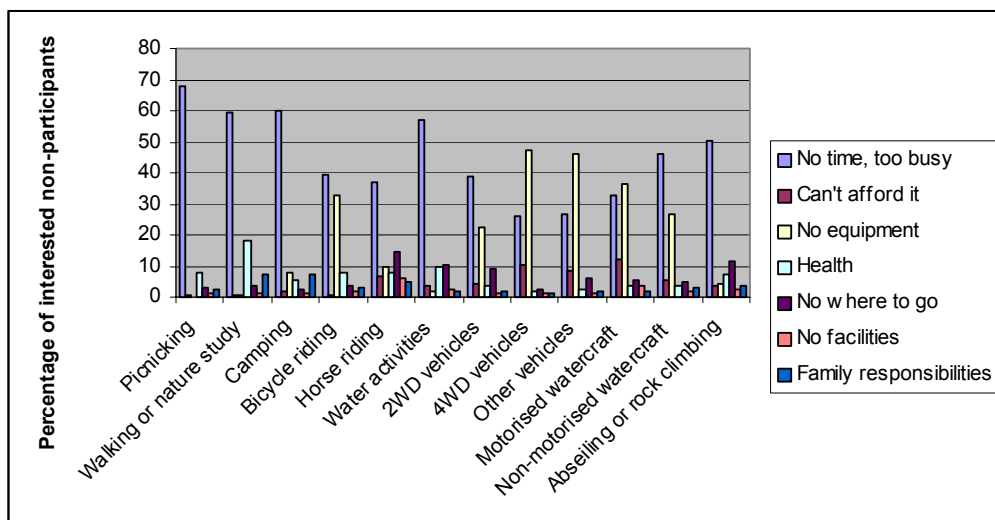


Table 30: Constraints that prevented participation in activities, shown as a percentage of those non-participants who had expressed an interest in participating in an activity

Activity	No time	Can't afford it	No equipment	Health	Nowhere to go	No facilities	Family Responsibilities
Picnicking	68%	1%	0%	8%	3%	1%	2%
Walking or Nature Study	59%	1%	1%	18%	4%	1%	7%
Camping	60%	2%	8%	5%	3%	1%	7%
Bicycle Riding	39%	1%	33%	8%	4%	2%	3%
Horse Riding	37%	7%	10%	8%	14%	6%	5%
Water Activities	57%	4%	2%	10%	11%	2%	2%
Driving 2WD Vehicles	39%	5%	22%	4%	9%	1%	2%
Driving 4WD Vehicles	26%	11%	47%	2%	3%	1%	1%
Driving Other Vehicles	27%	8%	46%	2%	6%	1%	2%
Riding on Motorised Watercraft	33%	12%	36%	4%	5%	4%	2%
Riding on Non-Motorised Watercraft	46%	6%	27%	4%	5%	2%	3%
Abseiling or Rockclimbing	50%	4%	4%	7%	11%	3%	4%

9.3 The Preferred Landscape 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 landscape in which they would like to undertake this activity. Results are shown in Table 31, with results from the 1998 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. Figures 18-20 illustrates this information graphically in order to illustrate trends that have occurred since 1998 with respect to site preference (* indicates moderate significance where $p < .05$)

As indicated in Table 31 and Figures 18-20, there has been a general shift away from somewhat natural landscape settings toward very natural and totally natural environments. For the activities of walking or nature study, horse riding, driving 2WD vehicles, and riding on motorised watercraft, this shift is significant. These results are similar to those found for current participation, and support the general trend towards a preference for very natural and totally natural landscapes for outdoor recreation participation.

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

Activity	Latent participation	Preferred Landscape		
		Somewhat natural	Very natural	Totally natural
Picnicking	219,532	33 (37) %	39 (37) %	28 (27) %
Walking or Nature Study	290,809	*19 (33) %	35 (33) %	46 (34) %
Camping	458,451	18 (17) %	47 (42) %	35 (40) %
Bicycle Riding	295,370	60 (71) %	30 (24) %	10 (6) %
Horse Riding	318,179	14 (20) %	37 (49) %	*49 (32) %
Water Activities	217,441	32 (44) %	37 (34) %	30 (22) %
Driving 2WD Vehicles	158,899	*19 (34) %	48 (44) %	32 (23) %
Driving 4WD Vehicles	292,709	14 (15) %	42 (39) %	44 (46) %
Driving Other Vehicles	141,412	23 (26) %	37 (41) %	40 (33) %
Riding on Motorised Watercraft	346,880	*31 (49) %	46 (33) %	23 (18) %
Riding on Non-Motorised Watercraft	354,102	25 (33) %	42 (40) %	33 (27) %
Abseiling or Rockclimbing	232,267	36 (39) %	30 (32) %	34 (29) %

Figure 18: Site preference trends for non-participants (1998-2001) with respect to somewhat natural landscapes

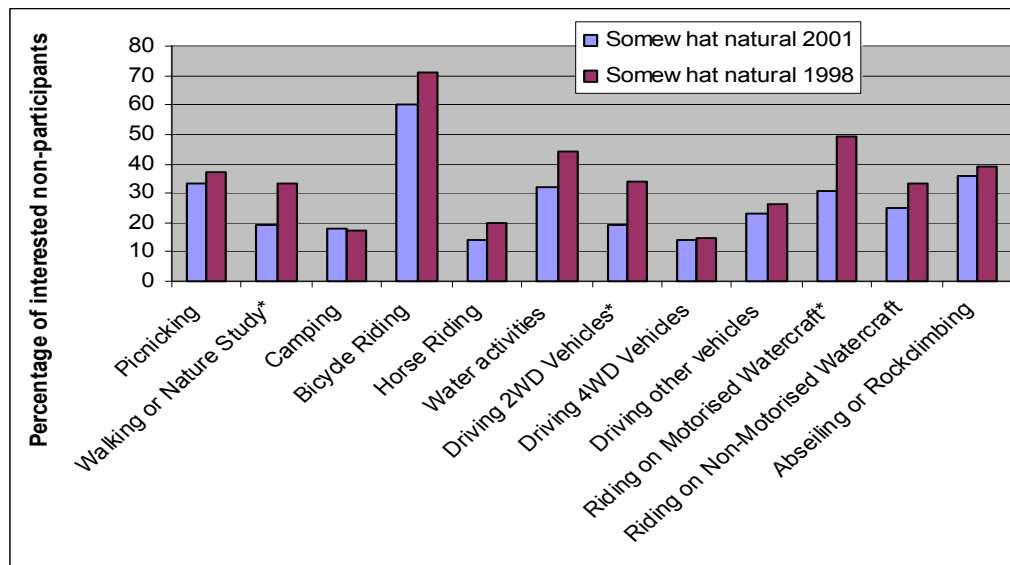


Figure 19: Site preference trends for non-participants (1998-2001) with respect to very natural landscapes

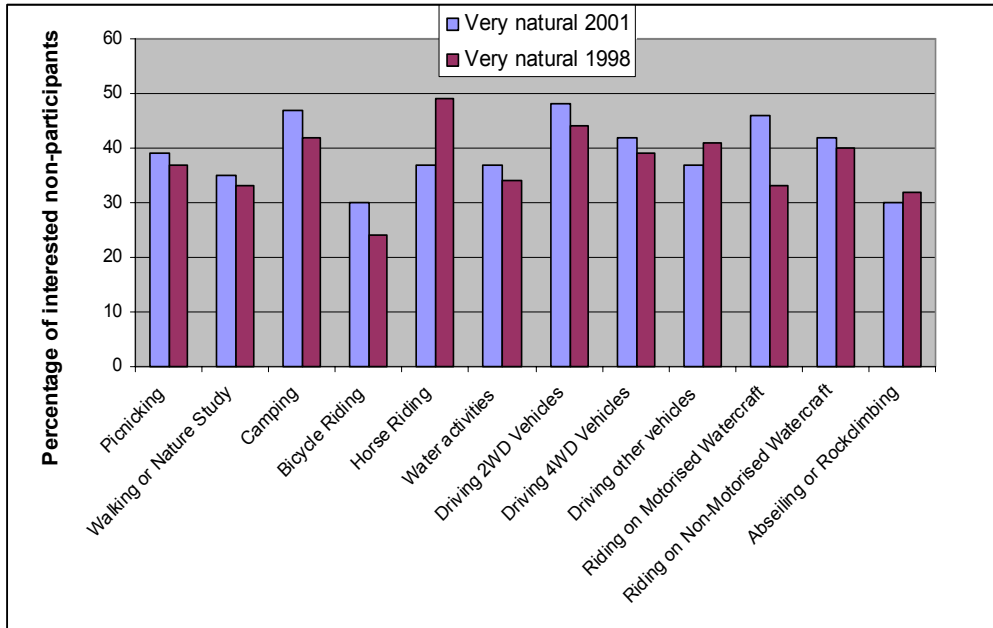
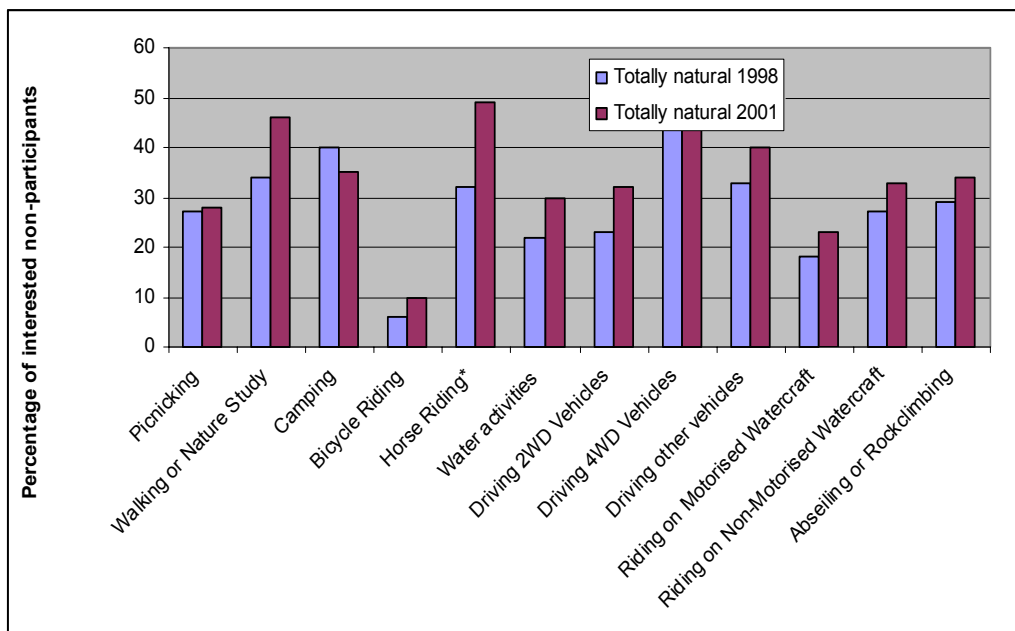


Figure 20: Site preference trends for non-participants (1998-2001) with respect to totally natural landscapes



9.4 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.

Table 32: Likely Motivation of Current Non-Participants Interested in Participating in an Activity

Activity	Latent participation	Likely Motivation		
		Leisurely	Goal-focussed	Competitively
Bicycle Riding	295,370	91 %	8 %	1 %
Horse Riding	318,179	96 %	3 %	1 %
Water sports	217,441	96 %	3 %	1 %
Driving 2WD Vehicles	158,899	94 %	3 %	1 %
Driving 4WD Vehicles	292,709	94 %	4 %	2 %
Driving Other Vehicles	141,412	95 %	4 %	1 %
Riding on Motorised Watercraft	346,880	98 %	1 %	1 %
Riding on Non-Motorised Watercraft	354,102	97 %	2 %	1 %
Abseiling or Rockclimbing	232,267	91 %	8 %	2 %

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.

9.5 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 participants. Non-participants show a similar gendered division of interest 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 or rockclimbing), or machinery (such as driving and motorised watercraft). Interest in activities is also age-dependant, with young people most interested in camping, motorised watercraft, and abseiling or rockclimbing. Older groups are more interested in picnicking, and walking or nature study.

Once again the most important reason that prevents people from getting involved in activities is lack of time, although lack of equipment is also important for certain activities such as driving four-wheel drive vehicles. Those interested in horse riding were constrained by the difficulties of finding somewhere to go. Health was an issue

for those involved in walking or nature study, a reflection of the older age group that would like to participate in this activity.

Section 10: Analysis of Qualitative Data

10.1 Analysis of Worksheets

Table 33 lists the places that were described by participants.

Table 33: Places described in Worksheets

Pan Pacific Peace Gardens
Mt Beerwah
Fraser Island
Limestone Park, Ipswich (Athletics oval)
Golden Beach Caloundra and especially Bell's Creek
Double Island Point
Jacobs Well Boat Ramp
Moreton Island - northern end from Bulwer to Cape Moreton, Campsite at Cape Moreton, walking off track along beach and inland.
Stradbroke Island: Dunwich - Blue Lagoon - Pt Lookout – Dunwich
Noosa National Park
Church camp at Minden
Back of Redbank Plains off Jones Road
Wivenhoe Dam (Wivenhoe Pocket)
Teewah to Rainbow Beach
Redcliffe walking path: Woody Point to Scarborough
Apex Park, Dayboro on the Pine River on the main road to Samford
Glass house mtns Pine forests and tourist areas
Mary Cairncross Park, a few kms south of Montville in the Glasshouse ranges.
Caboolture River.
Mt Barney National Park
Driving up to Ocean View - half way between Dayboro and Mt Mee
Charlie Moreland Park, Kenilworth State Forest
The Deer Park, Borumba Dam, Imbil.
Mt Ngun Ngun - the walk to the top and the abseiling cliffs.
Caboolture bike paths and lakes. The paths around the lakes.
Deception Bay foreshore: from the Fisheries round over the bridge to the end of the beach
Redcliffe Lagoon
O'Reilly's - Lamington Plateau. Particularly the Stinson track.
Bunya Forest (Albany Creek)
Southbank Parklands
Jolly's Lookout
Cedar Creek park and falls
Bike track along freeway from Tarragindi to Southbank
Horseshoe Bay on Peel Island
Moreton Bay
Witches Falls National Park, Mt Tamborine. At the actual Falls platform.
Just off Moreton Island
North Stradbroke Island, 200 to 500 metres off shore
Bikeways around Brisbane
Lake Somerset, Brisbane
Rainbow beach
North Stradbroke Island on the beach, near the pub
Bikeways inner city - along the river

Table 34 lists and describes¹¹ the places that were designated as “totally natural” by participants

Table 34: Places described as “totally natural”

Site No. and normative classification	Place	Activity	Facilities	Access	View	Number of people present
1 Somewhat natural/Very natural	Fraser Island (beach)	Driving 4WD vehicle on unsealed road	Camping areas, showers, BBQ's, toilets	Four-wheel drive	Trees, birds, animals, fish, turtles, small plants	Few
2 Not natural	Church camp at Minden	Horse riding	Pool, dam, BBQ, beds, showers, horse riding	Car	A lot of trees	50-60
3 Somewhat natural/Very natural	Back of Redbank Plains off Jones Road	Horse riding	Just bush - no facilities. Car park at Augustas Parkway	By horse from home	Bush, hills, rocky outcrops, animals. In the distance you see more hills, trees, dams. Such a range of different views, it really is wonderful.	At the beginning you usually share with motor bikes, the further in you go the quieter it gets. Peace.
4 Very natural if few people	Rainbow beach	Driving 4Wdrive vehicle on unsealed road	Nothing	Four-wheel drive	Nature - beautiful blue ocean, sand, forest	Few to lots, depending on season
5 Somewhat natural	Mt Ngun Ngun - the cliffs at the top	Abseiling	Nothing	Drive to base, then walk to summit	Very tranquil - lots of trees and a path	Maybe a few couples or families

According to the landscape classification system, a “totally natural” recreational setting should:

- a. Be far from suburbs and cleared farmland
- b. Have no access by vehicles or vessels
- c. Have no built structures visible
- d. Have little or no evidence of other people

Whilst the subjective experience of the five people who described these recreational settings was of totally natural landscapes, these assessments are inconsistent with a normative, criteria-based assessment using the Landscape Classification System. Given factors such as facilities provided, distance from suburbs and cleared farmland,

¹¹ In Tables 34, 35 and 36, the descriptions of the sites use the actual words of the participants

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and the number of people present, these locations would be either somewhat natural or possibly very natural settings.

Table 35 lists and describes the places designated by participants as “very natural”.

Table 35: Places described as “very natural”

Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
6 Not natural/Somewhat natural	Mt Beerwah	Rockclimbing	Carpark	Car	A mountain, the ocean and surrounding area	Twenty
7 Somewhat natural	Fraser Island Campground	Camping	Showers, toilets, BBQ's, Tables	Four-wheel drive	Other campers, trees, wildlife	Depending on the time of year – a few or a lot
8 Somewhat natural/Very natural	Bell's Creek near Golden Beach, Caloundra	Riding on motorised watercraft	Picnic facilities, lots of bbq's and tables, toilets, very good boat ramp in Bell's Creek	Car then boat	Kingfishers, emus and kangaroos if you're lucky, fish, bushland, mangroves, eagles and lots of seabirds, whipbirds	Two to twenty
9 Somewhat natural/Very natural	Double Island Point	Camping	Rubbish bins and disposal, otherwise nothing, no toilets, shower. Ice man comes daily	Four-wheel drive	Absolutely lovely! Quiet, uninterrupted beach for miles, sand dunes, trees, ocean, and sand, sand, sand!	In our party - 2. Others - depends on time of year. Public holidays i.e. long weekends-hundreds up and down the beach, but usually few and far between.

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Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
10 Very natural	Moreton Island - northern end from Bulwer to Cape Moreton, Campsite at Cape Moreton, walking off track along beach and inland.	Bushwalking	None. Some sand 4WD tracks can be accessed but rarely used. Small walking path to campsite at Cape Moreton	Ferry then walking	Blue ocean from knolls and green, green, green! Favourite campsite: blue and turquoise water, sand and rocks. Heaps of wildlife- birds, dolphins, whales, turtles etc). Also pigs.	None. Very rare to see people - only if walking on beach (fishermen and 4WD's) or walk to lighthouse (tourists)
11 Somewhat natural/Very natural	Double Island Point	Driving 4WD vehicle on unsealed roads	None	Four-wheel drive	Rainforest surroundings, trees, palms, native plants, animals, beaches	In holiday periods: 50-100. In non-holiday periods: 5-10.
12 Somewhat natural/Very natural	Teewah to Rainbow Beach	Camping	Fresh drinking water, rubbish bins, nature walks	Four-wheel drive	Sandy, trees for camping under, beautiful ocean view.	4-8
13 Not natural/Somewhat natural	Apex Park, Dayboro on the Pine River on the main road to Samford	Picnicking	Picnic tables under trees, a wooden climbing frame for children, and an old tyre swing. BBQ's and toilets	Car	The Pine River close by to fish in. Very quiet. Peace to read a book there. A bush walk along the river. Naturally overgrown. Could be snakes.	Often no one. Sometimes one or two families.
14 Not natural/Somewhat natural	Glasshouse Mountains pine forests and tourist areas	Driving 2 wheel drive vehicle on unsealed roads	Tracks in the pine forests. In the tourist area there is a lookout, toilets, BBQ, tables	Car	Very open, big sky. Good walking tracks. Peaceful.	Usually no one in the forests. But many people at the lookouts.
15 Very natural at LPortals	Mt Barney National Park: Lower portals bushwalk	Bushwalking	Lodge, forester's hut and camping accommodation. Walking tracks in national park	Car	Cleared areas for camping, bush tracks, natural bush	Less than 20

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Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
16 Somewhat natural	Charlie Moreland Park, Kenilworth State Forest	Camping	BBQ's, toilets, showers, swimming, some yards for horses	By vehicle, towing horses	Steep forested terrain cut with creeks and tracks	Through the week in non-holiday periods, not a lot. Weekends are fairly busy.
17 Not natural/Somewhat natural	As a base – the Deer Park, Borumba Dam, Imbil	Horse riding	BBQ's, showers, toilets, swimming, canoes, boat hire, playground.	By vehicle, towing horses	Forest, creek, planted gardens, deer. On crossing the creek you ride straight into state forest	Mid week – 20-30 people. In the holidays – 100's.
18 Not natural Very natural	O'Reilly's – Lamington Plateau. Particularly the Stinson track	Bushwalking	At the centre: kiosk, toilets, guide maps, information, water, carpark. On the walk – a track.	Car	Glow worms, bird life, flora/fauna. Magnificent views from top of plateau to Gold Coast and mountain range.	30-200 at the centre.
19 Somewhat natural	Bunya Forest, Albany Creek	Bicycle riding	Fresh water, cycle tracks, guide information	Car or cycle	Trees, shrubs, birdlife, some fauna	10-30
20 Somewhat natural	Cedar Creek Park and falls	Picnicking	Toilets, showers, camping facilities	Car	Lots of trees and water	50-100
21 Somewhat natural	Witches Falls National Park, Mt Tamborine. At the actual falls platform	Walking or nature study	Bush tracks, timber lookout viewing platform. Car park and toilet at start of track.	Car then walk	Rough bushland. Need to walk past backyards, some exotic weeds at first.	Couple
22 Somewhat natural/Very natural	Just off Moreton Island	Riding on motorised watercraft	Jetty, toilets	Car then boat	Clear water, beach, sand dunes	10-20
23 Somewhat natural	Lake Somerset, Brisbane	Camping	Showers, toilets	Car	Water, trees, grass, dam	Lots, depending on season

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According to the landscape classification system, a “very natural” landscape should:

- a. Be away from suburbs and cleared farmland
- b. May be difficult to access by vehicles or vessels
- c. Have few built structures visible
- d. Have few other people present

The very natural experiences recorded in Table 35 do not always fit with these normative criteria. Sites 7, 8, 13, 16, 17, 19, 20, and 23 have all been substantially modified. Site 6 is close to cleared farmland. Sites 7, 8, 13, 16, 17, 20 and 23 all have many permanent facilities present. Sites 6, 13, 14, 16, 17, 19, 20 and 23 are all accessible by two wheel drive vehicles. Whether sites 15 and 18 can be considered to be very natural depends on whether the participants were describing the node area (Mt Barney Lodge or O’Reilly’s) or the actual bush track. The very natural experience at site 21 might also be more subjective than normatively calculated, given its proximity to suburban gardens.

Sites 9, 10, 11 and 12, and possibly sites 15, 18 and 22, can be normatively designated as very natural settings.

Table 36 lists and describes the places designated by participants as “somewhat natural”.

Table 36: Places described as “somewhat natural”

Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
24 Very natural Depends on site	North Stradbroke Island, 200-500 metres off shore	Water activities	Limited toilet facilities	Car then boat	Sea, sand, fish	Early mornings (4am – 9am): 5-10 people
25 Not natural	Bike tracks around Brisbane	Bicycle riding	Constructed bikeways and paths	Bicycle	The changing face of metropolitan Brisbane	2-4 in group, plus other bikeway users
26 Not natural	North Stradbroke Island, on the beach near the pub	Camping	Bins, toilets, playground. Small shop nearby.	Car, ferry	The sea.	Low season – only a moderate amount.
27 Not natural	Bikeways – inner city along the river.	Bicycle riding	Bike tracks	Car	Boats, river, road.	Too many.
28 Not natural	Biketrack along freeway	Bicycle riding	Bike track	Bicycle	Trees, road, people, cars	Varies
29 Somewhat natural	Horseshoe Bay on Peel Island	Camping	Nil	Boat	All islands in the south of the Bay, plus water traffic	A few if you pick your time.

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Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
30 Variable	Moreton Bay	Riding on motorised watercraft	Boat ramps	Boat towed by car	Beautiful at all times	Increasing
31 Not natural	Deception Bay foreshore: from the Fisheries round over the bridge to the end of the beach.	Walking	Concrete path, public toilets	Car	Water (beach), mangroves, built up area and houses on other side	A couple of dozen regulars
32 Not natural	Redcliffe Lagoon	Water activities	Toilets, changeroom, water fountain, BBQ's, picnic benches and tables.	Car	Artificial lagoon, artificial beach, children's playground.	Ranges from a few to dozens and dozens.
33 Not natural	Southbank Parklands	Walking	BBQ's, toilets, playground, swimming lagoon, bike track, markets.	Car	Busy city life.	Many
34 Somewhat natural	Jolly's Lookout	Picnicking	BBQ's	Car	Natural bush, Samford Valley	Varies
35 Somewhat natural	Caboolture River	Riding on non-motorised watercraft (kayak)	Park at start of river (toilets and BBQ's). After set off no more facilities till end	Car	Bushy and mangroves on both sides of river	Hardly any in kayaks, but quite a few on boats.
36 Somewhat natural	Driving up to Ocean View – between Dayboro and Mt Mee	Driving a 2 wheel drive vehicle on unsealed roads	Toilets, road	Car	A blend of urban and natural bush	Less than 20
37 Not natural/Somewhat natural	Caboolture bike paths around the lakes	Bicycle riding	Toilets, bowls club, tennis courts, bike track, footy fields	Bicycle	Ducks, flowers, birds, other people, turtles, dogs, fish	Lots, depending on the time of day.
38 Not natural/Somewhat natural	Wivenhoe Dam (Wivenhoe Pocket)	Picnicking	Covered eating areas, tables, BBQ's, benches, toilets, showers	Car	Trees, gardens landscaped to a natural look.	Lots
39 Not natural	Redcliffe walking path: Woody Point to Scarborough	Walking	Toilets, fresh water, shops, pool	Car	Trees, ocean, other people having fun.	20-200

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Site no and normative classification	Place	Activity	Facilities	Access	View	Number of people present
40 Not natural/Somewhat natural Somewhat natural	Mary Cairncross Park, a few kms south of Montville in the Glasshouse Ranges	Picnicking	Small shop, toilets, BBQ, playground	Car	Looking out towards the Glasshouse Mountains is very open and you can see farms, valleys mountains. On the range side is very bushy. Walking track.	Under a dozen
41 Somewhat natural/Very natural	Jacobs Well Boat Ramp	Riding on motorised watercraft	Shop, caravan park, car park	Car, towing boat	Built up at Jacobs Well, but after you leave there are various little islands, water and wildlife to see	Quite busy on a fine day
42 Somewhat natural/Very natural Not natural/Somewhat natural	Stradbroke Island: Dunwich – Blue Lagoon – Pt Lookout – Dunwich	Bicycle riding	Road, toilets, shops	Bike and ferry	Very natural inland. Point Lookout and Dunwich more suburban. Inland – coast heath, open eucalypt, swamps, lakes	Inland – very few. Coastal – lots
43 Somewhat natural	Noosa National Park	Camping	BBQ, toilets, parks, showers	Car	A lot of big trees, the beach and the ocean	Depends on time. 50-60
44 Not natural	Pan Pacific Peace Gardens	Picnicking	Toilets, BBQ's, paths, bridges, chairs and gazebo	Car	A lake with ducks. Garden area with native trees and rocks. Grassed areas	None during week to about 30 on weekends
45 Not natural	Limestone Park, Ipswich (Athletics Oval)	Walking	Water, toilets, play area, covered area, activities for extra exercise	Car	Open and grassed. Well kept track, soft underfoot. Trees, birds, other people.	20-30 (At 5.30am)

According to the landscape classification system, a “somewhat natural” landscape should:

- e. Be close to suburbs and cleared farmland
- f. Accessible by conventional vehicles or vessels
- g. Have buildings highly visible
- h. Have other people present

A number of sites described as “somewhat natural” are actually more urban according to the criteria. For example, sites 25, 27, 28, 33, 37, 39, 44 and 45 are all constructed areas within an urban environment. However, the presence of trees or water has provided these participants with a subjectively somewhat natural experience.

These results indicate that the inclination of the participants in the telephone survey towards totally natural and very natural environments should be understood in a subjective, rather than in a normative sense. Environments that are perceived as totally natural by participants are likely to be classified as very natural, somewhat natural, or even non-natural according to the landscape classification system.

The subjectivity of this response also clarifies the preference of drivers and horse riders for a totally natural landscape. It is likely that such landscapes are either beach environments, or subjectively perceived totally natural environments that actually contain a well developed track or road system. Further clarification of the characteristics of landscapes emerged during the workshop discussion.

10.2 Analysis of Workshop Discussion

Whilst the purpose of the worksheets was to determine the degree of accuracy with which participants were able to classify particular landscapes, the purpose of the discussion was to provide in-depth data with respect to the characteristics of particular landscapes. In addition, constraints, and participants’ negotiation of these constraints were examined.

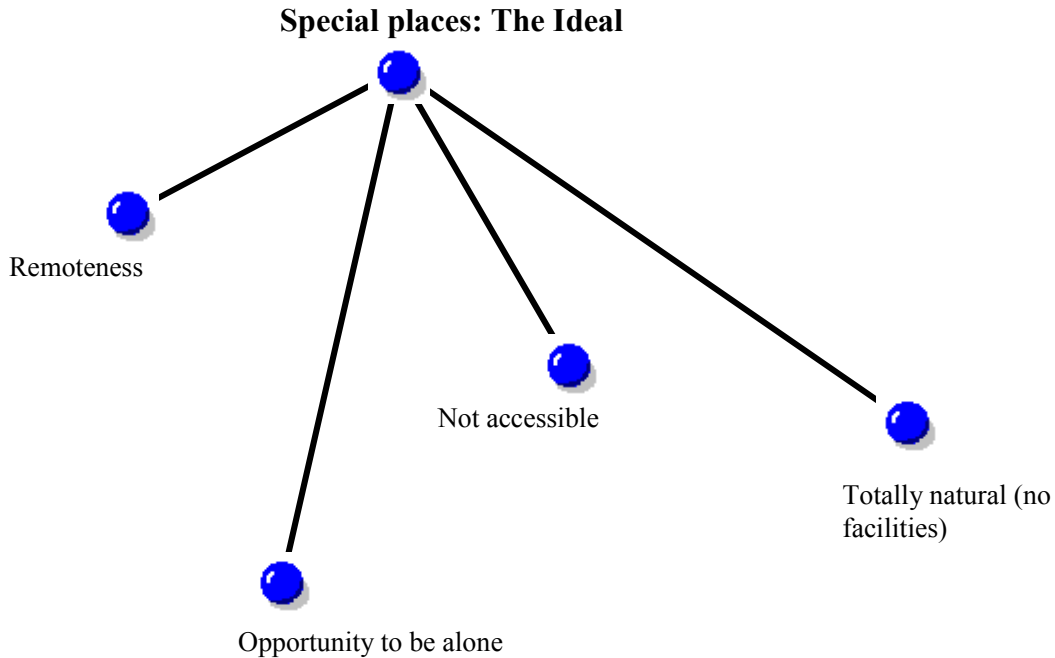
The qualitative data gleaned through such discussion is rich and contextual, and not easily classified into tables. A more useful method of reporting is to use extended quotations, which provides opportunities for participants to be given “voice” within a largely anonymous survey. This method, which is used here, adds depth to analysis and provides concrete illustration of the numerical results portrayed previously.

10.2.1 Special Places

Characteristics

Participants were easily able to describe some places that were very special to them. These places were characterised by four attributes: remoteness, difficulty of access, opportunities for solitude, and no facilities (see Figure 21).

Figure 21: Characteristics of Ideal Special Places



Josh, for example, in answer to the question “What attracts you to these places?” replied, “*The remoteness. Just being completely in the middle of nowhere. Where there's no-one - even a hundred k's back that way. Just being in the middle of nowhere. It's great, I reckon.*”

Similarly, Christine explained, “*I love going inland because you get to lakes and beautiful spots - and you can dream that no one's ever been there. Of course people have been there - but it's very remote and you won't see anyone.*” The opportunity these places offer for solitude are largely because of their inaccessibility, and Bill suggested that “*I think we all need opportunities for solitude now and then, time by yourself now and then you know.*” These places are seen as “totally natural”. Alison observed, “*It's such a natural habitat. You can see birds - you can see eagles soaring and kingfishers darting down. If you're lucky you see emus and kangaroos, but they're getting less and less. It's just so peaceful - it's a beautiful spot to go.*”

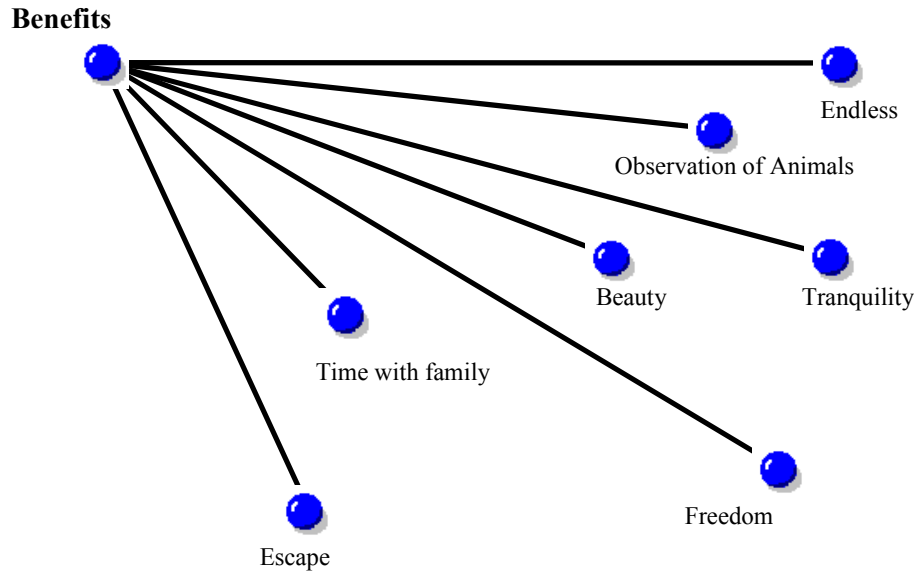
To retain this sense, people are prepared to accept the lack of facilities, as Kathy observed:

Absolutely fantastic - we wouldn't want to go anywhere else. We camp on the beach - if you go a certain distance - ten or twenty kilometres or something ridiculous - up the beach you can camp on there. Which is really good. There's nothing - no toilets - you take your water - everything. It's just fantastic. Dig a little hole - that's where you go. Cover your little hole - no one knows. It's just great. No one's there.

Benefits

Participants described a number of benefits that they derived through visiting these special places. These benefits are listed in Figure 22.

Figure 22: Benefits of visiting remote natural places



Firstly, these places offer a chance to escape from the “hustle and bustle” of daily life to the beauty and tranquillity of the bush or the bay, as described by Stephen:

I was in this area - and I couldn't drive six mile in two hours. And it really drove me to distraction. Until I found Moreton Bay. Then I could get out the boat, and I could go out to Moreton Bay and I could sit there. And the telephone doesn't ring out there. Two friends that I used to work with used to come too, and we had an automatic fine - the moment you mentioned work you just reached over and took a fish out of his bag and put it in your bag. So you got more fish for dinner. It was an automatic fine. And you could sit in the boat and watch the sun come up - and you could look back and see the smog back there, but you didn't have to worry about it. It was beautiful. I got very interested in Moreton Bay and I went into the history of Moreton Bay and studied where the names came from and everything about it that I could find. I found it a very interesting place. If it hadn't been for Moreton Bay, I think I would have resigned my position.

Although Stephen noticed the smog over the Brisbane area, he found he could forget about it. Other participants, who were in less open surroundings, could not see any evidence of civilization at all, and described the sense of “endlessness” of the bush, as well as the freedom that they felt. Glen, for example, described the Kenilworth Range as “*virtually endless, once you've got into the country.*” Sharon, describing a Church camp that she attended, explained, “*And that was really beautiful there, because there was like fifty acres where you could just walk and walk and walk and get lost.*” Carol emphasised the importance of the “*wide open spaces*” where her family could “*run free*”. Carol also spoke of the quality time that the natural environment seemed to encourage with her family:

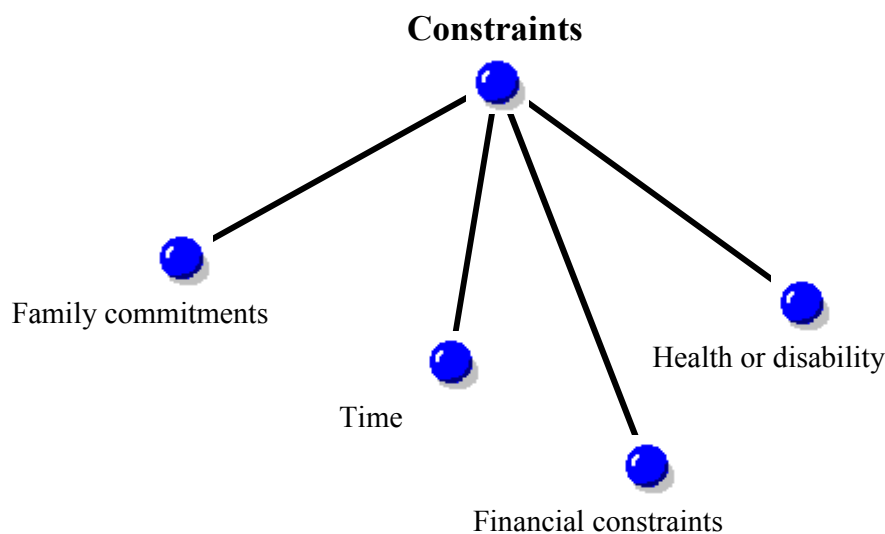
And we just love the big open spaces and the peace and quiet. In the past when we used to go camping, we used to have fires - and I found that very important - at the end of the day, after bushwalking, everybody would gather around the campfire, have a meal, and you'd chat with the boys, and you'd find that they'd be interested to ask about the family - the family history - and it was a great time - being together to discuss problems, or whatever was stressing you at the time - because you're sitting there, in the dark, around the campfire - no one feels put upon in any way - and we find it's a very valuable family time.

Quality time with family was an important theme that emerged in all three workshops. Participants expressed concern about the amount of time that children spent watching television, and their need to spend time out of doors. Mary, for example observed, "And it's so important, to get them away from the TV. My boy is very TV oriented - it's just to get him out to do something." Similarly, Karen suggested, "I think it's where we're getting in a lot of trouble with our youth at the moment. There's nowhere for them to explore." However, Kathy also noted, "Kids can't get out on their own so much nowadays. You can't let them go and run amuck. So you have to have family places to go. You have to have the parks. So you can take them and that's exciting for them. You can't let them go to the bush out the back. Previously, as long as you were home by dark it didn't matter. But not now." This comment highlights the need for local green spaces that are perceived as safe, as described in the next section.

Constraints and the consequent need to compromise

The very nature of the remote, totally natural places means that people can not visit them as often as they would like. Four main constraints were mentioned by participants: time, family commitments, health or a disability, and lack of money, as illustrated in Figure 23.

Figure 23: Major constraints mentioned by workshop participants



Because of these constraints, participants explained that they needed to find alternatives to their ideal special places. These places needed to be local, in order to cut down on time spent travelling as well as its expense. Russell observed:

I would say that one of the constraints as far as time is concerned, is that you need some sort of facility that's not too far from the place where you reside, so you're not spending half the day driving, or bussing or whatever. If you don't have a lot of time, then you can maximise the opportunity of the day. And that's one of the limitations. And that's why we need more green areas close by - so you're not chewing up valuable time getting there.

Time and family constraints also meant that these places needed to have more facilities, in order to make preparation less onerous. Heidi, the mother of six children, explained,

It's so very off-putting to me, to think of going away with the family and having to do all that preparation - the whole shopping thing - it's just too much of a drama for me - and all the miles of washing afterwards, when you come home - and so, yeah - I like places that look pretty, like the lagoon - it's completely man made, but it's pretty - and it's a confined area, so I can sit in one spot and not be concerned about the kids.

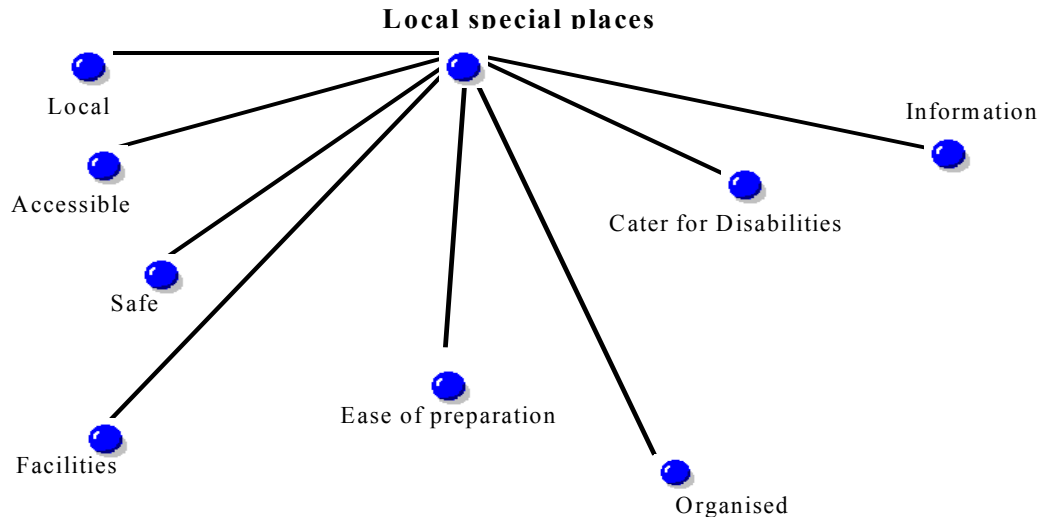
Safety was an important aspect for Heidi, as for all mothers who participated in the workshops. Heidi also expressed concern about one of her children who is visually impaired. Three participants mentioned the need for these places to include facilities for people with a disability. Bill explained, *"I was one of a family of seven, and we couldn't go anywhere because money was tight - plus one of my sisters had a disability, and places didn't accommodate for disabilities. So that's another big thing that needs to be looked at."* Similarly, Diane observed:

It has to be a mentality that has to change. You try to lift a 110 kg man in a wheelchair over a gutter because there is no slope to push him up. To me it's a change in mentality - because there's just not enough thought given to recreation areas or anywhere for people in wheelchairs. I mean once upon a time I wouldn't have thought about it either. But now, because I'm in that position, it's become a real thing with me, like a bit of a crusade to say, well to still enjoy the environment like we always did, perhaps a little bit more thought could go into things.

Diane also mentioned the need for information to be freely available with respect to where provision was made for wheelchair access. The need for widely available (and free) information about green places, activities and facilities was mentioned by a number of people. Jill saw the need for *"A website or something that would say the local area information and bushwalking and - guided tours, or nights like the frog night - where you could bring the kids, and they could learn something, and we could all have a good time and it wouldn't cost a fortune."* Sarah also saw the need for a website, but said that it needed to cover more than the local area: *"I'd really like to see a website where all the councils are represented, so you can go in there - say, this is July, what's happening in July. September, what's happening so you can plan."* Information Centres were mentioned by two people as important sources of information, but Zoe also suggested a letter-box drop: *"Easy for me - I go to the information centre. I write in my diary - Monday, Tuesday, whatever. Where to go and what is happening. Very important. But information should be put in the letter box. What is happening - it should be put in the letter box. Then people would know."*

These attributes of what the Morayfield group began to call the “quick fix” places are summarised in Figure 24.

Figure 24: Attributes of Local Special Places



Variety

The need for two types of special places –totally natural areas that are remote, not easily accessed, and have few facilities, and very or somewhat natural areas that are more easily accessed, have more facilities, and are therefore seen as safer for families – was understood and expressed by a number of participants. Kathy, for example, having described her favourite place to be camping on the beach near Double Island Point, then explained that at present, her two small children mean that such primitive camping is difficult. As she observed, “*the only way to fix that is to do things that would make it no longer enjoyable - to put in the facilities - so you have baby change rooms and feeding rooms. But you don't want to go there then.*” Similarly, Diane hated the idea of increasing the built facilities at her favourite place: “*If they ever did create that kind of thing - with barbeques, huts, cement slabs - things like that - that would just totally ruin it.*”

Not all participants made this distinction between the two types of areas. Josh, for example, previously quoted for his love of the remoteness of his special place (*Where there's no-one - even a hundred k's back that way. Just being in the middle of nowhere. It's great, I reckon*) also lamented the lack of rubbish collection: “*But there's no facilities - like, people don't really want to carry back three garbage bags full of rubbish.*” Similarly, Zoe expressed her love of the naturalness of Fraser Island together with her desire to see telephones installed and an increased management presence:

A ranger. We didn't see any ranger. And if you do something wrong, there's no one to tell, so they don't care. And we were looking for a public phone and I couldn't find any. I know that when you go camping there isn't much, but when you have children you need something. How can you go and get help? It's too far to get help. We don't like it - we don't feel safe. And the dingos. But I really like it. It's totally natural. We love it there.

However, these two people were in the minority in the workshops. Most people described a need for a range of facilities at different places, as expressed by Peter:

It's not hard, is it - when you start to categorise parkland or recreational areas - so in some areas - you have to have a four-wheel drive. Know that there are no toilet facilities. Know that there are no waste disposal facilities. You are sold the license or permit for 5 days or whatever - you will retire your garbage as you leave. People know that. Whereas at another national park, people will know that there's a toilet facility with disabled access and this and this and this. So what I'm saying is that it doesn't have to become too bureaucratic or too regimented - it's not a difficult exercise. So you can accommodate different people.

Threats

The need to accommodate different people emerged as one issue for a number of participants, who spoke of their difficulties in sharing a limited resource with people who were engaged in an incompatible recreation interest (usually noisy or damaging to the environment). Gerald, for example observed, “Well, I could talk forever on some of the things I don't like. Especially those jet skis. You know, they have got their place, but they make a lot of noise.” Karen also commented on her dislike of noisy machinery:

We've been in there riding and you can hear them [four-wheel drives and trail bikes] in the distance - and one will be stuck and then there'll be six of them stuck and they're trying to get up rocky outcrops - and we've just sat to the side and you see them trying to get up what are really sheer rock faces - they have these contests - who can get up them. It's just amazing. And there's the tray back ones, and they'll have the twenty or thirty age group hanging on the back while they're trying to get up these things - someone's going to get killed. But it's changed - it used to be peaceful. You could tether your horse and have a picnic - but now you've got motor bikes going past, or four-wheel drives getting bogged or something like that. And a lot of the dams are being wrecked because of vehicles going through it. Certainly the wildlife has been affected. You have to go a lot further in now to get that peace and quiet.

The biggest threat, however, mentioned by almost every participant, was the encroaching urban spread. Increasing housing development was seen to both destroy the remaining bushland and result in increasing crowding in what little remains. Alison, for example described the impending loss of her favourite area: “I love it because it's a hidden creek - it's so quiet. The bigger boats can't get up there - there's just a small draft, so they can't get in. The problem is that all the land up there is being sold off and another problem that I can see for the future is canal development.” Participants accepted the inevitability of more housing, but asked urgently that areas of natural bushland be set aside – both locally and further afield. Peter made the following comments about the Logan/Gold Coast area: “Springwood and all the rest of it. All grown. Even when you go in behind the Gold Coast there, you can see it all. And you go north, it's the same. It's spreading up that way. Who's the biggest threat? Humans. We need to have green belts around places. Instead of integrating them.”

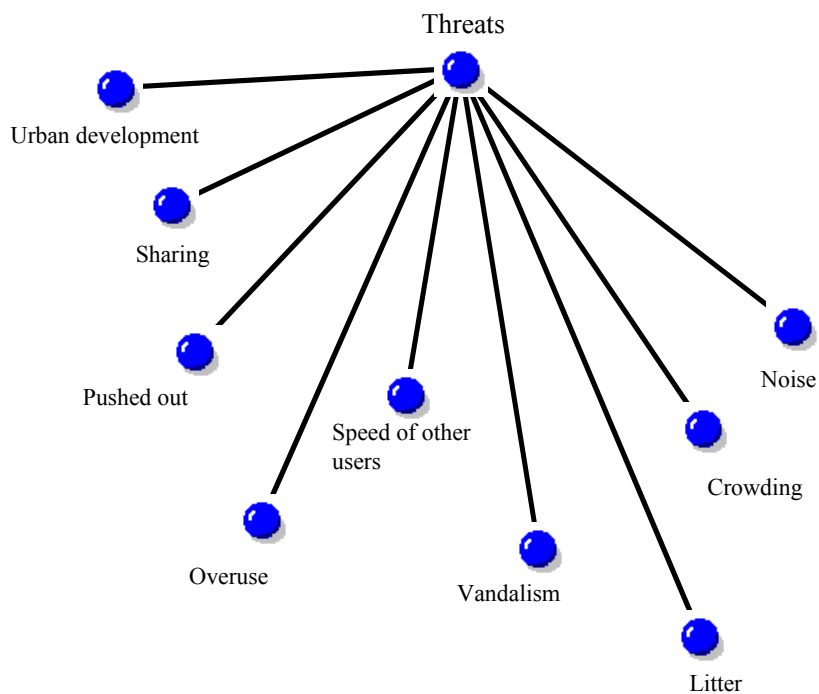
The loss of bushland meant that people had the sense of being “pushed out” – further and further afield – in order to access natural areas. Gerald stated that this was unacceptable: “With the amount of people that we've got now, and people coming in the future - they will have to have places to go. And it's no good saying, Oh, we'll put a house here and they can go out a little bit further. People can't afford to go to the other side of Toowoomba.” Loss of bushland also means increasing pressure on available areas. All participants spoke of the crowding that they experienced – not just in the local areas, but also in the more remote areas. Stephen, for example compared his present boating experiences with his early experiences: “Nineteen sixty-six, you could go over to Blue Hole and do some fishing, and there wouldn't be six boats. You try it now and there'd be a hundred and six.” Russell understood these

difficulties to be due to the increasing population, and described the need to protect more bushland:

Some days you see hundred's of people there - I usually go up during the week now I'm retired, and it's not as bad as on the weekend - and you can't keep these things to yourself - other people want to enjoy them. But, on the same token, they don't want to promote it too much. At least when you go for the walks it's not like you're in a heavy traffic area. You may not see anyone all day. That part's okay, but if there's too many people it becomes too commercialised. That's a concern. But I suspect that as there's increasingly less opportunities for those nice places to go to, it is attracting more people there, as the cities expand - that's a problem. So I certainly support, two hundred percent, the idea of councils saying we must protect this bushland and expand it somehow - or plan for it to be retained and expanded over time. Because I see the need for that sort of relaxation a lot more so. In the thirty odd years that we've been going there we've seen it change.

These concerns that participants identified as threats to the quality of their experiences in natural areas are summarised in Figure 25.

Figure 25: Threats to natural areas



Management issues

All participants acknowledged that the increasing pressures on natural areas meant that these areas needed to be managed, with corresponding restrictions. Diane for example, described the lack of observation of present regulations: “Well, there is a speed limit - but they don't care. There is actually a limit for driving along the beach - it's sixty kilometres an hour. But no one pips them. I've even been up there and seen four-wheel drive clubs going along - a whole mass of them - and none of them are doing sixty.” Claire agreed, and observed, “I don't think people will do things unless they have to, frankly. They probably need more people on

the ground, really.” Similarly Gerald emphasised the need for a strong management presence: *“With these designated areas, you can't just open the gate and let them run. You just can't do that. Unfortunately, you've got to have somebody there, with a little bit of authority to look after the facility for the way it's meant to be used. If they want to have a four-wheel drive that they want to smash up against trees - that's fine - but put them in some other area.”*

However, a small number of people, who were feeling the effects of such restrictions, expressed a sense of dispossession. Glen, a horse rider, *observed “We are progressively being forced out of available places to go.”* He described the process by which *“a number of groups are doing their level best to shut up all the areas as national parks.”* Peter also noted, *“I don't think we should be locking up land.”* The restriction on fires was also lamented by Carol: *“But now unfortunately you can't have fires in national parks - only a gas fire - and it's not quite the same as sitting around the campfire as a family. And I'm sure any Aboriginal group would say the same thing. Something about nature and natural things.”* This sense of dispossession had led to a loss of support for current management practice, and emphasises the need to provide a variety of places to accommodate different recreational activities.

Two horse riders that attended the workshops both commented very strongly on a specific need – to update the National Trail, which Glen stated *“is a physical impossibility to ride, because it's cut in so many places. You just simply can't do it.”*

10.3 Summary of Discussion

Participants in the focus groups each had a story to tell about a place that was “special” to them. What made these places special was the fact that they offered an escape from the “hustle and bustle” of society. They were places of tranquillity and beauty, providing a sense of freedom, and “wide open spaces”. They were seen as totally, or predominantly, natural. Frequently they offered an opportunity to observe wildlife.

Two types of “special” places were described. The first represented the ideal. These were places that could only be visited now and then. Their particular characteristics – remote, difficult to access and providing few, if any, facilities – meant that these places required a good deal of planning to visit, and, for some people, this was not possible given their present constraints. Such characteristics, however, made these places even more special – and the probability that the individual would be able to return to his or her special place sometime in the future contributed very strongly to their quality of life.

The second type of “special” place represented a compromise. These places were local and more easily accessible. Given the situation of most participants in the workshops – acting under constraints of family commitments, and little available money or time – people explained that they needed “quick fixes”. They were still searching for opportunities for escape, for a sense of naturalness and peace and quiet, but they needed to find them locally, without it being “such a huge production”. They were also looking for opportunities to take their children outside more frequently, to get them away from television and allow them to explore the natural world. For these people, safety became a more important issue – largely because these places were so accessible to people. Vandalism was seen as a problem. These special areas, therefore, needed to be safe. They needed to have facilities – a number of people mentioned the need for disabled access. Organised, structured activities that would entertain and

educate the children were mentioned by a number of participants. And, very importantly, people needed easily accessible (and free) information about these areas – where they are and what particular events are happening.

Participants in the workshops believed that both types of special places were under threat. Continued apparently unmanaged urban development was seen as the biggest threat to the existence of natural places both at a remote and a local level. Many participants spoke of the need for “green belts” to alleviate the urban spread, and the urgent need to set aside large areas of natural bushland. They mentioned the sense that they are being “pushed out” further and further afield to access the remote areas, which are being “loved to death”. The need to share places with other user groups, particularly those who used noisy machinery (four-wheel drives, trail bikes, jet skis, motor boats) was an annoyance to many who were seeking tranquillity. Others, however, spoke of the need to cater for all users and set aside areas that could be used for such activities. These particular participants were very aware of a sense of dispossession, which was resulting from imposed limits on their activities as more areas were being “locked up” as National Parks.

Section 11: Trends and Implications

Throughout this report, comparisons have been drawn between the results found in this study (in 2001) and the results found in the 1998 Outdoor Recreation Demand Study. This section will summarise these comparisons and discuss their implications.

11.1 Incidence of Participation Over the Past 12 Months

11.1.1 Key Trends

This study has indicated that a high proportion of the population in South East Queensland continues to enjoy a variety of outdoor recreation activities. A comparison of the 2001 and 1998 participation rates in all activities is provided in Table 37. In this table, the order of activities has been changed to reflect the most popular to the least popular activities. Whilst none of the changes in participation proved to be statistically significant, they do indicate possible trends, which should be further investigated in future studies.

Table 37: Changes in participation rates from 1998 to 2001

Activity	Participation (2001)	Participation (1998)	Change
Picnicking	67%	65%	+ 2%
Water Activities	56%	39%	+ 17%
Walking or Nature Study	49%	60%	- 11%
Camping	33%	25%	+ 8%
Riding on Motorised Watercraft	27%	26%	+ 1%
Bicycle Riding	26%	25%	+ 1%
Driving 2WD Vehicles	24%	31%	- 7%
Driving 4WD Vehicles	23%	20%	+ 3%
Riding on Non-Motorised watercraft	19%	17%	+ 2%
Driving Other Vehicles	7%	7%	0 %
Horse Riding	7%	7%	0%
Abseiling or Rockclimbing	6%	7%	- 1%

As illustrated in Table 37, small increases in participation rates since the 1998 study were found in six activities. Larger increases were observed in camping (which showed an increase in participation rates from 25% to 33%), and water activities (from 39% to 56%) – although, in the case of water activities, the increase is most likely to be due to an expansion of its definition. Three activities showed a decline in numbers. The largest decline was found in walking and nature study, which dropped from 60% of the population to 49%. However, this decrease might be somewhat exaggerated, due to a possible misunderstanding of what is meant by “walking and

nature study”. When asked to name other activities in which they were involved, a total of 89 participants, or 3.2% of the sample population, named activities that should have been included in the activity of walking or nature study. These activities are listed in Appendix G, and include beach walking, bird watching, bush walking, observing nature, star watching, walking, and whale watching. The actual percentage of participants that are involved in the activity of walking and nature study should therefore be 52% rather than 49%, a decrease of 8 % rather than 11%.

A decrease in numbers was also found in driving two-wheel drive vehicles on unsealed roads (from 31% to 24%), and a very slight decrease was found in abseiling and rockclimbing (from 7% to 6%). No change in participation rates was recorded for driving other vehicles on unsealed roads or horse riding.

Picnicking remains the most popular activity amongst the sample populations of both studies, having increased slightly from 65% in 1998 to 67% in 2001. Water activities (56%) has become the next most popular activity in 2001. Walking or nature study is the third most popular activity. Despite the decrease in participation, almost half (49%) of the population in South East Queensland engage in this activity. One third (33%) of the population participates in camping, and just over a quarter are involved in using motorised watercraft (27%) or bicycle riding (26%). As for the 1998 study, the least common activities are abseiling or rockclimbing (6%), driving other vehicles on unsealed roads (7%) and horse riding (7%).

Changes in participation according to gendered preferences are illustrated in Table 38, which has organised the activities so that those with high female involvement are grouped first.

Table 38: Gendered preferences in outdoor recreation participation from 1998 to 2001

Activity	Female Participation			Male Participation		
	2001	1998	Change	2001	1998	Change
Picnicking	70%	65%	+5%	63%	64%	-1%
Walking or Nature Study	52%	62%	-10%	45%	59%	-14%
Horse Riding	8%	8%	0%	6%	6%	0%
Water Activities	56%	35%	+21%	57%	44%	+13%
Camping	31%	19%	+12%	37%	31%	+6%
Riding on Motorised Watercraft	23%	21%	+2%	35%	30%	+5%
Bicycle Riding	22%	20%	+2%	33%	30%	+3%
Driving 2WD Vehicles	20%	25%	-5%	30%	37%	-7%
Driving 4WD Vehicles	19%	18%	+1%	28%	23%	+5%
Riding on Non-Motorised Watercraft	16%	14%	+2%	24%	21%	+3%
Driving Other Vehicles	5%	5%	0%	11%	10%	+1%
Abseiling or rockclimbing	5%	5%	0%	7%	10%	-3%

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An analysis of participation according to gendered preferences showed similar results to the 1998 study, in that males were more likely to be involved in camping, bicycle riding, all types of driving, riding on motorised or non-motorised watercraft, and abseiling or rockclimbing. Females are more likely to be involved in picnicking, walking or nature study, and horse riding. The fact that women's participation in a number of outdoor activities is 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 a decline in numbers.

Both the 2001 and the 1998 studies found that age, as well as gender, was a major influence on the incidence of participation. Results are summarised in Table 39.

Table 39: Incidence of participation within the age group (expressed as a percentage of each age group)

Activity	15-17		18-24		25-39		40-54		55-64		65+	
	2001	1998	2001	1998	2001	1998	2001	1998	2001	1998	2001	1998
Picnicking	48%	49%	63%	58%	75%	76%	72%	70%	63%	61%	54%	49%
Change	- 1%		+5%		-1%		+2%		+2%		+5%	
Walking or Nature Study	52%	56%	44%	56%	47%	67%	50%	65%	58%	58%	47%	50%
Change	- 4%		- 12%		-20%		-15%		0%		-3%	
Camping	55%	49%	44%	38%	41%	32%	33%	22%	22%	13%	12%	5%
Change	+ 6%		+ 14%		+ 9%		+ 11%		+ 9%		+ 7%	
Bicycle Riding	49%	46%	35%	31%	35%	35%	26%	25%	13%	9%	7%	4%
Change	+ 3%		+ 4%		0%		+ 1%		+ 4%		+3%	
Horse Riding	14%	15%	14%	13%	10%	9%	6%	6%	4%	2%	1%	1%
Change	- 1%		+1%		+1%		0%		+2%		0%	
Water Activities	75%	49%	70%	50%	67%	48%	57%	41%	44%	29%	30%	13%
Change	+ 26%		+ 20%		+ 19%		+ 16%		+ 15%		+ 17%	
Driving 2WD Vehicles	16%	23%	32%	37%	29%	36%	22%	38%	20%	26%	11%	15%
Change	- 7%		- 5%		- 7%		- 16%		- 6%		- 4%	
Driving 4WD Vehicles	11%	13%	30%	26%	29%	27%	22%	22%	20%	16%	11%	9%
Change	-2%		+ 4%		+ 2%		0%		+ 4%		+ 2%	
Driving Other Vehicles	15%	14%	15%	15%	10%	9%	5%	5%	4%	2%	1%	2%
Change	- 1%		0%		- 1%		0%		+ 2%		- 1%	
Riding on Motorised Watercraft	30%	38%	37%	25%	31%	30%	26%	27%	24%	22%	20%	14%
Change	- 8%		+ 12%		+ 1%		- 1%		+ 2%		+ 6%	

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Activity	15-17		18-24		25-39		40-54		55-64		65+	
	2001	1998	2001	1998	2001	1998	2001	1998	2001	1998	2001	1998
Riding on Non-Motorised Watercraft	27%	31%	28%	21%	19%	22%	23%	19%	13%	7%	8%	5%
Change	- 4%		+ 7%		- 3%		+ 4%		+ 6%		+ 3%	
Abseiling or Rockclimbing	30%	29%	11%	15%	5%	8%	5%	4%	3%	1%	2%	0%
Change	+ 1%		- 4%		- 3%		+ 1%		+ 2%		+ 2%	

Both studies found that the younger (15-17) age group were most likely to have undertaken camping, bicycle riding, horse riding, and abseiling or rockclimbing. Driving activities seemed most popular amongst the middle age groups (18-39 years). Both studies also found that picnicking is most popular amongst people aged 25-39 years, although it remains a popular activity for all age groups. A slight difference was found with walking and nature study, which in the 1998 study was most popular amongst the 25-39 age group, but was more popular amongst the older (55-64) age group in the 2001 study.

Frequency of participation in activities in the 2001 study was generally similar to the 1998 study, although increases occurred in 8 of the 12 activities recorded. The largest increase is for water activities, from a median of 6.3 to a median of 12. This increase is probably reflective of the change in this category from the narrow category of swimming to a broader category that encompasses snorkelling and diving. These trends are summarised in Table 40.

Table 40: Changes in participation frequency since 1998

Activity	Frequency of Participation (median) (2001)	Frequency of Participation (median) (1998)	Change
Picnicking	4	4.5	- 0.5
Walking or Nature Study	12	10.3	+ 1.7
Camping	2	2.1	- 0.1
Bicycle Riding	11	12.2	-1.2
Horse Riding	2	2.4	-0.4
Water Activities	12	6.3	+5.7
Driving 2WD Vehicles	5	3.7	+ 1.3
Driving 4WD Vehicles	4	3.1	+ 0.9
Driving Other Vehicles	5	4.2	+0.8
Riding on Motorised Watercraft	4	3.3	+ 0.7
Riding on Non-Motorised Watercraft	2	2.5	- 0.5
Abseiling or Rockclimbing	2	1.8	+ 0.2

11.1.2 Implications

The major implication that can be drawn from these trends is that participation in outdoor recreation remains an important and legitimate use of land that needs to be considered by planning agencies at all levels of government. On the whole, participation in outdoor recreation activities is increasing, a welcome trend in an age where participation is increasingly giving way to spectatorship and consumerism. However, this increase in participation is also resulting in increasing pressure upon the currently available places for outdoor recreation, a point made clearly by

participants in the workshops, who complained of crowding of recreational settings, as well as conflict with incompatible user groups.

The lack of female participation in many outdoor recreation activities is of some concern, particularly since the largest decline recorded in the survey is occurring in walking and nature study, which is one of the few activities popular with women.

11.2 Recreational Settings

11.2.1 Key Trends

Reported use of different recreational settings indicate that there has been a shift since 1998 from somewhat natural landscape settings to very natural landscapes for every activity, some of which are significant. Significant differences have occurred in bicycle riding, horse riding, driving four-wheel drive vehicles on unsealed surfaces, and riding on both motorised and non-motorised watercraft.

Walking or nature study and horse riding also show a strong increase in the percentage of activities conducted in totally natural landscapes. For the driving activities, however, there has been a shift from totally natural landscapes towards very natural landscapes.

Expressed preferences, both of those who would like to participate more often, and of those who do not participate (but would like to) suggest that the general inclination is away from somewhat natural settings and towards totally natural settings. This is true for every activity, even bicycle riding, horse riding, and driving any vehicle (including two-wheel driving).

These results are supported by the figures recorded in Table 41. Results are shown as percentages of current participants. In this table, statistically significant changes have been noted with an asterisk, where

** indicates strong significance, where $p < .005$

* indicates moderate significance, where $p < .05$

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Table 41: Recreation settings for 1998 and 2001

Activity	Somewhat Natural		Very Natural		Totally Natural	
	Current	Preferred	Current	Preferred	Current	Preferred
Picnicking (2001)	59%	27%	33%	49%	8%	24%
Picnicking (1998)	70%	32%	24%	45%	6%	24%
Change (Picnicking)	- 11%	-5%	+9%	+4%	+2%	0%
Walking or Nature Study (2001)	49%	19%	34%	41%	17%	41%
Walking or Nature Study (1998)	66%	27%	26%	39%	8%	34%
Change (Walking or nature study)	-17%	-8%	+8%	+3%	+9%	+7%
Camping (2001)	29%	14%	51%	47%	20%	39%
Camping (1998)	38%	14%	40%	43%	21%	43%
Change (Camping)	-9%	0%	+11%	+4%	-1%	-4%
Bicycle Riding (2001)	83%	54%	15%	35%	2%	11%
Bicycle Riding (1998)	91%	61%	6%	28%	3%	11%
Change (Bicycle riding)	-8%	-7%	*+9%	+7%	-1%	0%
Horse Riding (2001)	27%	11%	46%	40%	27%	49%
Horse Riding (1998)	53%	16%	30%	43%	17%	41%
Change (Horse riding)	** -26%	-5%	+16%	-3%	+10%	+8%
Water Activities (2001)	62%	32%	31%	44%	7%	24%
Water Activities (1998)	67%	40%	26%	35%	7%	26%
Change (Water activities)	-5%	-8%	+5%	+9%	0%	-2%
Driving 2WD Vehicles (2001)	35%	25%	57%	50%	8%	25%
Driving 2WD Vehicles (1998)	44%	24%	46%	49%	10%	27%
Change (Driving 2WD)	-9%	+1%	+11%	+1%	-2%	-2%
Driving 4WD Vehicles (2001)	19%	9%	63%	53%	18%	38%
Driving 4WD Vehicles (1998)	34%	13%	42%	42%	24%	45%
Change (Driving 4WD)	*15%	-4%	*21%	+11%	-6%	-7%
Driving Other Vehicles (2001)	39%	23%	52%	49%	9%	28%
Driving Other Vehicles (1998)	47%	18%	37%	38%	15%	44%
Change (Driving other vehicles)	-8%	+5%	+15%	+11%	-6%	-16%
Motorised Watercraft (2001)	40%	20%	46%	49%	14%	31%
Motorised Watercraft (1998)	63%	34%	26%	37%	11%	29%
Change (Motorised Watercraft)	*23%	-14%	*20%	+12%	+3%	+3%
Non-Motorised Watercraft (2001)	39%	17%	47%	51%	14%	33%
Non-Motorised Watercraft (1998)	61%	34%	30%	37%	9%	30%
Change (Non-motorised watercraft)	*22%	-17%	*17%	+14%	+6%	+3%
Abseiling / Rockclimbing (2001)	52%	25%	24%	29%	24%	47%
Abseiling / Rockclimbing (1998)	52%	21%	24%	34%	25%	46%
Change (Abseiling / rockclimbing)	0%	+4%	0%	-5%	-1%	+2%

11.2.2 Implications

The increasing tendency of participants in outdoor recreation activities to choose settings that they perceive to be very or totally natural has strong implications for planning. In particular, this finding indicates the need to retain and manage areas of bushland for recreational settings.

The importance of natural settings was highly supported by the discussions held during the workshops in the 2001 study. Participants described their need to escape from the “hustle and bustle” of city life to the peace and tranquillity of a natural setting. Participants also saw these natural settings as under threat from continued urban expansion and expressed an urgent need to set aside natural corridors to offset this expansion.

The increasing use of settings that are seen as very or totally natural also has implications for the development of natural areas. Participants do not necessarily want facilities within their recreational setting – in fact facilities such as picnic tables, barbeques, a car park etc may well detract from its naturalness. The results of this study indicate the need for a range of settings, from local “green” spaces that are easily accessible and have facilities, to more natural areas that have no facilities at all.

11.3 Motivations

11.3.1 Key Trends

As illustrated in Table 42, the 2001 study found that reasons for participation in outdoor recreation activities, both actual and latent, were overwhelmingly of a leisurely nature, rather than goal focused or competitive. This finding represents a shift from a slightly heavier emphasis on active and competitive reasons in the 1998 study.

Table 42: Changes in motivations for participation (all figures represent a percentage of participants)

Activity	Leisurely		Goal focused (previously ‘Active’)		Competitive	
	Current	Preferred	Current	Preferred	Current	Preferred
Bicycle Riding (2001)	83%	88%	16%	11%	1%	1%
Bicycle Riding (1998)	73%	75%	25%	22%	2%	3%
Change (Bicycle riding)	+10%	+13%	-9%	-11%	-1%	-2%
Horse Riding (2001)	87%	92%	6%	4%	6%	4%
Horse Riding (1998)	83%	81%	12%	17%	5%	2%
Change (Horse riding)	+4%	+11%	-6%	-13%	+1%	+2%

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Activity	Leisurely		Goal focused (previously 'Active')		Competitive	
	Current	Preferred	Current	Preferred	Current	Preferred
Water Activities (2001)	93.5%	96%	6%	4%	0.5%	0%
Water Activities (1998)	94%	93%	5%	7%	1%	1%
Change (Water activities)	-0.5%	+3%	+1%	-3%	-0.5%	-1%
Driving 2WD Vehicles (2001)	81%	94%	18%	3%	1%	3%
Driving 2WD Vehicles (1998)	91%	91%	7%	8%	2%	1%
Change (Driving 2WD)	-10%	+3%	+11%	-5%	-1%	+2%
Driving 4WD Vehicles (2001)	90.5%	97%	9%	2%	0.5%	1%
Driving 4WD Vehicles (1998)	90%	90%	10%	9%	1%	1%
Change (Driving 4WD)	+0.5%	+7%	-1%	-7%	-0.5%	0%
Driving Other Vehicles (2001)	88%	92%	9%	2%	3%	6%
Driving Other Vehicles (1998)	81%	83%	17%	12%	3%	5%
Change (Driving other vehicles)	+7%	+9%	-8%	-10%	0%	+1%
Riding on Motorised Watercraft (2001)	94%	97%	5%	3%	1%	0%
Riding on Motorised Watercraft (1998)	93%	91%	5%	8%	2%	1%
Change (Motorised Watercraft)	+1%	+6%	0%	-5%	-1%	-1%
Riding on Non-Motorised Watercraft (2001)	91%	94%	5%	3%	4%	3%
Riding on Non-Motorised Watercraft (1998)	84%	84%	14%	13%	2%	3%
Change (Non-motorised watercraft)	+7%	+10%	-9%	-10%	+2%	0%
Abseiling or Rockclimbing (2001)	85%	91%	14%	9%	1%	0%
Abseiling or Rockclimbing (1998)	73%	71%	26%	26%	2%	3%
Change (Abseiling or rockclimbing)	+12%	+20%	-12%	-17%	-1%	-3%

11.3.2 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 in an activity 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 focussed or competitive events do not match the aspirations of most people involved in outdoor recreational activities.

11.4 Constraints

11.4.1 Key Trends

Table 43 provides a comparison of constraints, for participants who would like to participate more often, and for non-participants who would like to participate, for 2001 and 1998. To be recorded in this table, a constraint had to be mentioned by at least 7% of respondents (a figure determined by the 1998 study).

Table 43: Comparison of constraints

a. “No time, too busy”

Numbers expressed as a percentage of the participants or non-participants	Percentage of participants who would like to participate more often			Percentage of non-participants who would like to participate		
	2001	1998	Change	2001	1998	Change
Picnicking	77%	72%	+5%	68%	61%	+7%
Walking or Nature Study	77%	67%	+10%	59%	59%	0%
Camping	80%	71%	+8%	60%	51%	+9%
Bicycle Riding	64%	53%	+11%	39%	26%	+13%
Horse Riding	60%	39%	+21%	37%	26%	+11%
Water Activities	68%	67%	+1%	57%	42%	+15%
Driving 2WD Vehicles	74%	64%	+10%	39%	34%	+5%
Driving 4WD Vehicles	63%	51%	+12%	26%	15%	+11%
Driving Other Vehicles	51%	49%	+2%	27%	17%	+10%
Riding on Motorised Watercraft	59%	55%	+4%	33%	21%	+12%
Riding on Non-Motorised Watercraft	69%	61%	+8%	46%	28%	+18%
Abseiling or Rockclimbing	59%	41%	+18%	50%	29%	+21%

b. “Lack of equipment”

Numbers expressed as a percentage of the participants or non-participants	Percentage of participants who would like to participate more often			Percentage of non-participants who would like to participate		
	2001	1998	Change	2001	1998	Change
Camping	-	-	-	8%	18%	-10%
Bicycle Riding	10%	9%	+1%	33%	43%	-10%
Horse Riding	14%	9%	+5%	10%	25%	-15%
Driving 2WD vehicles	5%	7%	-2%	22%	29%	-7%
Driving 4WD vehicles	20%	29%	-9%	47%	71%	-24%
Driving Other Vehicles	21%	24%	-3%	46%	56%	-10%
Riding on Motorised Watercraft	25%	-	+25%	36%	54%	-18%
Riding on Non-Motorised Watercraft	17%	18%	-1%	27%	44%	-17%
Abseiling or Rockclimbing	5%	14%	-9%	4%	16%	-12%

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c. Can't afford it"

Numbers expressed as a percentage of the participants or non-participants	Percentage of participants who would like to participate more often			Percentage of non-participants who would like to participate		
	2001	1998	Change	2001	1998	Change
Camping	9%	8%	+1%	-	-	-
Horse Riding	10%	10%	0%	7%	12%	-5%
Water Activities	7%	-	+7%	-	-	-
Driving 2WD vehicle	9%	-	+9%	-	-	-
Driving 4WD vehicle	13%	8%	+5%	11%	-	+11%
Driving Other Vehicle	8%	10%	-2%	8%	-	+8%
Riding on Motorised Watercraft	16%	9%	+7%	12%	12%	0%
Riding on Non-Motorised Watercraft	12%	-	+12%	-	-	-
Abseiling or Rockclimbing	13%	-	+13%	-	-	-

d. "Nowhere to do this"

Numbers expressed as a percentage of the participants or non-participants	Percentage of participants who would like to participate more often			Percentage of non-participants who would like to participate		
	2001	1998	Change	2001	1998	Change
Bicycle riding	9%	7%	+2%	-	-	-
Horse riding	16%	14%	+2%	14%	12%	+2%
Water Activities	9%	7%	+2%	11%	13%	+2%
Driving 2WD vehicle	8%	-	+8%	9%	14%	-5%
Driving 4WD vehicle	8%	-	+8%	-	-	-
Driving Other Vehicle	19%	-	+19%	-	-	-
Riding on Non-Motorised Watercraft	7%	-	+7%	-	-	-
Abseiling or Rockclimbing	16%	14%	+3%	11%	12%	-1%

e. "Health"

Numbers expressed as a percentage of the participants or non-participants	Percentage of participants who would like to participate more often			Percentage of non-participants who would like to participate		
	2001	1998	Change	2001	1998	Change
Picnicking	-	-	-	8%	-	+8%
Walking or Nature Study	8%	-	+8%	18%	-	+18%
Bicycle Riding	8%	-	+8%	8%	-	+8%
Horse Riding	-	-	-	8%	-	+8%
Water Activities	-	-	-	10%	-	+10%
Abseiling or Rockclimbing	-	-	-	7%	-	+8%

As illustrated in Table 43, "no time, too busy" remains the largest constraint on people's participation. This was also the case in 1998, but the 2001 figures show that

this constraint has increased in the last three years – by up to 21% in the cases of horse riding and abseiling or rockclimbing. Equipment needs do not seem to be as important as in 1998, except in the case of riding on motorised watercraft, which did not reach the 7% cut-off in 1998, but has now risen to 25%. Cost factors seem to have become more important since 1998, with most activities recording a small to moderate increase in the percentage of participants who found cost to be a constraint.

The lack of places to do activities has become more of a problem for a number of activities. Participants in all driving activities, as well as those who ride on non-motorised watercraft did not record this constraint as a problem in 1998, but have all done so in 2001. Those involved in horse riding, as well as abseiling or rockclimbing, continue to find the shortage of places to go to be a problem, as they did in 1998.

Finally, health issues are a constraint, particularly for non-participants who would like to participate, for more activities than in 1998. Health issues are most pertinent for the activity of walking or nature study, a finding that may reflect the older age group that participates in this activity.

11.4.2 Implications

The issue of a lack of time for recreation was discussed extensively during the workshops as a major constraint on people's recreation. This constraint also impacts on the recreational settings that are used, in that people often lack the time to access the more remote settings that they would like to use. For this reason, participants stressed the importance of the provision of local, easily accessible spaces that are retained in as natural a condition as possible.

The lack of places to go appears to be increasing in importance as a constraint, a further reflection on the high incidence of use of recreational settings and the consequent crowding and conflict that have resulted. This problem is particularly pertinent for activities that are essentially incompatible with more conventional use. For example driving other vehicles, such as trail bikes, on unsealed roads and unformed tracks, is not compatible with other recreational use due to their noisiness. This, in addition to other factors such as the damage that these vehicles cause to the natural environment, has resulted in the closure of many areas to participants in this activity.

11.5 Summary

Although the results of the 2001 survey are broadly similar to the 1998 survey, some important trends have emerged over the three years that separated these studies. Outdoor recreation activities remain popular with the population of South East Queensland, and show evidence of increasing in popularity. In addition, strong evidence exists to indicate a higher rate of usage of very natural and totally natural recreational settings. The increasing scarcity of these settings, and the consequent need to travel large distances to access them, contribute to two of the major constraints on participation: the lack of time and the general lack of places to go.

Section 12: Conclusion

The key findings of this report are as follows:

- The incidence of participation in outdoor recreation activities in South East Queensland is high.
- Choice of activity is influenced by factors such as location, age and gender.
- Participants prefer to engage in outdoor recreation activities in as natural a setting as possible, given constraints of time and other commitments. Comparison of 2001 results with the results of the 1998 South East Queensland Outdoor Recreation Demand Study indicates a shift away from somewhat natural settings towards very natural settings for every activity.
- Participants expressed concern about encroaching suburbia and the resultant loss of natural areas, with consequent crowding of remaining sites.
- Participants prefer to engage in outdoor recreation activities for leisurely reasons, rather than for competitive or goal-focussed reasons.
- Amongst non-participants, there exists a strong interest in becoming involved in outdoor recreation activities, with lack of time due to other commitments cited as the major constraint to participation.
- Other constraints, which show an increase since the previous 1998 study, are costs, and a lack of places in which to recreate.

The data from the 2001 study, as well as the 1998 South East Queensland study and the 2000 Central Queensland study confirm the current and probable future magnitude and diversity of outdoor recreation use in South East Queensland. It is clear that outdoor recreation is a significant component of the lifestyle of the majority of people living in South East Queensland. The problems in satisfying the demand for outdoor recreation that we have as communities, governments and interest groups will only get worse as the population continues to grow and as land is made unavailable for outdoor recreation through planning decisions. If we accept that outdoor recreation contributes significantly to a person's quality of life, it is of concern that individuals are constrained in their participation. Constraints such as costs and the lack of suitable sites are factors that could be influenced by local and regional planning.

The magnitude of outdoor recreation use (eg. 11,176,176 individual instances of walking or nature study; 1,254,468 individual instances of camping; and 2,052,768 individual instances of riding on a motorised watercraft in the 12 months prior to the survey) cannot continue to be treated as a minor matter by either the public or the private sector. The predicted population increases in South East Queensland (of

approximately 50,000 people per year, or an extra million people by the year 2021)¹² means that experiences of crowding and conflict due to incompatible recreational use of an area, already reported by participants in the 2001 study, will become exacerbated.

The data confirm the wide diversity of outdoor recreational 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 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.

¹² Statistics provided in *Population trends and prospects for Queensland 2001*, Australian Bureau of Statistics

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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 {2,4,6,8,10,15} 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 elements.

Examples

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

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

Mean {2,4,6,8,10,15} equals 7.5

[Calculated by adding $2+4+6+8+10+15 (=45)$, then dividing by 6]

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 5 in 100. Strong significance occurred when $p < .005$, which means that the probability of the result occurring by chance was less than 5 in 1000.

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 (ie less than five chances in a hundred), then the chi-squared test has established that the result is statistically significant.

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 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 result 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.

Tables of confidence intervals (for different sample sizes and different results) have been constructed. The table used for the purposes of this report was provided by Veal (1997).

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 landscape classifications, which may have differed slightly from the normative interpretations that were provided for participants’ use.

Appendix B: Landscape Classification

Physical	Wild-natural-remote 1	2	3	4	5	6
Prevalence and permanence of recreation impacts:	No impact on natural condition.	Minimal evidence of recreation impacts. Impacts which have occurred recover quickly. (eg. 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. (eg. temporary loss of local native vegetation, scuffing of leaf litter, minor soil disturbance, etc.). Impacts not permanent. However, recover to pre-impact condition unlikely.	Moderate recreation impacts evident in heavily used areas. Some permanent loss of local native vegetation (eg. 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.
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.	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.
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.	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 (eg. graded walking tracks, narrow infrequently used vehicle tracks, timbered 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 (eg. walking tracks with hardened surfaces, well maintained unsealed roads, timbered 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 (eg. roads are sealed, picnic areas paved and facilities are in harmony with surroundings)
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.	Regenerating natural landscape with obvious evidence of past land use (eg. 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 (eg. small scale mineral exploration, quarrying, selective logging, grazing, flower harvesting, apiculture) currently active in a large proportion (20-50%) of the landscape.	Part natural landscape. Land uses (eg. mineral exploration, quarrying, selective logging, grazing, flower harvesting, apiculture) currently active in a large proportion (20-50%) of the landscape.
Naturalness of overstorey:	100% of natural vegetation intact.	97 - 100% of natural vegetation intact. <3% regenerating.	90 - 97% of natural vegetation intact. <7% cleared or regenerating.	85 - 90 % intact or regenerating. Remainder cleared or non-endemic spp.	70 - 85% intact or regenerating. Remainder cleared or non-endemic spp.	50 - 70 % intact or regenerating. Remainder cleared or non-endemic spp.
Naturalness of understorey:	100% of natural vegetation intact.	97 - 100% of natural vegetation intact. <3% cleared or regenerating.	90 - 97% of natural vegetation intact. <7% cleared or regenerating.	85 - 90 % intact or regenerating. Remainder cleared or non-endemic spp.	70 - 85% intact or regenerating. Remainder cleared or non-endemic spp.	50 - 70 % intact or regenerating. Remainder cleared or non-endemic spp.
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 (eg. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially natural.	Short term and relatively minor changes to natural stream dynamics or marine ecosystem and/or water chemistry (eg. 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 (eg. 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 (eg. increased turbidity, nutrient load or sediment load). Aquatic ecosystem is substantially modified.

Physical	7	8	Urban - commercial – industrial - 9
Prevalence and durability of recreation impacts:	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.
Viewscape (360°):	50 - 75% of visual landscape is modified. Structures are clearly evident in landscape but do not dominate.	76 - 99% of visual landscape is modified. Structures may or may not dominate the visual landscape.	100% of visual landscape is modified. Structures dominate the visual landscape.
Indicative appearance:	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 only 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.
Prevalence and durability of impacts from non-recreation land uses:	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.
Naturalness of overstorey:	25 - 50 % intact or regenerating. Remainder cleared or non-endemic spp.	10 - 25% intact or regenerating. Remainder cleared or non-endemic spp.	<10% intact or regenerating. Remainder cleared or non-endemic spp.
Naturalness of understorey:	25 - 50 % intact or regenerating. Remainder cleared or non-endemic spp.	10 - 25% intact or regenerating. Remainder cleared or non-endemic spp.	<10% intact or regenerating. Remainder cleared or non-endemic spp.
Water quality:	Permanent changes to natural stream dynamics or marine ecosystem, structures and/or water chemistry (eg. 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 (eg. 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 (eg. increased turbidity, nutrient load, channelisation or sediment load). Aquatic ecosystem is completely modified.

	1	2	3	4	5	6
Social Evidence of use by other people (eg. 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) of use elsewhere.	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 of people) elsewhere.	Readily apparent evidence of use (ie. sights, sounds, and smells) pervades use of nodes, main routes and their surrounds. Nodes may be extensive with heavy concentrations of people and activities.	
Sense of isolation and opportunity for solitude:	Total	High	Moderate	Moderate to low	Low	Very low
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.	Moderate to high. Frequent opportunities for solitude. Contact should be expected and usually cannot be avoided.	High. Infrequent opportunity 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.
Interparty* encounters while travelling:	Very few. <1 group per day	Low. < 5 groups per day	Low to Moderate, 5 - 10 groups per day	Moderate to high 10 - 20 groups per day.	High. 20 - 50 groups per day	Very high >50 groups per day
Dependence upon outdoor skills:	Total	Very high	High	Moderate	Moderate to low	Low
Density/ha PAOT**:	< 1	1 - 2	3 - 5	5 - 10	10 - 60	60 - 150

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

** Persons At One Time.

Social	7	8	9
Evidence of use by other people (eg. sights, sounds and smells):	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, pervasive and permanent.
Sense of isolation and opportunity for solitude:	Infrequent and usually short opportunities for solitude during daylight hours.	Rare opportunities for solitude	No or very rare opportunities for solitude
Interparty* encounters while at nodes and destinations:	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.
Interparty* encounters while travelling:	Usually constant.	Always constant	Always constant
Dependence upon outdoor skills:	Very low	No specialised outdoor skills required	No specialised outdoor skills required
Density/ha PAOT**:	150 – 250	>250	Unlimited

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

** Person's At One Time.

	1	2	3	4	5	6
Management						
Access:	No motorised access what-so-ever. 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.	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.
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.	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.	Management presence active. Common construction and maintenance activity. Regular patrol 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.	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 visitors.	Interpretation , regulatory or advisory notices, boundary, and directional signs sufficient to orientate and inform all visitors.
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.	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.	A strong and visible management presence. Frequent on-site communication. Users commonly aware of management.
Presence of management and visitor infrastructure:	None	Only constructed where no other alternative can be found (eg. communication towers). Structures are inconspicuous and widely dispersed.	Only constructed where no other alternative can be found (eg. communication towers). Structures are unobtrusive and dispersed.	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 in to natural background.	Structures are readily apparent and can be quite large but blend in to natural background.

Management	7	8	9
Access:	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.
Evidence of management personnel:	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.
Presence and extent of signage:	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.
Rules, regulations and law enforcement:	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
Presence of management and visitor infrastructure:	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 1998 South East
Queensland Outdoor Recreation Demand Study**

Key Recommendations:

- That future research regarding outdoor recreation on publicly owned lands in SEQ be conducted as joint projects between local and state government agencies.
- That land and/or recreation planners and managers base decisions regarding the demand for outdoor recreation on the primary data, rather than attempting to draw statistically invalid conclusions. For example, Brisbane City, Ipswich City or the Gold Coast City specific statistics regarding demand for outdoor recreation should not be looked at in isolation. It is believed that the primary data on outdoor recreation demand in SEQ is robust, reliable, valid and representative on SEQ as a whole.
- That further work be conducted on clarifying definitions and descriptions of settings and/or landscapes.
- That further research be conducted to gain a more rigorous understanding of outdoor recreation within SEQ so that services can be more efficient and effective so that the quality and diversity of outdoor recreation can be maximised.

Recommendations for Future Studies:

- To assess whether the supply of public sector outdoor recreation sites is adequate to meet the demands of people residing in SEQ, by conducting an inventory of outdoor recreation activity sites on publicly owned lands in SEQ.
- An assessment of the volume of recreation use and impacts on publicly owned lands in SEQ.
- A Recreation Opportunity Spectrum (ROS) landscape analysis on publicly owned lands in SEQ.
- Further work be conducted on assessing setting appropriate activities, in relation to establishing appropriate carrying capacities for settings.
- An assessment of inherent site quality for outdoor recreation pursuits on publicly owned lands in SEQ.
- Surveys of the demographic characteristics of actual and potential outdoor recreation participants.
- Further studies to gain a more in-depth understanding of landscape perceptions of the general public.

- A survey of the expectations of an outdoor recreation experience by participants (eg setting characteristics, natural features, other activities, regulations, skill level etc).
- Surveys on the demand for outdoor recreation by people under 15 years of age.
- Establishment of an accident/incident database of near-misses, accidents/incidents and fatalities linked to participation in outdoor recreation activities.

Appendix D: Questionnaire

Good morning/afternoon/evening. My name is.....from Today we are conducting a survey for the Department of Sport and Recreation and your local council about a range of recreational activities such as picnicking and walking through to 4 Wheel Driving and boating. The results will be used by your local and state Government to improve recreational opportunities in your area. Could I speak to the person within your household, 15 years or older, who is having the next birthday?

The survey will take about 7 minutes of your time and all information will remain confidential.

Demographics:

D1 Interviewer record sex of participant:

1. Male
2. Female

D2 Firstly just to make sure we have a good representation of the population, in which of the following age groups do you fall?

1. 15-17
2. 18-24
3. 25-39
4. 40-54
5. 55-64
6. 65 or more
7. Refused

D3 And for an accurate idea of the geographic spread of respondents could you please tell me your postcode?

The recreational activities we are talking about today are those that are undertaken in three settings. These settings can be described as:

- A somewhat natural landscape
A somewhat natural 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.
- A very natural landscape
A very natural 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.
- A totally natural landscape
A totally natural 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.

Q1a I am going to read you a list of activities and would like you to tell me whether you have participated in any of them, in any of the three settings previously described. This includes club, school or personal recreational activities. We are interested in the activities that took place in such settings within 4 hours drive from your home.

Have you participated in <activity> within the last 12 months. Remember the three settings and it would have been within 4 hours drive from home. **Repeat for each activity.**

1. Picnicking	Yes	No
2. Walking or Nature Study (eg bird watching, photography)	Yes	No
3. Camping	Yes	No
4. Bicycle Riding	Yes	No
5. Horse Riding	Yes	No
6. Water activities (including swimming, snorkelling and scuba, but not in constructed pools)	Yes	No
7. Driving in 2WD vehicles on unsealed roads	Yes	No
8. Driving 4WD vehicles on unsealed roads	Yes	No
9. Driving other vehicles on unsealed roads (eg trail bike, trike)	Yes	No
10. Riding on a motorised watercraft (eg speed boat, jet ski)	Yes	No
11. Riding non-motorised watercraft (eg canoe, sailing, kayak)	Yes	No
12. Abseiling or rock climbing	Yes	No

Q1b Is there any other nature based recreational activity you have participated in within the past 12 months that have been within 4 hours drive from home?

- 1 Yes (specify)
- 2 No

Ask Q2 to Q8 for each activity undertaken in the past 12 months.

Now just a few questions about those activities you have undertaken.

Q2 How often have you participated in <activity> during the past 12 months? Enter number:.....

If more than once:

Q3 Thinking of the three settings we described earlier, what proportion of the times you went <activity> were in a **(enter percentage)**

- 1. Somewhat natural landscape
- 2. Very natural landscape
- 3. Totally natural landscape

(must add to 100%)

- Q4 Which of the following best describes the main way in which you participate in this activity in these areas. Was it
1. Leisurely (sightseeing, looking, unwinding, escaping, relaxing, experiencing peace and quiet - but may still involve hard exertion)
 2. Goal focused (fitness, skills improvement, test equipment, challenge, conquering nature)
 3. Competitively (maximum distance, minimum time, fastest, most accurate, most difficult, training for competition)
- Q5 Are you interested in participating in <activity> more often but are prevented from doing so for some reason?
1. Yes **Continue to Q6**
 2. No **If completed activities go to Q9, otherwise return to Q2**
- Q6 What is the main thing preventing you from <activity> more often?
1. No time/too busy
 2. Can't afford it
 3. No equipment
 4. Too old
 5. Health reasons
 6. Nowhere to do this
 7. No facilities
 8. Other (specify)
 9. Don't know
- Q7 Assuming you were able to undertake <activity>, which of the following would be your preferred setting for pursuing this activity?
1. Somewhat natural landscape
 2. Very natural landscape
 3. Totally natural landscape
- Q8 Which do you consider best describes the way in which you would undertake this activity:
1. Leisurely
 2. Goal focused
 3. Competitively

If participant has undertaken all activities at Q1, go to Q13.

Now for those activities you have not undertaken ...

- Q9 Are you interested in participating in any of the following activities but for some reason have been prevented from doing so? <List of activities not undertaken from Q1>
1. Yes **Continue to Q10**
 2. No **If completed activities not undertaken at Q1 go to Q13, otherwise return to Q9.**

For each yes, ask Q10, Q11, Q12

Q10 What is the main thing preventing you from participating in <activity>

1. No time/too busy
2. Can't afford it
3. No equipment
4. Too old
5. Health reasons
6. Nowhere to do this
7. No facilities
8. Other (specify)
9. Don't know

Q11 Assuming you were able to undertake <activity>, which of the following would be your preferred setting for pursuing this activity?

1. Somewhat natural landscape
2. Very natural landscape
3. Totally natural landscape

Q12 Which one of the following 3 descriptions do you consider best describes the way in which you would undertake this activity?

1. Leisurely
2. Goal focused
3. Competitively

If have undertaken at least one activity ask Q13

Q13 The Queensland Government is keen to find out more about people's nature based recreational needs. If you are randomly selected, would you be willing to participate in a follow up focus group?

1. Yes **Obtain name, postal address and telephone number**
2. No

Appendix E: Worksheet for Workshops

Part One

- 1. From the following list of activities, choose one that you have participated in. Please circle this activity.**

Picnicking

Walking or nature study (includes bushwalking)

Camping

Water activities (includes swimming in natural surroundings; snorkelling; scuba)

Abseiling or rockclimbing

- 2. Think of a place where you like to do this activity. Identify this place as specifically and as exactly as possible.**

3. Picture this place in your mind, then describe it in terms of:

What facilities are available?

What are the surroundings like?

What can you see?

What sort of weather do you prefer?

How many people are usually there?

How did you get there?

What do you like about it?

What don't you like about it?

Finally: Would you describe this place as (please circle one)

Somewhat natural

Very natural

Totally natural

Part 2

- 1. Out of the following list of activities, please choose one that you have often participated in - circle this activity:**

Bicycle riding

Horse riding

Driving 2WD vehicles on unsealed roads

Driving 4WD vehicles on unsealed roads

Driving other vehicles on unsealed roads

Riding on motorised watercraft

Riding on non-motorised watercraft

- 4. Think of a place where you like to do this activity. Identify this place as specifically and as exactly as possible.**

5. Picture this place in your mind, then describe it in terms of:

What facilities are available?

What are the surroundings like?

What can you see?

What sort of weather do you prefer?

How many people are usually there?

How did you get there?

What do you like about it?

What don't you like about it?

Finally: Would you describe this place as (please circle one)

Somewhat natural

Very natural

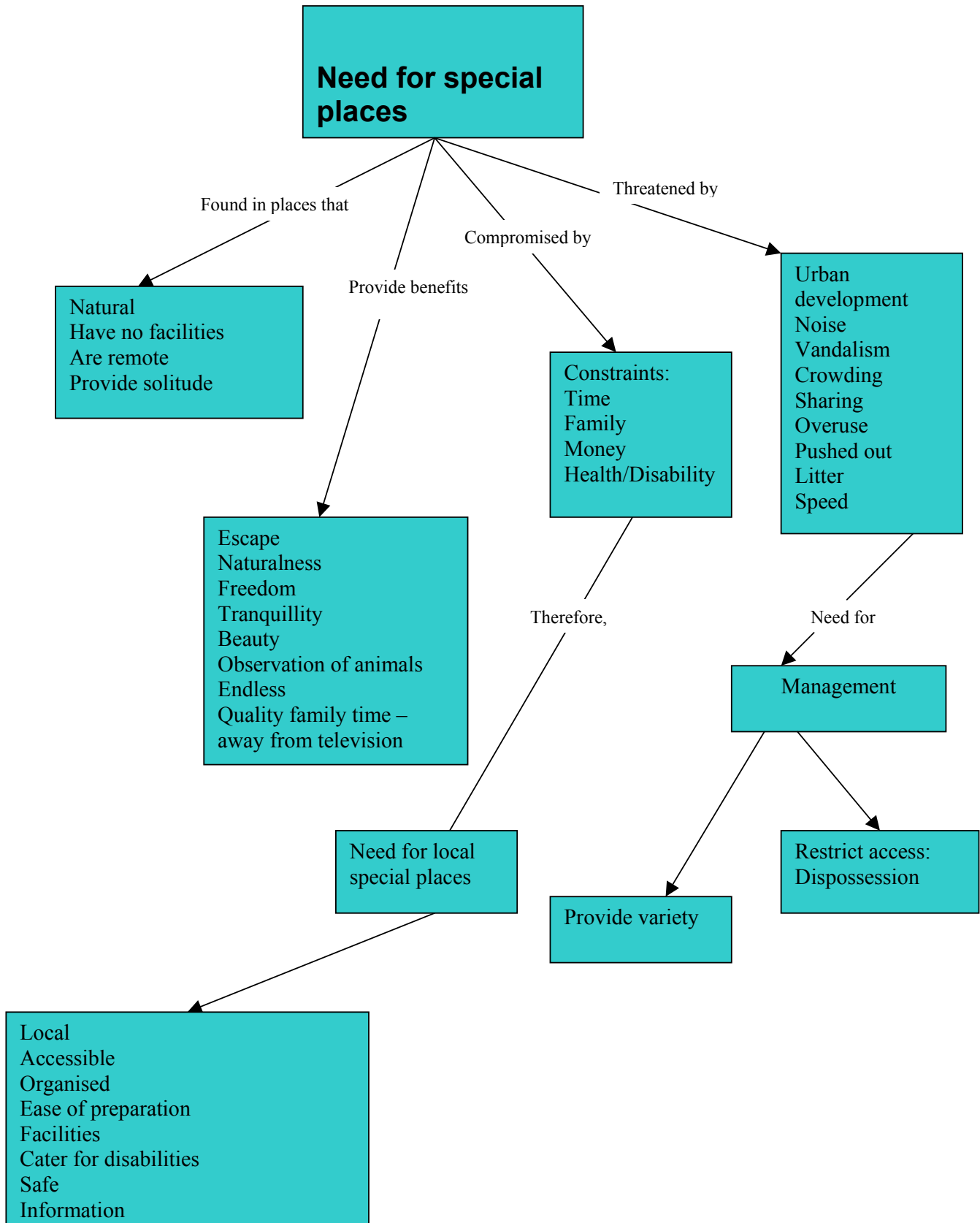
Totally natural

Appendix F: Coding

Complete List of Codes

(F 1)	Tranquility
(F 2)	Naturalness
(F 3)	Urban devt
(F 4)	Animals
(F 5)	Safe
(F 6)	Accessible
(F 7)	Noise
(F 8)	Remoteness
(F 9)	Not accessible
(F 10)	Variety
(F 11)	Alone
(F 12)	Facilities
(F 13)	Litter
(F 14)	Crowding
(F 15)	Commitment
(F 16)	Respect
(F 17)	Speed
(F 18)	Freedom
(F 19)	Beauty
(F 20)	Sharing
(F 21)	Overuse
(F 22)	Families
(F 23)	Pushed out
(F 24)	Vandalism
(F 25)	Time
(F 26)	Family commitments
(F 27)	Local
(F 28)	Information
(F 29)	Children in outdoors
(F 30)	Disabilities
(F 31)	Management
(F 32)	Endless
(F 33)	Promotion
(F 34)	Comfort
(F 35)	Special
(F 36)	Organised
(F 37)	Need for more areas
(F 38)	Exploring
(F 39)	Social interaction
(F 40)	Ease of preparation
(F 41)	Financial constraints
(F 42)	Television
(F 43)	Dispossession
(F 44)	Escape

Concept Map of Relationships between Codes



Appendix G: Other Activities

Other Activities

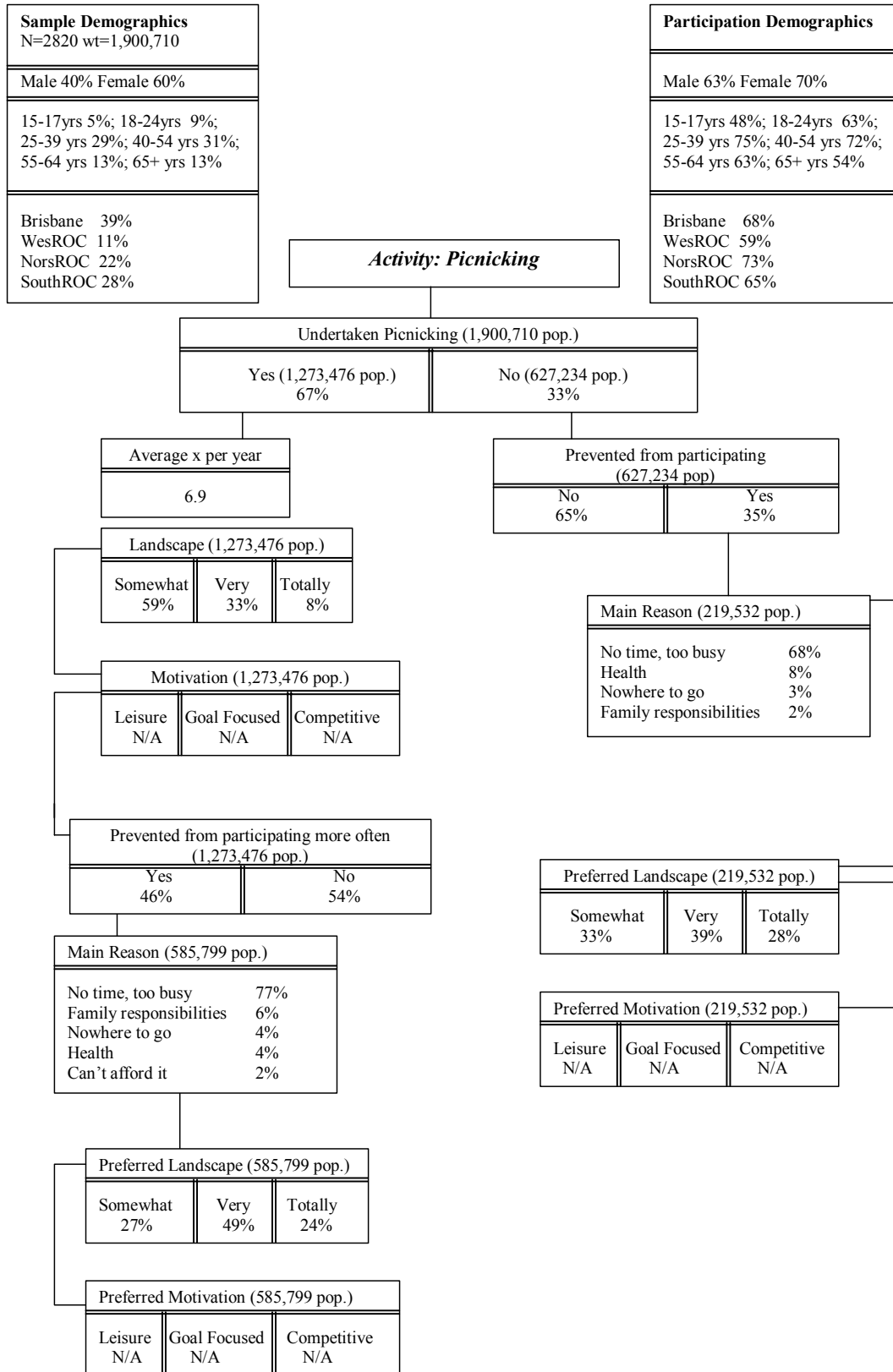
The following activities were mentioned by participants as alternative outdoor recreation activities in which they participated.

Activity	No of participants
Ballooning	2
Beach walking	6
Bird watching	19
Bush cooking	1
Bush walking	42
Camel Riding	3
Conservation activities	11
Cross country runner	2
Driving in country	3
Farming	3
Fishing	317
Gardening	126
Hang gliding	1
Hunting	4
Mountain climbing	3
Observing nature	10
Orienteering	2
Parasailing	1
Prospecting	1
Shell collecting	6
Skydiving	3
Snow activities	3
Star watching	2
Surfing (board and body)	18
Walking	2
Water skiing	1
Whale watching	8
White water rafting	2

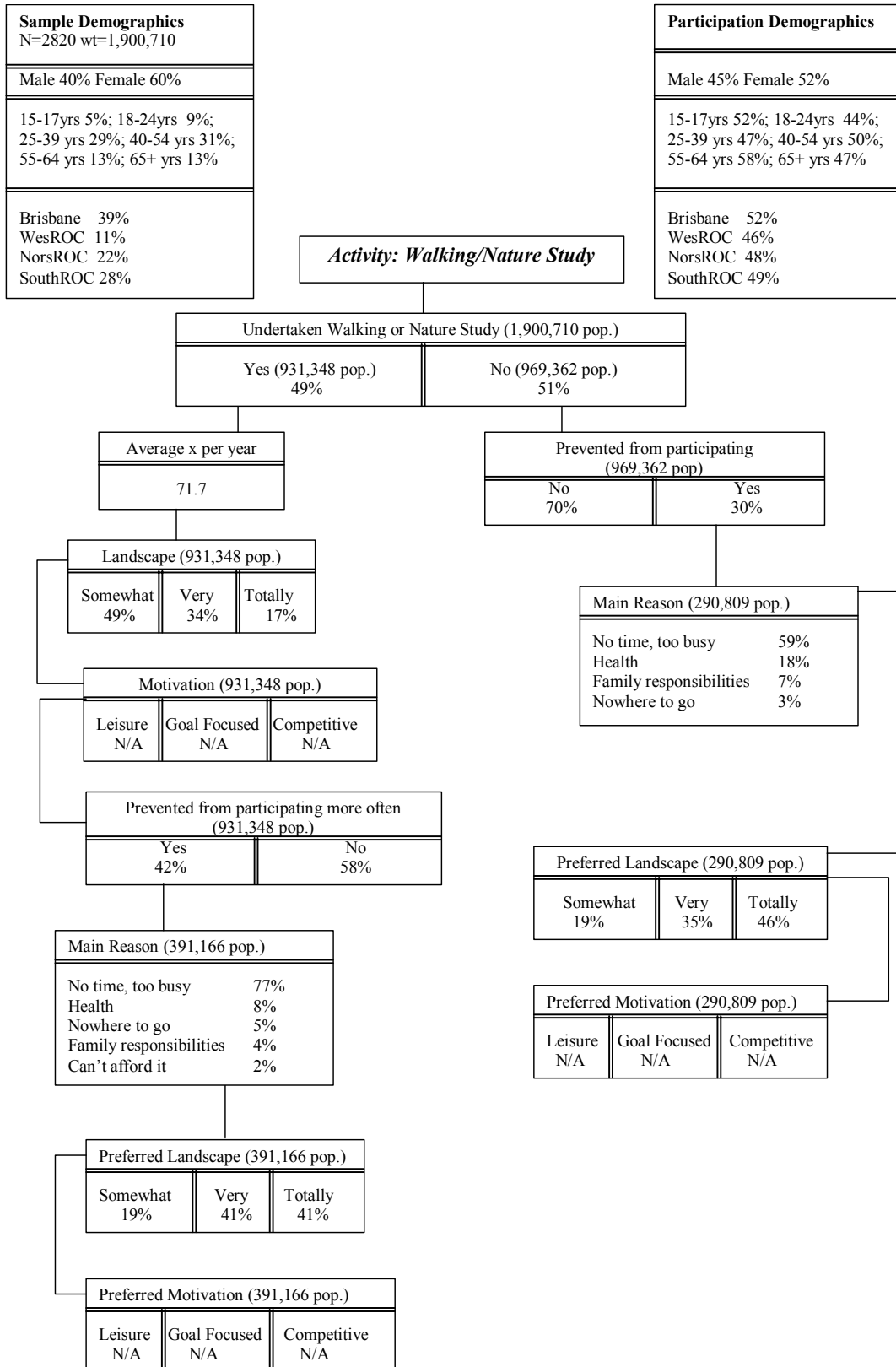
As discussed in Section 11.1.1 (Trends and Implications: Incidence of Participation), a number of the activities in this list fall into the category of walking and nature study. These activities include beach walking; bird watching; bush walking; observing nature; star watching; walking; and whale watching.

**Appendix H: Current and Latent Participation Data
Summary Tables**

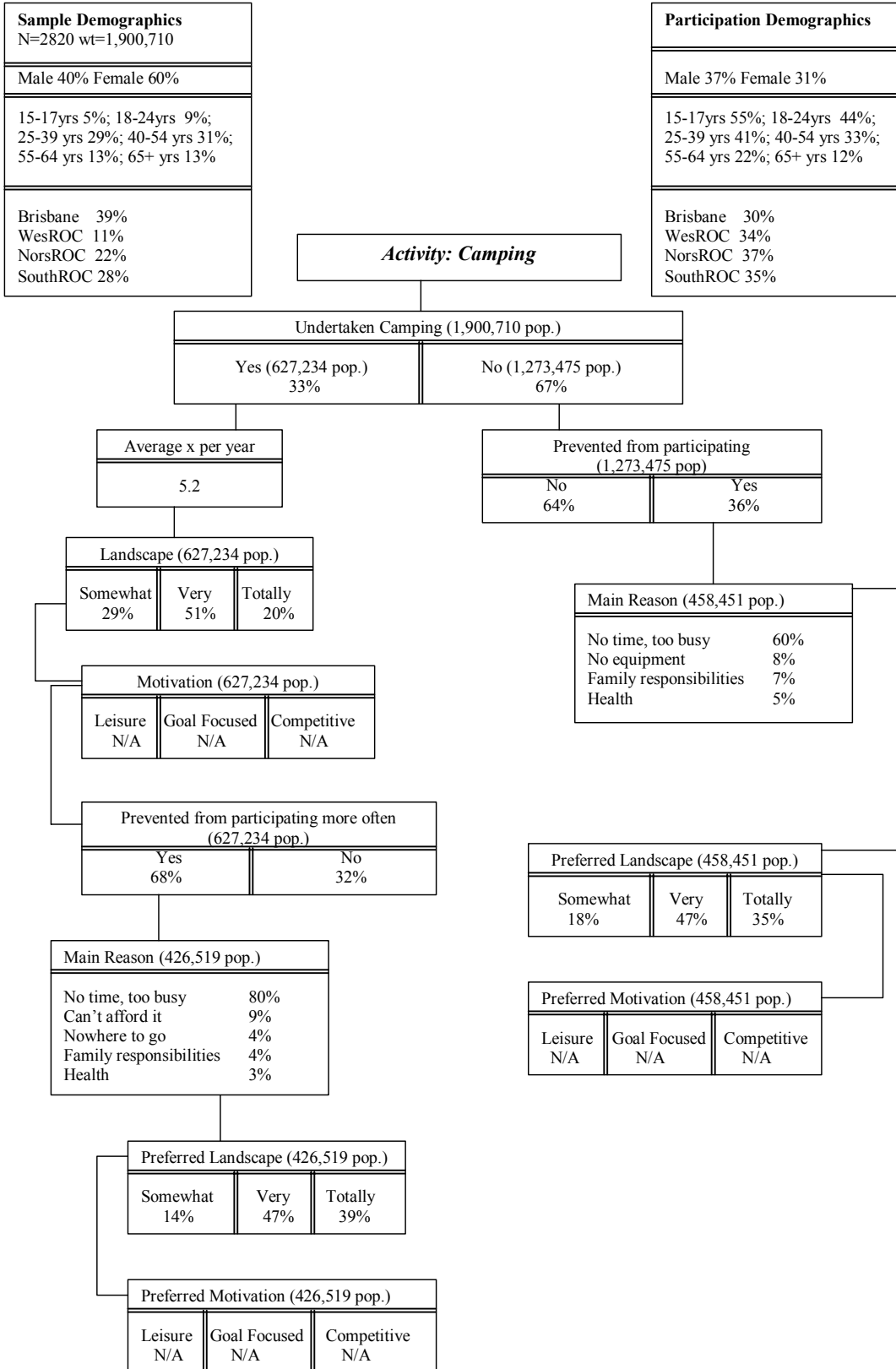
2001 South East Queensland Outdoor Recreation Demand Survey
Appendices



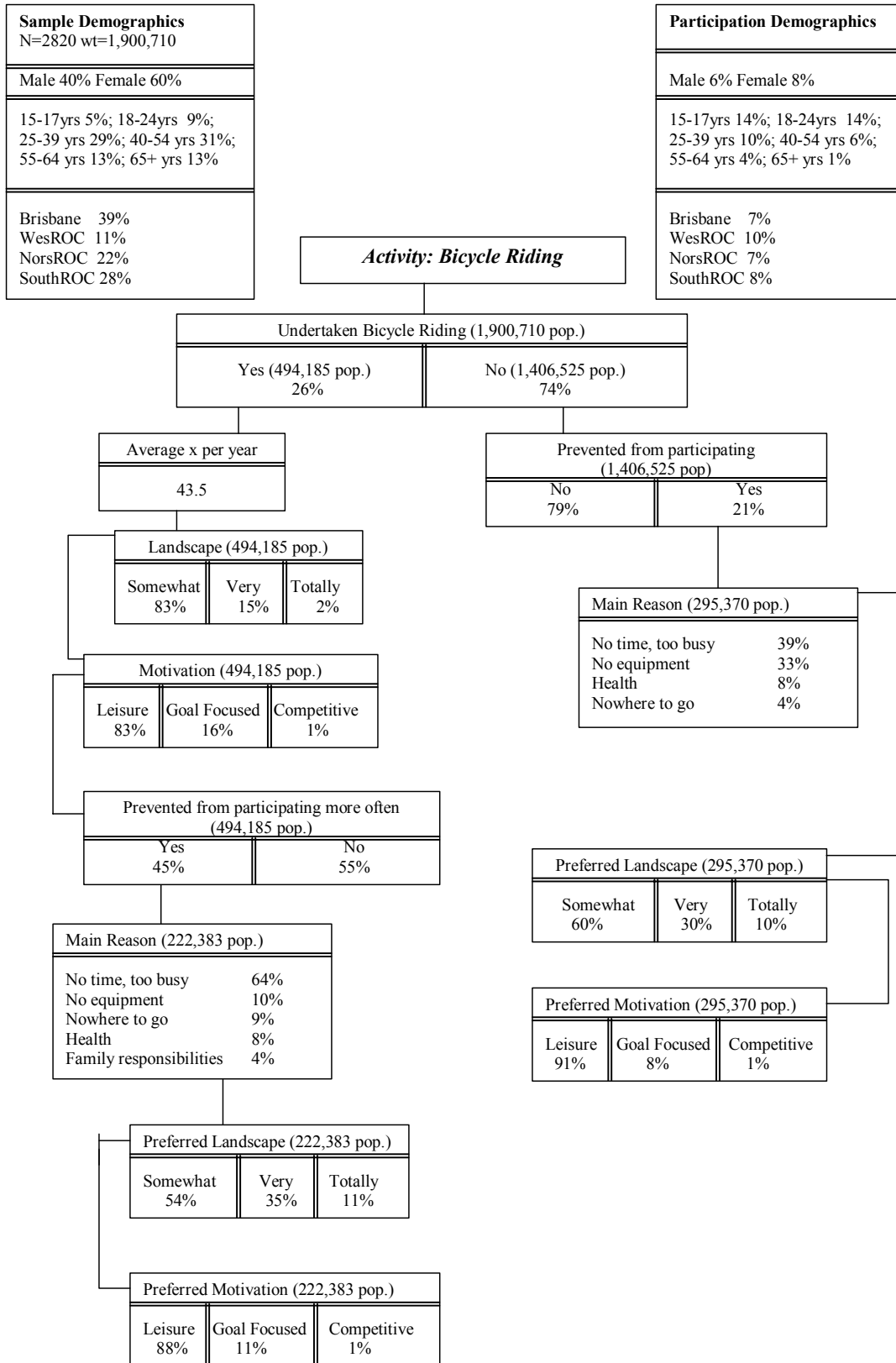
2001 South East Queensland Outdoor Recreation Demand Survey
Appendices



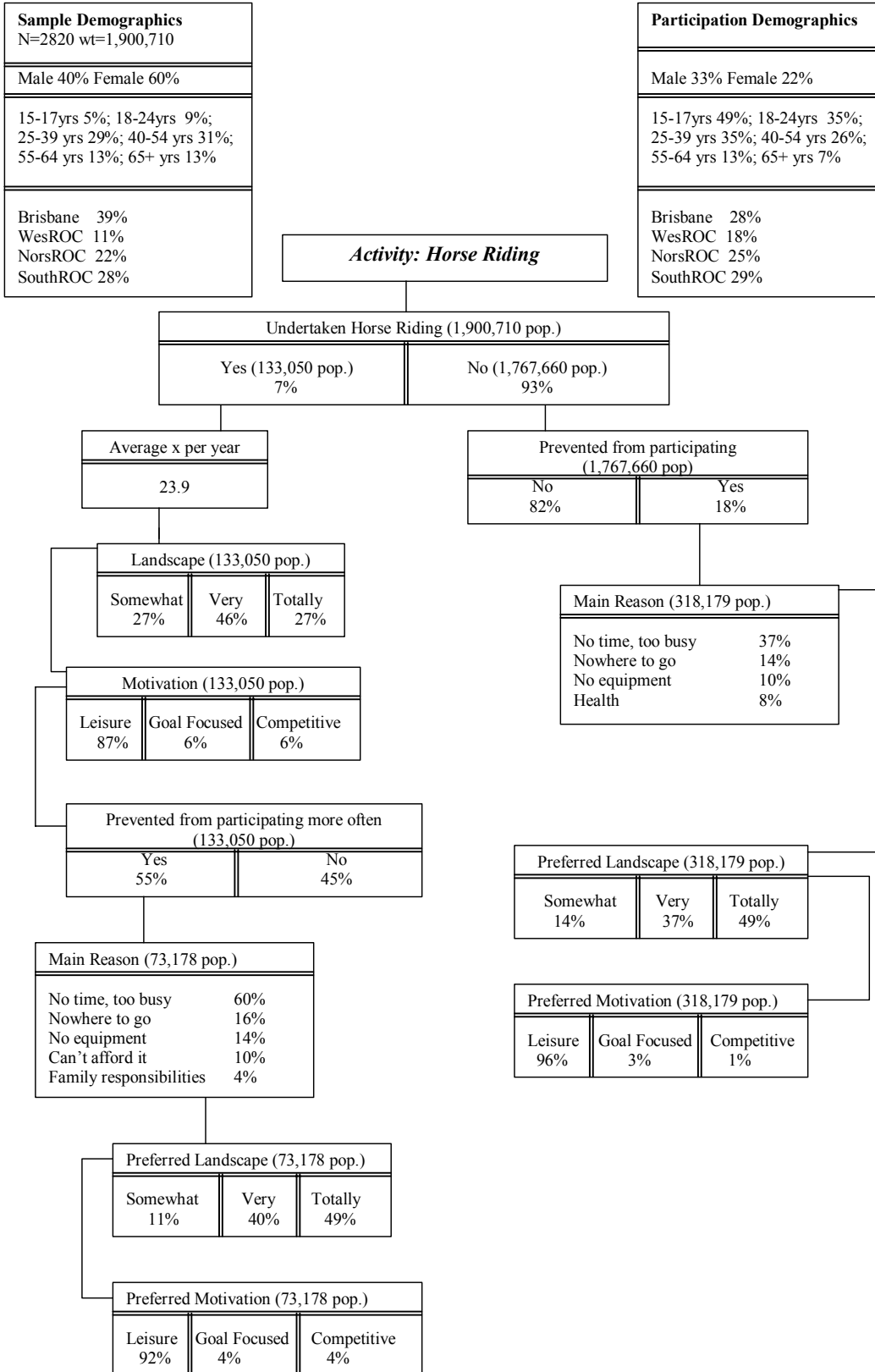
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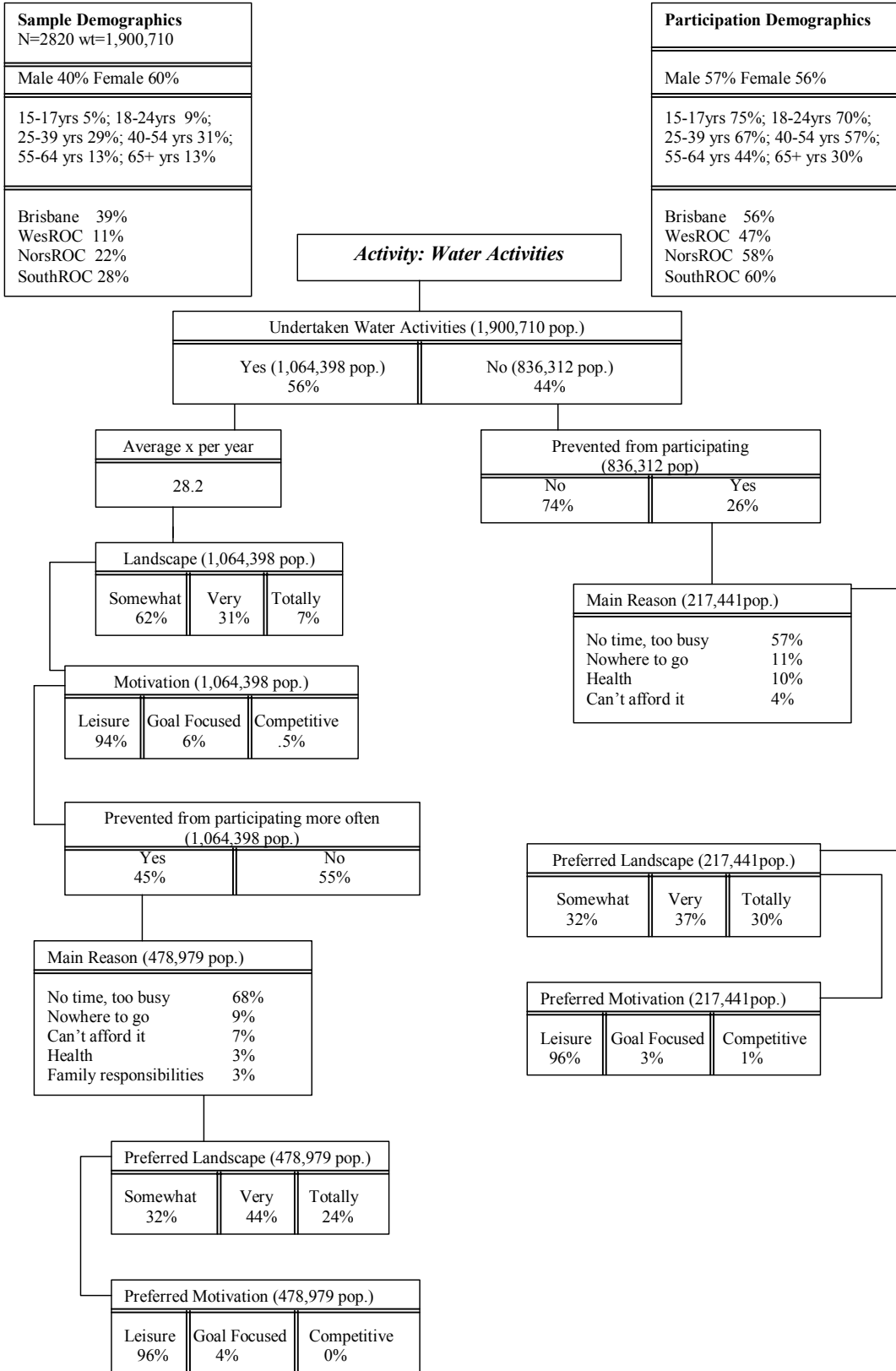
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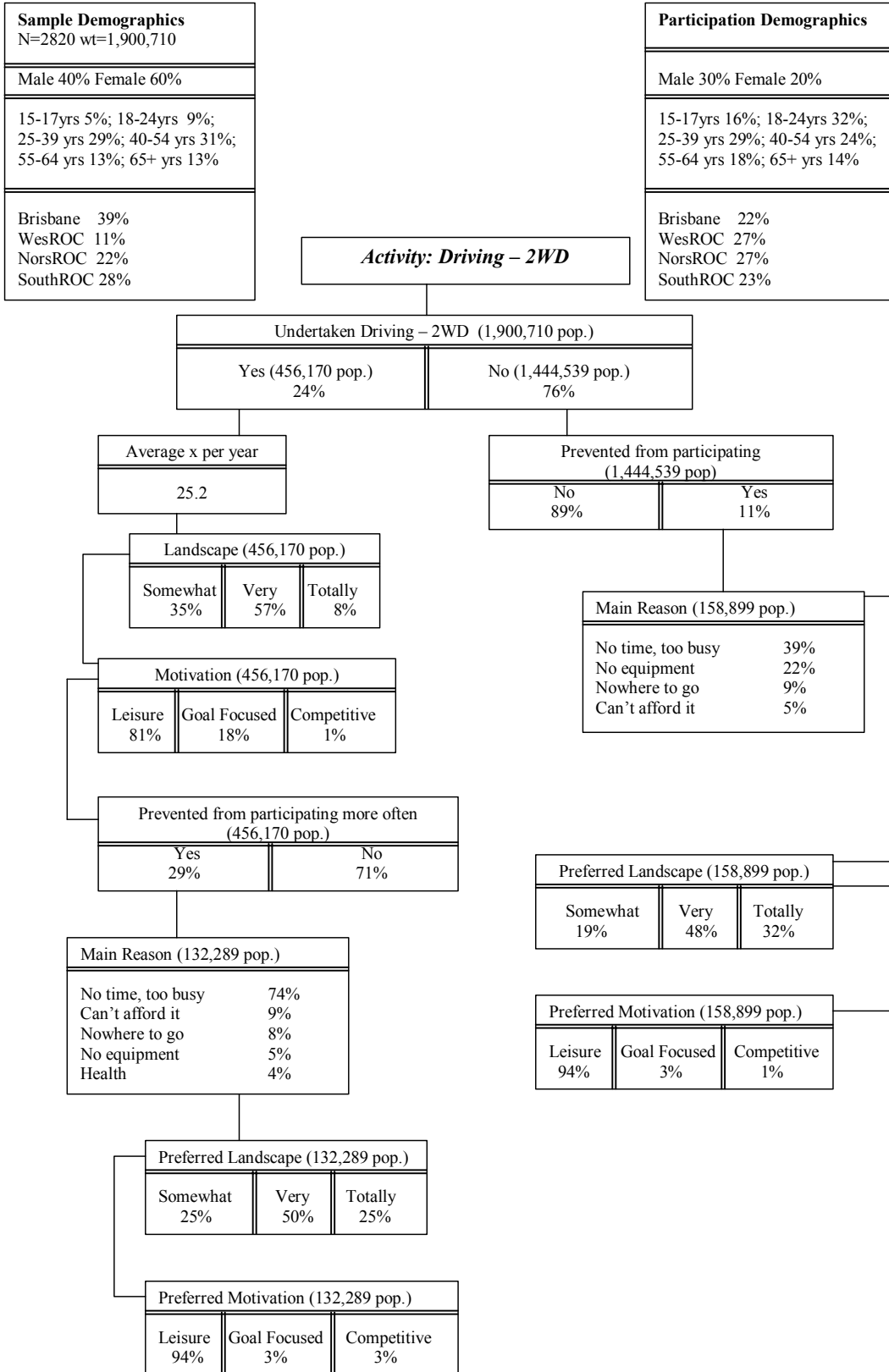
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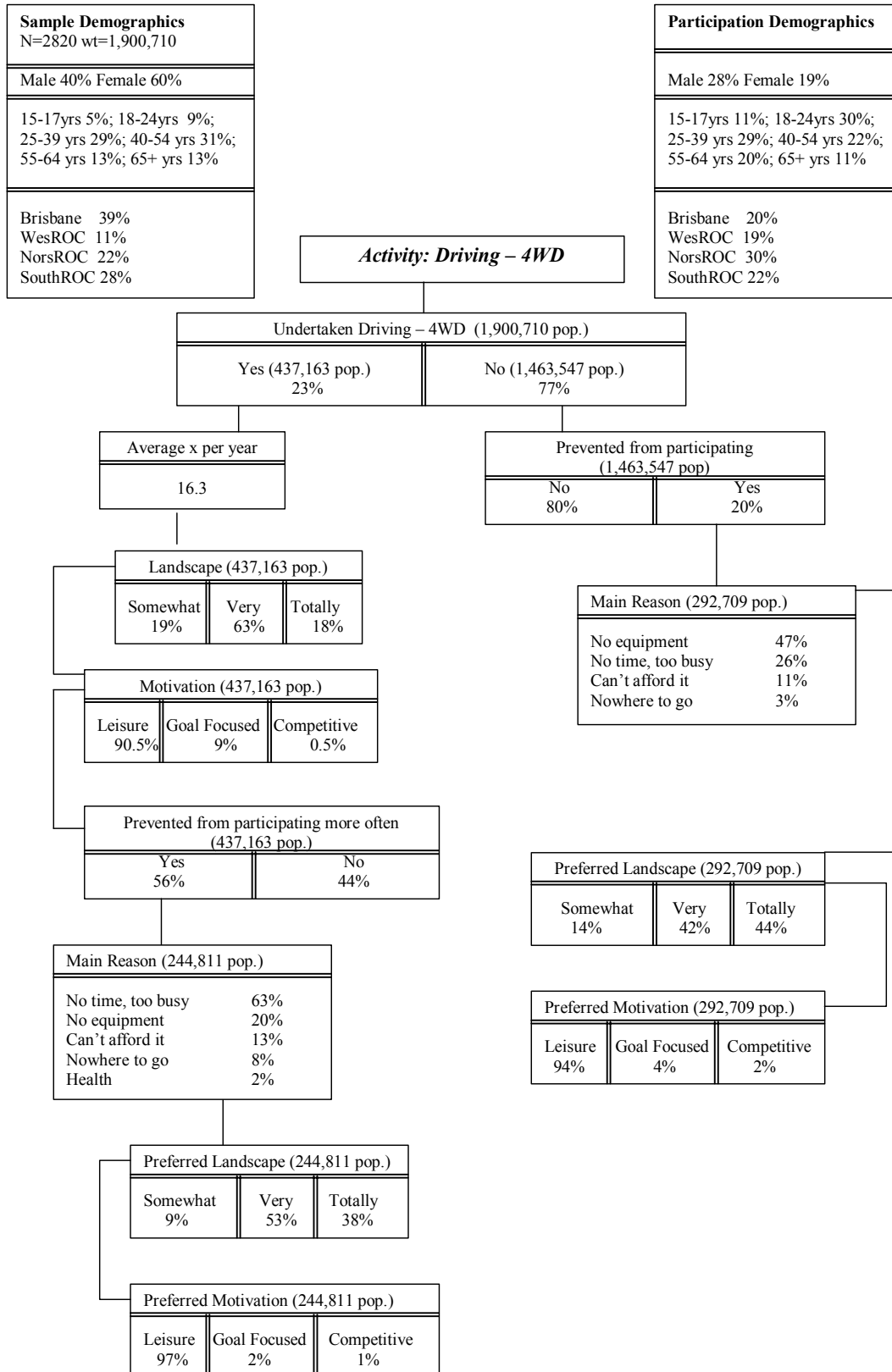
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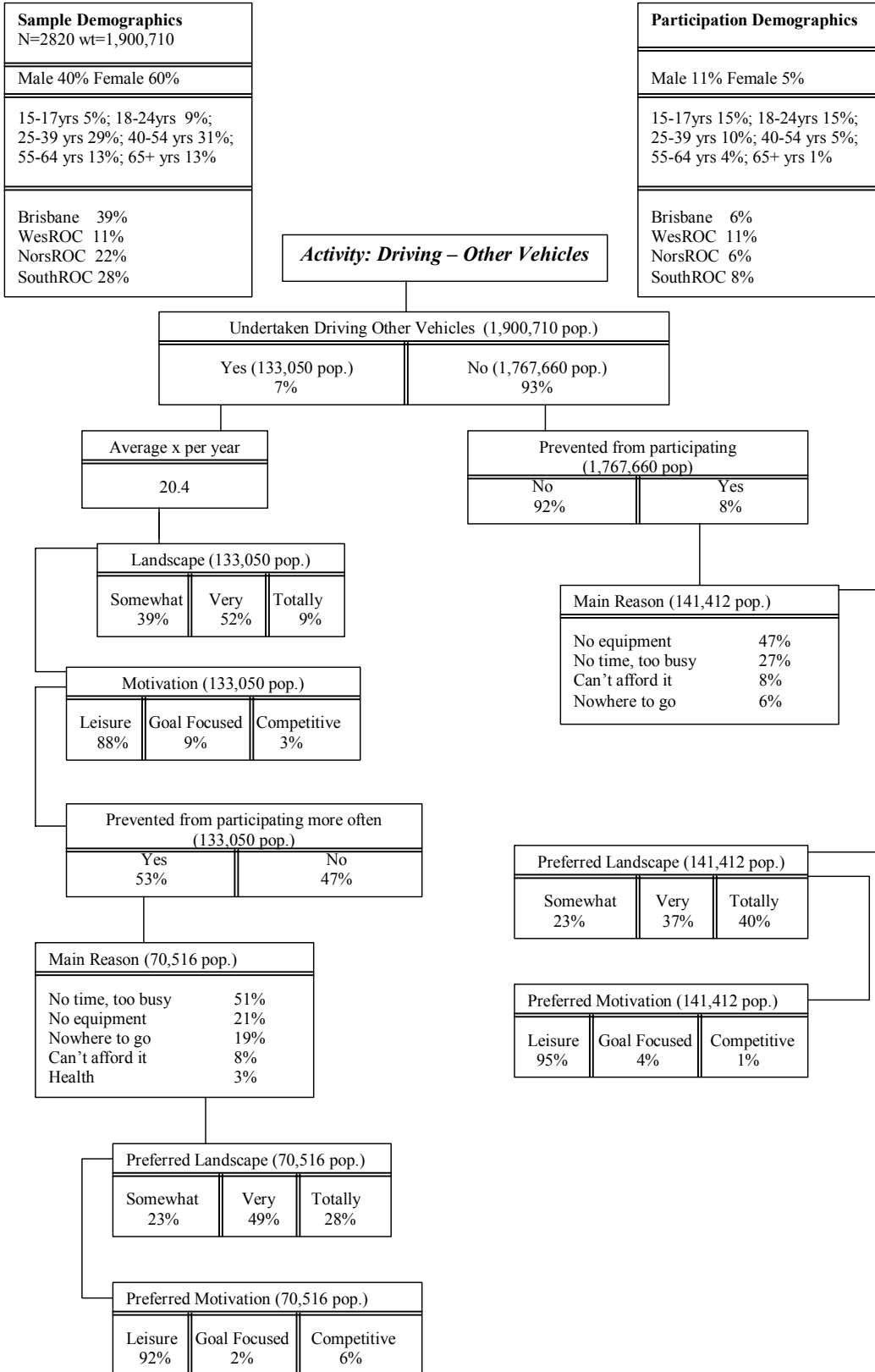
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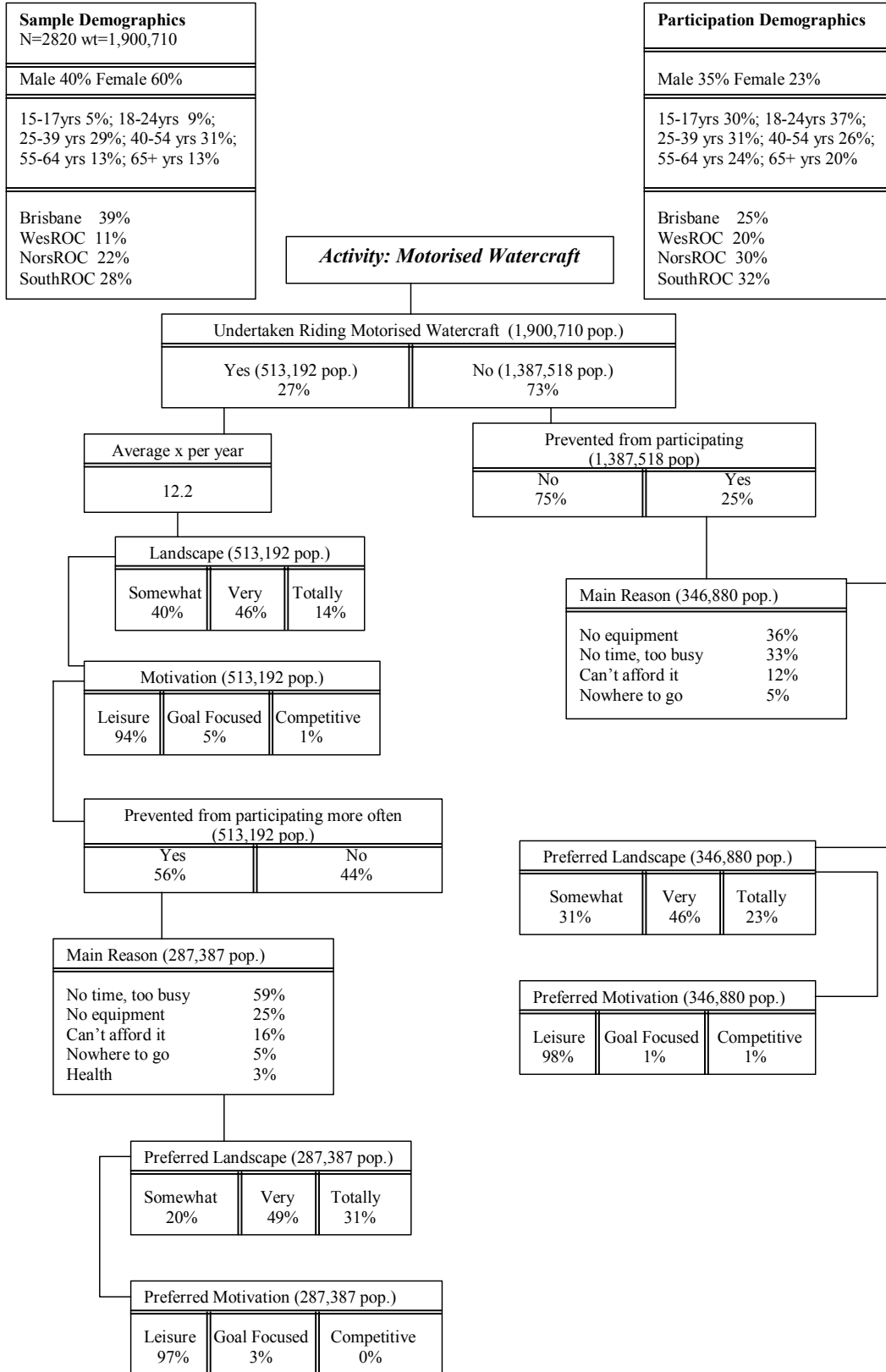
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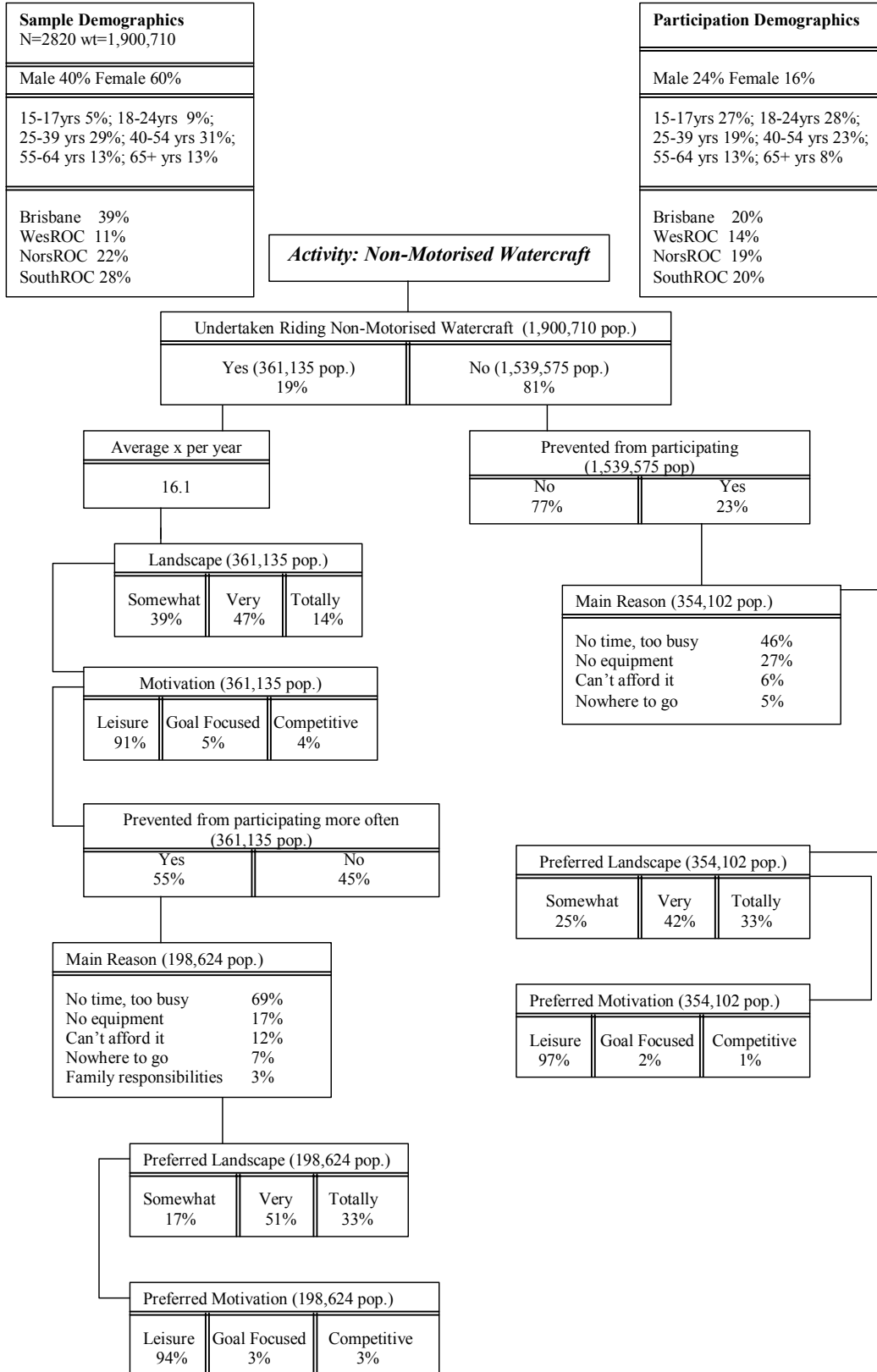
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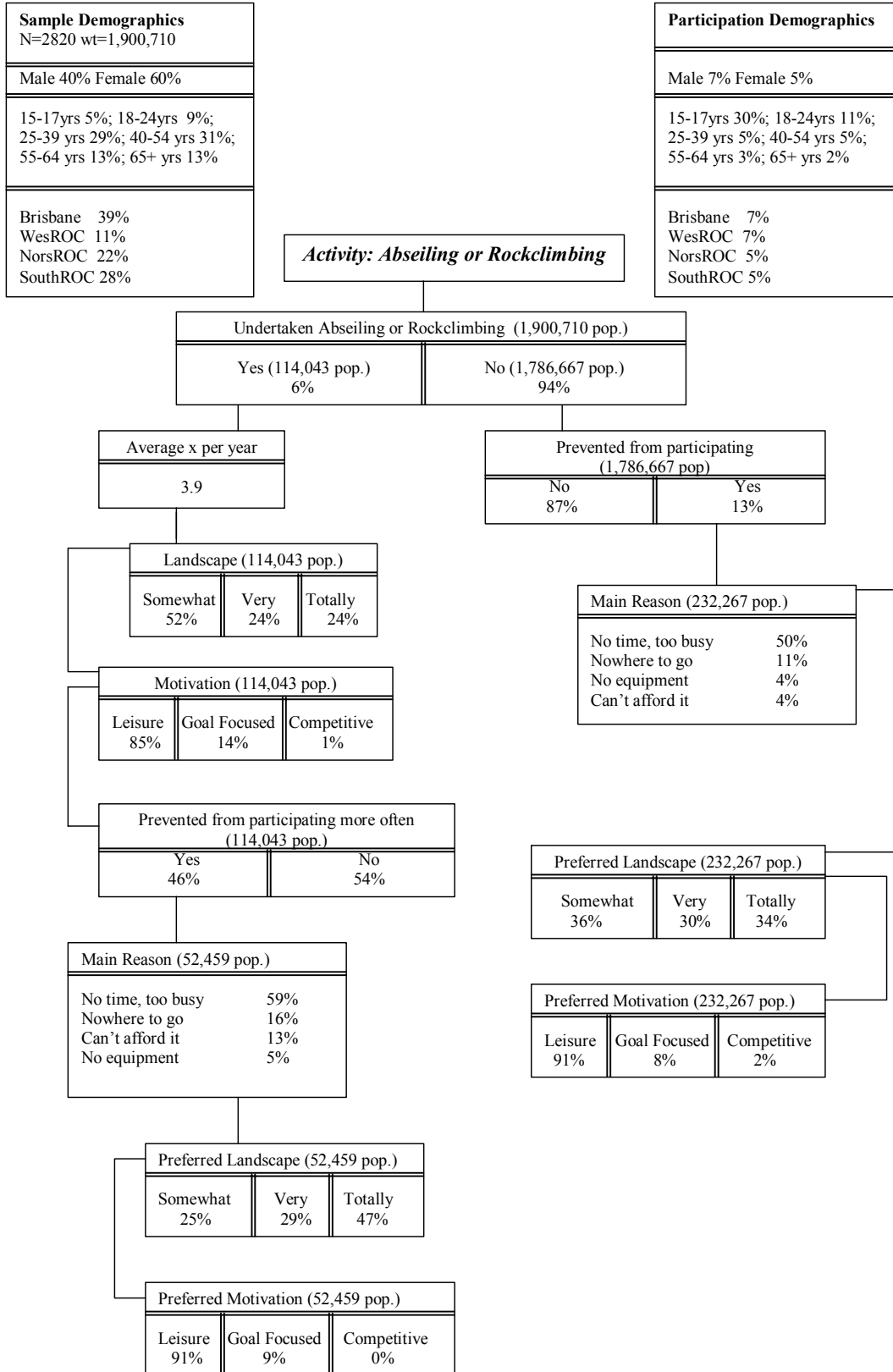
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Current participation summary table: All landscapes

Current Activity Participation Incidence						
Total Population aged 15 or over in South East Queensland: 1,900,710						
Activity	Total					
	% and no. of Population participating	Median times per year	Total visitation	Motivation	Distribution of visits by motivation	Distribution of population by motivation
Picnicking	67% 1,273,476	4	5,093,904	NA	NA	NA
Walking or Nature Study	49% 931,348	12	11,176,176	NA	NA	NA
Camping	33% 627,234	2	1,254,468	NA	NA	NA
Bicycle Riding	26% 494,185	11	5,436,035	Leisure	4,511,909	410,174 79,070 4942
				Goal	869,766	
Horse Riding	7% 133,050	2	266,100	Competitive	54,360	
				Leisure	231,507	115,754
Water Activities	56% 1,064,398	12	12,772,776	Goal	15,966	7,983
				Competitive	15,966	7,983
Driving 2WD Vehicles	24% 456,170	5	2,280,850	Leisure	11,942,546	995,212
				Goal	766,367	63,864
Driving 4WD Vehicles	23% 437,163	4	1,748,652	Competitive	63,864	5,322
				Leisure	1,847,489	395,633
Driving Other Vehicles	7% 133,050	5	665,250	Goal	410,553	82,111
				Competitive	22,809	2,186
Riding on Motorised Watercraft	27% 513,192	4	2,052,768	Leisure	1,582,530	395,633
				Goal	157,379	39,345
Riding on Non-Motorised Watercraft	19% 361,135	2	722,270	Competitive	8,743	2,186
				Leisure	585,420	117,084
Abseiling or Rockclimbing	6% 114,043	2	228,086	Goal	59,873	11,975
				Competitive	19,958	3,992
				Leisure	1,929,602	482,400
				Goal	102,638	25,660
				Competitive	20,528	5,132
				Leisure	657,266	328,633
				Goal	36,114	18,057
				Competitive	28,891	14,445
				Leisure	193,873	96,937
				Goal	31,932	15,966
				Competitive	2,281	1,140

Current participation summary table: Somewhat natural landscape

Current Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Somewhat Natural				
	Somewhat natural landscape: % and number of activity participants	Somewhat natural total visitation	Motivation	Distribution of visits by motivation	Distribution of population by motivation
Picnicking	59% 751,351	3,005,403	NA	NA	NA
Walking or Nature Study	49% 456,361	5,476,326	NA	NA	NA
Camping	29% 181,898	363,796	NA	NA	NA
Bicycle Riding	83% 410,174	4,511,909	Leisure	3,744,885	340,444
			Goal	721,905	65,628
			Competitive	45,119	4,102
Horse Riding	27% 35,924	71,847	Leisure	62,507	31,253
			Goal	4,311	2,155
			Competitive	4,311	2,155
Water Activities	62% 659,927	7,919,121	Leisure	7,404,378	617,032
			Goal	475,147	39,596
			Competitive	39,596	3,300
Driving 2WD Vehicles	35% 159,660	798,298	Leisure	646,621	129,324
			Goal	143,694	28,739
			Competitive	7,983	1,597
Driving 4WD Vehicles	19% 83,061	332,244	Leisure	300,681	75,170
			Goal	29,902	7,475
			Competitive	1,661	415
Driving Other Vehicles	39% 51,890	259,448	Leisure	228,314	45,663
			Goal	23,350	4,670
			Competitive	7,783	1,557
Riding on Motorised Watercraft	40% 205,277	821,107	Leisure	771,841	192,960
			Goal	41,055	10,264
			Competitive	8,211	2,053
Riding on Non-Motorised Watercraft	39% 140,843	281,685	Leisure	256,334	
			Goal	14,084	128,167
			Competitive	11,267	7,042 5,634
Abseiling or Rockclimbing	52% 59,302	118,605	Leisure	100,814	
			Goal	16,605	50,407
			Competitive	1,186	8,302 593

Current participation summary table: Very natural landscape

Current Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Very Natural				
	Very natural landscape: % and number of activity participants	Very natural total visitation	Motivation	Distribution of visits by motivation	Distribution of population by motivation
Picnicking	33% 420,247	1,680,988	NA	NA	NA
Walking or Nature Study	34% 316,658	3,799,900	NA	NA	NA
Camping	51% 319,889	639,779	NA	NA	NA
Bicycle Riding	15% 74,128	815,405	Leisure	676,786	61,526
			Goal	130,465	11,860
Horse Riding	46% 61,203	122,406	Competitive	8,154	741
			Leisure	106,493	53,247
Water Activities	31% 329,963	3,959,561	Goal	7,344	3,672
			Competitive	7,344	3,672
Driving 2WD Vehicles	57% 260,017	1,300,085	Leisure	3,702,189	308,516
			Goal	237,574	19,798
Driving 4WD Vehicles	63% 275,413	1,101,651	Competitive	19,798	1,650
			Leisure	1,053,068	210,614
Driving Other Vehicles	52% 69,186	345,930	Goal	234,015	46,803
			Competitive	13,001	2,600
Riding on Motorised Watercraft	46% 236,068	944,273	Leisure	996,994	249,248
			Goal	99,149	24,787
Riding on Non-Motorised Watercraft	47% 169,733	339,467	Competitive	5,508	1,377
			Leisure	304,418	60,884
Abseiling or Rockclimbing	24% 27,370	54,741	Goal	31,134	6,227
			Competitive	10,378	2,076
Abseiling or Rockclimbing	24% 27,370	54,741	Leisure	887,617	221,904
			Goal	47,214	11,803
Abseiling or Rockclimbing	24% 27,370	54,741	Competitive	9,443	2,361
			Leisure	308,915	154,457
Abseiling or Rockclimbing	24% 27,370	54,741	Goal	16,973	8,487
			Competitive	13,579	6,789
Abseiling or Rockclimbing	24% 27,370	54,741	Leisure	46,530	23,265
			Goal	7,664	3,832
Abseiling or Rockclimbing	24% 27,370	54,741	Competitive	547	274

Current participation summary table: Totally natural landscape

Current Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Totally natural				
	Totally natural landscape: % and number of activity participants	Totally natural total visitation	Motivation	Distribution of visits by motivation	Distribution of population by motivation
Picnicking	8% 101,878	407,512	NA	NA	NA
Walking or Nature Study	17% 158,329	1,899,950	NA	NA	NA
Camping	20% 125,447	250,894	NA	NA	NA
Bicycle Riding	2% 9,884	108,721	Leisure	90,238	8,203 1,581 99
			Goal	17,395	
Horse Riding	27% 35,924	71,847	Competitive	1,087	31,253 2,155 2,155
			Leisure	62,507	
Water Activities	7% 74,508	894,094	Goal	4,311	69,665 4,470 373
			Competitive	4,311	
Driving 2WD Vehicles	8% 36,494	182,468	Leisure	835,978	29,560 6,569 365
			Goal	53,646	
Driving 4WD Vehicles	18% 78,689	314,757	Competitive	4,470	71,214 7,082 393
			Leisure	284,855	
Driving Other Vehicles	9% 11,975	59,873	Goal	28,328	10,538 1,078 359
			Competitive	1,574	
Riding on Motorised Watercraft	14% 71,847	287,388	Leisure	52,688	67,536 3,592 718
			Goal	14,369	
Riding on Non-Motorised Watercraft	14% 50,559	101,118	Competitive	2,874	46,009 2,528 2,022
			Leisure	92,017	
Abseiling or Rockclimbing	24% 27,370	54,741	Goal	5,056	23,265 3,832 274
			Competitive	4,045	

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Latent participation summary table: All landscapes

Latent Activity Participation Incidence							
Total Population aged 15 or over in South East Queensland: 1,900,710							
Activity	Total						
	% and number of population not participating	% and number interested but prevented	Median of current participation	Anticipated total visitation	Motivation	Distribution of visits by motivation	Distribution of pop by motivation
Picnicking	33% 627,234	35% 219,532	4	878,128	NA	NA	NA
Walking or Nature Study	51% 969,362	30% 290,809	12	3,489,704	NA	NA	NA
Camping	67% 1,273,476	36% 458,451	2	916,903	NA	NA	NA
Bicycle Riding	74% 1,406,525	21% 295,370	11	3,249,074	Leisure Goal Competitive	2,956,657 259,926 32,491	268,787 23,630 2954
Horse Riding	93% 1,767,660	18% 318,179	2	636,358	Leisure Goal Competitive	610,903 19,091 6,364	305,452 9,545 3,182
Water Activities	44% 836,312	26% 217,441	12	2,609,295	Leisure Goal Competitive	2,504,923 78,279 26,093	208,744 6,523 2,174
Driving 2WD Vehicles	76% 1,444,540	11% 158,899	5	794,497	Leisure Goal Competitive	746,827 23,835 7,945	149,365 4,767 1,589
Driving 4WD Vehicles	77% 1,463,547	20% 292,709	4	1,170,837	Leisure Goal Competitive	1,100,587 46,833 23,417	275,147 11,708 5,854
Driving Other Vehicles	93% 1,767,660	8% 141,413	5	707,064	Leisure Goal Competitive	671,711 28,283 7,071	134,342 5,657 1,414
Riding on Motorised Watercraft	73% 1,387,518	25% 346,880	4	1,387,518	Leisure Goal Competitive	1,359,768 13,875 13,875	339,942 3,469 3,469
Riding on Non-Motorised Watercraft	81% 1,539,575	23% 354,102	2	708,205	Leisure Goal Competitive	686,958 14,164 7,082	343,479 7,082 3,541
Abseiling or Rockclimbing	94% 1,786,667	13% 232,267	2	464,534	Leisure Goal Competitive	422,726 37,163 9,291	211,363 18,581 4,645

Latent participation summary table: Somewhat natural landscape

Latent Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Preference for somewhat natural landscape				
	Somewhat natural landscape: % and no. of interested non-participants	Anticipated somewhat natural total visitation	Motivation	Distribution of visits by motivation	Distribution of population by motivation
Picnicking	33% 72,446	289,782	NA	NA	NA
Walking or Nature Study	19% 55,254	663,045	NA	NA	NA
Camping	18% 82,521	165,042	NA	NA	NA
Bicycle Riding	60% 177,222	1,949,442	Leisure Goal Competitive	1,773,992 155,955 19,494	161,272 14,178 1,772
Horse Riding	14% 44,545	89,090	Leisure Goal Competitive	85,527 2,673 891	42,763 1,336 445
Water Activities	32% 69,581	834,973	Leisure Goal Competitive	801,575 25,049 8,350	66,798 2,087 696
Driving 2WD Vehicles	19% 30,191	150,954	Leisure Goal Competitive	141,897 4,529 1,510	28,379 906 302
Driving 4WD Vehicles	14% 40,979	163,917	Leisure Goal Competitive	154,082 6,557 3,278	38,521 1,639 820
Driving Other Vehicles	23% 32,525	162,625	Leisure Goal Competitive	154,494 6,505 1,626	30,899 1,301 325
Riding on Motorised Watercraft	31% 107,533	430,131	Leisure Goal Competitive	421,529 4,301 4,301	105,382 1,075 1,075
Riding on Non-Motorised Watercraft	25% 88,526	177,051	Leisure Goal Competitive	171,739 3,541 1,771	85,870 1,771 885
Abseiling or Rockclimbing	36% 83,616	167,232	Leisure Goal Competitive	152,181 13,379 3,345	76,091 6,689 1,672

Latent participation summary table: Very natural landscape

Latent Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Preference for very natural landscape				
	Very natural landscape: % and no. of interested non-participants	Anticipated very natural total visitation	Motivation	Distribution of visits by motivation	Distribution of pop by motivation
Picnicking	39% 85,617	342,470	NA	NA	NA
Walking or Nature Study	35% 101,783	1,221,398	NA	NA	NA
Camping	47% 215,472	430,944	NA	NA	NA
Bicycle Riding	30% 88,611	974,721	Leisure Goal Competitive	886,996 77,978 9,747	80,636 7,089 886
Horse Riding	37% 117,726	235,452	Leisure Goal Competitive	226,034 7,064 2,355	113,017 3,532 1,177
Water Activities	37% 80,453	965,438	Leisure Goal Competitive	926,821 28,963 9,654	77,235 2,414 805
Driving 2WD Vehicles	48% 76,272	381,358	Leisure Goal Competitive	358,476 11,441 3,814	71,695 2,288 763
Driving 4WD Vehicles	42% 122,938	491,751	Leisure Goal Competitive	462,246 19,670 9,835	115,562 4,918 2,459
Driving Other Vehicles	37% 52,323	261,614	Leisure Goal Competitive	248,533 10,465 2,616	49,707 2,093 523
Riding on Motorised Watercraft	46% 159,565	638,259	Leisure Goal Competitive	625,494 6,383 6,383	156,374 1,596 1,596
Riding on Non-Motorised Watercraft	42% 148,723	297,446	Leisure Goal Competitive	288,522 5,949 2,974	144,261 2,974 1,487
Abseiling or Rockclimbing	30% 69,680	139,360	Leisure Goal Competitive	126,818 11,149 2,787	63,409 5,574 1,394

Latent participation summary table: Totally natural landscape

Latent Activity Participation Incidence					
Total Population aged 15 or over in South East Queensland: 1,900,710					
Activity	Preference for totally natural landscape				
	Totally natural landscape: % and no. of interested non-participants	Anticipated totally natural total visitation	Motivation	Distribution of visits by motivation	Distribution of pop by motivation
Picnicking	28% 61,469	245,876	NA	NA	NA
Walking or Nature Study	46% 133,772	1,605,266	NA	NA	NA
Camping	35% 160,458	320,916	NA	NA	NA
Bicycle Riding	10% 29,537	324,907	Leisure Goal Competitive	295,665 25,993 3,249	26,879 2,363 295
Horse Riding	49% 155,908	311,815	Leisure Goal Competitive	299,343 9,354 3,118	149,671 4,677 1,559
Water Activities	30% 65,232	782,788	Leisure Goal Competitive	751,476 23,484 7,828	62,623 1,957 652
Driving 2WD Vehicles	32% 50,848	254,238	Leisure Goal Competitive	238,984 7,627 2,542	47,797 1,525 508
Driving 4WD Vehicles	44% 128,792	515,168	Leisure Goal Competitive	484,258 20,607 10,303	121,064 5,152 2,576
Driving Other Vehicles	40% 56,565	282,826	Leisure Goal Competitive	268,685 11,313 2,828	53,737 2,263 566
Riding on Motorised Watercraft	23% 79,782	319,130	Leisure Goal Competitive	312,747 3,191 3,191	78,187 798 798
Riding on Non-Motorised Watercraft	33% 116,854	233,707	Leisure Goal Competitive	226,696 4,674 2,337	113,348 2,337 1,169
Abseiling or Rockclimbing	34% 78,971	157,942	Leisure Goal Competitive	143,727 12,635 3,159	71,863 6,318 1,579