

Section 1

Acknowledgements

The 2007 South East Queensland Outdoor Recreation Demand Study (SEQORDS) was a joint initiative of several Queensland Government agencies and SEQWater. These agencies financed and provided expertise for the Study.

Contributing agencies included:

- Department of Local Government, Sport and Recreation
- Department of Infrastructure and Planning
- Environmental Protection Agency
- Queensland Health
- SEQWater

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- ***Research and Evaluation Unit – Department of Local Government, Sport and Recreation***
David Bartlett
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- ***The authors of the 2007 SEQORDS were:***
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Section 2

Executive summary

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

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

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

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

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

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



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

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

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

³ See Section 4 for a description of recreation settings

⁴ See Section 6 for an explanation of stratified sampling technique

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

Section 2

Executive summary cont.

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

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

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

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

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

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

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

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

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

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

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

Section 3

Key recommendations

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

Specific recommendations arising from the 2007 SEQORDS are as follows:

Recommendations for planning and management for outdoor recreation:

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

Recommendations for future related research:

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

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

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



Section 4

Clarification of key terms

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

4.1 Outdoor recreation activities

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

Table 2: Outdoor recreation activities

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

4.2 Recreation settings

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

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

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

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

Table 3: Landscape Settings

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

4.3 Motivations

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

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

Table 4: Motivations

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

Section 5

Background and objectives

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

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



A view from Flinders Peak, Ipswich

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

Section 5

Background and objectives cont.



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

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

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

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

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

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

The aims of the project were:

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

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

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

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

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

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

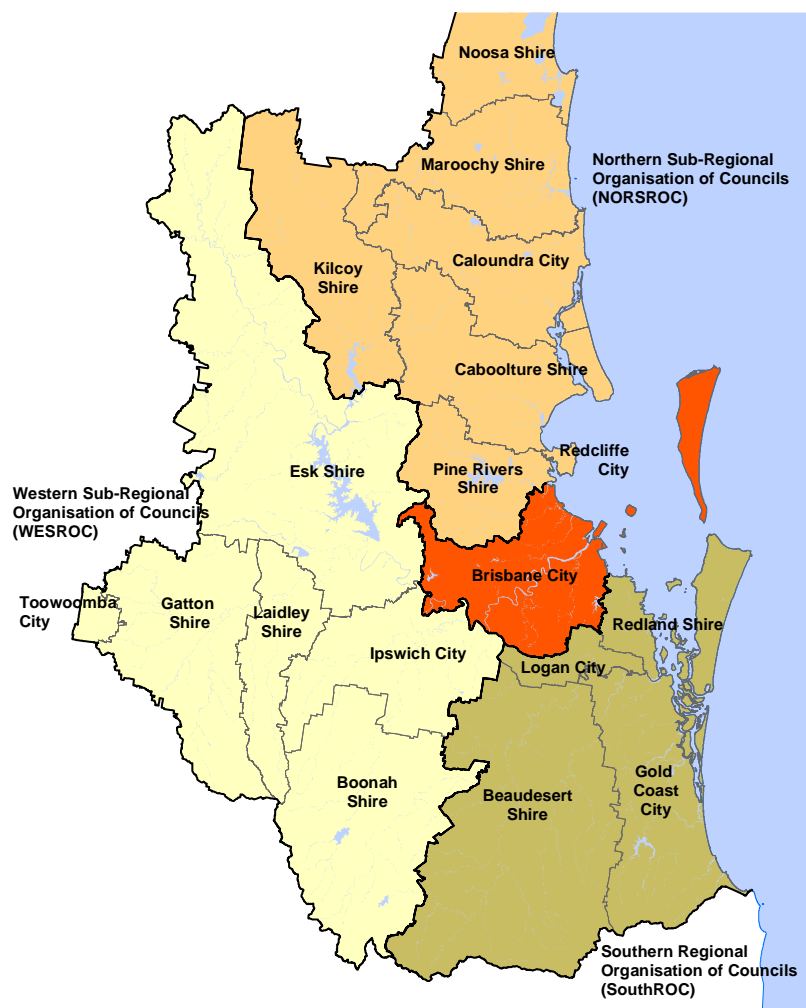
This report will assist the planning and provision of outdoor recreation by local government, state agencies, tourism and leisure industries, community groups, the Queensland Outdoor Recreation Federation (QORF), and people who participate in outdoor recreation. Specifically, it is understood that the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

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

infrastructure and organisational development;

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

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



Section 6

Methodology

6.1 The survey instrument

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

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

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

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

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

6.2 The sample

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

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

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

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

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

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

Table 5: local government Authorities within the survey

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

6.3 Analysis of quantitative data

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

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

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

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

6.4 Limitations of the study

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

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

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

Section 6

Methodology cont.

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

Table 6: Population by shire or city

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