

Section 1

Acknowledgements

The Outdoor Recreation Trends in South East Queensland (1997– 2007) (Trends Analysis) was a joint initiative of several Queensland Government agencies and SEQWater. These agencies financed and provided expertise for the Trends Analysis. Contributing agencies included:

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

Significant technical and editorial contributions to the Trends Analysis were made by the following:

Research and Evaluation Unit – Department of Local Government, Sport and Recreation

- David Bartlett

Independent consultant

- Dr Jackie Kiewa

Staff from the:

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

The author was:

Department of Tourism, Leisure, Hotel and Sport Management, Griffith University

- Robert Hales (Lecturer)

Section 2

Executive summary

In 1997, 2001 and 2007, residents of South East Queensland (SEQ), Australia were surveyed about their participation in 12 outdoor recreation activities. The results of each of these surveys were published as a ‘South East Queensland Outdoor Recreation Demand Study’ (SEQORDS) in 1998, 2002 and 2008 respectively.

The Outdoor Recreation Trends in South East Queensland (1997 - 2001) (Trends Analysis), examines selected trends in outdoor recreation participation by residents of SEQ that were noted in the 2007 SEQORDS. The selected trends include constraints; recreation setting preferences; gender, physically active forms of outdoor recreation and changes to participation. The interests of the various agencies which contributed financially to the Trends Analysis helped determine topics for analysis.

The need for research into the outdoor recreation trends was highlighted in the 2007 SEQORDS. A key recommendation of the 2001 SEQORDS 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. The identification and confirmation of any trends have been fulfilled through the 2007 SEQORDS and the Trends Analysis.

Figure 1 shows the trends in activity-events (one person participating once in an outdoor recreation activity or the number of participants multiplied by the frequency with which they participate)¹ and Figure 2 shows trends in the current participation

Figure 1: Outdoor recreation activity-events across the three SEQORDS

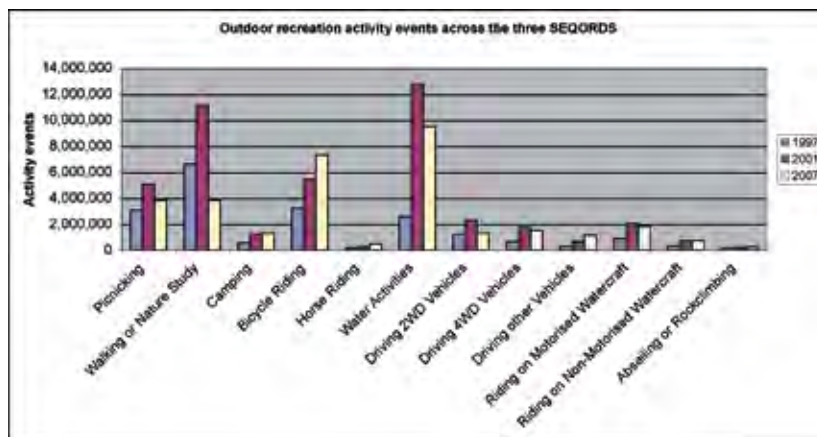
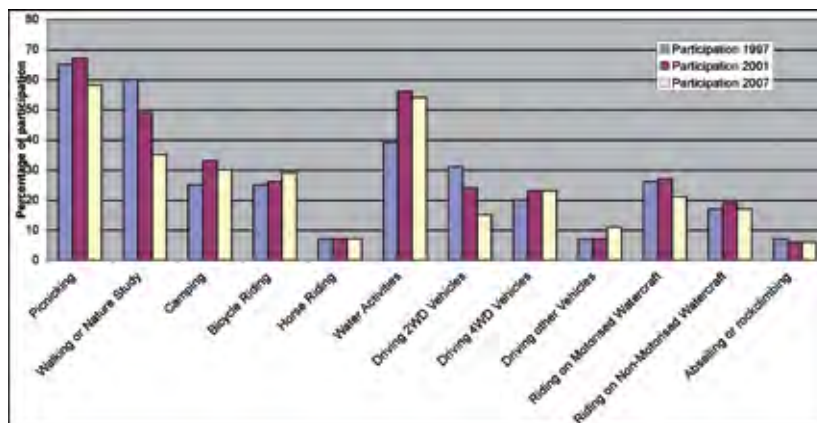


Figure 2: Percentage of SEQ resident population participating² in outdoor recreation activities across the three SEQORDS.



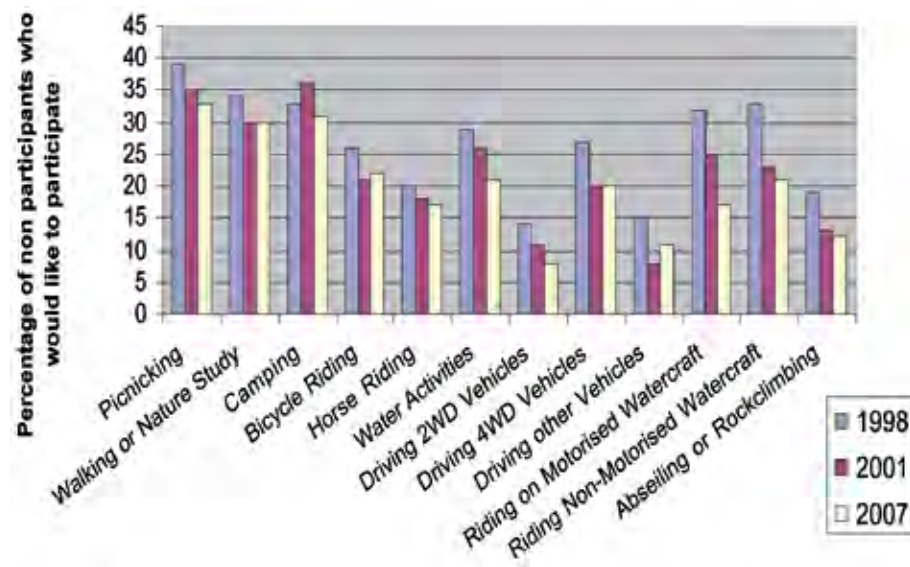
¹ Refer to Section 4: Classification of Key Terms for a further explanation of the concept of *activity-events*

² ‘Participation’ was defined as – participating in an outdoor recreation activity at least once in the 12 months prior to the survey.

Section 2

Executive summary cont.

Figure 3: Percentage of SEQ resident population who did not participate in outdoor recreation, but wanted to, in the three SEQORDS



as measured by the proportion of the surveyed population (i.e. the population of SEQ) currently participating multiplied by the regional population. Figure 3 displays the proportion of non-participants who would like to participate from the three SEQORDS. These figures were previously presented in the 2007 SEQORDS report. (The data for these figures can also be seen in Appendix 1)

A number of observations are pertinent to trends in outdoor recreations participation:

1. There is a peak in activity-events in 2001 for seven out of the 12 outdoor recreation activities surveyed.
2. In all activities except *walking or nature study*, participation

(measured as activity-events) for 2007 are higher than 1997 (see Figure 1).

3. Participation rates (measured as the percentage of the population of SEQ which is participating – see Figure 2) for *walking or nature study* and *driving 2WD vehicles* have declined steadily over the three SEQORDS.
4. In some activities such as *bicycle riding*, *riding other vehicles* and *camping* there has been a steady increase in participation rates over the three SEQORDS.
5. For all 12 outdoor recreation activities there has been a decrease in the percentage of SEQ residents who are non-participants but would like to participate.

It should be noted that although there has been a decline in participation rates for many activities, the activity-events for almost all activities in 2007 are higher than the 1997 benchmark. For example, *picnicking* had 3,096,000 activity-events in 1997 and in 2007 there were 3,835,902 (after a peak in 2001 of 5,093,904 activity events). In the same period, the participation rate for *picnicking* went down from 65% of the population of SEQ to 58% but this was offset by the increased regional population.

Compared to 1997, in 2007 there were 739,902 more picnicking activity-events in SEQ. The number of activity-events better describes

the magnitude of participation than does the participation rate (i.e. the proportion of the surveyed population which participates) by itself.

In practical terms, the increasing regional population means that managers of outdoor recreation sites may have observed increased visitation even though participation rates and/or frequency of participation did not increase greatly compared to 1997.

The issues addressed in the Trends Analysis that relate to the changes noted above are as follows:

- the impact of constraints on activity-events;
- the relationship between outdoor recreation settings and constraints;
- trends in physically active forms of outdoor recreation across the three SEQORDS;
- the patterns in gender participation in outdoor recreation;
- the trends in each of the outdoor recreation activities across the three SEQORDS; and
- research questions to guide a future research framework for outdoor recreation use and demand in SEQ.

The impact of constraints on activity-events

Constraints on participation in outdoor recreation activities impact either on participation rates (% of population participating) or the frequency of participation

(average number of times per year people participated in the activity). Understanding the effects of constraints is useful in explaining the trends in outdoor recreation participation across the three SEQORDS.

For most activities, there was an increase in the number of people reporting 'time' as a major constraint between the 2001 and the 2007 SEQORDS. However, there were four activities in which 'time' as a constraint decreased from 1997 to 2007. These were (1) driving 2WD vehicles, (2) riding motorised watercraft, (3) riding non motorised watercraft and (4) walking or nature study. Other constraints will therefore explain the decreases noted in the activity-events results for these activities. Constraints that generally contributed to decreased frequency of participation for current participants were 'nowhere to go', 'family health', 'cost' and 'lack of equipment'.

The relationship between outdoor recreation settings and constraints

Most people who participate in the 12 surveyed activities prefer recreation settings which are slightly more *natural* than those they currently use. This trend has been observed across all three SEQORDS. However, there are some shifts occurring in recreation setting preferences. Survey data suggests that constraints are increasingly influencing the setting preferences and use.

For some activities, recreation setting use and preference is focused on

very natural and/or *totally natural* settings. Other activities may be less dependent or not dependent on the naturalness of recreation settings, as is indicated by greater use of, and preference for *somewhat natural* settings. One factor influencing this may be the impact of constraints on people's choice of places for their preferred activities. *Somewhat natural* settings may have fewer constraints (e.g. travel to and from is easier) which results in more use of *somewhat natural* settings despite a general preference for settings which are more *natural*. Use of *totally natural* settings is increasing despite major constraints (e.g. travel time and distance; needs for fitness, specialist skills and equipment) involved with accessing such places. In the Trends Analysis, participants in all outdoor recreation activities who identified 'nowhere to go' as a major constraint are more likely to prefer *totally natural* settings.

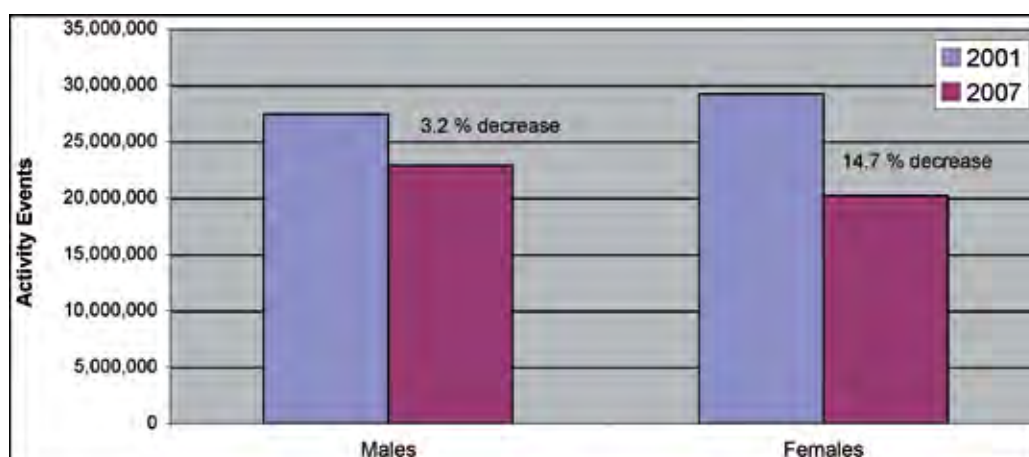
Trends in physically active forms of outdoor recreation across the three SEQORDS

There are some indicators of engagement in physical activity in outdoor recreation activities within the three SEQORDS. These include the rates of participation, frequency of participation and motivation for participation in selected physically active forms of outdoor recreation. Physically active forms of outdoor recreation include walking or nature study, bicycle riding, horse riding, water activities, riding non-motorised watercraft, riding other motor vehicles and abseiling/rock-climbing.

Section 2

Executive summary cont.

Figure 4: Changes in activity-event data for selected physically active forms of outdoor recreation for males and females (activity-event totals have been aggregated)



Overall there was an increase in activity-events from 1997 to 2007. Bicycle riding was the only activity to show sustained increases in activity-events from 1997 to 2007. There was also a slight increase in exercise and running in the outdoors between 2001 and 2007. The proportion of participation in the ‘goal focused’ (i.e. the primary purpose of participation was related to fitness, skills improvement, equipment testing, challenge or conquering nature) for the selected activities in 2007 is less than the 1997 SEQORDS but has increased since the 2001 study. This increase might reflect the rise in popularity of adventure racing since 2001.

Over the three surveys, ‘goal-focused’ participation (i.e. the primary purpose of participating was related to fitness, skills improvement, equipment testing, challenge or

conquering nature) was highest in 1997, dropped to its lowest in 2001 and has since increased (refer to Figure 58).

Despite the overall increase in activity-events for selected physically active forms of outdoor recreation between 1997 and 2007, participation peaked in 2001 and has declined since then. Between 2001 and 2007, there were significant decreases in water activities and walking or nature study participation.

Despite the overall increase in the activity-events for selected physical outdoor recreation activities between 1997 and 2007 there has been a decrease in activity-events from the peak in 2001. The decrease in activity-events can be attributed to a decrease in water activities and walking or nature study between 2001 and 2007.

Patterns in gendered outdoor recreation participation

The major finding of the study was that female participation as measured by activity-events for aggregated physically active forms of outdoor recreation declined greater than males between 2001 and 2007. These changes are displayed in Figure 4.

The large decrease in activity-events for females is a consequence of a major decline in female participation in water-activities.

The Trends Analysis also found that there was a uniform decline for males and females in walking or nature study across the study region. Bicycling had a uniform increase with no difference between males and females. Increasingly, there are more activity-events for females than males in horse riding and abseiling/rock-climbing.

Trends in each of the outdoor recreation activities across the three SEQORDS

The summary below outlines explanations for the changes in activity-events and to a lesser extent participation rates and frequency of participation for each activity over the three SEQORDS.

Picnicking

The overall decline in picnicking activity rates can be attributed to a declining participation rate in the 25 to 39 age group (and to a lesser extent the 40–54). This is most likely caused by an increase in ‘family’ constraints. Another explanation could be the introduction of Sunday retail trading and the preference of many families to frequent shopping centres as a social activity. It may also be affected by the decrease in driving 2WD vehicles. Picnicking has the highest use in the *somewhat natural* category.

Walking or nature study

The major decline in activity rates can be explained through increases in ‘health’ and ‘family’ constraints, particularly in the 25–54 age groups. It must be noted that time pressures and the introduction of Sunday retail trading may have contributed to the decline. Another point to consider is that the measurement of current participants and non-participants constraints may not capture the reasons for the decrease in walking or nature study. *Somewhat natural settings* are most used for walking or nature study but increasingly *very natural settings* are being used.

Camping

Activity-events have increased for camping. Rates of participation for all age groups are higher in 2007 than for 1997. *Very natural settings* are the most used.

Water activities

Activity-events are higher in 2007 than in 1997 but have declined from a peak in 2001. ‘Health’ and ‘nowhere to go’ have impacted on activity-events. *Somewhat natural settings* were the most used.

Bicycling

Bicycling has large increases in activity-events. This is attributed to increased participation by older age groups. Constraints have not reduced participation rates. The predominant use is *somewhat natural settings* but increasingly *very natural settings* are being used. This suggests that a significant proportion of cycling is mountain bike riding on unsealed tracks.

Motorised watercraft

Activity-events have increased from 1997 but are slightly down compared to 2001. Frequency declined slightly and this may be caused by current participants reporting higher ‘cost’ constraints. This was particularly so for younger age groups who had a decline in frequency of participation. There was also a decline in the participation by older age groups. The *somewhat natural setting* is the most popular but *very natural* is a close second.

Non-motorised watercraft

Activity-events increased from 1997 to 2007. Overall participation rates decreased slightly. There was a slight increase in ‘nowhere to go’ constraint for non-participants. Frequency-of-participation rates increased and this caused the rise in activity-events. The *somewhat natural setting* is the most popular but *very natural* is a close second.

Horse riding

Activity-events increased significantly. The ‘nowhere to go’ constraint increased markedly for current participants but it appears not to have led to a decrease in frequency-of-participation rates. This indicates that participants still went horse riding but were limited to fewer places where they could ride. The 25–39 age group increased its frequency of participation. Use of *very natural* and *somewhat natural settings* increased while use of *totally natural setting* declined over the three SEQORDS.

Driving 2WD vehicles

Activity-event numbers increased in 2001 but by 2007 had returned to just greater than 1997 numbers. The 25–39 and 40–54 age groups show a large decrease in participation rates. ‘Cost’ constraints for non-participants are increasing. It may be that the 25–39 and 40–54 age groups have less disposable income for driving given the rise in fuel prices and other economic concerns.

Section 2

Executive summary cont.

'*Nowhere to go*' also increased as a constraint for current participants. This may be the result of increased traffic congestion or increase perceptions of traffic congestion in SEQ road systems. Coupled with the '*cost*' constraint, this will have a large effect on participation rates and frequency-of-participation. Decreases in driving 2WD vehicle rates also impact on other outdoor recreation activities that are dependent on 2WD transportation. *Very natural* and *somewhat natural* settings are most used by participants.

Driving 4WD vehicles

Activity-events have increased since 1997 but are slightly down on 2001 figures. Decreased participation frequency was the main reason for the decrease in activity-events. The decline in participation frequency for current participants can be explained by a rise in '*family*' constraints and a relatively high '*time*' constraint. The constraints affecting driving 2WD vehicles appear to be different to those affecting driving 4WD vehicles. Data from the SEQORDS suggest that '*cost*' does not play as significant role in limiting 4WD driving. *Very natural settings* are still the most used.

Driving/riding other motorised vehicles

This refers to driving or riding "trail bikes" – off-road motorcycles and similar vehicles. There is a large increase in activity-events. There is approximately a 65% increase in the participation rate of the 15–24 age group between 2001 and 2007. '*No time*' is an issue for current participants but that is becoming less of a constraint. This can help explain increases in participation frequencies. '*Nowhere to go*' is an increasing constraint for current participants but this has not deterred current participants from participating more frequently than in the past. For those people who currently participate, '*cost*' is decreasing as a constraint. *Very natural settings* dominate over *somewhat natural* setting use. The least used setting was *totally natural* but use of this setting increased over the three SEQORDS.

Abseiling/rock-climbing

Activity-events rose across the three SEQORDS. Frequency-of-participation was the reason for the increase in activity-events and effectively offset a decrease in participation rates. *Somewhat natural settings* are the most frequently used setting but increasingly *very natural settings* are being used.

Fishing

Fishing was not in the SEQORDS. Other surveys by the Queensland Department of Primary Industries and Fisheries and the Australian Bureau of Statistics provide comprehensive data on recreational fishing. Comment is presented here because of the rise in participation rates. Between 2001 and 2007, the fishing participation rate increased from 4% to 8%.

Future Research

The issues identified in this study that give direction to future research are:

- continued need to chart the trends in outdoor recreation demand;
- more detailed analysis of constraints to outdoor recreation participation that relate to social issues within the context of population growth;
- how the issues resulting from population growth may affect spatial distribution of existing and future outdoor recreation settings and opportunities; and
- examine the policy, planning and management implications of the bio-physical, social and economic impacts of outdoor recreation activities.

Section 3

Introduction

In 1997, 2001 and 2007, residents of SEQ, Australia were surveyed about their participation in 12 outdoor recreation activities. In each of these, a stratified random sample of SEQ residents over the age of 18 were asked a series of questions in a survey administered by telephone. In 1997 and 2001, additional facilitated workshops with randomly selected interviewees further explored certain qualitative aspects of participation in outdoor recreation activities.

Details about the methodology and results of each survey were published under the title of '*South East Queensland Outdoor Recreation Demand Study*' (SEQORDS) in 1998, 2002 and 2008 respectively. In 1999, a fourth regional-scale outdoor recreation participation survey of eight local government areas in central eastern Queensland was completed. The report on this survey was published in 2000 as the '*Central Queensland Outdoor Recreation Demand Study*'.

The need for research into the outdoor recreation participation trends was highlighted in the 2007 SEQORDS. 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. The identification and confirmation of any trends have been fulfilled through the 2007 SEQORDS and the Trends Analysis.

Data from the 1997, 2001 and the 2007 SEQORDS can be used to chart the trends in outdoor recreation participation and potential demand. To some extent this has been undertaken in the 2007 SEQORDS. However, this report examines some of the trends highlighted in the 2007 SEQORDS in more detail.

The specific objectives for the Trends Analysis was to analyse:

- the relationship between outdoor recreation settings and constraints;
- trends in physically active forms of outdoor recreation across the three SEQORDS;
- the patterns in gendered outdoor recreation participation; and
- the trends in each of the outdoor recreation activities across the three SEQORDS.

An extra objective was to propose research questions to guide a future research framework for outdoor recreation use and demand in SEQ. For more background on the issues surrounding the current study please refer to the 2007 SEQORDS.

The Trends Analysis is limited in its scope and depth of analysis in a number of ways. Firstly, the data from the 2007 SEQORDS is mostly quantitative in nature and thus interpretation and conclusions of the results are limited to inferences concerning reasons for certain trends. There is a limited amount of comments given by respondents in the interviews concerning constraints and this information forms the basis of much of the discussion. Some qualitative findings were used from the 2001 SEQORDS to aid in interpretations in the Trends Analysis.

Secondly, the size of the research grant has limited the scope of the present study. Further resources are needed to undertake a comprehensive review of literature surrounding the reasons for certain trends identified in the present study. This should be considered as a scoping study to identify issues and determine future research needs.

Section 4

Clarification of key terms

The key terms presented in this study are similar to those used in the 2007 SEQORDS. However, there are some differences in the list of outdoor recreation activities chosen for analysis. These are detailed below.

Outdoor recreation activities, recreation settings, and motivation are key concepts that are fundamental to this study. The following definitions from the 2007 SEQORDS are restated here and serve to clarify the meanings of key concepts.

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 in the Study are listed in Table 1. Activities additional to the 2007 SEQORDS are used in this study. These activities are highlighted in Table 1

Table 1: Activities included in the Outdoor Recreation Trends Study

1. Picnicking
2. Walking or Nature Study (eg bird watching, photography)
3. Camping
4. Bicycle Riding
5. Horse Riding
6. Water Activities (eg swimming [excluding constructed pools], snorkelling)
7. Driving 2WD Vehicles on Unsealed Roads
8. Driving 4WD Vehicles on Unsealed Roads
9. Driving Other Vehicles on Unsealed Roads
10. Riding on Motorised Watercraft (eg speed boat, jet ski)
11. Riding on Non-Motorised Watercraft (eg canoe, sailing, kayak)
12. Abseiling/Rock-climbing
13. Fishing*
14. Other Walking*
15. Exercise*
16. Running*
17. Gardening*
18. Other Outdoor Recreation*

* New categories for the Outdoor Recreation Trends Study

4.2 Recreation settings

All recreation activities occur within a specific context called a *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 of the place – the ‘*recreation settings*’ – in which a recreation activity occurs, operate to modify the recreation activity which occurs in that place.

For example, swimming can be enjoyed in a crowded public swimming pool, in a large dam, in a remote mountain lake, in big surf or in the sea around a coral reef. In each of these settings, ‘swimming’ attracts different people with different motivations, risk management skills, swimming skills, fitness, strength, needs to socialise and equipment. Swimming in any one of these settings is not a complete substitute for swimming in any other setting. People choose, consciously or otherwise, the particular situation or setting in which they swim. Some individuals will choose to swim in all of these settings at different times in their lives.

Each combination of setting and recreation activity is a different *recreation opportunity*. Change the recreation *activity* or the recreation *setting* and a different recreation opportunity results. The concept of recreation opportunity (combinations of recreation activity and recreation setting) is used to understand and provide for recreation diversity – the variety of recreation opportunities

that a community may seek. Each recreation opportunity is a specific product of policy, planning, management and marketing.

A recreation setting classification system – the Recreation Opportunity Spectrum – has been developed (originally by Clark and Stankey, 1979) in order to describe the variety of recreation settings. Many public sector agencies which provide outdoor recreation opportunities use the Recreation Opportunity Spectrum or a system derived from it. For example, the recreation setting classification system currently used

by the Queensland Parks and Wildlife Service is called the *Landscape Classification System*. In this system, nine recreation settings, ranging from “Wild Natural Remote (Landscape Class 1) to “Urban Developed Built” (Landscape Class 9) are defined. A full description of these recreation setting classes can be found in the 1997, 2001 and 2007 SEQORDS.

For the purposes of the 2007 SEQORDS and the Trends Analysis, a simplified system of three recreation settings was used. The recreation settings are described in Table 2.

Table 2: Recreation Settings used for the SEQORDS 1997, 2001 and 2007

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 2007 SEQORDS)
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 2007 SEQORDS)
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 2007 SEQORDS))

Section 4

Clarification of key terms cont.

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

4.4 Activity-events

Calculating activity-event data is a particular way of assessing the participation by people in outdoor recreation activities. It is quite distinct from calculating the percentage of the population that participates in outdoor recreation activities. Activity-event calculation can be explained in the following way.

For the 12 months preceding the surveys, each of the three SEQORDS measured:

1. the number of SEQ residents (also shown as the percentage of SEQ’s resident population) who participated in each of the 12 outdoor recreation activities; and
2. the frequency of participation by SEQ’s resident population in each of the 12 outdoor recreation activities.

Knowledge of the number of individuals and percentage of the regional population who participated in any of the 12 outdoor recreation activities, as well as the number of times (frequency) per year that they participated in those activities, allows

the number of activity-events in the 12 month period prior to each survey to be calculated.

The number of activity-events can be calculated in three ways –

1. by multiplying the participation rate (the absolute number and percentage of individuals in the target population who participate in an outdoor recreation activity) by the **median** (the mid-point between the most active half of the population and the least active half) frequency of participation;
2. by multiplying the participation rate by the **mean** (or average) frequency of participation; or
3. by multiplying the participation rate by the **mode** (most frequently recorded number) frequency of participation.

Unless otherwise stated, the number of activity-events has been calculated using the *median* frequency. Further detail about the statistical analyses undertaken for the SEQORDS is available in the reports previously published about each of these studies. Refer to Section 15 for details of these references.

Table 3: Motivations classifications used in the SEQORDS

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

The number of activity-events per unit time is a way of measuring the magnitude of participation by the whole of the SEQ resident population in an activity over a specified period. Both the number of participants and the frequency of participation are useful measures but neither provides a complete understanding of participation. Variations in either or both of these measures indicate changes in participation which may have significance for policy, planning or management.

A land manager or tourist operator might notice an increased number of activity-events for a particular activity in a particular place. This increase could result from several interactions between the number of people participating and the frequency of participation. For example, an increased number of activity-events may result from:

- a decrease in the total number of people participating which is offset by some people who participate much more frequently; or
- a large increase in the number of people participating without any increase in participation frequency.

The former situation might require more frequent onsite staff presence to monitor safety and maintain facilities. The latter situation might require construction of additional car park and toilet capacity to cater for peak demands on weekends or during holidays. The data from the three SEQORDS were intended to provide a sub-regional scale overview of participation and constraints on

participation for the residents of SEQ. The number of activity-events for each outdoor recreation activity in the region, the total number of outdoor recreation activity-events for the region and changes to these data over time help provide an understanding of the consumption of and demand for outdoor recreation opportunities in SEQ.



Section 5

Methodology

The aim of the 2007 SEQORDS was to mirror the 2001 study so that comparisons between the 1997, 2001 and the 2007 SEQORDS were valid. Overall there was relatively little difference in methodology between the three studies. The small differences that did occur may contribute to some of the observed changes between the three studies. The key methodological aspects relevant to the comparative analysis of the three SEQORDS are presented in Table 4.

The most significant difference between the three studies was the difference between the sample of age

groups and the actual population. See Table 5 for the data on sampling of demographic profile.

The major conclusion concerning the differences between the three studies is that sampling of certain age profiles for the 2001 study may lead to an overestimation of participation and frequency rates of activities in the 25–39 and 40–54 age groups. This may help explain why the participation rates and frequency rates in some activities peak in 2001 and then decline in 2007. However this explanation would not account for all the changes noted between the 2001 and the 2007 results.

A major limitation of the Trends Analysis, is that there is no extensive qualitative data in the 2007 SEQORDS that can help explain the trends noted. The 2001 qualitative results as well as the interview respondent comments concerning constraints on the 2007 SEQORDS are the empirical basis from which much of the analysis is derived. Other literature has also contributed to the Trends Analysis.

Table 4: Key methodological features of the three SEQORDS

Methodological Feature	1997	2001	2007
Sample Size	2221	2820	1334
Confidence Interval	2.1 (95%)	2.2 (95%)	2.7 (95%)
Definition of Outdoor Recreation Activities	Swimming used instead of water activities in the telephone interview	Water activities replaced swimming	Water activities used in survey
Distributions of Sample –Demographic features	Sample replicated age profile of population	Some age groups sampled were not representative of the general population	Sample replicated age profile of population

Table 5: Comparison of sample age groups over the three SEQORDS

Age range	1997 study	2001 study	2007 study	Actual Pop. 15 years of age or over
15–17 years	5%	5%	18%	9% (15–19)
18–24 years	14%	9%		9% (20–24)
25–39 years	29%	29%	27%	27%
40–54 years	25%	31%	26%	26%
55–64 years	10%	13%	14%	14%
65 years or more	16%	13%	15%	15%

(Note: the 15–17 and the 18 to 24 year age group were combined in 2007)

Section 6

Literature review: social trends and outdoor recreation

A brief literature review was conducted with the aim of complementing the analysis of trends presented in the latter sections of this report. The literature explores some of the issues that may affect outdoor recreation participation rates, setting use and preference, physically active forms of outdoor recreation and the gendered nature of outdoor recreation activity. It is not a comprehensive review. Further work is needed to undertake a thorough review of literature on contemporary issues relating to outdoor recreation participation issues.

The issues that have been selected for the Outdoor Recreation Trends Study include:

- decrease in the amount of ‘time’ available for outdoor recreation participation;
- the effect of Sunday trading on potential participation in leisure;
- social changes and leisure; and
- decreasing opportunities for outdoor recreation in SEQ.

Each of these issues will be discussed in turn in the sections below.

6.1 Decrease in the amount of ‘time’ allocated for outdoor recreation

Time is an issue for people who wish to engage in outdoor recreation in SEQ. Before the three SEQORDS were conducted, the average amount of time people spent on recreational pursuits in Australia decreased by 90 minutes per day from 1992 to 1997. In 1997 people aged over 15 years spent 1 hour and 43 minutes on sport and recreation per day (Australian Bureau of Statistics, 2006).

It is difficult to estimate the changes in time use from 1999 to 2007 because the Australian Bureau of Statistics did not collect time use data over that time period. An indication of the changing relative priorities of work and leisure can be found in the changes to features of employment over the period of the three SEQORDS.

There have been major changes to the way people have been employed in Australia during the period of the three SEQORDS. These changes can affect outdoor recreation. There are two key aspects that can influence participation rates of outdoor recreation. These are: the change in number of hours worked by full time workers and the changes to casual and part time employment. The changes in these types of employment have particular impacts on free time and therefore may constrain participation and frequency of participation in outdoor recreation activities.

The changes to hours worked by full time employees change free time available for leisure for that group. For full time work there has been an increase in the total number of hours worked in Australia over the period of the three SEQORDS:

Average weekly hours for full-time workers increased from 40.2 hours to 41.9 hours between 1985 and 2005. This trend has been similar for both male and female full-time workers, with men’s hours increasing 1.9 hours per week (to 43.2 hours) over the period, and women’s increasing 1.7 hours per week (to 39.3 hours). (ABS 2007)

This increase in working hours may impact on “free” time for leisure which includes outdoor recreation. Of major concern from a ‘benefits of leisure and recreation’ perspective, has been a rise in the hours by employees who are already working long hours. For a growing number of workers the idea of free time is becoming an elusive reality:

The proportion of employees who worked 50 hours or more increased between 1979 and 1999, from 14% to 19%, but had declined slightly to 18% in 2005. The proportion of employees who worked very long hours (60 hours or more), continued to increase from 8% in 1979 to 11% in 2005. (ABS 2007).

However, not all people are employed in full time work. Changes to casual and part time employment can also reveal the amount of “free” time available for individuals undertaking this type of work. The proportion of part-time workers has increased from 16% in 1979 to 29% in 2005 and there was a corresponding decrease in the rates of full time employment. This may be seen to be a positive in the allocation of time to leisure in many instances because of increased work flexibility. However, because of the type of work, the pay rates, and the timing of the work, this rise in casual/part-time work can have negative impacts on leisure and outdoor recreation.

Section 6

Literature review: social trends and outdoor recreation cont.

There are two issues regarding casual employment that have the potential to impact on participation rates of outdoor recreation. These are: the hours worked, and the rates of pay. The proportion of people who work in part time employment and are time poor, is growing. Decreases in the length of holidays and less free time during the working week (because workers need to work longer hours in a number of lower paying jobs) mean that people have less free time for leisure and recreation. More people being employed in casual/part time employment will lead to less people having the time to undertake outdoor recreation activities. This is particularly so for outdoor recreation activities which require large amounts of time.

From an income perspective the changes to the number of casual employees can also explain trends in outdoor recreation. In terms of financial motivation, there has been an increase in part-time workers wanting to work more hours. In 2005, 7% of part-time workers wanted to work more hours compared with 6% in 1995 (ABS 2006).

The implications of this are that there are more people who have “free” time but do not have the funds to pursue leisure and outdoor recreation interests. At the same time, there are more people who have enough money but do not have the time. It must also be noted that these issues are distributed unequally throughout the population. People from lower socioeconomic backgrounds are more likely to experience both these issues of part-time work compared to higher paid full time employees.

Based on the above data the main conclusions are that full-time workers are finding themselves with less free time to undertake recreation and that an increasing number of people who undertake part-time work are also time poor or they have decreased funds for possible expenditure on outdoor recreation. These features may explain certain trends in participation rates outlined in the sections below.

6.2 The effect of Sunday trading on potential participation in leisure

The introduction of Sunday trading is likely to have had a major impact on outdoor recreation participation rates. However, there is limited data on the relationship between the effects of Sunday trading on consumer behaviour and subsequent impact on outdoor recreation. Research attention is also needed to determine the impact of Sunday trading on the leisure time of the workforce employed on Sundays. Despite limited research that directly focuses on outdoor recreation the impact can be inferred from research on consumer behaviour as well as statistics on employment trends.

The introduction of Sunday trading has had an effect on shopping behaviour, and thus a likely impact on leisure and recreation. In a study on the introduction of Sunday trading and general shopping behaviour in NSW, the findings indicate that the change in shopping behaviour is large enough that it will have a likely impact on the leisure and recreation of the population. Baker (2002) found

that the number of visits to shopping centres increases when Sunday trading is introduced and thus there is a corresponding increase in the time spent at shopping centres. There is also a tendency for more visits towards the end of the week and during the weekend.

The potential impact on leisure and outdoor recreation is that people will tend to go shopping instead of undertaking other forms of leisure and recreation on the weekend. Although shopping may not take up all of the hours that could be used for recreation on a Sunday, the introduction of shopping on Sundays places another activity within the time budget that individuals or families now need to negotiate.

Sunday trading also impacts on employees. Not only is there an impact from people switching preferences to participating in shopping on Sundays but also the people employed during this time will have decreased opportunities to recreate on Sundays. Approximately 15% of the work force in Australia is employed in retail on Sundays (Baker, 2002). This alone may explain much of the decreases noted between the 2001 and the 2007 SEQORDS.

Another feature of the Sunday trading employment characteristics is the age groups that are employed during Sundays. The majority of people employed in retail outlets are young people. Up to 50% of these people are aged between 15–19 (Social Trends ABS 2004). This means that younger people have more employment demands placed on them and thus

have decreased opportunities for outdoor recreation as a result of the change in trading hours.

The conclusions from the above discussion are as follows. The effect of Sunday trading for a large proportion of the population has been to shift the type of leisure away from outdoor and other sporting leisure activities to one which is indoors and dominated by a consumptive leisure experience. Additionally there are a significant number of people employed on Sundays to service this consumptive indoor leisure experience. Community groups opposing the introduction of Sunday trading alleged that the introduction would impact on sport, community involvement and religious activities. There was little exposure given to the possible effect on outdoor recreation. Further research is needed to verify the conclusion that Sunday trading has had a major impact on participation rates and frequency rates between 2001 and the 2007 SEQORDS.

6.3 Social changes that affect leisure and recreation

The social changes relevant to explaining changes to participation rates are as follows:

- Changes in computer based leisure including the Internet; and
- Home entertainment.

The number of households with home Internet access has increased significantly since 1997. By 2004–05 the number of households that had home access to the Internet had risen to almost 56% (4.4 million)

compared to 16% (1.1 million) in 1997 (ABS 2005). In terms of frequency of Internet usage the number of adults aged 18 and over (7.8 million) using the Internet at home every day was 36%. Of the population who used it once a week there was an increase in use of 49% in the year prior to April 2003. Access to the Internet also increases as children grow older. Of children aged from 5–8 year old 37% had used the Internet in the 12 months prior to April 2003. Of children aged 12–14 years old the number rises to 88%. Increased use of the Internet impacts on the time budgets of people and thus increases in Internet and recreational computer use takes away from other leisure pursuits including outdoor recreation.

Included in the home-based leisure category for the purposes of the present study are: computer games; audio systems; pay TV; and other television technology including wide screen television. Changes to sales data of these products can indicate the changes in leisure preferences. Trends in real household financial consumption expenditure can indicate changes to home based leisure. Some expenditure can be assigned to purchases of home furnishings etc. but the majority of expenditure is on home entertainment systems.

There has been an increase in real household financial consumption expenditure from 4.95 in 1996 to 5.6% in 2006. This expenditure includes money spent on pay TV. In June 2005 approximately 1.7 million households subscribed to pay TV providers. In 1997 the number of users was negligible. (ANZ Economics 2006)

Also impacting on outdoor recreation has been the decrease in cost of electronic home based entertainment systems. The decreased cost of home based leisure activities will ultimately lead to an increase in time spent undertaking the activity. This will most likely be at the expense of other activities including outdoor recreation. The decrease in cost is significant.

In particular, average consumer prices for audiovisual and computing equipment in June 2006 were half what they were in 2001 and a quarter of their 1989–1990 levels. This category includes massively popular items such as televisions, audio systems and PC's all of which are becoming integrated into comprehensive home entertainment systems. (ANZ Economics 2006)

The rise of new home based entertainment technology and the decrease in costs has led to home based leisure becoming more popular. The increased availability of the Internet and development of computer games has led to the increased popularity of home based leisure. The trend in leisure and recreation in Australia based on work-life balance and preference for leisure pursuits presented so far is one of decreasing time for leisure, some issue of cost for certain groups and a general increased preference for home based leisure. Outdoor recreation consequently has become less important. This consequence may explain decreases in some activities.

Section 6

Literature review: social trends and outdoor recreation cont.

6.4 Gender issues

Gender issues are a complex and important issue to examine in light of changes to recent trends in outdoor recreation. The following literature will focus on the recent issues of risk to women whilst undertaking outdoor recreation. Many of the gender issues outlined in the Senate Inquiry into Women in Sport and Recreation in Australia (2006) are pertinent. However, this Trends Analysis will focus on risk and women's participation in outdoor recreation from a regional perspective.

In recent time there has been an increase in the reported number of sexual assaults on women in public places whilst they have been recreating. These attacks have been given prominence in the media. An example of the media response is provided in Figure 5.

Behavioural guidelines have been publicised in an attempt to educate women who venture into public open spaces. The attacks that have been reported in the media are indicative of statistical increases in sexual assault rates in recent years. The statistics for sexual assault in the SEQORDS region are presented in Table 6.

The data indicate that there was a large increase in reported cases of sexual assault in the study region. In metro north region of Brisbane there was an increase of 21% of the reported cases of sexual assault between 2004/2005 and 2005/2006.

Figure 5: ABC media report March 2007

Police predict more Brisbane bikeway attacks
Posted Sat Mar 3, 2007 8:34am AEDT

The head of the Queensland police task force investigating a series of assaults on women in Brisbane says he believes there will be more attacks. Since early last year, 42 women have been attacked along Brisbane's bikeways.

Police task force Echo Shine is investigating and has identified about 300 men of interest. Interviews are being conducted, DNA samples taken and alibis checked. Task force head Detective Inspector Bob Hytch believes there are at least two serial sexual offenders targeting women. More than a month has passed since the last attack, but he believes it is only a matter of time before another happens. *"I'm a realist – I believe the attacks will occur again,"* he said. A \$50,000 reward was announced last month for any information leading to an arrest.

Table 6: Changes in reported sexual assault statistics in the SEQORDS region (Numbers in brackets are for the year 2005–2006)

Area	Reported in 2006–2007	Per 100 000 population	Percentage change reported 2006–2007
Metro South	914 (927)	122 (126)	-1% (17%)
Metro North	707 (689)	116 (115)	3% (21%)
SEQ	735 (685)	109 (103)	7% (14%)

Source: Queensland Police Service Annual Report Crime Management

In all three regions there was a significant rise in reported cases during this time period. In the next time period (2005/2006 to 2006/2007) there was a slight increase.

It must be noted that this data includes assaults that may have taken place in domestic or other non-outdoor situations. However, the results do indicate that the media's claim of increased daylight attacks on females in parklands is not without validity. From this data it can be assumed that womens' participation in activities such as walking and other activities undertaken alone in parklands have decreased as a result of fear of attack. Further study is needed to verify the extent of the impact on participation rates.

6.5 Liveability and outdoor recreation in SEQ

The central argument presented in this section is that the impact of population growth is becoming a core issue that is affecting the liveability of SEQ. At present the impact of population growth could be considered a significant secondary issue. However, this issue is increasing in magnitude. The increasing impact on outdoor recreation mirrors the increase in issues of sustainability associated with of population growth within SEQ. The discussion that follows below outlines the argument.

The attractiveness of the SEQ lifestyle is commonly understood to be one of the main attractants to people moving to the area. Further analysis of what makes people satisfied with urban living has been undertaken within the region.

In determining urban living satisfaction, it has been demonstrated that the most *“favourable attribute of urban living is neighbourhood access to facilities (like shops, schools, health services and recreational facilities), followed by publicly provided neighbourhood services (like parks and gardens, libraries etc.). The least favourably evaluated attribute of urban living is regional transport, followed by neighbourhood crime.”* (McCrea, Stimson and Western, 2005, p 134).

Favourable regional attributes of SEQ differ slightly from the urban living attributes identified above. For the general population the attributes that are important to regional satisfaction include the cost of living and government service provision (McCrea et al., 2005).

Population growth can impact on regional satisfaction. The impact will most likely have a greater affect on government service provision, because the cost of living is relatively independent of changes in the local population. If service provision of outdoor recreation does not match the needs of an increased population, then the overall population will become less satisfied with the region of SEQ. This could happen in a short time frame for some segments of the population.

Other important factors of regional satisfaction for specific age groups include concern about pollution levels for younger people and parents. Improvements to transport systems are important for older generations (McCrea et al, 2005). Both these factors are dependent on how growth is managed in SEQ. Congestion and to a lesser extent pollution from over-stressed transport systems will most likely have an impact on participation rates of outdoor recreation.

This research adds weight to the argument that outdoor recreation is an important issue for many people of SEQ but is secondary to other factors that are currently driving satisfaction with urban living. This situation, however, is not static.

The problems of growth and life satisfaction in SEQ have also been identified by other authors examining the sustainability of growth in SEQ. In SEQ, the *“quality of life is declining due to increased traffic congestion, travel times, crime rates, and loss of open space for recreation and community events.”* (Graymore et al, 2002)

These conclusions are mirrored in the 2001 and the 2007 SEQORDS. In the 2001 SEQORDS it was identified that participants were already experiencing the negative impacts of population growth. This was evidenced in the thematic analysis of focus group responses who participated in that study.

Section 6

Literature review: social trends and outdoor recreation cont.

Although no qualitative study was undertaken in 2007 the response from current participants in the 2007 SEQORDS indicated that the problem of 'nowhere to go' had increased since 2001. Thus, there is a reasonable degree of confidence in concluding that the impact of population growth is increasing.

The conclusion from the SEQ's Sustainable Human Carrying Capacity research (Graymore et al.) are pertinent to the argument of ensuring that the impacts of population growth do not become a core issue affecting the liveability of SEQ.

... it would appear that the current 'sea change' trend to SEQ will only continue to degrade the health of the coastal and inland ecosystems negatively impacting on the sustainability of SEQ unless there are changes in the management of population impacts, such as planning to reduce travel between work, home and other amenities and increasing the number and size of protected areas. (2002, SEQORDS p124)

The need to maintain the sustainability of our regional ecosystems closely follows the need to focus on maintaining the liveability of the region. Based on the above literature there is a need for government intervention to maintain the current liveability of the region through planning and management efforts targeting key components that influence perceived liveability of east Queensland. The SEQ Regional Framework for Growth Management (Regional Coordination Committee (2000) is an example of measures that can be implemented to address the issues of liveability.

6.6 Other outdoor recreation studies

Other outdoor recreation literature has also helped inform possible explanations of the trends identified in the present study. The following list of literature is cited here for further information concerning trends in outdoor recreation in Australia and the USA.

- Review of Recreation Participation and Demand Studies for Trail-based Recreation Activities (2006);
- Participation in exercise recreation and sport, Annual report (2006);
- Senate Enquiry into Women in Sport and Recreation in Australia;
- Outdoor Recreation In America 2003: Recreation's Benefits to Society Challenged by Trends (2004);
- Outdoor Recreation Outlook 2008 Prepared for the 2007 Marketing Outlook Forum. (2007);
- From the USA Outdoor Industry Foundation (OIF):
 - o The Next Generation of Outdoor Participants (2007);
 - o The Active Outdoor Recreation Economy (2007);
 - o Active Outdoor Recreation Participation Study (2005).