

Davies Creek

Site Level Data Report

2001/2002



Joan M Bentrupperbäumer



Rainforest CRC

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For this research:

- | | |
|---|-------|
| ▪ James Cook University Ethics Approval No. | H1272 |
| ▪ Queensland National Parks & Wildlife Service Permit No. | FNQ06 |
| ▪ Wet Tropics Management Authority Contract No. | 654 |

Terms of Reference

Visitor Use Survey

The following Terms of Reference have been extracted directly from the WTMA/Rainforest CRC Contract document.

Background

Measurement of visitation to the WTWHA extends far beyond the estimation of visitor numbers. The collection of basic visitor numbers provides baseline information only. Further visitor specific information is required to provide managers with an understanding of patterns of visitor use, behaviour, perceptions, attitudes, expectations and satisfaction. A comprehensive understanding of these visitor aspects is critical to effective visitor management including minimisation of biophysical impacts and maximising benefits to the land manager, visitor and community.

WTMA commissioned Manidis Roberts Consultants in 1993 to conduct an extensive visitor survey with the aim of providing baseline information for comparison with future visitor use surveys. The Manidis Roberts 1993/1994 visitor survey was conducted over 56 sites and although not comprehensive provided an important first step in visitor monitoring within the WTWHA. The MR survey approach include 3 key elements:

- traffic counts
- site observations
- visitor interviews

A number of subsequent visitor use surveys have taken place throughout the WTWHA, and although they have not taken place in as many sites as the Manidis Roberts 1993/1994 survey, they have been far more comprehensive and complex in order to investigate the variety and complexity of issues identified by management agencies.

Aims:

- To collect, compare and review site-based visitor information against previous survey exercises, including aspects of the MR survey
- To update WTMA's visitor survey system to achieve improved administrative efficiency and capture of key site-based visitor information which will aid land managers and the tourism industry in making informed management decisions
- To contribute to measuring psychosocial indicators for State of Wet Tropics reporting processes
- To provide an integral input or tool for the 'Visitor Monitoring System (VMS) for the Wet Tropics World Heritage Area', a project which is also being undertaken by Rainforest CRC during 2001 to 2002.

(Ref: *WTMA Contract # 654 , 2001*)

About the Author

Dr Joan M Bentrupperbäumer is a Senior Research Fellow and Project Leader with the Rainforest CRC and Lecturer at TESAG and the School of Psychology, James Cook University, Cairns. Her research interests include human-natural environment transactions using social, psychological and biophysical perspectives. Her research approach incorporates an interdisciplinary perspective on reciprocal relationships indigenous and nonindigenous people have with the natural/built/social/cultural environment in the WTWHA and the implications of such relationships for environmental management, tourism and local communities in the region. A particular emphasis in the research is placed on the 'real world' application of results in terms of planning for, managing, monitoring and reporting on the State of the Wet Tropics, and developing practical mechanisms and strategies to mitigate impacts on those features of the WTWHA inherent to its World Heritage status.

Acknowledgments

The success of this research project, which was undertaken across ten sites within the Wet Tropics World Heritage Area, has very much depended on the many people involved in various research related tasks. In particular I would like to acknowledge my colleague Dr Joseph Reser who has worked together with me over a number of years now developing and refining the analytical framework, survey instruments, and methodologies for this multidisciplinary research on impacts of visitation and use in protected areas. Together we have finalised a report which brings together the results from the ten site level reports, and discusses in detail the analytical framework, methodologies and procedures which were used to undertake this research (Bentrupperbäumer & Reser, 2002a). I would also like to specially acknowledge my research assistant Sue-Ellen O'Farrell who has made a major contribution to this research by assisting me in every aspect of the administration of the project.

In addition I wish to acknowledge all of those listed below who were involved in various aspects of this research.

A. Data Processors

Bronwyn Guy, Joshua Guy, Charmayne Paul, Sue-Ellen O'Farrell, Lucas Talbot, Sunny Pegaroro and Jenny Butler.

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Kristie Ashden, Rosanna Brown, Shannon Bros, Megan Campbell, Margit Cianelli, Campbell Clarke, Laurel Cooper, Cheryl Cornelius, Leyla Demis, Mathew Earle, Heidi Freiburger, Malcolm Frost, Michelle George, Paula Gilbard, Bronwyn Guy, Joshua Guy, Kristen Haaland, Alicia Hill, Steve Lawrence, Denise Lievore, Lisa Martin, Rik Morgan, Sue-Ellen O'Farrell, Charmayne Paul, Sunny Pegaroro, Romina Rader, Quinn Ramsden, Hilde Slaatten, Mathew Sutherland, Lucas Talbot, Colin Tonks, Ben Trupperbäumer, Steve Turton, Roger Wilkinson, Robyn Wilson, Cleo Wilson.

C. Field Assistants at Davies Creek

Robyn Wilson & Steve Turton (Field Supervisors), Cheryl Cornelius, Cleo Wilson, Heidi Freiburger, Rik Morgan (Traffic Counter)

D. Research Colleagues

Dr. Robyn Wilson, Assoc. Prof. Steve Turton and Dr Miriam Goosem

E. WTMA Personnel

Max Chappell, Campbell Clarke, Dr Steve Goosem and Ellen Weber.

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This Research

Natural resource managers are increasingly aware that the real issue and challenge for them is people management. In a protected area context this requires an informed understanding of the nature and quality of the interaction between people and environment. The multilayered and multidisciplinary site-level approach applied in this research is one that provides such an understanding and has evolved from, built upon and refined earlier research endeavours (Bentrupperbäumer & Reser 2000). The conceptual and methodological framework which assesses and documents this interactive process and which was applied in this research is outlined in Figure 1. This framework differentiates between four primary research layers or domains, one for each of the four key site-level ‘environments’ within the setting: *social and psychological* (psychosocial), *natural and built* (physical) (Reser & Bentrupperbäumer, 2001). Research projects representative of each of these ‘environments’ were conducted simultaneously at the site, which provided a comprehensive and realistic context for measuring, monitoring and reporting on the *impacts* of visitation and use at recreational settings in the Wet Tropics World Heritage Area.

From a management perspective, this site-level research approach provides specific site and situation level data which can directly inform site level decision-making and practice, as well as monitoring and reporting (see Site Level Reports #1 to #10, Bentrupperbäumer 2002a to j). In addition, this site-level sampling allows for an accurate and meaningful aggregate picture of what is happening at a bioregional or World Heritage Area level, as long as data collection sites and data collection are representative (see Report #11, Bentrupperbäumer & Reser 2002a, *WTWHA Bioregional Perspective 2002*). Given that reporting on the State of the Wet Tropics is a statutory requirement, the standardised conceptual and methodological framework used across the ten WTWHA sites and the subsequent information provided by research such as this is critical for continued monitoring and reporting change over time.

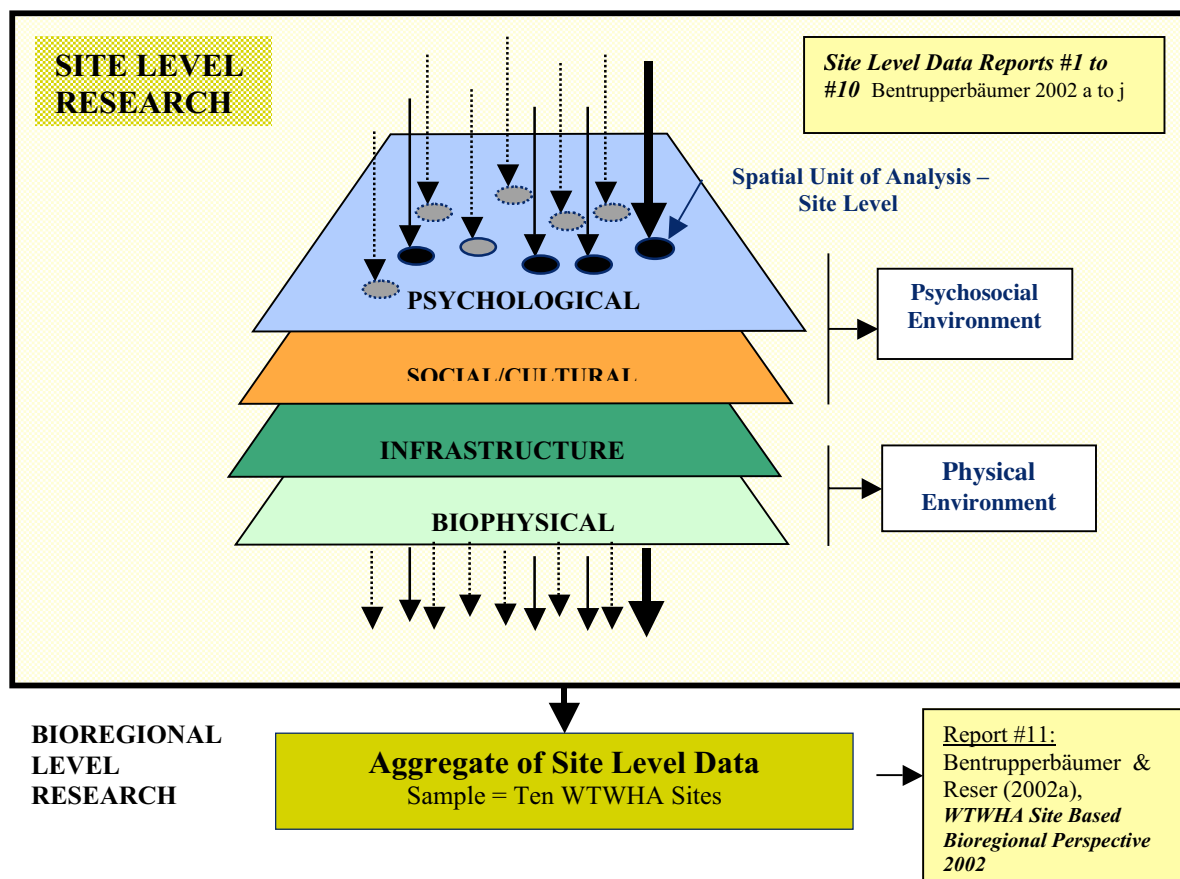


Figure 1: Diagrammatic representation of the research layers, domains and report outputs for this research .

This Report

This report is one of ten site-level reports which presents a comprehensive set of data analyses for the strategic sample of research tasks undertaken across three of the four research domains outlined in Figure 1. The research covered in this report was undertaken at the Queensland Parks and Wildlife Service, **Davies Creek**, during 2001 and 2002. Since the primary objective of this report is to provide key site-level data of relevance to all levels of management, from on-ground to policy, planning, monitoring and reporting, details of methodology are not included here. This information is available in a separate but accompanying report (Report #11, Bentrupperbäumer & Reser, 2002a). When *comparative data* from previous studies are available they are included in each relevant section. When such data is from studies other than the authors, methodology and specific measures are often different. The layout of this report, which compliments the research domains presented in Figure 1, is outlined in Figure 2 and the discussion that follows.

SITE LEVEL REPORT

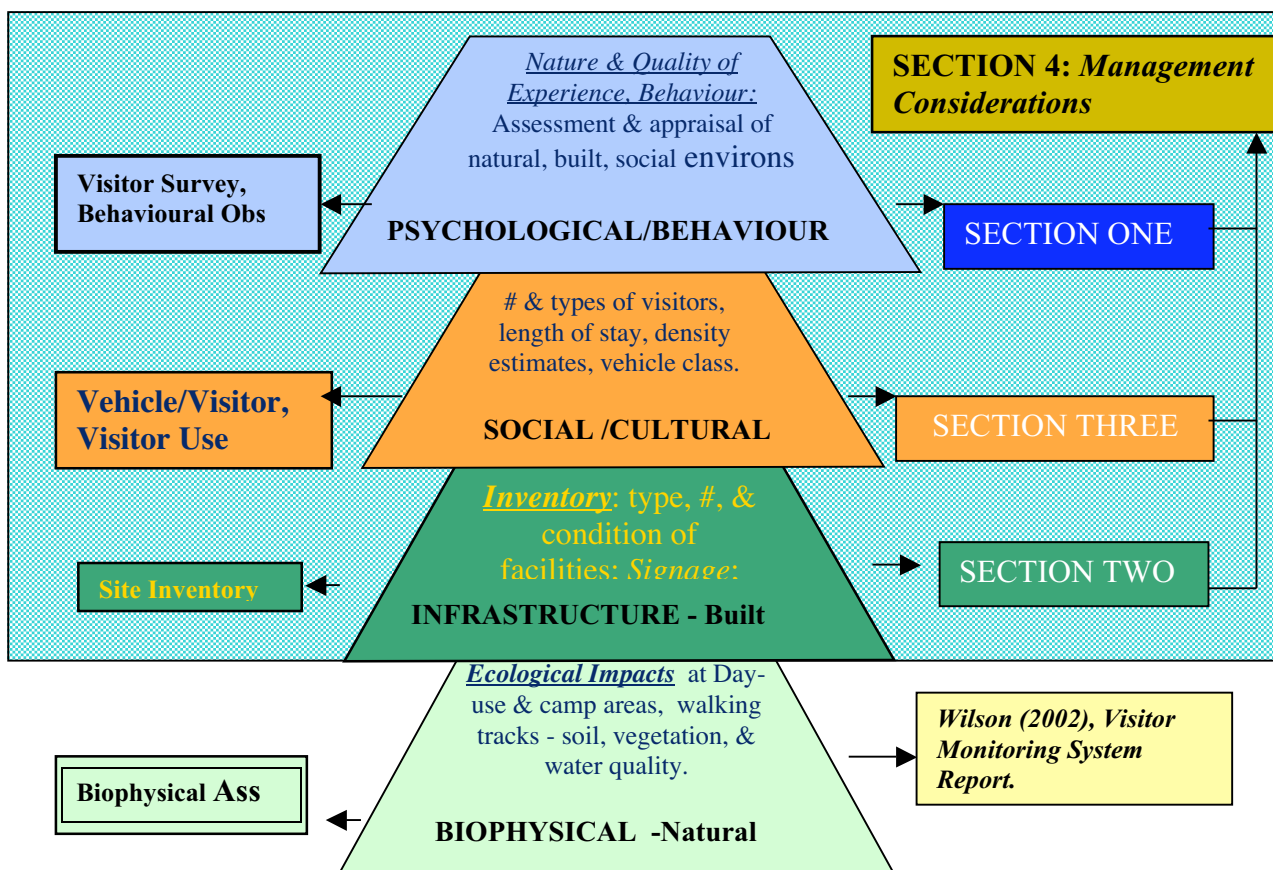


Figure 2: Diagrammatic representation of the report layout and report sections.

The layout of this report is in four sections. The first three sections present data which reflect the strategic sampling across three research domains, while the fourth section addresses key management considerations. The data in this report is presented in some considerable detail the purpose of which is to allow for the identification in future monitoring of changes in the system, however subtle. It also provides management agencies with the detail required for State of Environment reporting and planning, policy and on-ground management decision-making.

Data Sections

Section 1: *Psychological and Behavioural*

In the first section, general descriptive analyses of the two stages of data collection undertaken at this site in September, 2001 and April, 2002, are presented. Data collected includes:

- a) *visitor survey* provides information on visitor profile, reasons for visiting, appraisal of the natural, built, social environment, and signage, visitor activity, prior information sources used, experience and satisfaction. Comparable survey items from Manidis Roberts (1993/1994) are also included.
- b) *behavioural observations*, and
- c) *general comments* by visitors, field assistants and field supervisors.

Section 2: *Infrastructure/Built Environment*

The second section presents an *inventory of site facilities and infrastructure*, including all *signage*, which was undertaken by the author during the same data collection periods. An inventory from previous research (Bentrupperbäumer & Reser 2000) is included for comparison as is signage information from SitePlan (1993).

Section 3: *Social Setting/Visitor Use Patterns*

The third section presents information on the social setting of the site including visitor use patterns. While the research undertaken in this section does not encompass the full meaning of *social*, the information nevertheless provides an overview of visitor use patterns including number and type of visitors accessing the site, length of stay at the site, pattern of use over time, vehicle type, etc. This information was obtained and is presented in two ways.

- a) The first is observer-based information which outlines vehicle and visitor data obtained over 4 x 8 hour observation periods during September 2001 and April 2002.
- b) The second is instrument-based information obtained from the traffic counter which provides monthly, weekly, daily records of vehicle numbers, and visitor numbers calculated from visitor counts in vehicles and Questionnaire item # 8 in the visitor survey. The traffic counter was installed for a continuous period of 12 months from mid September 2001. Traffic counter data from Manidis Roberts (1993/1994), the WTMA Traffic Counter Program (1993-1997), and Bentrupperbäumer and Reser (2000) are included for comparison.

Integrative Section

Section 4: *Management Considerations*

The fourth section of this report addresses management considerations that have emerged through the integration of the data across the above three research domains. These considerations cover topics such as: presentation, protection, opportunities, problems and issues, threatening processes, layout and design, indicators and monitoring.

Site Location & Description

Davies Creek visitor site is situated within the Davies Creek National Park west of Cairns, approximately 46 km from Cairns, and 15 km south east of Mareeba. Davies Creek is not a Wet Tropics World Heritage site but lies adjacent to the north-east edge of the tableland section of Australia's Wet Tropics of Queensland World Heritage Area (WTWHA), which extends from Cooktown southwards to Paluma, encompassing an area of 894,420 hectares (Figure 3).

Natural Environment

Typical to the Mareeba area, Davies Creek is a drier site compared to other coastal and tableland sites within the bio region. Davies Creek (which has its source in the Lamb Range behind Cairns) streams down granite hillsides under a eucalypt forest. There are clear streams, with large granite boulders that provide visitors with slides and pools to swim in. The granite soils support the eucalypt forest, as well as red bottle brushes, melaleucas and wildflowers that bloom in the spring. Such an environment is home to various bird species and the Northern Bettong. In addition to the creek, and flora and fauna, the primary natural attraction at the site is the Davies Creek Falls (WTMA 1999).

Indigenous and Non indigenous Cultural Environment

The area around Davies Creek is thought to have been once occupied by three indigenous tribes: Bulway, Djabugay and Nyagali (DNRM, 2001). Very little is known and hence recorded about these three tribes in the Davies Creek area. The Mulridji tribe occupied the areas surrounding Davies Creek and Mareeba, however it is doubtful that this tribe would have also occupied Davies Creek as they maintained their existence through hunting and gathering within their traditional boundaries (Qld. Government, 2002). It is believed that in 1893, when gold was discovered in Tinaroo Creek, Davies Creek became the place for gold prospectors (DNRM, 2001). The effects of searching for alluvial gold and strip mining, which exploits the vegetation, were enormous on the indigenous tribes who were forced to leave and find food elsewhere (Bain & Draper, 1997 cited in DNRM, 2001).

Built Environment

The Davies Creek site has been designed for day usage and camping, providing visitors with the following facilities: car park area, picnic tables, fire places, toilets, and a circuit walking track and lookout platforms around the falls. Signage is evident at the site, though minimal. The layout of the site is presented in Figure 4. See Section 2 for details of infrastructure/built environment.

Opportunities

Recreational The main activity-based recreational opportunities available at this site are swimming, picnicking, camping, and walking (see Section 1 for details). There is one walking track present, a graded gravel path which leads around the creek to a number of lookout sections across the falls and back up to the car park. The current status of the track is outlined in detail in Section 2. Visitor comments relevant to the track are presented in Section 1. Other recreational opportunities available include: photography and bird/wildlife watching.

Experiential In addition to the activity-based recreational opportunities outlined above, Davies Creek provides many important experiential opportunities such as nature appreciation and experience including observing scenery and possible wildlife encounters, socialising with family and friends, respite and solitude. While solitude may not be fully achievable at this site due to its layout and popularity, nevertheless it is possible for visitors to be alone some of the time, particularly early morning and late afternoon.

Visitation

Compared to other sites in the Wet Tropics, Davies Creek experiences relatively low levels of visitation with approximately 25,00 visitors per year (Mossman Gorge > 400,00 visitors per year). The visitation numbers are lowest in November (438 vehicles) and highest in October and January (791-795 vehicles), are spread evenly across the week days but are much higher during weekends.

Site Maps

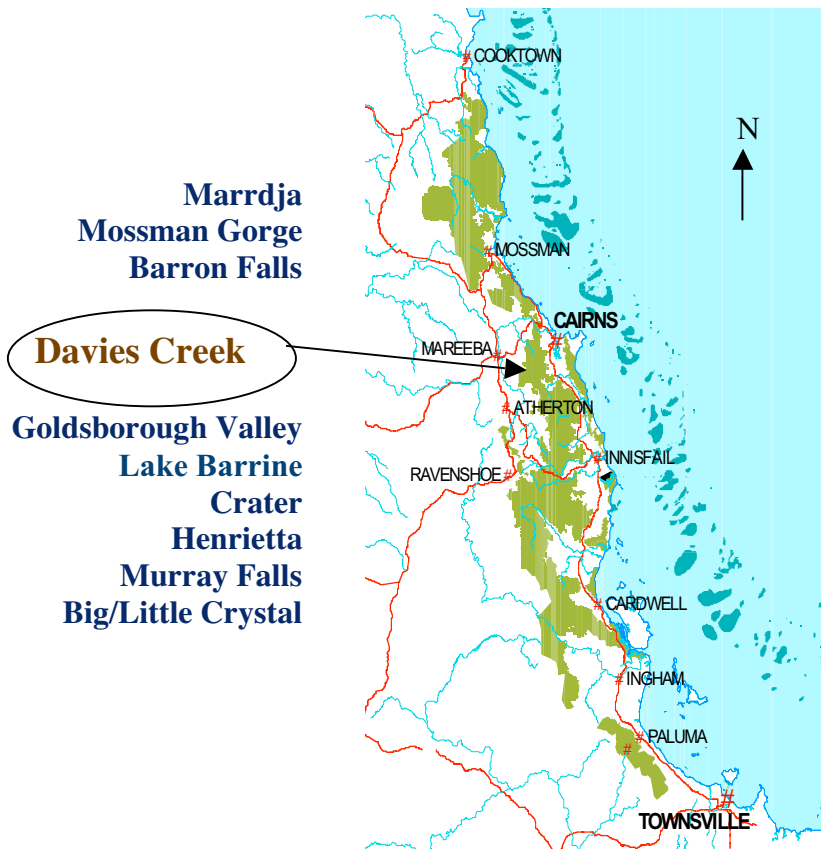


Figure 3: Site location within the Wet Tropics World Heritage Area.



Wet Tropics World Heritage Area of Australia

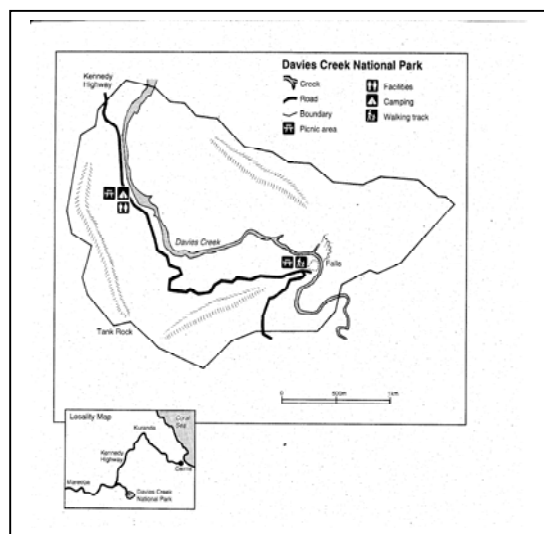


Figure 4: Davies creek site map. (Source: QPWS)

Site Management

Queensland Parks and Wildlife Service/Environmental Protection Agency

The Queensland Parks and Wildlife Service/Environmental Protection Agency (QPWS/EPA) is responsible for the on-ground day-to-day management and upkeep of Davies Creek site.

According to the management principles for Queensland's National Parks:

A national park is to be managed to –

- (a) As the cardinal principle, “provide, to the greatest possible extent, for the permanent preservation of the area’s natural condition and the protection of the area’s cultural resources and values; and*
- (b) Present the area’s cultural and natural resources, and their values; and*
- (c) Ensure that the only use of the area is nature-based and ecologically sustainable.”*

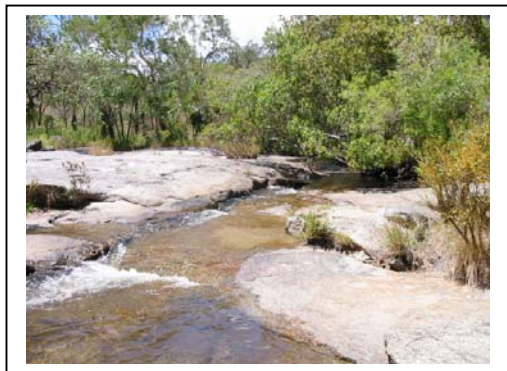
(The State of Queensland, EPA, 2001, p.7)

In the context of *sustaining recreational and tourism opportunities* the following principles were identified in the Master Plan for Queensland's Park System (The State of Queensland, EPA, 2001):

A range of opportunities will be provided for visitors to enjoy parks, and interpretive programs will enhance visitor awareness, appreciation and protection of natural and cultural heritage.

The park system will be managed to provide visitors with facilities that are safe and are located, designed, constructed and maintained to meet appropriate safety standards, and with information that will provide visitor awareness of the hazards present in parks and the levels of skill and competence required to cope with the risks they may face.

Executive Summary



Section One : *Psychological & Behavioural*

Visitor Survey & Behavioural Observations 2001 & 2002

Visitor Survey Analyses

The following key findings are based on the visitor survey being undertaken over four days in September 2001 and April 2002, and a respondent number of 127.

Visitor Profile

- Davies Creek is an *important local use site*, particularly for those community residents from the *Tableland and northern region* of the WTWHA. Many are *repeat visitors*.
- It is a site most frequently used by people between *30 and 39 years of age* and who travel in a *private car*.

Prior Information Sources used

- Most people know of Davies Creek because they *have been before*. *Word of mouth* is also important source of information. Very few visitors to Davies Creek use information centres.

Reasons for Visiting

- The primary reasons given for why people visit Davies Creek were to *rest and relax, see the natural features and scenery* and *experience tranquillity*.

Visitor Appraisal of Natural Environment

- Visitors found the *natural features* of Davies Creek to be *appealing, interesting* and in *good condition*.
- *Natural features* at Davies Creek were what *enhanced visitor enjoyment* of their visit.

Time Spent and Activities Engaged in

- Visitors spent a reasonable amount of time at Davies Creek which enabled them to undertake the *short walk*, swim and have a picnic – *one to three hours*.

Visitor Appraisal of Signage

- Just under half of the visitors found the *safety information* difficult to locate.
- While for the majority of visitors *rules and regulations* were easy to determine, of concern are the 20% who disagree.
- *Natural, ecological, cultural and historical information* were the types of additional information most frequently sought by visitors.

Visitor Appraisal of Built Environment

- Visitors were only moderately satisfied with the *condition* of the facilities and found them moderately *adequate*.
- The most frequently requested additional facilities were *more/better toilets, taps, rubbish bins, and showers*.
- The facility most often commented on as being in bad condition was the *toilets*.

Visitor Knowledge of Management Agencies

- Visitors on the whole were *unfamiliar* with the agency responsible for managing Davies Creek.
- Many visitors would like to see a ranger present mainly for *site maintenance* and *safety and security* reasons.

Visitor Appraisal of Social Environment, Experience & Satisfaction

- *Experienced crowding* was not a problem for the majority of visitors to Davies Creek.
- Visitor *satisfaction* in terms of *enjoyment* and *worth the money* was *moderately high*.

Environmental Benefits & Threats

- In addition to the two key biophysical and biological benefits of the natural environment (*clean air, conservation of plants/animals*), visitors also considered an aesthetic benefit to be of importance- *scenic beauty*.
 - The *most frequently reported threats* were those related to *people behaviour on site*, of which *littering* was recorded the most.
 - *Natural disasters* was the second most recorded threat with *floods* receiving the highest number of responses.
- When looking at the *threats* identified *first*, visitors most frequently reported threats within the category of *natural disasters* in particular *bushfires and floods*, and people behaviour onsite.

Comments

- The most frequent comments made by respondents were *negative* and related to *maintenance of the facilities* at Davies Creek.
- The *condition of the road* into the site was frequently commented on - *needing urgent attention*.
- Respondents also commented on the *toilets*. They were described as being disgusting and required cleaning.
- Another frequently recorded comment was that of the *presence of dogs*. Some respondents believe that dogs in National Parks *should be allowed*, and that most dog owners are responsible. However, other responses on this issue were *against the presence of dogs* at the site for ecological and conservation reasons.
- Comments that suggested improvements with the site focused on:
 - bigger signs at the entrance of the park listing facilities and responsibilities,
 - a car park area that is closer to the camping ground,
 - the regular presence of a ranger to discourage irresponsible behaviours,
 - recognition for mountain bike riders.
- Positive comments on Davies Creek focused on the *lack of people* (peace and quiet of the area), the limited facilities and the wildlife at the site.

Behavioural Observations

From the behaviours recorded at Davies Creek in September 2001, the following incidents were the most frequently observed.

- *Domestic Animals*
There were a number of domestic dogs observed at Davies Creek. While in some cases, dogs were not let out of the vehicle, in most instances, dogs were in the area without a leash. In one case, some campers with a dog had been camping at the site for five days.
- *Deliberate damage to plants*
Damage to the plants was linked to the collection of firewood for the BBQs.
- *Undesignated area use*
The most frequent observed behaviour in undesignated areas was that of lighting a fire for a BBQ.



Section Two:

Infrastructure Inventory and Profile

Key Findings

Site Infrastructure Inventory & Assessment

- Davies contains three distinct activity nodes – *Car Park Area*, *Picnic/Camping Area*, and *Walking Track*.
- Within each of these nodes limited *infrastructure* has been established.

Car Park Area

- Severe erosion in the form of ruts is evident across the main car park area.
- Lack of designated parking areas results in inefficient use of area and parking along road side to accommodate overflow.

Picnic/Camping Area

- The infrastructure varies in terms of condition. The *bbqs* are in *need of repair* and the *toilets need upgrading*.
- *Unavailability of firewood but the availability of fire places*, though in poor condition, results in firewood collection and damage to surrounding vegetation.

Walking Track to Davies Creek Falls

- The infrastructure and track generally good.
- Current use of *undesigned trails* is evident throughout this area.

Site Information and Signage

- A total of *14 sign structures* containing *24 separate sets of information* relevant to Davies Creek were recorded along the main road, access road and at the Davies Creek site itself.
- The majority of the signs were for the purpose of *visitor orientation*.
- Visitor advice in terms of safety information was minimal.
- Indigenous and nonindigenous cultural heritage information was absent, as was any substantial natural/ecological information.
- Signs were located in *each of the activity nodes* plus along the *main road* and *access road*.
- *No foreign language signs* were present.



Section Three:

Vehicle and Visitor Monitoring

Key Findings

Vehicle and Visitor Records

- Most common vehicle types accessing Davies Creek were *cars* (52.5%), followed by 4WD (32%).
- The highest number of people at the site at one time was **44** (1145 hours 23rd September 2001).
- Most of the visits to Davies Creek occurred between 1100 and 1700 hours – the busiest time.
- On average, people stayed at Davies Creek for **157 minutes** (two & half hours).

Traffic Counter Data

- A total of **6,897 vehicles** and **24,415 people** visited Davies Creek between September 2001 and 2002.
- On average, **571 vehicles** and **2,201 people** visit this site **each month**, range 421 to 795 vehicles.
- **October** and **January** received the **highest visitation rates**, **February** and **March**, the **lowest**.
- On average, **134 vehicles** and **474 people** visit Davies Creek **each week**, range 70 to 134 vehicles.
- **Daily** vehicle numbers range from **3 to 69**.
- Average **weekday** vehicle number was **14.2 per day**.
- Average **weekend** vehicle numbers was **31.5 per day**.



Section Four:

Management Considerations

Key Findings

Presentation

- The presentation of Davies Creek in terms of visitor assessment and appraisal of the natural and built environments varies.
- Indigenous and nonindigenous cultural attributes of the site are not at all presented in terms of interpretive signage nor in terms of any visible indigenous participation in management of the site.
- Natural attributes are presented in a reasonable way in terms of appeal, condition and management.
- Management identity of the site is not well presented as is responsibilities are in terms of visitor appraisal of the condition and management of the built environment in particular.
- Given the reliance on prior knowledge about the site and word of mouth, presentation of relevant and critical protected area management information needs to occur at the site.
- Site layout and design are not very legible nor functional, and infrastructure and facilities needs upgrading.

Opportunities

- Davies Creek is providing for and facilitating most activity-based recreational opportunities in a reasonable way although mountain bikers feel their needs are not being catered for.
- Experienced-based opportunities are important for visitors to Davies Creek, in particular, rest and relaxation, socialising with family/friends, and need to be carefully considered in any future management proposals.

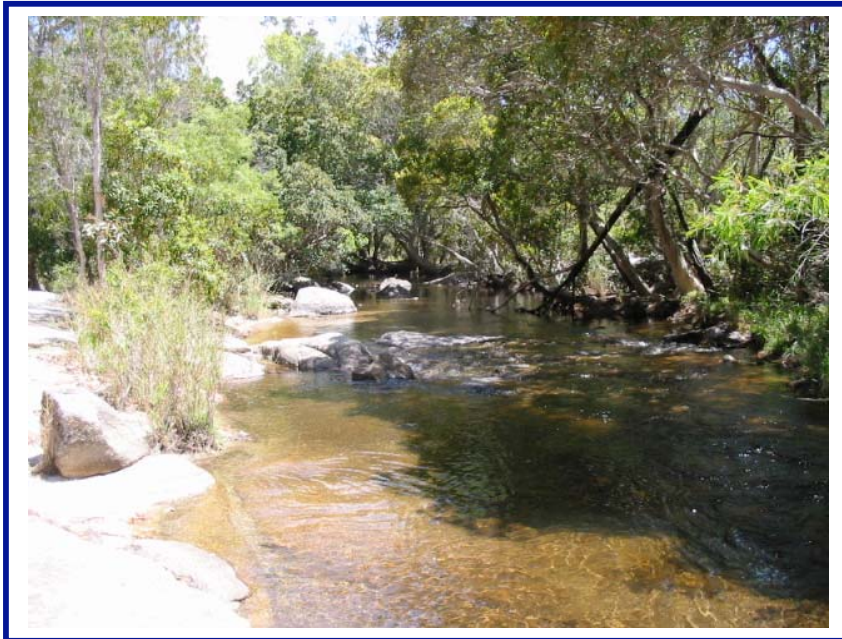
Specific Problems and Issues

- Principal behaviour management problems relate to regulation violations which may require different rule/regulation communication strategies.
- Use and user conflict and crowding and overuse are not currently substantial problems at Davies Creek. However, inappropriate behaviour such as firewood gathering, lighting fires in undesignated areas, walking in undesignated areas, are problems and are reflected in visitors expressed concerns over such human-based threats to the well being of the environment.

Section One

Psychological & Behavioural

Visitor Survey & Behavioural Observations 2001 & 2002



S E C T I O N O N E

-
- Descriptive Analyses of Survey
 - Additional Comments on Survey
 - Comments to Field Assistants
 - Behavioural Observations
-



Visitor Survey of the Wet Tropics Region in North Queensland Dry (Stage 1) and Wet (Stage 2) Season 2001/02

GENERAL DESCRIPTIVE DATA ANALYSES

Survey Location: **Davies Creek National Park**

	Stage 1	Stage 2
Survey Dates	22 nd & 23 rd September 2001	6 th & 7 th April 2002
Survey Times	0830 to 1700 each day	0830 to 1700 each day
Weather	94.5% Sunny 2.7% Overcast 0.0% Raining 1.4% Hot 1.4% Warm 0.0% Cool	58.5% Sunny 24.5% Overcast 7.5% Raining 0.0% Hot 9.4% Warm 0.0% Cool

This visitor survey was undertaken over two periods, September 2001 and April 2002. For clarity of presentation the data analysis/results corresponding to these data collection periods are represented in two colours, grey and green, and for the combined, dark red:

	Stage 1: September 2001
	Stage 2: April 2002

There is no data from previous research such as Manidis Roberts (1993/1994) to compare these current results with.

▪ Primary data analysis for this section of the report has been undertaken by Bronwyn Guy, James Cook University.

Questionnaire Profile

Because Davies Creek is a relatively low use site (25,00 visitors per year – 2001/2002), it was possible during the survey distribution period to approach almost every visitor to the site. Over four days of field work **130** people were approached to take part in this survey. Of the **127 (90.7%)** who agreed to participate, **126** surveys were successfully completed and analysed. The results presented in this section are therefore very representative of those using Davies Creek at the time during which surveys were undertaken. The following tables outline the details of respondent participation and survey distribution.

a) Type of Questionnaire Distributed & Returned

A total of **126 questionnaires** made up this data set, the majority of which were completed on site. Sixteen percent were take-homes and mailed back.

	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage	n	Percentage	n	Percentage
On-Site	69	94.5%	37	68.5%	106	83.5%
Take-Home	4	5.5%	16	31.5%	22	16.5%
Total	73	100%	53	100%	126	100%

b) Status of Questionnaire Returns

Of the **127 questionnaires returned**, only one was rejected because it was over 50% incomplete.

	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage	n	Percentage	n	Percentage
Analysed: Completed	73	100%	53	98.1%	126	99.2%
Rejected: Incomplete, under age, returned too late etc.	0	-	1	1.9%	1	0.8%
Total	73	100%	54	100%	127	100%

c) Non-Response Information

Of the **140 people approached** over four days of survey distribution, 9.2% would either not take part or failed to return the survey. The main reason for the non response was the failure to return the take home surveys. Field assistants found visitors on the whole to be very co operative, interested in the research, and willing to participate.

Reasons	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage total # people approached (76)	n	Percentage total # people approached (64)	N	Percentage total # people approached (140)
Take-homes not returned	1		7		8	5.7%
Filled in other/same survey			1		1	0.7%
Language difficulties	1				1	0.7%
Had children			1		1	0.7%
Not interested	1		1		2	1.4%
Non-Response	3	3.9%	10	15.6%	13	9.3%

a) Background Information**Key Findings****Stage 1: September 2001** *Visitor Profile*

During this first data collection stage,

- The majority of visitors (respondents) to Davies Creek were *Australian* (as opposed to international visitors). Of the Australian visitors, over three quarters were *locals*, i.e., they lived within the Wet Tropics bioregion;
- *Nonindigenous Australians* were the major ethnic group;
- The highest levels of education achieved for the majority of visitors were *Tertiary A (Technical of further educational institution)* and *Tertiary B (University)*;
- While the average age of visitors was *36 years*, the majority were in the *40 – 49 age class*;
- More males participated in this survey than females.

Stage 2: April 2002 *Visitor Profile*

A small number of differences in the visitor profile were evident in this second data collection stage.

- Similar to Stage 1, the majority of *visitors* were *Australian (84.9%)*. Of these Australian visitors, all but one visitor were local;
- *Nonindigenous Australians* were still the major ethnic group;
- Differing to Stage 1, the highest level of education achieved for the majority of visitors was *Secondary*;
- The average age of visitors declined slightly to *32 years*, with the majority in the *20 – 29 age class*;
- Unlike Stage 1, more females than males completed the survey in Stage 2.

Combined Data & General Comments

For the combined data set, the visitor profile was as follows:

- The majority of visitors to Davies Creek were *Australian (87.2%, n = 125)*, with international visitors at 12.8%. Of the international visitors, the majority came from the *UK (3.2%)*.
- Of the Australian visitors, the majority were *locals (77.3%)*, i.e., living within the Wet Tropics Bioregion. Of these, *62.3%* came from *Cairns & district*.
- Just over half the visitors (57.3%) identified themselves as *Nonindigenous Australians*.

1. *This visitor profile suggests that Davies Creek is an important local use site, particularly for those local community residents of the northern region of the WTWHA.*
2. *It is also a site that is used most frequently by people between 30-39 years of age.*
3. *Of the limited international visitors it is most popular with English/UK citizens.*

a) Background Information

QUESTIONS & RESULTS

1. Where do you live?

STAGE 1: (September/October 2001)				STAGE 2: (March/April 2002)			
n = 72				n = 53			
Australia 88.9% n = 64				Australia 84.9% n = 45			
Locals n = 51 (79.7%) (n = 64 responses)				Locals n = 41 (97.6%) (n = 42 responses)			
Cairns & District Tableland & District	n = 36 n = 10	Edmonton & Gordonvale Townsville	n = 4 n = 1	Cairns & District Tableland & District	n = 30 n = 9	Townsville & District	n = 2
Non-Locals n = 13 (20.3%)				Non-Locals n = 1 (2.39%)			
Overseas 11.1% n = 8				Overseas 15.1% n = 8			
Belgium England	n = 2 n = 2	France Israel	n = 1 n = 1	Canada Germany Netherlands	n = 1 n = 1 n = 1	Switzerland Thailand New Zealand	n = 1 n = 1 n = 1
		UK USA	n = 1 n = 1			UK USA	n = 1 n = 1

2. How long have you lived there?

Period of Residence: n = 71 \bar{X} = 17.14 years ± SD 15.40 (range 1-69) ≤ 10 years = 47.9% > 10 years = 52.1%	Period of Residence: n = 52 \bar{X} = 18.47 years ± SD 14.70 (range 0.1 - 60) ≤ 10 years = 40.4% > 10 years = 59.6%
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3. How would you describe your ethnic background?

n = 72	Nonindigenous Australian 58.3%	American 4.2%	Swedish 1.4%	German 1.4%	French 1.4%	Italian 1.4%	English 11.1%	Irish 1.4%	Other 18.0%	Indig / Non Indig 1.4%	Non Indig / English 1.4%	Non Indig / German 1.4%	German / English / Irish 1.4%	English / Cook Islander 1.4%	English / PNG 1.4%	NZ 1.4%	Dutch 1.4%	Belgian 2.8%	NZ / Dutch 1.4%	Turkish 2.8%	Israeli 1.4%			
n = 53	Nonindigenous Australian 49.0%	Indigenous Australian 7.5%	American 1.9%	Swedish 1.9%	German 3.8%	Swiss 1.9%	Italian 1.9%	English 3.8%	Irish 1.9%	Scottish 1.9%	Other 24.7%	Danish 1.9%	Dutch 1.9%	English / German 1.9%	Indigenous / English/ Irish/ Scottish 1.9%	Indigenous/ English/ Scottish 1.9%	English/ Scottish/French 1.9%	German/ Canadian 1.9%	Non Indigenous/ German 1.9%	Italian/ Irish/ Danish/ NonIndigenous 1.9%	Irish/ Scottish/ Indigenous 1.9%	PNG/ NZ 1.9%	Scottish/ English 1.9%	Thai 1.9%

4. What is the highest level of formal education you have completed so far?

n = 72	Primary (1-8 years of education) 9.7%	Secondary (9-12 years of education) 29.2%	Tertiary A (Technical or further educ institution) 30.6%	Tertiary B (University) 30.6%
n = 53	Primary (1-8 years of education) 3.8%	Secondary (9-12 years of education) 39.6%	Tertiary A (Tech or further educ institution) 30.2%	Tertiary B (University) 26.4%

5. Age

n = 66	\bar{X} = 36.00 years ± SD 12.30 (range 12-69)
Age Categories:	
< 20 years = 9.1%	40-49years = 31.8%
20-29years = 21.2%	50-59 years = 9.1%
30-39years = 27.3%	> 60 years = 1.5%
n = 44	\bar{X} = 32.11 years ± SD 13.28 (range 12-73)
Age Categories:	
< 20 years = 13.6%	40-49years = 6.9%
20-29years = 45.5%	50-59 years = 9.1%
30-39years = 20.4%	> 60 years = 4.5%

6. Gender

n = 72	Male 54.2%	Female 45.8%
n = 53	Male 44.2%	Female 55.8%

b) Transport & Travel Group

Key Findings

Stage 1: September 2001 *Travel Profile*

During this first data collection stage,

- *No visitors* to Davies Creek were with an *organised tour*;
- On average there were **3.54 people** in each vehicle;
- The major group profile of people visiting the site was *groups / families*;
- The majority of visitors travelled in *privately owned* vehicles;
- The **most** important source of prior information about Davies Creek used by respondents was *“have been here before”*. The information source not used was *“from the web”*.

Stage 2: April 2002 *Travel Profile*

Only slight differences were evident in this second data collection stage.

- Only one respondent indicated that they were with an *organised tour*,
- The average number of people per vehicle was approximately equivalent to Stage 1, at **3.51 people**;
- The major group profile of people was again *groups / families*;
- Almost all visitors travelled in *privately owned* vehicles;
- The **two most** important sources of prior information about Davies Creek were *“have been here before”* and *“word of mouth”*. The information source not used was *“from the web”*.

Combined Data & General Comments

For the combined data set, the visitor profile is as follows:

- All visitors to Davies Creek were *independent travellers* (n = 125).
 - On average, there were **3.53 people** in each vehicle.
 - Most visitors, 90.5%, travelled to Davies Creek in *privately owned* vehicles.
 - *“Have been before”* was the most important source of prior information about Davies Creek for the majority of visitors (56%). The information source not used at all was *“from the web”*.
1. *It is clear that most people know of Davies Creek because they have been before. It is a site that attracts a considerable number of repeat visits by local residents.*
 2. *While no visitors used the web for information about this site very few people used NQ information centres. This would reflect the large number of local, repeat visits to this site.*

b) Transport & Travel Group

QUESTIONS & RESULTS

7. Are you with an organised tour?					
n = 72	Yes	0%	No	100%	
					n = 53
					Yes 1.9%
					No 98.1%

8. If you travelled in a private or hired vehicle, how many people including yourself are in your vehicle?					
n = 70			n = 49		
People per Vehicle	$\bar{X} = 3.54 \pm SD 1.35$	(range 1-7)	People per Vehicle	$\bar{X} = 3.51 \pm SD 1.21$	(range 1-6)
Adults per vehicle	$\bar{X} = 2.40$	(n = 168)	Adults per vehicle	$\bar{X} = 2.57$	(n=126)
Children per vehicle	$\bar{X} = 1.21$	(n = 86)	Children per vehicle	$\bar{X} = 0.92$	(n = 46)
Private vehicle 97.1%		Hired Vehicle 2.9%	Private vehicle 93.9%		Hired Vehicle 6.1%

9. How did you obtain prior information about this site?					
n = 72			n = 53		
	Have been here before	40	55.6%		Have been here before
	Road sign	11	15.3%		Road sign
	Word of mouth	27	37.5%		Word of mouth
	Map which said it was a tourist site	8	11.1%		Map which said it was a tourist site
	Tourist information centre in Nth Qld	2	2.8%		Tourist information centre in Nth Qld
	Tourist information centre	0	0.0%		Tourist inform
	Tourist leaflet	1	1.4%		Tourist leaflet
	Travel guide or book	6	8.3%		Travel guide or book
	From the web	0	0.0%		From the web
	Trip was included in a package tour	1	1.4%		Trip included in a package tour
	Other	9	12.5%		Other
	Came with relative/partner/group of locals	4	5.6%		Came with relative/ partner/ group of locals
	Family recreation	1	1.4%		National Parks
	Grew up in region/local	2	2.8%		Travel Agency
	QPWS Office	1	1.4%		
	Previous TAFE trip	1	1.4%		
Specify:			Specify:		
Tourist inform centre: <i>N/A</i>			Tourist inform centre: <i>N/A</i>		
Tourist leaflet: <i>Newspaper</i>			Tourist leaflet: <i>N/A</i>		
Travel guide or book : <i>Camping in Qld.</i>			Travel guide or book : <i>N/A</i>		

c) Reasons for Visiting

Key Findings

Stage 1: September 2001

During this first data collection stage,

- The most important reasons given for why people visit Davies Creek were *experiential*, followed by *activity-based* reasons. *Educational* reasons were least important;
- To *rest and relax* was the most important reason given with **56.9%** of visitors rating this as *very important*;
- This was followed by three other experiential reasons – *see natural features and scenery*, *experience tranquillity* and *to be close to / experience nature*;
- Activity-based reasons were rated moderately important to important. Of these, *outdoor exercise* rated the highest;
- Educational reasons were just slightly important to moderately important. *Learning about Aboriginal culture* was the least important.

Stage 2: April 2002

During this second data collection stage, many responses were similar to Stage 1.

- The most important reasons for why people visit Davies Creek were again *experiential*, followed by *activity-based* reasons. Educational reasons were least important.
- To *rest and relax* was again the most important reason given;
- This was followed by three other experiential reasons - *experience tranquillity*, *socialise with family and friends*, and *see natural features and scenery*;
- Activity-based reasons were rated moderately important to important. Of these, *outdoor exercise* again rated the highest;
- Educational reasons were between slightly important and important. *Learning about Aboriginal culture* was the least important with just over half the visitors considering this as *not important*.

Combined Data & General Comments

- The most important reason given for visiting the site was rated *very important* by 55.2% of visitors – *rest and relax*. Visitors rated the experiential reasons *significantly higher* than activity reasons [t(122) = 11.66; p = 0.00].
- *Educational* reasons were the least important reason given. Visitors rated the two educational reasons *significantly lower* than experiential [t(120) = -20.13; p = 0.00], and activity reasons [t(119) = -7.79; p = 0.00].

1. *The primary reasons given for people visiting Davies Creek were rest and relax, to see the natural features of the site, and to experience tranquillity.*
2. *Clearly, activity-based reasons were of secondary importance for most people.*
3. *Learning about the natural and cultural features of the site did not appear to be why people visit this site, and given the general lack of this type of information this is understandable.*

c) Reasons for Visiting

QUESTIONS & RESULTS

10. We would like to know how important the following <u>reasons</u> were for you visiting this site today.									
		1 = Not important 4 = Important		2 = Slightly important 5 = Quite important		3 = Moderately important 6 = Very important			
		Not Important				Very Important			
		n	1	2	3	4	5	6	\bar{X}^*
a) Learn about native animals and plants <i>(Educational)</i>	69	24.6%	15.9%	24.6%	23.2%	4.3%	7.2%	2.88	
	52	36.5%	11.5%	15.4%	7.7%	11.5%	17.3%	2.98	
b) Learn about Aboriginal culture <i>(Educational)</i>	68	51.5%	16.2%	14.7%	13.2%	4.4%	0.0%	2.03	
	50	60.0%	10.0%	8.0%	12.0%	6.0%	4.0%	2.06	
c) See natural features and scenery <i>(Experiential)</i>	70	1.4%	0.0%	7.1%	21.4%	21.4%	48.6%	5.07	
	53	3.8%	5.7%	5.7%	13.2%	28.3%	43.4%	4.87	
d) Be close to/experience nature <i>(Experiential)</i>	70	1.4%	0.0%	15.7%	17.1%	18.6%	47.1%	4.93	
	52	3.8%	7.7%	7.7%	26.9%	11.5%	42.3%	4.62	
e) Socialise with family/friends <i>(Experiential)</i>	69	4.3%	4.3%	2.9%	23.2%	24.6%	40.6%	4.81	
	53	3.8%	3.8%	7.5%	15.1%	24.5%	45.3%	4.89	
f) Rest and relax <i>(Experiential)</i>	72	0.0%	1.4%	5.6%	15.3%	20.8%	56.9%	5.26	
	53	0.0%	5.7%	11.3%	7.5%	22.6%	52.8%	5.06	
g) Experience tranquility <i>(Experiential)</i>	71	0.0%	7.0%	4.2%	18.3%	22.5%	47.9%	5.00	
	52	0.0%	5.8%	7.7%	19.2%	19.2%	48.1%	4.96	
h) Experience the Wet Tropics <i>(Experiential)</i>	70	12.9%	7.12%	18.6%	14.3%	18.6%	28.6%	4.04	
	49	18.4%	6.1%	24.5%	16.3%	12.2%	22.4%	3.65	
i) Outdoor exercise <i>(Activity)</i>	69	10.1%	10.1%	13.0%	26.1%	14.5%	26.1%	4.03	
	52	13.5%	11.5%	13.5%	17.3%	21.2%	23.1%	3.90	
j) Opportunities for short walks <i>(Activity)</i>	68	13.2%	8.8%	13.2%	25.0%	16.2%	23.5%	3.93	
	51	19.6%	7.8%	13.7%	15.7%	17.6%	25.5%	3.80	
k) Opportunities for long walks <i>(Activity)</i>	69	23.2%	13.0%	13.0%	23.2%	13.0%	14.5%	3.33	
	51	31.4%	15.7%	15.7%	15.7%	7.8%	13.7%	2.94	
l) Other	53	1.4%	0.0%	1.4%	0.0%	4.2%	16.7%	N/A 75.0	
	51	0.0%	0.0%	0.0%	2.0%	0.0%	11.8%	N/A 86.3	
Specify other reasons: <i>Reasons provided have been placed into three major categories. Those that are related to activity, experience, education. The fourth category is "other".</i>	17	Activity: Beautiful camping Cycling / Mountain biking Fishing Photography Picnic Play / Swim	n 2 2 1 2 1 8	Experiential: Cool off	n 1	Educational: History of rainforest Other: Cheap accommodation	n 1 1		
	9	Activity: Abseiling & Photography Explore Find camp sites Somewhere to have lunch Swim Picnic	n 1 1 1 1 3 (1)	Experiential: Being alone with nature Have a good time	n 1 1	Educational: Other:	n 1		

\bar{X} = The mean of the categories are presented despite this being ordinal data and the precautions necessary in interpreting this data.

d) Natural Environment**Key Findings****Stage 1: September 2001** *Visitor Appraisal*

During this first data collection stage,

- Overall, *visitor appraisal* of the positive aspects of the natural environment at Davies Creek was moderately **high**;
- In particular, the majority of visitors found the natural environment to be **appealing, interesting** and in **good condition**;
- Just under two thirds of visitors (61.1%) **somewhat to strongly agreed** that the natural environment was **well managed**;
- Just under two thirds of visitors (63.8%) indicated **some level of concern** about the **impacts of human activity** on the natural environment at Davies Creek. This concern was reflected in the next question where over three quarters of visitors (76.5%) considered to some degree that the **site was disturbed or impacted**;
- Very few visitors were expecting other natural features at the site.

Stage 2: April 2002 *Visitor Appraisal*

During this second data collection stage, generally, most responses were similar.

- Again, *visitor appraisal* of the positive aspects of the natural environment was moderately **high**;
- The majority of visitors (52.8%) **strongly agreed** that Davies Creek was **interesting** and **appealing**;
- In terms of the condition of the natural environment, **75.4% somewhat to strongly agreed** that it appeared to be **good**;
- However, considerably fewer visitors (**54.7%**) **somewhat to strongly agreed** that the natural environment was **well managed**;
- Visitors were again **concerned** about the **impacts of human activity** on the natural environment. A greater percentage of people than Stage 1, did not consider the site to be disturbed or impacted.
- Similar to Stage 1, there were few people expecting to find natural features that were not present.

Combined Data & General Comments

For the combined data set,

- Aspects of the natural environment that were most highly rated were the **appeal of natural attractions and scenic beauty** ($\bar{X} = 5.24$), **interesting natural features** ($\bar{X} = 5.16$), and **condition** ($\bar{X} = 5.06$).
- Few visitors (8.9%) appeared to have any particular expectations of what they would find or encounter.
 1. **These results suggest that, overall, visitors find the natural features of Davies Creek to be appealing, interesting and in reasonable condition.**
 2. **Of the natural features that the small number of visitors reported expecting to find at Davies Creek but were unable to, most were fauna-related.**

d) Natural Environment

QUESTIONS & RESULTS

11. *The following statements are about the natural features of this site. Please rate the extent to which you agree or disagree with each statement by circling the number that best reflects your level of agreement /disagreement.*

1 = Strongly Disagree 2 = Somewhat Disagree 3 = Mildly Disagree
4 = Mildly Agree 5 = Somewhat Agree 6 = Strongly Agree

	n	Strongly Disagree			Strongly Agree			\bar{X} *
		1	2	3	4	5	6	
a) The natural environment at this site is interesting.	72	0.0%	0.0%	0.0%	25.0%	38.9%	36.1%	5.11
	53	0.0%	3.8%	1.9%	15.1%	26.4%	52.8%	5.23
b) I would like to spend more time exploring this natural environment.	71	0.0%	2.8%	8.5%	28.2%	26.8%	33.8%	4.80
	53	1.9%	7.5%	9.4%	15.1%	24.5%	41.5%	4.77
c) In terms of natural attractions and scenic beauty this site is appealing.	73	0.0%	0.0%	2.7%	19.2%	31.5%	46.6%	5.22
	53	0.0%	1.9%	3.8%	13.2%	28.3%	52.8%	5.26
d) The condition of the natural environment at this site appears to be good.	73	1.4%	0.0%	5.5%	17.8%	38.4%	37.0%	5.03
	53	0.0%	0.0%	1.9%	22.6%	37.7%	37.7%	5.11
e) The natural environment at this site is well managed.	72	0.0%	1.4%	6.9%	30.6%	33.3%	27.8%	4.79
	53	0.0%	1.9%	15.1%	28.3%	24.5%	30.2%	4.66
f) I am concerned about the impacts of human activity on the natural environment at this site.	72	6.9%	12.5%	16.7%	19.4%	25.0%	19.4%	4.01
	53	5.7%	9.4%	11.3%	34.0%	13.2%	26.4%	4.19
g) This site appears to be disturbed and impacted.	72	1.4%	4.2%	18.1%	18.1%	30.6%	27.8%	2.44
	51	15.7%	29.4%	27.5%	13.7%	11.8%	2.0%	2.82

12. *At this site were there any natural features you were expecting to find which were not present?*

n = 72		Yes 6.9%	No 93.1%	n = 51		Yes 11.8%	No 88.2%
If yes, please specify: <i>Responses provided have been placed into three major categories. Those related to natural/biological features, natural/physical features, and the built/structural features of the environment.</i>	5	Natural/Biological: More birds Animals Goannas	n 1 1 1	Natural/Physical Clean fresh flowing water	n 1	Built/Structural Present but not allowed access	n 1
	5	Natural/Biological: Snakes Goannas & Wallabies	n 3 1	Natural/Physical Rainforest	n 1	Built/Structural	n

e) Time Spent and Activities

Key Findings

Stage 1: September 2001 *Activity Profile*

During this first data collection stage,

- The majority of visitors, **38.3%**, spent approximately *two to three hours* at the site;
- Besides *observing scenery*, the activities most visitors engaged in was *relaxing*, and taking a *short walk*;
- *Having a picnic / barbeque* and *swimming* were also other activities many people engaged in;
- Of those visitors who would have liked to *engage in other activities*, most responses were in regards to *regulation violation and risk behaviour*, for example, accessing the rock slide and taking a pet dog.

Stage 2: April 2002 *Activity Profile*

During this second data collection stage, the responses changed slightly.

- The majority of visitors (30.2%) stayed at the site for approximately *two hours*. A greater percentage of people (22.6%) *camped or stayed overnight* in Stage 2 than Stage 1;
- Besides *observing scenery* and *relaxing*, most visitors took a *short walk*, went *swimming* and had a *picnic / barbeque*;
- Of those visitors who would have liked to *engage in other activities*, many identified activities that related to the *social environment* – social interaction.

Combined Data & General Comments

1. *These results suggest that, overall, visitors spend enough time at Davies Creek which allows them to rest and relax, have a picnic, swim and take a short walk – two to three hours.*
2. *Almost half of the visitors use the site for picnics and take the short walk.*
3. *Over a third of visitors spend time swimming.*

e) Time Spent and Activities

QUESTIONS & RESULTS

13. How long have you spent at this site today?

n = 73				n = 53			
	%		%		%		%
less than 1/2 hour	8.2%	About 3 hours	17.8%	less than 1/2 hour	7.5%	About 3 hours	5.7%
About 1/2 hour	1.4%	About 4 hours	13.7%	About 1/2 hour	17.0%	About 4 hours	7.5%
About 1 hour	8.2%	More than 4 hours	15.1%	About 1 hour	9.4%	Overnight	22.6%
About 2 hours	20.5%	Overnight	15.1%	About 2 hours	30.2%		

14. What activities did you engage in at this site today?

n = 73				n = 50			
Activities:	%		%	Activities:	%		%
Observing scenery	74.0%	Observing scenery	86.0%	Observing scenery	86.0%	Bird watching	14.0%
Bird watching	20.5%	Observe other wildlife	24.7%	Observe other wildlife	24.0%	Photography/painting/drawing	16.0%
Observe other wildlife	24.7%	Photography/painting/drawing	17.8%	Photography/painting/drawing	16.0%	Picnic/barbeque	46.0%
Photography/painting/drawing	17.8%	Picnic/barbeque	49.3%	Picnic/barbeque	46.0%	Using café/restaurant	0.0%
Picnic/barbeque	49.3%	Using café/restaurant	0.0%	Using café/restaurant	0.0%	Camping	18.0%
Using café/restaurant	0.0%	Camping	20.5%	Camping	18.0%	Walking – Short (1 hr or less)	48.0%
Camping	20.5%	Walking – Short (1 hr or less)	52.1%	Walking – Short (1 hr or less)	48.0%	Walking – Long (1-6 hours)	8.0%
Walking – Short (1 hr or less)	52.1%	Walking – Long (1-6 hours)	4.1%	Walking – Long (1-6 hours)	8.0%	Swimming	46.0%
Walking – Long (1-6 hours)	4.1%	Swimming	43.1%	Swimming	46.0%	Guided tour	2.0%
Swimming	43.1%	Guided tour	0.0%	Guided tour	2.0%	Looking at interpretation material	0.0%
Guided tour	0.0%	Looking at interpretation material	2.7%	Looking at interpretation material	0.0%	Relaxing	72.0%
Looking at interpretation material	2.7%	Relaxing	69.4%	Relaxing	72.0%	<i>Other</i>	8.0%
Relaxing	69.4%	<i>Other</i>	13.7%	<i>Other</i>	8.0%	<i>Abseiling</i>	2.0%
<i>Other</i>	13.7%	<i>Just being here</i>	1.4%	<i>Abseiling</i>	2.0%	<i>Filling in survey</i>	2.0%
<i>Just being here</i>	1.4%	Cycling	2.7%	<i>Filling in survey</i>	2.0%	<i>Talking</i>	2.0%
<i>Just being here</i>	1.4%	Cycling	2.7%	<i>Talking</i>	2.0%	<i>Used toilet facilities</i>	2.0%
<i>Just being here</i>	1.4%	<i>Having fun</i>	1.4%	<i>Used toilet facilities</i>	2.0%		
<i>Just being here</i>	1.4%	<i>Reading</i>	1.4%				
<i>Just being here</i>	1.4%	<i>Playing</i>	1.4%				
<i>Just being here</i>	1.4%	<i>Sewing</i>	2.7%				
<i>Just being here</i>	1.4%	<i>Completing survey</i>	2.7%				
<i>Just being here</i>	1.4%						

15. Were there particular things you wanted to do at this site which you were unable to do?

n = 70				n = 40			
Yes	12.8%	No	87.2%	Yes	17.5%	No	82.5%
If yes, please specify: <i>Responses provided have been placed into five major categories. Those activities related to natural, built, or social environment, and rules/regulations.</i>				n = 6	n	n = 7	n
				<u>Natural Environ</u>		<u>Built Environ</u>	
				Info about features	2	Quality time with husband	1
				<u>Rules/regulation</u>			
				Access rock slide – prior permit needed	1		
				Fishing	1		
				Take dog camping	1		
				<u>Built Environ</u>		<u>Social Environ</u>	
				Have lunch at covered seats and tables	1	Avoid thinking about university	1
				<u>Rules/regulation</u>		Relax and Picnic	1
						Relax and camp	1
						Speak to aboriginal owner about dreaming	1

f) Information

Key Findings

Stage 1: September 2001 *Information/Signage Use*

During this first data collection stage,

- Just one quarter of visitors strongly agreed that *orientation type signage* was easy to locate. Slightly fewer agreed that such signage enabled them to find their way round Davies Creek;
- Over three quarters of visitors agreed to some extent that the *rules and regulations* were easy to *determine* (83.3%) and clearly identified *acceptable activities* (78.8%);
- Over one third of visitors (38.9%) disagreed that *safety* information was *easy to locate* and 28.6% disagreed to some extent that it was *understandable*;
- The *natural / ecological* information was very limited at this site hence the moderate visitor assessment of type of information.

Stage 2: April 2002 *Information/Signage Use*

During this second data collection stage, visitor assessment of all information was lower.

- Visitor assessment of the *maps* at Davies Creek was lower for this data collection stage compared to the first. Maps were less easy to locate and wayfinding more difficult;
- Overall, visitor assessment of the *rules and regulations* at Davies Creek was slightly lower for this data collection stage compared to the first. Fewer people agreed that this information was easy to locate;
- Compared to Stage 1, fewer people agreed that *safety* information was easy to locate (40.5%), and that it was understandable (50%);
- Visitor assessment of the very limited *natural / ecological* information was lower for this data collection stage compared to the first.

Combined Data & General Comments

- While overall most visitors found the *map* at Davies Creek easy to locate ($\bar{X} = 4.18$), wayfinding ability as determined by presentation of information on the map did not receive as high an assessment ($\bar{X} = 3.84$);
- While most visitors agreed that *rules and regulations* at Davies Creek were easy to determine and enabled them to identify acceptable activity, there is a concern about the 20% of visitors who disagreed;
- Also of concern are the 47% visitors who disagreed that *safety* information was *easy to locate* and the 38% of visitors who disagreed that what was available was *easy to understand*.

f) Information

QUESTIONS & RESULTS

16. Did you refer to any of the information available at this site today?	Yes	29.5%	No	70.5%	n = 71
	Yes	12.0%	No	88.0%	n = 50

17. Please rate the extent to which you agree or disagree with the following statements about information that may be available at this site by circling one number.		Strongly Disagree			Strongly Agree				
		n	1	2	3	4	5	6	\bar{X}
<i>All of the signs from (a) to (d) were present at this site (see Section 2 for details), although natural information was very limited.</i>									
a) The maps and directions at this site:		55	10.9%	1.8%	10.9%	20.0%	30.9%	25.5%	4.35
i) were easy to locate		43	11.6%	7.0%	18.6%	20.9%	18.6%	23.3%	3.98
ii) helped me to find my way round		44	13.6%	4.5%	13.6%	25.0%	22.7%	20.5%	4.00
		41	17.1%	9.8%	17.1%	22.0%	14.6%	19.5%	3.66
b) The rules and regulations at this site:		54	9.3%	1.9%	5.6%	24.1%	22.2%	37.0%	4.59
i) were easy to determine		45	2.2%	6.7%	15.6%	22.2%	28.9%	24.4%	4.42
ii) enabled me to clearly identify acceptable activities		52	7.7%	5.8%	7.7%	17.3%	26.9%	34.6%	4.54
		42	2.4%	4.8%	14.3%	33.3%	23.8%	21.4%	4.36
c) The safety information at this site:		54	18.5%	7.4%	13.0%	20.4%	14.8%	25.9%	3.83
i) was easy to locate		42	23.8%	14.3%	21.4%	16.7%	9.5%	14.3%	3.17
ii) was easy to understand		49	12.2%	8.2%	8.2%	24.5%	18.4%	28.6%	4.14
		40	22.5%	12.5%	15.0%	12.5%	20.0%	17.5%	3.48
d) The natural/ecological information at this site:		53	13.2%	5.7%	17.0%	28.3%	18.9%	17.0%	3.85
i) was interesting		43	23.3%	14.0%	14.0%	9.3%	20.9%	18.6%	3.47
ii) was clearly presented		51	15.7%	5.9%	13.7%	23.5%	25.5%	15.7%	3.84
		42	21.4%	16.7%	9.5%	16.7%	26.2%	9.5%	3.38
iii) helped me better understand the ecological processes of this area		52	15.4%	9.6%	19.2%	26.9%	19.2%	9.6%	3.54
		42	23.8%	16.7%	9.5%	21.4%	21.4%	7.1%	3.21
f) The indigenous cultural information at this site:		No indigenous signs present at Davies Creek							
i) was interesting									
ii) was clearly presented									
iii) helped me to understand the significance of this area for indigenous Australians									

g) Site Facilities & Management Issues

Key Findings

Stage 1: September 2001

Visitor Appraisal

During this first data collection stage,

- The **toilet** facilities were **most frequently** used of all facilities present. A number of visitors also used the picnic tables and walking tracks. The most **frequently requested** additional facilities were **rubbish bins** and **taps for drinking water**;
- The overall **adequacy and condition** of facilities were rated similarly followed by their management;
- Half the visitors **agreed** that the presence of a **ranger** was important;
- Of those who did agree to the ranger's presence, the reasons most frequently identified were for **site maintenance**, followed by **safety / security** and **to provide information & education**.

Stage 2: April 2002

Visitor Appraisal

During this second data collection stage, visitor appraisal of facilities was considerably lower.

- The **walking track** at Davies Creek was the most used facility, followed by the viewing platform / lookout and the toilet. The most frequently requested additional facility was **more/better table and benches**, and **showers**.
- The overall **appeal** of facilities was rated the highest followed by their condition and their adequacy;
- Just over half the visitors (54.8%) **agreed** that the presence of a **ranger** was important;
- The reasons most frequently identified were for **site maintenance**, **safety and security** and **to provide information / education**.

Combined Data & General Comments

- The **walking track, toilets and picnic tables** were the most frequently used facilities at Davies Creek;
- The facilities most often requested were **rubbish bins, taps for drinking water, more/better table and benches**, and **showers**;
- **Condition and adequacy** received the highest ratings in terms of visitor appraisal of facilities ($\bar{X} = 4.51$ & 4.50), however this is only a moderate rating score;
- Of the 52% of visitors for whom the presence of a ranger was important, the majority identified **site maintenance** and **safety and security** as the most important reasons.

1. *The walking track, toilets and picnic tables are the most frequently used facilities at this site.*
2. *Overall, visitors satisfaction with the condition and adequacy of facilities at Davies Creek is moderate.*

g) Site Facilities & Management Issues

QUESTIONS & RESULTS

19. What facilities have you used at this site today?							
n = 72				n = 46			
	%		%		%		%
Picnic table	50.0%	Walking track	44.4%	Picnic table	26.1%	Walking track	52.2%
Shelter shed	2.8%	Boardwalk	0.0%	Shelter shed	0.0%	Boardwalk	4.3%
Restaurant/café	0.0%	Viewing platform/lookout	16.7%	Restaurant/café	4.3%	Viewing platform/lookout	34.8%
Rubbish bin	19.4%	Fire place	16.7%	Rubbish bin	10.9%	Fire place	19.6%
Toilet/	58.3%	Barbeque	5.6%	Toilet	30.4%	Barbeque	6.5%
Tap	6.9%	Other (camp site, creek road)	4.2%	Tap	4.3%	Other (rocks)	1.9%

20. Were there particular facilities at this site you were expecting to find which were not available?							
n = 67				n = 45			
Yes	%	No	%	Yes	%	No	%
Yes	22.4%	No	77.6%	Yes	22.2%	No	77.8%
<i>If yes, please specify:</i>							
n = 14		n		n = 9		n	
More picnic tables	1	Firewood	1	Chopped fire wood	2	Public toilets	1
Tables under covered area	1	BBQ shelter	2	Tables & Benches	3 (1)	Rubbish bins	(1)
Rubbish bin	3	Drinking water	3	BBQs / Fire places	(2)	Showers	3
Tap / showers	1	Better signage	1	Shelter	(3)		
		Expect nil from NP	1				

21. Please rate the extent to which you agree or disagree with each of the following statement about the <u>facilities</u> and <u>management</u> at this site by circling one number for each statement.									
	n	Strongly Disagree			Strongly Agree			\bar{X}	
		1	2	3	4	5	6		
a) This site is appealing in terms of the character and attractiveness of the facilities.	69	2.9%	5.8%	13.0%	21.7%	33.3%	23.3%	4.46	
	51	13.7%	7.8%	9.8%	13.7%	27.5%	27.5%	4.16	
b) The facilities at this site are adequate .	70	1.4%	2.9%	7.1%	22.9%	25.7%	40.0%	4.89	
	53	15.1%	5.7%	11.3%	22.6%	24.5%	20.8%	3.98	
c) The overall condition of the facilities at this site appears to be good.	70	2.9%	4.3%	4.3%	17.1%	34.3%	37.1%	4.87	
	52	11.5%	5.8%	11.5%	28.8%	25.0%	17.3%	4.02	
d) The facilities and infrastructure at this site are well managed .	69	0.0%	8.7%	5.8%	18.8%	39.1%	27.5%	4.71	
	53	9.4%	5.7%	17.0%	30.2%	22.6%	15.1%	3.96	
e) The presence of a ranger at sites like this is important to me.	70	20.0%	20.0%	10.0%	17.1%	18.6%	14.3%	3.37	
	53	15.1%	7.5%	22.6%	15.1%	18.9%	20.8%	3.77	

22. If you agreed the presence of a ranger was important, what are the reasons for this?								
n = 71				n = 53				
	n	%		n	%		%	
To provide information/education	17	24.0%	To provide information/education	19	35.8%	To answer questions	13	24.5%
To answer questions	15	21.1%	To answer questions	13	24.5%	To take us on guided walks	7	13.2%
To take us on guided walks	4	5.6%	To take us on guided walks	7	13.2%	For safety/security	19	35.8%
For safety/security	21	29.6%	For safety/security	19	35.8%	To give directions	6	11.3%
To give directions	8	11.3%	To give directions	6	11.3%	For lodging complaints about other behaviour	7	13.2%
For lodging complaints about other behaviour	10	14.1%	For lodging complaints about other behaviour	7	13.2%	For site maintenance	20	37.7%
For site maintenance	31	43.7%	For site maintenance	20	37.7%	Other	3	5.7%
Other			Other	3	5.7%	Make sure people respect the environment	1	1.9%
deter vandalism	1	1.4%	Make sure people respect the environment	1	1.9%	To prevent mistakes caused by man	1	1.9%
animal protection	1	1.4%	To prevent mistakes caused by man	1	1.9%	To stop damage to site	1	1.9%
			To stop damage to site	1	1.9%			

g) Site Facilities & Management Issues Cont'd**Key Findings****Stage 1: September 2001**

During this first data collection stage,

- Only a few respondents (15.5%) identified Davies Creek as having *special significance*. The most frequent unprompted responses were because Davies Creek is a National Park, the natural habitat, and the experiential qualities of the site;
- Just over half of the respondents correctly identified the management agency responsible for Davies Creek;
- Of those who identified other management agencies, **6.8%** identified *WTMA* and **5.5%** identified *DNR/Forestry*;
- When provided with a choice, *most visitors* labelled Davies Creek a *National Park*.
- Most visitors preferred sites with *few facilities*.

Stage 2: April 2002

During this second data collection stage, visitor responses changed slightly.

- Fewer visitors considered Davies Creek to have special significance.
- Unlike Stage 1, over half of the visitors, **67.9%**, either *did not know* or *answered incorrectly* as to who the management agency responsible for Davies Creek was;
- Of those who did identify an agency, **39.6%** identified *National Parks* (in its various formats) as the management agency, **3.7%** identified *EPA*;
- When provided with a choice, *most visitors* labelled Davies Creek a *National Park*, and **5.9%** identified it as a *National Park and World Heritage Area*;
- Unlike Stage 1, most visitors preferred sites with *limited facilities*.

Combined Data & General Comments

- The majority of visitors (54.8%) either *did not know* or provided an *incorrect answer* when asked who manages Davies Creek.
- When given a choice the majority believed the site to be managed by *National Parks*.

1. *Visitors remain unfamiliar with the agency responsible for managing this site.*

3. *These results clearly suggest that the role of different land management agencies is not clearly understood.*

g) Site Facilities & Management Issues cont'd

QUESTIONS & RESULTS

23. Does this area you have visited today have any special status or significance that you are aware of?									
n = 71 Yes 15.5% No 84.5%					n = 51 Yes 13.7% No 86.3%				
If yes, please specify:									
n = 13			n		n = 5			n	
Aboriginal boundary-Tjapukai	1	Former ranger-worked here	1	Aboriginal art in caves	1	This is where ancestors used to sit	1		
Still accessible	1	National Park/WT	2	Boarder of Mullaridji & Djabugay country	1	Uniquely peaceful & attractive setting	1		
Spiritual vortex	2	Native wildlife	1	I can feel the history from the ancestors	1				
Here with friends	1	Natural habitat	2						
Memories, grew up here	2)								

24. What agency or department do you think manages this site?					
n = 73			n = 53		
Management Agency or Department:			Management Agency or Department:		
National Parks	37	50.7%	National Parks / QPWS	20	39.6%
National Parks & WT	1	1.4%	EPA	2	3.7%
National Parks & Forestry	1	1.4%	Environmental council	1	1.9%
DNR/Forestry	4	5.5%	Natural resources	1	1.9%
Forestry & WT	1	1.4%	Wet Tropics	1	1.9%
Environment & Heritage	1	1.4%	Wildlife	1	1.9%
WTMA	5	6.8%	Unanswered /Don't Know	27	50.9%
Shire Council	1	1.4%			
Parks & Gardens	1	1.4%			
James Cook Uni	1	1.4%			
Unanswered /Don't Know	20	27.4%			

25. Which of the following labels applies to this site?							
n = 72				n = 51			
National Park (NP)	72.2%	NP & WHA	5.6%	National Park (NP)	78.4%	NP & WHA	5.9%
State Forestry (SF)	1.4%	NP & SF	8.3%	State Forestry (SF)	0.0%	NP & SF	3.9%
World Heritage Area (WHA)	0.0%	SF & WHA	1.4%	World Heritage Area (WHA)	3.9%	SF & WHA	0.0%
Don't know	9.7%	NP, SF, WHA	1.4%	Don't know	7.8%	NP, SF, WHA	0.0%

26. Which of the following natural areas do you most prefer visiting?							
n = 70		%		n = 52		%	
Natural area with:				Natural area with:			
no facilities (eg. no toilets, no designated camp ground)		10.0%		no facilities (eg. no toilets, no designated camp ground)		9.6%	
few facilities (eg. rough walking tracks)		31.4%		few facilities (eg. rough walking tracks)		15.4%	
limited facilities (eg. walking tracks evident, some directional signage)		24.3%		limited facilities (eg. walking tracks evident, some directional signage)		25.0%	
fairly well developed facilities (eg. well marked tracks, extensive signage)		22.9%		fairly well developed facilities (eg. well marked tracks, extensive signage)		19.2%	
very well developed facilities (eg. camp grounds, visitor centre)		4.3%		very well developed facilities (eg. camp grounds, visitor centre)		19.2%	
don't know/don't care		7.1%		don't know/don't care		11.5%	

h) Other Visitors & Experience

Key Findings

Stage 1: September 2001

During this first data collection stage,

- 85.8% of visitors ***did not think*** that there were ***too many other people*** at Davies Creek. Additionally, over half of the visitors indicated that the presence of other people did not prevent them from doing what they wanted to do;
- Over three quarters of visitors agreed that other visitors at the site were on the whole environmentally responsible;
- In terms of their experience at Davies Creek, visitors rated their ***enjoyment*** of the site ***highest*** with many strongly disagreeing that there were disappointing aspects;
- Over two thirds of visitors ***agreed*** to some extent that their visit had been a ***special experience***.

Stage 2: April 2002

During this second data collection stage, visitor responses were similar.

- Over three quarters (79.2%) of respondents ***did not think*** there were ***too many people*** at Davies Creek;
- Just over half of the visitors strongly disagreed that other visitors ***impacted on their own behaviour or experience*** of the site;
- The majority of visitors agreed that other visitors were on the whole environmentally responsible;
- Visitors rated their ***enjoyment*** of the site ***highest*** with many disagreeing that there were disappointing aspects;
- Two thirds of visitors (67.3%) ***agreed to some extent*** that their visit was a ***special experience***.

Combined Data & General Comments

- The majority of visitors were not concerned about the number, presence or behaviour of people at Davies Creek;
- Visitor experience of the site was highest in terms of ***enjoyment*** and ***worth the money***.

1. ***Experienced crowding***, as measured by number, presence and behaviour of others, does not appear to be a problem at Davies Creek.
2. ***Reported visitor satisfaction***, as measured by enjoyment, and worth the money, was high.

h) Other visitors**QUESTIONS & RESULTS**

27. The following statements are about other visitors at this site today. Please rate how strongly you agree or disagree with each statement by circling one number for each statement.

	n	Strongly Disagree			Strongly Agree			\bar{X}
		1	2	3	4	5	6	
a) There were too many people at this site today.	70	42.9%	28.6%	14.3%	4.3%	4.3%	5.7%	2.16
	53	34.0%	22.6%	22.6%	11.3%	0.0%	9.4%	2.49
b) The presence of other people at this site prevented me from doing what I wanted to.	70	50.0%	24.3%	7.1%	7.1%	4.3%	7.1%	2.13
	52	51.9%	19.2%	15.4%	7.7%	1.9%	3.8%	2.00
c) The behaviour of other visitors at this site has been on the whole environmentally responsible.	68	11.8%	1.5%	7.4%	19.1%	29.4%	30.9%	4.46
	51	9.8%	7.8%	5.9%	29.4%	23.5%	23.5%	4.20
d) The behaviour of some visitors at this site detracted from my enjoyment of this site.	69	62.3%	20.3%	2.9%	5.8%	2.9%	5.8%	1.84
	53	45.3%	24.5%	20.8%	5.7%	0.0%	3.8%	2.02

i) Experience**QUESTIONS & RESULTS**

28. The following statements are about your experience of this site. Please rate the extent to which you agree or disagree with each statement by circling one number.

	n	Strongly Disagree			Strongly Agree			\bar{X}
		1	2	3	4	5	6	
a) I experienced a real sense of involvement and connection with this place.	64	1.6%	4.7%	9.4%	34.4%	31.3%	18.8%	4.45
	51	5.9%	3.9%	25.5%	43.1%	7.8%	13.7%	3.84
b) For me visiting this site has been a special experience.	70	0.0%	4.3%	10.0%	32.9%	27.1%	25.7%	4.60
	52	5.8%	11.8%	15.4%	32.7%	11.5%	23.1%	4.02
c) I thoroughly enjoyed my visit to this site today.	71	0.0%	0.0%	1.4%	18.3%	31.0%	49.3%	5.28
	53	1.9%	0.0%	9.4%	17.0%	32.1%	39.6%	4.98
d) It was well worth the money I spent to come to this site.	66	0.0%	3.0%	4.5%	15.2%	31.8%	45.5%	5.12
	43	4.7%	4.7%	4.7%	16.3%	30.2%	39.5%	4.81
e) I was disappointed with some aspects of this site.	71	42.3%	19.7%	8.5%	19.7%	8.5%	1.4%	2.37
	51	29.4%	25.5%	25.5%	11.8%	3.9%	3.9%	2.47

j) Environmental Issues**Key Findings****Stage 1: September 2001** *Visitor Perception of Benefits & Impacts*

During this first data collection stage,

- In terms of benefits of this natural area, **clean air** was considered the **most important** with 74.6% of visitors rating this six on the importance scale;
- This was followed by **conservation of plants and animals**, **clean water**, and **scenic beauty** – the second, third and fourth most important benefits;
- **Economic benefits from tourism** was rated the **lowest**;
- The importance ordering of the educational benefits were: about the environment, nonindigenous and then Aboriginal cultural heritage;
- Due to problems with the items on visitor perception of quality/status of the biophysical indicators of impact, this data was not considered reliable for this data collection period.

Stage 2: April 2002 *Visitor Perception of Benefits & Impacts*

During this second data collection stage, visitor responses differed slightly.

- In terms of benefits of this natural area, **clean air** was again considered the **most important** benefit with 78.8% of visitors giving this the highest rating;
- This was followed closely by **clean water**, **conservation of plants and animals**, and **scenic beauty**, the second, third and fourth most important benefits;
- **Economic benefits from tourism** was again rated the **lowest**;
- In general, visitor **perception** of the impacts on the environment and infrastructure at Davies Creek as measured by the various **biophysical indicators** was **low**;
- Of these indicators, **presence of feral and/or domestic animals** was rated the **lowest**;
- Evidence of **soil erosion** was rated **highest**.

Combined Data & General Comments

- The **three most important** benefits of the natural area were **clean air** ($\bar{X} = 5.67$), **conservation of plants/animals** ($\bar{X} = 5.61$), and **clean water** ($\bar{X} = 5.59$). The least important was economic benefits from tourism ($\bar{X} = 3.28$);
- While still low, evidence of **soil erosion** was nevertheless rated **highest** of the bioindicators of impact on the environment.

1. In addition to the two key biophysical and biological benefits of the natural environment (clean air, conservation of plants/animals), visitors also consider an aesthetic benefit to be of importance- scenic beauty.

2. Visitor perception of the bio/physical indicators of impacts appears to be aligned with those established through intensive on-ground assessment undertaken by the researchers at the same time (see Wilson 2002).

j) Environmental Issues**Questions & Results**

<i>Please indicate how important you consider each of the following benefits of this natural area are.</i>								
		not important			important			\bar{X}
		1	2	3	4	5	6	
conservation of plants and animals	71	0.0%	0.0%	1.4%	5.6%	21.1%	71.8%	5.63
	52	0.0%	0.0%	1.9%	11.5%	13.5%	73.1%	5.58
education about Aboriginal cultural heritage	70	17.1%	7.1%	12.9%	35.7%	12.9%	14.3%	3.63
	52	21.2%	5.8%	17.3%	19.2%	9.6%	26.9%	3.71
education nonindigenous cultural heritage	69	15.9%	7.2%	13.0%	36.2%	13.0%	14.5%	3.67
	52	17.3%	11.5%	19.2%	23.1%	11.5%	17.3%	3.52
education about the environment	69	0.0%	1.4%	5.8%	18.8%	36.2%	37.7%	5.03
	52	3.8%	1.9%	5.8%	15.4%	19.2%	53.8%	5.06
scenic beauty	71	1.4%	0.0%	2.8%	4.2%	31.0%	60.6%	5.45
	52	0%	0%	3.8%	7.7%	19.2%	69.2%	5.54
places for recreation & relaxation	69	0.0%	2.9%	5.8%	8.7%	24.6%	58.0%	5.29
	52	3.8%	1.9%	7.7%	11.5%	23.1%	51.9%	5.04
economic benefits from tourism	70	18.6%	11.4%	20.0%	27.1%	14.3%	8.6%	3.33
	51	25.5%	7.8%	15.7%	33.3%	5.9%	11.8%	3.22
Clean water	71	0.0%	0.0%	2.8%	5.6%	21.1%	70.4%	5.59
	51	0.0%	2.0%	2.0%	3.9%	19.6%	72.5%	5.59
clean air	71	0.0%	0.0%	1.4%	2.8%	21.1%	74.6%	5.69
	52	1.9%	0.0%	1.9%	1.9%	15.4%	78.8%	5.65

<i>Please rate your perception of the quality/status of the following aspects (where applicable) at the site.</i>								
	n	low				high		\bar{X}
		1	2	3	4	5	6	
soil condition – evidence of erosion, top-soil loss								
	50	16.0%	18.0%	24.0%	22.0%	10.0%	10.0%	3.22
water quality- evidence of pollution								
	52	40.4%	17.3%	19.2%	13.5%	3.8%	5.8%	2.40
presence of weeds								
	52	17.3%	15.4%	23.1%	26.9%	13.5%	3.8%	3.15
condition of vegetation (eg. trampling, breakage, ring-barking, fire scars)								
	50	24.0%	20.0%	20.0%	22.0%	12.0%	2.0%	2.84
native wildlife behaviour - evidence of scavenging, tameness)								
	50	48.0%	18.0%	12.0%	12.0%	4.0%	6.0%	2.24
deliberate human impacts on infrastructure - evidence of graffiti, vandalism								
	52	46.2%	23.1%	7.7%	9.6%	9.6%	3.8%	2.25
presence of feral and/or domestic animals - evidence of cane toads, pigs, dogs								
	51	56.9%	15.7%	9.8%	13.7%	3.9%	0.0%	1.92

k) Environmental Issues

Key Findings

For this analysis the combined data sets are presented for comment.

Combined Data & General Comments Visitor Perception of Threats

- ***Threats*** to the well being of the environment that were identified by visitors were placed into ***nine key*** categories;
- Of these categories, the ***most frequently reported threats*** were those related to ***people behaviour on site***, of which ***littering*** was recorded the most;
- ***Natural disasters*** was the second most recorded threat with ***floods*** receiving the highest number of responses.
- Overuse – ***too many people***– was the third most frequently reported threat;
- When looking at the ***threats*** identified ***first***, visitors most frequently reported threats within the category of ***natural disasters*** in particular ***bushfires and floods***, and people behaviour onsite.

-
1. ***Visitors clearly link threats to the well being of the environment at Davies Creek with on-site people behaviour and natural disasters such as.***
 2. ***In particular, littering and bush fires and floods were considered the most important threats.***

k) Environmental Issues

Questions & Results

<i>What do you consider to be the three most important threats to the well-being of the environment at this site?</i>	First		Second		Third		Totals	
	n	%	n	%	n	%	n	%
Natural Hazards/Diasters								
Bushfires	10	2	7	3	4		26	17.7%
Floods	12		2		4		18	
Cyclone	3		1				1	
Access								
Advertising/access too easy				1			1	5.5%
Traffic, motor bikes, cars, coaches	2	1	3		2	1	9	
Road	3						3	
Motor bike trails/vehicular damage						1	1	
People Behaviour on site								
Firewood gathering	3		2		1		6	38.2%
Littering/garbage	8	8	8	7	4	3	38	
Water pollution /Pollution/polluting	4	4	3	3	4	1	19	
Vandalism/deliberate destruction	1		1		3	3	8	
Mis/overuse of fires	1	1			2		4	
Irresponsible campers/picnicers/visitors	2		2				4	
Lack of education				1		1	2	
Plant removal			1			2	3	
Walking off tracks/ boardwalk		1			1		2	
Alcohol drinking/drunken behaviour			1		1		2	
Fishing			1		1		2	
Unnatural noise/noise level		3		2		1	6	
Not environ friendly/misuse/irresponsib				1			1	
Animals/plants								
Domestic animals/pets		1	2	2	4	1	10	6.7%
Pigs /introduced flora/feral animals			1		1		2	
Logging, tree cutting, felling, lopping						1	1	
Weeds/ exotics	2			2			4	
Rules/Regulations								
too many forbidden rules /over regulation	1				1		2	7.9%
Swimming in prohibited area	5	11		2			18	
Over use								
Too many tourists,visitors,overcrowded	3	2	3		3		11	9.4%
Misuse/overuse/exposure	1	2					3	
Human presence/human impact		3	2	1		1	7	
Overdevelopment/exploitation	1		1				2	
Facilities								
Too many facilities				1	2	1	4	5.5%
Poor facilities for camping				2	2		4	
Septic not coping/sewage			1				1	
Poor signage			2				2	
Walk not kept in good condition	2	1					3	
Management Issues								
Rangers, overmanaged, forestry			2	1	1		4	3.9%
Absence of ranger (lack of maintenance)			1			1	2	
Not enough money/underfunding			1				1	
No supervision /no control over visitors		1	1				2	
Lack of/mis/poor management						1	1	
Other								
Apathy/lack concern/ lack education	2		2		1		3	5.1%
Damage to water quality /farming/chemicals			1		1		2	
Insurance/Accidents/safety aspects			1				1	
Logging						2	2	
Erosion				1			1	
Air Pollution						1	1	
Too few sites – increased pressure					1		1	

1) Additional Open-ended Items

Key Findings

Stage 1: September 2001

During this first data collection stage,

- **Additional information** requirements were predominantly related to *general information*;
- While a number of issues were identified as **enhancing visitor enjoyment**, most were related to *natural features* of the site in particular the swimming opportunities at the site;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were related to the *infrastructure*, in particular, the condition of the road.

Stage 2: April 2002

During this second data collection stage, visitor responses were similar.

- **Additional information** requirements were related to *general information* on the site, *cultural / historical* information and *natural / ecological* information, although the number of responses was very low;
- Issues most frequently identified with **enhancing visitor enjoyment** were related to *natural features* – in particular, the beauty of the site and the flowing water;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were those to do with the *facilities*, especially the rough access road and the condition of the toilets.

Combined Data & General Comments

1. *General information as well as natural, ecological, cultural and historical information was the type of additional information most frequently sought by visitors.*
2. *The natural features at Davies Creek were what enhanced visitor enjoyment of their visit.*
3. *Facilities such as condition of toilets and rough access road detracted from visitor enjoyment of Davies Creek.*

1) Additional Open-Ended Items

Questions & Results

18. If you were to visit this site again what additional information would you like?
Responses provided have been placed into five major categories. Information related to maps/orientation, natura/ecological information, cultural/historical information and general information.

Of the 26 respondents to this question, 8 indicated that the information should be left as is or that information is not needed at all.				There were 6 respondents to this question.			
Maps/Orientation		Natural/Ecological		Maps/Orientation		Natural/Ecological	
More maps	1	Environmental	1			Description of native fish in creek	1
Show camping areas	1	Geological	1	Rules/Regulations/Safety		Flora & Fauna identification	1
		Wildlife eg. Dont feed	2				
		Plants	1 (1)	General:			
Rules/Regulations/Safety				Experience peace is enough	1	Cultural/Historical Information	
Dogs shot on site	1			Make information more visible	1	History of area (indigenous & animal)	1
Slippery rocks	1	Cultural/Historical Information				Indigenous culture	1
General:		Indigenous culture/activity in area	2				
About fishing & water	2	White history	(1)				
Bike tracks	1						
Any good info	1						
All of the above	1						
Interpretative guide for tourists	1						
Notice board / diagram of info	1						

29. Were there any particular aspects of your visit that increased/enhanced your enjoyment of this site?

n = 69	Yes	37.7%	No	62.3%	n = 51	Yes	31.4%	No	68.6%
If yes, please specify:									
Natural:		PsychoSocial:		Natural:		PsychoSocial:			
Clear water/swimming	5	Few people/privacy	5	Natural beauty / tranquility	3	Few people / privacy	1		
Wildlife	1	Listening to running water & happy children	1	The weather	1				
Peaceful/beautiful	3			Flowing water	3	Other:			
Tranquillity	2			Death Adder	1	Seeing nature	1		
		Other:		Camp site location	1	Taking a shower in the creek	1		
		Our ex ranger	1			Abseiling	1		
Facilities:				Facilities:		History from here (energy)	1		
Facilities/toilets	2			Falls look out	1				
The road in	1								
Signage/interp material	1								

30. Were there any particular aspects of your visit that took away/detracted from your enjoyment of this site?

n = 69	Yes	17.4%	No	82.6%	n = 52	Yes	46.2%	No	53.8%
If yes, please specify:									
Natural/Biophysical:		Facilities:		Natural/Biophysical:		Facilities:			
Leaches	1	Condition of road	3	Dryness / grass	1	Dirty toilets (after rangers visit, toilet paper & faeces on ground)	6		
		No composting toilets	1	Worms in the water	2	Rough access road	11		
Rules/Regulations/safety		No firewood	1			Lack of facilities (picnic tables, toilets)	1 (3)		
Rubbish/no behaviour signs ie. detergents	1	No shelter/BBQs	1	Rules/Regulations/safety	1				
		Lack access to insensitive areas	1	Rubbish					
PsychoSocial:		Other:		PsychoSocial:	1	Other:			
Too many noisy children & dogs	1			Neighbours with loud music		Survey	1		
Too many people	1								

Comments on Questionnaire

Key Findings

The following are key findings in the comments made by visitors to Davies Creek.

Stage 1: September 2001

- The majority of comments made by visitors focused on **general issues** that in some cases were relevant to not only Davies Creek but to the **WTWHA** as a whole.
- Issues regarding **infrastructure and facilities** were frequently commented on. In terms to the amount of facilities available at Davies Creek (and the rest of the WTWHA), both sides of the argument were presented. Some respondents were annoyed with the lack of facilities at the site describing the experience as 'annoying'. However, the majority of responses on this issue indicated that sites with more facilities tend to attract visitors that have little respect for the environment.
- Another frequently commented issue was that of the **presence of dogs**. Some respondents indicated that dogs in National Parks **should be allowed**, and that most dog owners are responsible. However, other responses on this issue were **against the presence of dogs** at the site for ecological and conservation reasons.
- Comments that suggested improvements with the site focused on:
 - bigger signs at the entrance of the park listing facilities and responsibilities,
 - a car park area that is closer to the camping ground,
 - the regular presence of a ranger to discourage irresponsible behaviours,
 - recognition for mountain bike riders.
- Positive comments on Davies Creek focused on the **lack of people** (peace and quiet of the area), the limited facilities and the wildlife at the site.

Stage 2: April 2002

- The most frequent comments made by respondents in April 2002 were negative and revolved around the **maintenance of the facilities** at Davies Creek.
- The **condition of the road** into the site was frequently commented on. The road was described by some respondents as being **bumpy, rough, too corrugated** and **needing urgent attention**.
- Respondents also commented on the **toilets**. They were described as being disgusting and required cleaning.

DAVIES CREEK : September/October 2001**ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE**

The following are comments made by some respondents who completed the questionnaire at Davies Creek.

<u>Date</u>	<u>Comments</u>
22.09.01	Davies Creek is a beautiful area and I would not like to see it changed. <i>(Australian visitor, female, 49 years)</i>
22.09.01	The lack of Parks infrastructure throughout the Daintree Cape Tribulation region is both annoying and impossible to understand. That private operators are given nearly free rein to milk the natural resource of that region, and that so little goes back into the area. Well managed walking, camping, visitor facilities exist from Cradle Mountain in Tasmania to Kakadu in N.T. and much money is raised for parks projects through these Parks. What is going on in Queensland? <i>(Australian visitor, male, 44 years)</i>
22.09.01	There seems to be a shortage of places to camp (like Davies Creek) with simple facilities, north of Cairns, especially Cape Tribulation and north to Cooktown. As a fully equipped and self sufficient camper you feel excluded from the area- only people willing to spend a lot of money on overnight stay, tours, guided walks are welcome. <i>(Australian visitor, female, age: ?)</i>
22.09.01	I wish you all love, peace and everlasting happiness and thankyou for your kindness in allowing me to express myself. <i>(English visitor, female, 21 years)</i>
22.09.01	This is a very pleasant area. However, filling in this form as we arrive makes it difficult to answer reasonably. I always like information about fauna, flora & geology and the one flyer is not adequate. One reason I support National Parks is the teaching value of such areas. It is therefore very important to provide such information. <i>(Australian visitor, female, age: ?)</i>
22.09.01	Our family have been picnicking and camping at our favourite Davies Creek for approximately the past 5-6 years and we absolutely love the peace & quiet & meeting & seeing of different people, the wildlife of snakes and turtles etc. I really wouldn't change a thing at this tranquillity. Its just perfect the way things are. Although today we found a heap of bottles – empty bottles of VB in a plastic bag and box and a lady took them home to dispose of in our own home bins. So maybe BIGGER SIGNS are needed than the ones provided, because it seems people are ignoring this one important fact and are spoiling it for other “Your rubbish your responsibility”. <i>(Australian visitor, female, 34 years)</i>
22.09.01	Small level area for picnics in shade; bigger signs at start of park listing facilities and responsibilities. <i>(Australian visitor, male, 37 years)</i>
22.09.01	I believe strongly that facilities bring (attract) people with little respect for the environment. <i>(Australian visitor, male, 47 years)</i>
22.09.01	Our preferences are: clean water, no facilities, to instil respect for environment in three boys. Few people about. To find a site clean as we would leave it. The possibility of finding natural surroundings as above is & has been diminishing in Australia over the last 30 years. Provision of facilities seems to encourage the presence of those who have little or no respect or understanding of a unique natural environment. <i>(Australian visitor, female, 57 years)</i>
22.09.01	We would like to see more camping grounds. Lots of yuppies with 4WD's who want to stay in national parks camping and are willing to stay. <i>(Anon.)</i>
23.09.01	National Parks should allow small dogs on a lead. It is very Hard to travel with dogs which is a shame because most of the times dogs behave better than people!!!. Most dog owners are very responsible; far more so than most parents are about their kids who destroy nature and litter. Dogs don't do this. I stress that they should allow at least small dogs into NP and nature sites. <i>(Australian visitor, female, 49 years)</i>
23.09.01	Love to travel with dog but because of all the management rules this is becoming harder and to put gates across roads to keep people out so that they can be charged to go in during daylight hours I find revolting; this is Australia not Russia. Fines for littering should be enforced. <i>(Australian visitor, male, 50 years)</i>
23.09.01	Hard to access camping area with camping gear. <i>(Australian visitor, female, 45 years)</i>

- 23.09.01 This site is really nice. I really enjoyed the scenic area. Environment well preserved.
(French visitor, female, 26 years)
- 23.09.01 What a wonderful discovery! We are so pleased that we stopped off here for a quick look as this area is so well preserved. There are so few people. We'll definitely be back again. Thankyou.
(Australian visitor, female, age: ?)
- 23.09.01 I would like to see recognition for mountain bikers in areas like this and clear signs of walking riding tracks.
(Australian visitor, female, 42 years)
- 23.09.01 I ride a mountain bike in areas similar to this. I usually get a permit from forestry management in an effort to illustrate that mountain bikers use these roads and old logging/pack horse tracks etc. I would like to see recognition and support for mountain bikers in line with that, that bushwalkers receive. Signage or consultation with Cairns Mtb club etc.
(Australian visitor, male, 37 years)
- 23.09.01 Speed bumps are too large & too many. Lack of informative information.
(Australian visitor, female, age: ?)
- 23.09.01 Keep it as natural as possible.
(Australian visitor, female, 45 years)
- 6.10.01 It would be great to have designated areas i.e. children areas, where they can swim and make noise. Another area where wildlife observers can observe with no noise. This area could also be used by people wishing to relax in the peace and quite. We need to have fines in place which deter the typical Neanderthal, moronic, halfwit, redneck Queenslander from bringing dogs into a National Park. In my experience in Nth Qld there are great National Parks which are adequately signed (no dogs) but the so called locals think they are a law to themselves. I understand that the cost of policing these areas would be huge. So I believe a huge fine should be in place with random policing. Obviously an advertising campaign would have to be in place as well.
(Australian visitor, male, 37 years)
- 6.10.01 Protecting animals and their habitat is an important issue, as well as the plants. But I think this is more important than creating a good rest/picnic area for tourists and making money. Soon nothing will be left for the plants and animals . We as humans will kill them all slowly. And we are suppose to be the smart race! I am ashamed to be of them, who attempts to save the earth, but cant do anything about it. It is too far gone.
(Australian visitor, female, 20 years)
- 6.10.01 Despite signs to the contrary, I observed at least one domestic dog at the site. Given that this presents a significant threat to the ecology of the area, the regular presence of rangers would discourage/address this particular issue.
(Australian visitor, male, 38 years)
- 6.10.01 This camping area would be better if we could park our cars beside individual camp sites. Most people have too much gear to have to carry everything from parking areas to camp sites. It would be good to have tracks into camp sites along the river instead of the two larger sites available. I would believe this would enhance the whole experience of this area.
(Australian visitor, male, 33 years)

Davies Creek:**April 2002****ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE**

The following are comments made by some respondents who completed the questionnaire at Davies Creek.

<u>Date</u>	Comments on Site.
06.04.02	Toilets required cleaning. Road in very bumpy / rough – not overly good for everyday cars. Overall, area is beautiful. <i>(Australian visitor, female, 25 years)</i>
06.04.02	Toilets were disgusting – faeces on floor, used loo paper on floor. Road in could be better. <i>(Australian visitor, female, 31 years)</i>
06.04.02	Make sure people are respecting and caring for this beautiful area. The energy is powerful here. I can feel history from our native Australian ancestors. <i>(Australian visitor, female, 27 years)</i>
06.04.02	The road to the site really needs to be repaired. <i>(Indigenous Australian visitor, male, 23 years)</i>
06.04.02	Road was too corrugated for my liking. <i>(Australian visitor, female, 24 years)</i>
06.04.02	A well managed site except for the condition of the road. <i>(Australian visitor, male, 26 years)</i>
07.04.02	Overnight camping fees should be common surate with facilities provided. Day visitors use facilities more than overnight campers but pay nothing towards facilities. Should be equalised. <i>(Australian visitor, male, 60 years)</i>
07.04.02	The roads are horrible! They need to be grated to take some of the BUMPS out! <i>(American visitor, male, ? years)</i>
07.04.02	Speed bumps slightly exaggerated. Regular grading of road would be fantastic. Although I do realise that these are both strategies to reduce impact. <i>(Australian visitor, female, ? years)</i>
07.04.02	As usual, facilities provided by NP&WS are poorly maintained. It seems to be the policy of NP&WS to prevent access rather than assist it. Probably to save maintenance funds e.g. there is no disabled access – even the car park is too eroded. <i>(Australian visitor, male, 53 years)</i>
07.04.02	Access road very rough and in need of some urgent attention. <i>(Australian visitor, male, 52 years)</i>

Comments to Field Assistants**Key Findings**

The following comments were most frequently reported to the field assistants at Davies Creek.

Stage 1: September 2001

- Comments made to field assistants at Davies Creek focused on orientation and location signage within the park. Respondents were unable to find a map of the area and often asked the field assistants where the camping ground was and what other facilities were present.
- Other comments focused on the speed bumps within the park, the absence of a ranger and concern that the information from the survey would be used to overdevelop the area.

Stage 2: April 2002

- The most frequent theme to the comments made by visitors was that of the litter and mess that was in the toilets and on the road.

Stage 1: September 2001

The following are comments made by 12 visitors to the field assistants at Davies Creek.

Date	Comments
22.09.01	Speed bumps within the park were excessive both in size and number (Anon.)
22.09.01	They couldn't find a map of the area or information on the site. All the signs they were seeing were regulatory and the direction signs were either obvious or not clear. (Anon.)
22.09.01	One group of people had been camping for five days with a dog and hadn't seen a range despite it being the beginning of the holiday period. (Anon.)
22.09.01	Insufficient designated fire sites (five people made fires in the park on Sunday alone in undesignated spots despite a high risk fire sign at the entrance to the park). (Anon.)
22.09.01	"This information is not going to be used to over-develop the area is it? I have come here many times and like it the way it is." (Australian visitor, female, 49 years)
22.09.01	Group of three (one Australian, two Swedish – visited Lakelands, Cooktown, Daintree, however were very disappointed in latter – camping opportunities poor. One at Mungo, but very expensive. Access to walks through private/commercial operator property. Camped at Weary Bay. Access to camping at Cow Bay non-existent. Camped in most sites throughout Australia and prepared to pay for camping if managed and available. (one Australian, two Swedish)
22.09.01	Three Swedish boys – visiting - undertaking language course in Cairns. Hired vehicle to visit Davies Creek today. (Swedish)
23.09.01	"Not enough signage in parks". Travelled all over Queensland and not enough signage in any parks. Travelled to Lava Hill fossil area, where they found a toilet and parking area, but no signs either: the only way they knew where they were was because a brochure they had told them the site was a great place. (Anon.)
23.09.01	People asked: "Where is camping ground?"; "What else is around here: is this the only park?"; "Where are the falls?"; "Is there anywhere to camp with your car next to you?"; "What is up further?". (Anon.)

April 2002

The following are comments made by 7 visitors to the field assistants at Davies Creek.

Date	Comments
06.04.02	Ladies toilet was reported to be very dirty: rangers had been around collecting fees but not cleaning. Presence of rubbish was also noted. (Anon.)
06.04.02	A couple commented, "Clean the road." (1610, 1611)

BEHAVIOURAL EVENTS**Key Findings**

From the behavioural events recorded by field assistants at Davies Creek in Stage 1, the following three critical incident categories were identified.

- **Domestic Animals**

There were a number of domestic dogs observed at Davies Creek. While in some cases, dogs were not let out of the vehicle, in most instances, dogs were in the area without a leash and playing with their owners. In one case, some campers with a dog had been camping at the site for five days.

- **Deliberate damage to plants**

This behaviour was observed on both days during Stage 1. In both circumstances, the damage to the plants was done to collect fire wood for the BBQs.

- **Undesignated area use**

The most frequent observed behaviour in undesignated areas was that of lighting a fire for a BBQ. Similarly, in two cases it was also observed that there were groups picnicking in an undesignated area as well.

BEHAVIOURAL EVENTS: DAVIES CREEK

The following are critical incidental observations of behavioural events made by field officers during the period of administration of surveys and counts of vehicles/visitors in September and October 2001.

Behavioural Topic	Comment
Domestic Animals	22.09.01 <ul style="list-style-type: none"> • A dog was released to run around in camping area for half hour at 09: 21 & 13:05hrs. People throwing stick for dog (13:05hrs). • Two dogs in back of vehicle. Vehicle stayed four mins and dogs did not leave vehicle for this period (14:40hrs.) • One small dog with campers hanging around their camp site. These campers had been at the site for five days. 06.10.01 <ul style="list-style-type: none"> • Dog in car park
Deliberate damage to plants	22.09.01 <ul style="list-style-type: none"> • Collection of wood for BBQ (12:35hrs) 23.09.01 <ul style="list-style-type: none"> • Firewood collection (13:00hrs)
Undesignated Area Use	22.09.01 <ul style="list-style-type: none"> • Lighting fire for BBQ in undesignated area (12:35hrs) • Two groups picnicking in undesignated areas (12:20 & 12:30hrs). 23.09.01 <ul style="list-style-type: none"> • Lighted fires for BBQ in undesignated area of camp ground X 2. • Using rocks to make BBQ in undesignated area (12:45hrs)
Speeding	22.09.01 <ul style="list-style-type: none"> • One 4WD speeding along the access road (10:55hrs)
Risk Activity	22.09.01 <ul style="list-style-type: none"> • Group of two using rope over water hole (14:30hrs) • Several groups sliding down rapids (09:30, 12:30, 16:00hrs) 23.09.01 <ul style="list-style-type: none"> • Boys running on slippery rocks
Aggressive Behaviour	6.10.01 <ul style="list-style-type: none"> • People doing wheelies in car park (13:00hrs)
Other	22.09.01 <ul style="list-style-type: none"> • Two boys throwing stones into bush (14:45hrs). 23.09.01 <ul style="list-style-type: none"> • Alcohol consumption observed amongst three groups (11:35, 14:45, 15:00hrs) • Man observed removing an axe from vehicle (12:40hrs) • Flagging tap removed from tree (14:40hrs) • Loud music – playing drums (16:30hrs)

No behavioural observations were recorded during Stage 2.

Section Two

Infrastructure Inventory and Profile



S E C T I O N T W O

-
- Site Infrastructure Inventory
 - Site Information and Signage
-

DAVIES CREEK

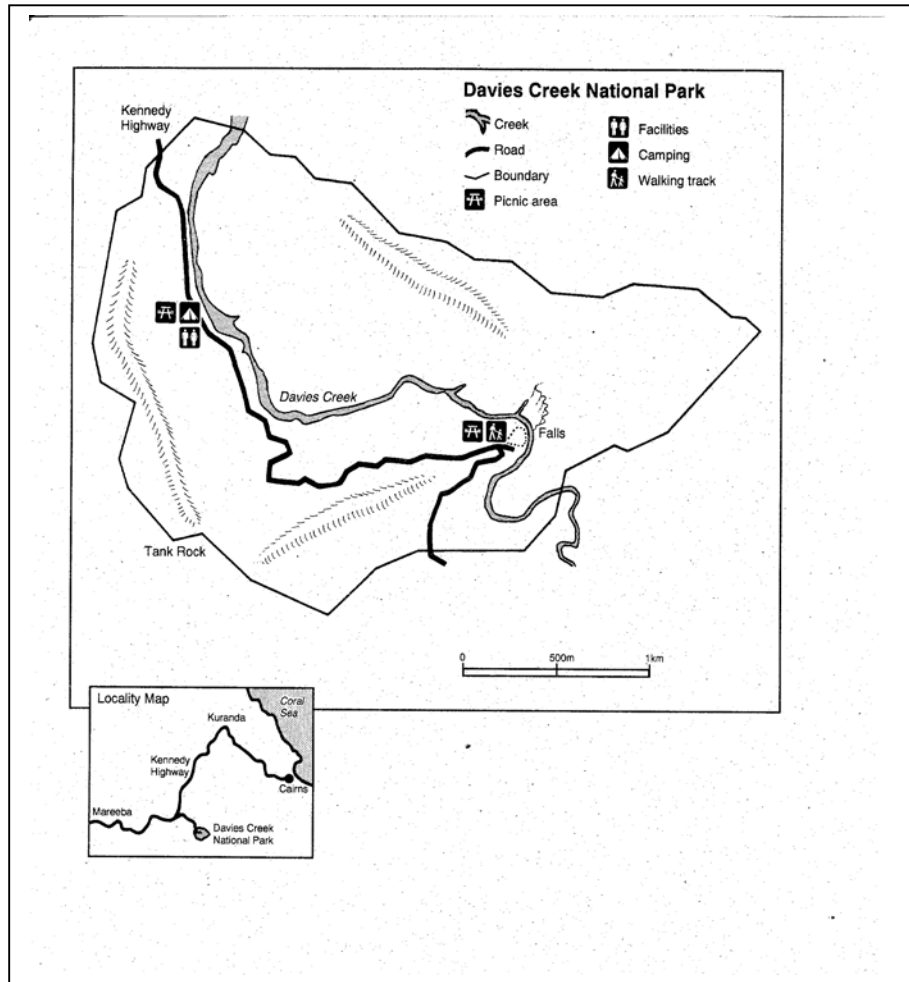


Figure 1: Davies Creek site map (Source: QPWS).

Site Infrastructure Inventory

Key Findings

The following table is a summary version of the inventory of features/facilities recorded at the three key activity nodes at the site. An inventory was first undertaken in 1999 (yellow shading) and repeated at time of distribution of questionnaires in 2001/02.

DAVIES CREEK		Not a WTHA designated site		Management Agency: DNR		
		Date Assessed: 12.5.98				
Site Parameters	Annual vehicle/visitor #		Vehicle s /Visitors = not recorded		Vehicle s = 6,897 Visitors = 24,415	
	Site Access:		Road		Road	
	Road Type:		Unsealed		Unsealed	
	Road Conditions:		Severe erosion / few potholes (Severe corrugations)		Severe erosion / few potholes (Severe corrugations)	
	Car Park (Bottom)		Picnic and Camp Areas		Trail – Circuit (Falls)	
Facilities / Infrastructure	1999	2002	1999	2002	1999	2002
Landscaping:	Nil	Nil	Soft	Soft	Hard	Hard
Signage:						
Corporate Identity	1	1	Absent	Absent	Absent	1
Visitor Orientation	1	2	Absent	1 + 1 (Reg Booth)	12	3
Visitor Advice	2	2	1	1 + 1 (Reg Booth)	2	2
Regulatory	2	2	1	1 (Reg Booth)	Absent	Absent
Interpretive	Absent	Absent	Absent	Absent	Absent	Absent
Foreign Language	Absent	Absent	Absent	Absent	Absent	Absent
Capacity / Description:	Semi-informal; gravel	Semi-informal; gravel; small shelter on edge of car park	Remote from vehicle Approx 32 seating spaces	Remote from vehicle Approx 28 seating spaces	850m, gravel, graded track	850m, gravel, graded track
Amenities / Utilities						
Toilets:	Absent	Absent	4 pit	4 pit	Absent	Absent
Showers:	Absent	Absent	Absent	Absent	Absent	Absent
Bins:	Absent	Absent	Absent	Absent	Absent	Absent
Water:	Absent	Absent	Absent	Absent	Absent	Absent
Power:	Absent	Absent	Absent	Absent	Absent	Absent
Telephone:	Absent	Absent	Absent	Absent	Absent	Absent
Other	Absent	Absent	6 wood BBQs, 8 tables	7 wood BBQs, 7 tables	Seats	3 Seats at lookout + 1
Appeal						
Attractiveness:						
Naturalness (within)	Low	Low	Medium	Medium	Medium	Medium
Naturalness (surroundings)	Medium	Medium	High	High	High	High
Nuisance insects	Nil	Nil	Nil	Nil	Low	Low
Built environment	Not applicable	Not applicable	Low	Low	Low	Low
Shade	15-20%	10-15%	30 - 50%	20 - 40%	45%	40%
Noise (human origin):	Low - motor bike	Low	Nil	Low - trail bike	Nil	Low
Biophysical						
Landform:	Moderately inclined		Moderately inclined		Moderately inclined - steep	
Altitude:	601m (GPS)		601m (GPS)		601m (GPS)	
Vegetation:	Sclerophyll		Sclerophyll		Sclerophyll	
Geology:	Granites		Granites		Granites	
Water body:	Absent		Creek (fresh)		Creek/Falls	
Impact Assessment						
Condition Indicators:						
Litter (visual impact)	Low	Low	Low	Low	Nil	Nil
Litter (amount)	<21 items	<5 items	<21 items	<10 items	< 5 items	Nil
Litter (type)	Plastic	Plastic, paper	Paper, plastic, cig butts, bottle tops	tins, plastic,	Bottles	-
Waste Management	Not applicable	No bins	Not applicable	No bins	NA	No bins
Wear on facilities	Low	Low	High	Medium	Medium	Medium
Vandalism / graffiti	Nil	Nil	High	Low	-	-
Environmental Indicators:						
Soil erosion	High	High	Medium	Low	Medium	Medium
Exotic weeds	-	-	High	Medium	Nil	High
Exotic ornamentals	Nil	Nil	Nil	Nil	Nil	Nil
Vegetation	No breakage / mutilation	No breakage / mutilation	High breakage, high mutilation	Low breakage, Low mutilation	Low breakage, low mutilation	Medium breakage, low mutilation
Wildlife	No evidence of habituation	No evidence of habituation	No evidence of habituation	No evidence of habituation	No evidence of habituation	No evidence of habituation
Additional Notes	1998: Car park has no formal parking bays. 2001: Severe erosion in car park – large ruts.		1998: Considerable vegetation mutilation & breakage. Extensive graffiti on picnic tables, BBQs in need of repair. 2001: Undesignated fire.		1998: Vegetation subject to fire in the past 1-2 years. 2001: Many undesignated trails; undesignated fire.	

Site Infrastructure Inventory

Details

A. Car Park Area (bottom/main)

The first or bottom car park is the main parking area for the day use/camping area and is situated above this area. No designated parking bays are present but the car park is separated from the day use/camping area by timber bollards. The parking arrangement does not allow for vehicle access to the day use or camping sites.

B. Day Use/ Camping Area

Amenities Area: Toilet block.

Camp Area: There are seven broad camp areas remote from the car park which are defined by availability of picnic tables and fire place/bbq. No numbered campsites are present. A camping registration booth is located within the site.

Facilities	#
Tables	7
Sitting Benches	14
Fire Ring & plate	
BBQ	7
Wood store/table (brick)	-
Bins	-
Taps	-
Shelter Shed	1 small, close to car park

C. Trail – Circuit to Waterfalls

This is a gravel and graded trail approximately 850 m long which runs as a circuit from the top car park down to the creek, around to the top of the falls and back up to the car park. It is a well established trail with facilities such as fenced-in lookout areas and benches. There are a number of social or short cut trails (total = 12, Butler, 2002) which run off the main trail.

A. Main Car Park Area



Shelter shed on edge of main car park area (bottom)



Severe erosion across car park

B. Day use/Camping Area

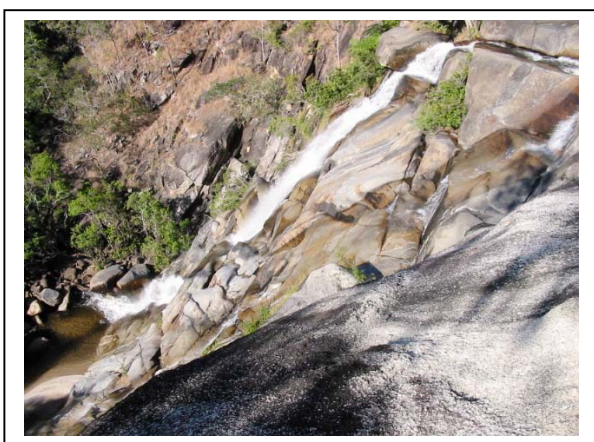


Picnic table



Davies Creek

C. Trail – Circuit to Waterfall



Davies Creek falls



Trail to falls

Note: Details of signage next section.

Site Information and Signage

The information and signage for the four key components of the site (road access, bottom/first car park, day use/camp ground area, and walking track) were grouped, as best as possible, according to the Department of Natural Resource's five broad sign categories. The inventory includes numbers of actual sign structures and total information types according to these categories and within each of the activity nodes. An assessment of signage content was not undertaken in this project.

Key Findings

- A total of **14 sign structures** containing **24 separate sets of information** relevant to Davies Creek were recorded along the main road, access road and at the Davies Creek site itself (Table 1).
- Most of these signs (45.8%) were for the purpose of **visitor orientation**;
- Visitor advice in terms of safety information was minimal;
- No indigenous or nonindigenous cultural heritage signage was present;
- Natural/ecological information was very limited;
- **No foreign language** signage is present at Davies Creek.

Table 1: Number and type of signs at Davies Creek.

Sign Category	Main Road	Access Road	Car Park	Day Use /Picnic Area	Walking Track	TOTAL
Interpretive						
Visitor orientation	2	2	3	1	3	11
Visitor advice		3		1	2	6
Regulatory			2		3	5
Corporate Identity			1	1		2
TOTAL Information Types	2	5	6	3	7	24
Sign Structures	2	2	4	2	4	14

Comparative Data Set

No comparative signage data available.

Main Road (Kennedy Highway)

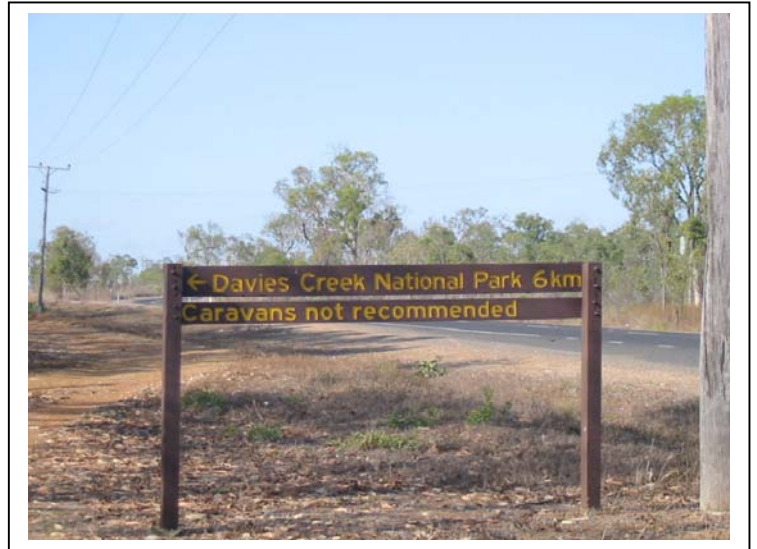
Visitor Orientation Signs (2)



Main Road X 2

Access Road (6 km gravel road)

Visitor Orientation (2) & Visitor Advice (2)



Junction of main and access roads. Same information available on both sides of the sign.



Edge of access road

Visitor Advice (1)

Your rubbish – your responsibility

Car Park Area Signage

Regulatory Signs (1), Corporate Identity (1)



Visitor Advice (1) & Orientation (1)



Visitor Orientation (2) & Regulatory sign (1)



Day Use /Camping Area Signage

Visitor Orientation, Corporate Identity & Advice Signs (2)



Camping Registration Booth

Walking Track Signage

+ Visitor Advice (1) at falls lookout (Warning-Do not proceed beyond fence)

Visitor Orientation (1), Regulatory (3), Advice (1)



Visitor Orientation Signs (2)



Section Three

Vehicle and Visitor Monitoring



-
- Vehicle and Visitor Records
 - Traffic Counter Data
-

Vehicle and Visitor Records: *Davies Creek*

Summary table of visitor and vehicle records established over four x eight hour observation periods.

		Visitors				Vehicles				
	Type	# in 8hrs	# per vehicle	Highest # at one time	Time	Type	# in 8hrs	Highest # at one time	Time	Average Length of Stay
22 Sept 2001	Group /Family 57%	66	2.87	37	1530	cars (39%), 4WD (39%).	23	10	1530	117mins
23 Sept		101	2.97	44	1145		34	13	1145	119mins
6 April 2002	Group /Family 49%	102	3.54	38	1300	cars (66%) 4WD (25%).	29	18	1230	212mins
7 April		100	3.7	34	1400		27	14	1400	179mins

Traffic Counter Data: *Davies Creek*

Summary table of traffic counter data for a twelve month period (September 2001-2002).

	Visitors					Vehicles		
	Average #	Highest #	Time Of Highest	Lowest #	Time Of Lowest	Average #	Highest #	Lowest #
Yearly	24,415					6,897		
Monthly	2,021	2,814	January 2002	1,490	February 2002	571	795	421
Weekly	474	754	July 2002 Week 3	248	May 2002 Wk 1	134	213	70
Daily Weekdays	50	237	25 Dec 2001	11	18 Feb 2002	14.2	67	3
Daily Weekends	112	216	24 Aug 2002	21	23 March 2002	31.5	61	6

Vehicle and Visitor Records

Key Findings

Data for these records were established from eight hours of continuous observations of vehicles and vehicle occupancy during each day of the survey distribution periods, Stage 1 (22nd & 23rd September 2001) and Stage 2 (6th & 7th April 2002). This is the first time this type of data has been collected at Davies Creek and so previous data is unavailable for comparative purposes.

Stage 1: 22nd and 23rd September 2001

Pattern of access to and use of Davies Creek:

Figure 1

General

- **Vehicle Type:** The majority of vehicles using the site over the two days of observation were *cars (39%)* and *4WD (39%)*. There were *no commercial coaches/buses* using Davies Creek during this period.
- **Visitor Category:** Davies creek appears to be favoured by *groups/family* which make up the major visitor category over these two days (57%).

Day 1 (22nd September 2001 - Saturday)

- A total of **66 people** in **23 vehicles** visited Davies Creek during this eight hour observation period.
- There was *one distinct peak* in visitor numbers around **1530 hours**.
- The highest number of visitors at the site at any one time was **37 at 1530 hours**. Visitor numbers remained between 15 and 35 from 1415 and 1645 hours.
- The highest number of vehicles at the site at any one time was **10 at 1530 hours**. For most of the day number of vehicles at the site remained below 10, but always between 5 and 10 vehicles from 1220 to 1700 hours.

Day 2 (23rd September 2001 - Sunday)

- A total of **101 people** in **34 vehicles** visited Davies Creek during this eight hour observation period.
- There was *one distinct peak* in visitor numbers **at 1145 hours**.
- The highest number of visitors at the site at any one time was **44 at 1145 hours**. There was a sharp increase in visitor numbers between 1100 and 1200 hours and numbers remained between 30 and 45 from 1115 and 1430 hours.
- The highest number of vehicles at the site at any one time was **13 at 1145 hours**. From between 1130 and 1430 hours vehicle numbers remained between 10 and 15.

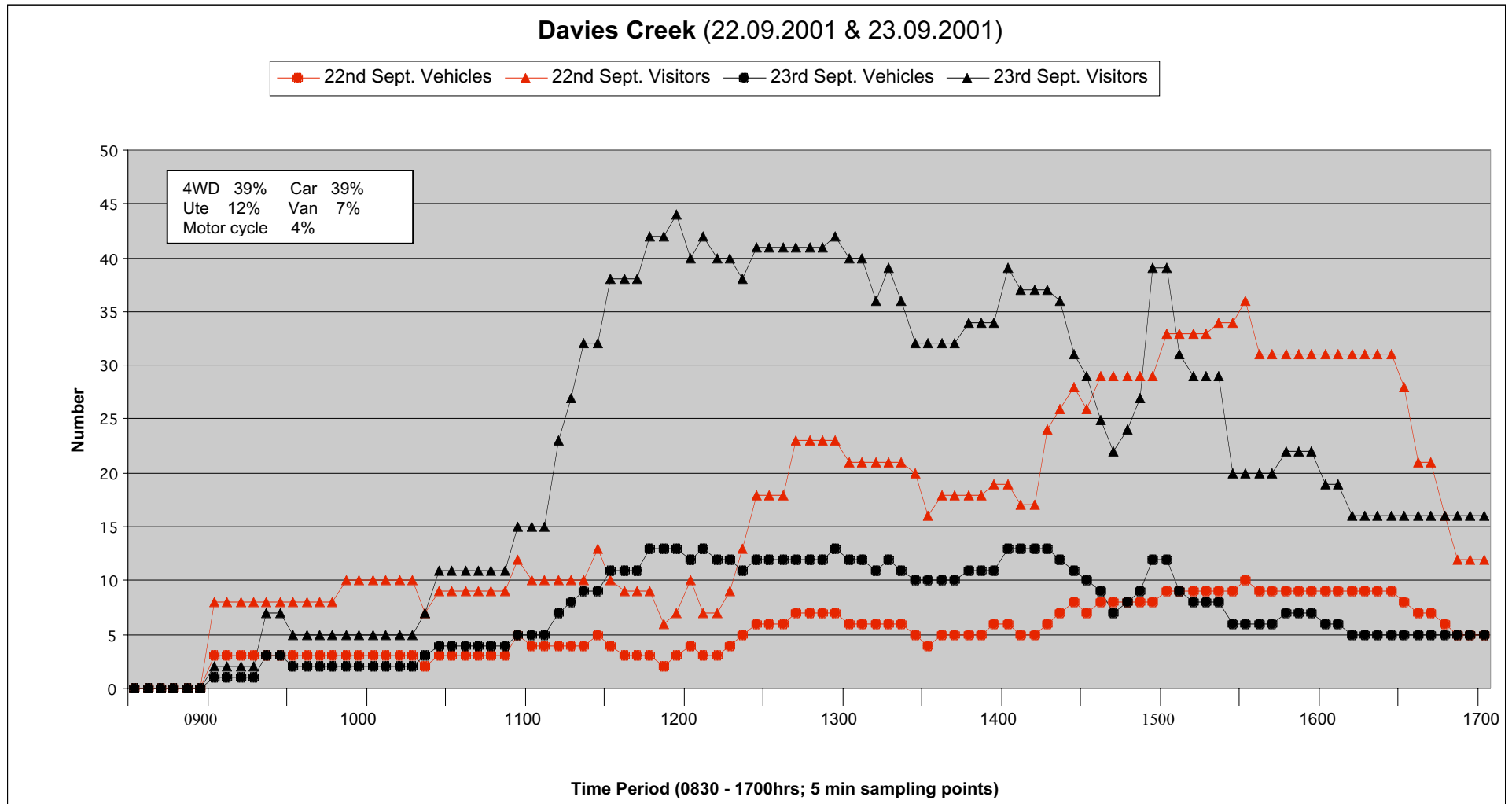
Length of Stay:

Figures 2 and 3

- There were fewer vehicles observed at the site on Day 1 (23 vehicles) compared to Day 2 (34 vehicles), and fewer people (66 visitors Day 1, 101 visitors Day 2).
- The average length of stay was **117 minutes** on Day 1, and **119 minutes** on Day 2.
- On Day 1, 61% of the vehicles stayed longer than one hour. On Day 2 this had increased to 76%.

VEHICLE AND VISITOR COUNT DATA: DAVIES CREEK

Figure 1: Records for Vehicles and Visitors over two x eight hour periods at Davies Creek.



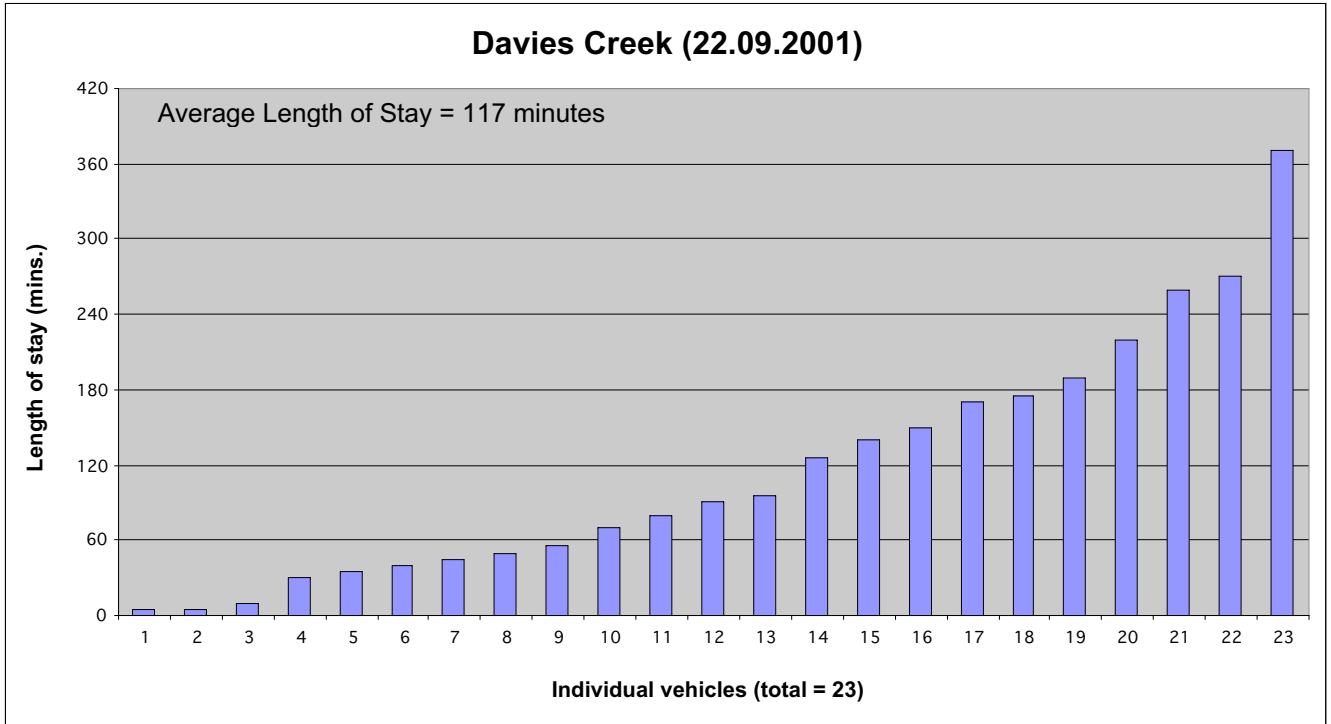


Figure 2: Length of stay of each vehicle at Davies Creek on Day 1 (22.09.2001).

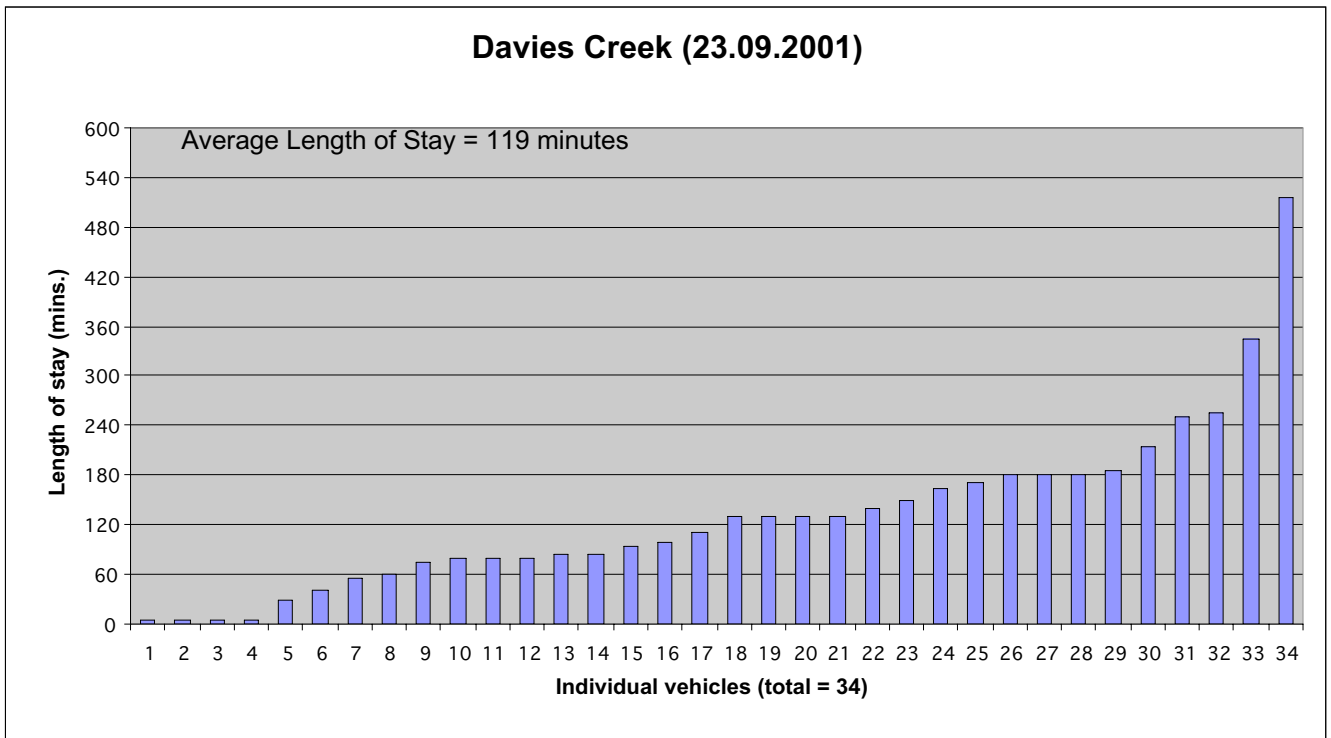


Figure 3: Length of stay of each vehicle at Davies Creek on Day 2 (23.09.2001).

Vehicle and Visitor Records

Key Findings

Stage 2: 6th and 7th April 2002

Pattern of access to and use of Davies Creek:

Figure 4

General

- **Vehicle Type:** The majority of vehicles using the site over the two days of observation were *cars (66%)* and *4WD (25%)*. There were *no commercial coaches/buses* using Davies Creek during this period.
- **Visitor Category:** Davies creek appears to be favoured by *groups/family* which make up the major visitor category over these two days (49%).

Day 1 (6th April 2002 - Saturday)

- A total of **29 vehicles** visited Davies Creek during this eight hour observation period.
- There were **three distinct peaks** in visitor numbers between **1000 and 1030 hours** (26 visitors), **1230 and 1300 hours** (38 visitors), and **1430 hours** (26 visitors).
- The highest number of visitors at the site at any one time was **38 at 1300 hours**. Visitor numbers remained between 15 and 38 for most of the day (1000 – 1600 hours).
- The highest number of vehicles at the site at any one time was **18 at 1230 hours**. For most of the day number of vehicles at the site remained between 10 and 20.

Day 2 (7th April 2002 - Sunday)

- A total of **27 vehicles** visited Davies Creek during this eight hour observation period.
- There were **two distinct peaks** in visitor numbers **at 1100 and 1400 hours**.
- The highest number of visitors at the site at any one time was **34 at 1400 hours**. Between 1030 and 1530 hours number of visitors at the site at any one time remained between 15 and 34.
- The highest number of vehicles at the site at any one time was **14 at 1400 hours**. From between 1230 and 1530 hours vehicle numbers remained between 10 and 14.

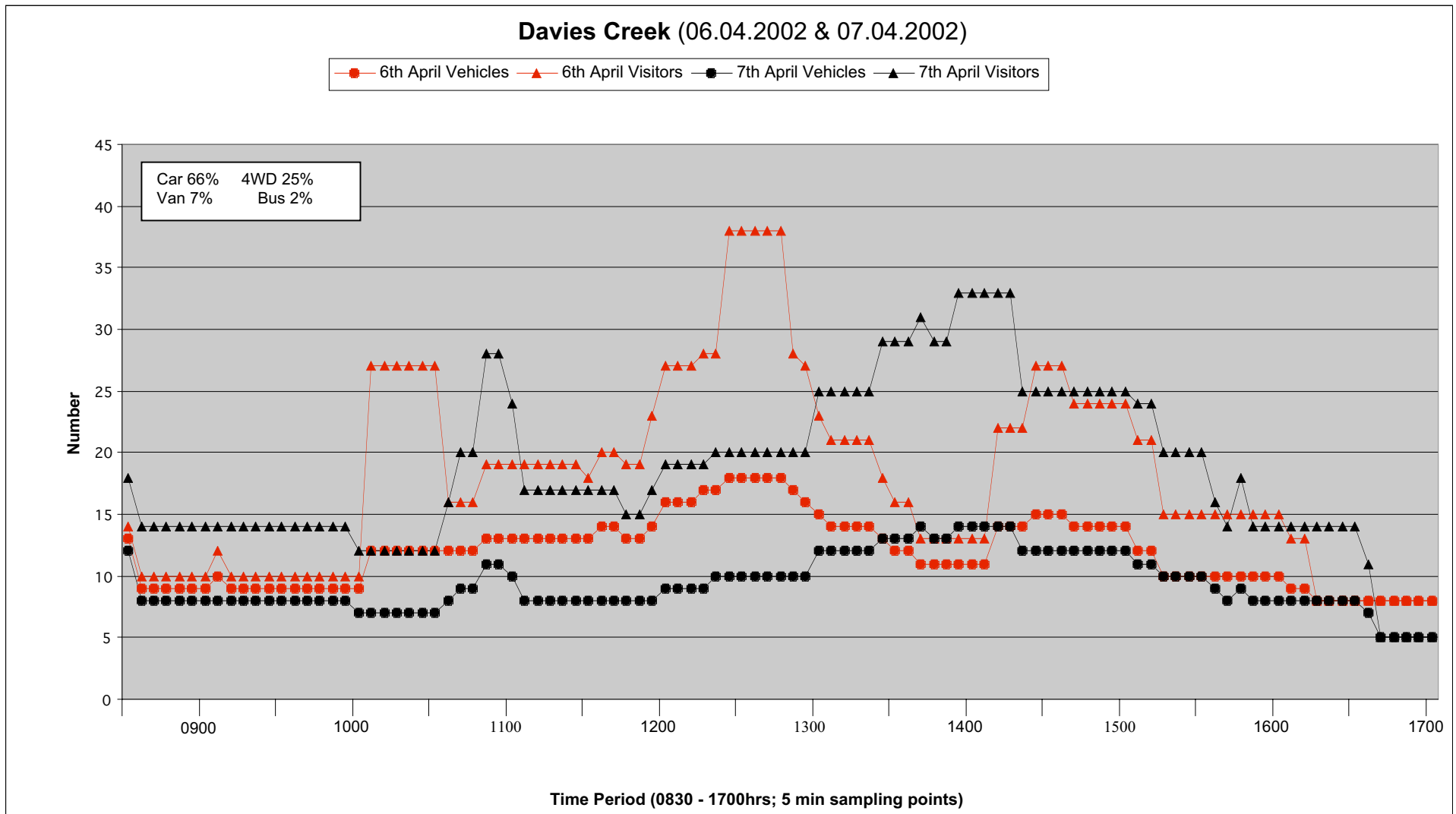
Length of Stay:

Figures 5 and 6

- There were slightly more vehicles at the site on Day 1 (29 vehicles) compared to Day 2 (27vehicles).
- The average length of stay was **212 minutes** on Day 1, and **179 minutes** on Day 2.
- On Day 1, 66% of the vehicles stayed longer than one hour. On Day 2 this was 63%.

VEHICLE AND VISITOR COUNT DATA: DAVIES CREEK

Figure 4: Records for Vehicles and Visitors over two x eight hour periods at Davies Creek.



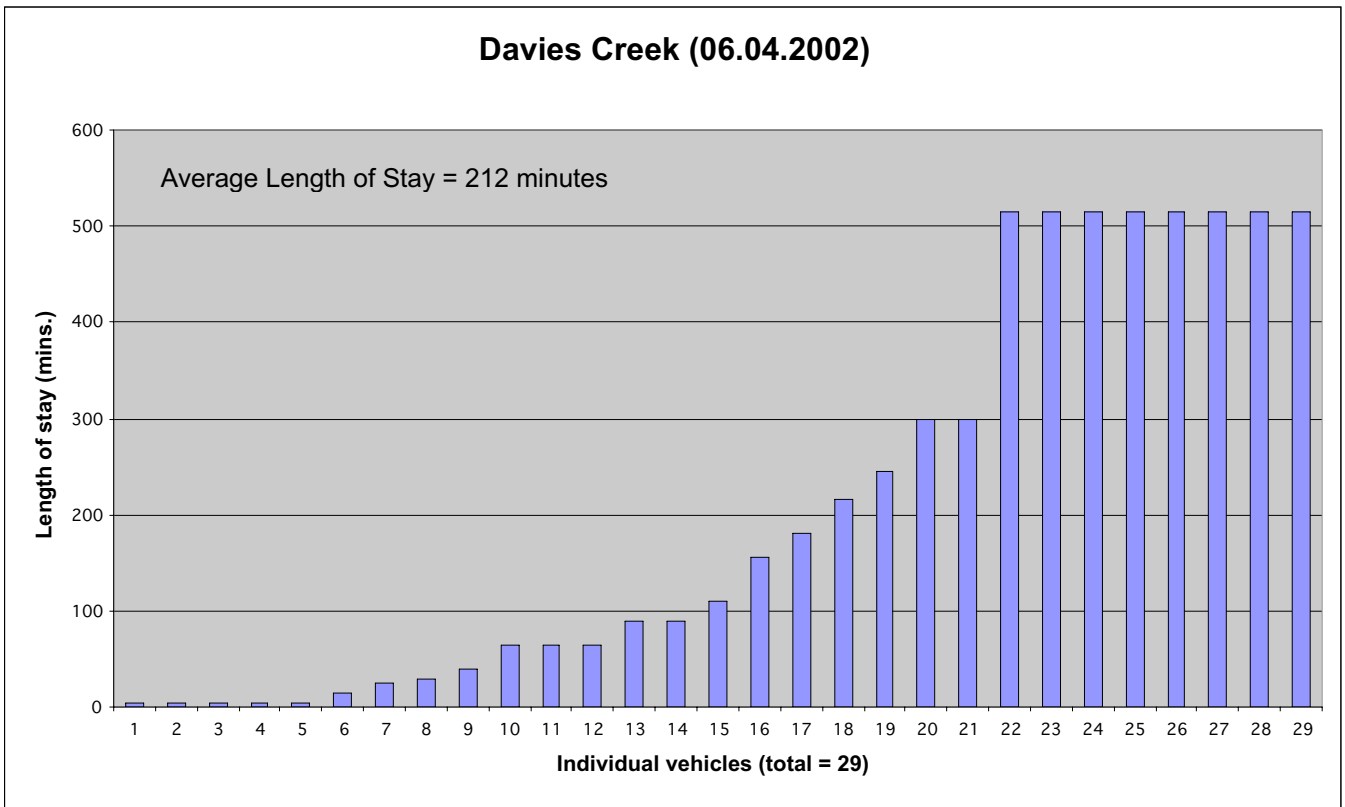


Figure 5: Length of stay of each vehicle at Davies Creek on Day 1 (06.04.2002).

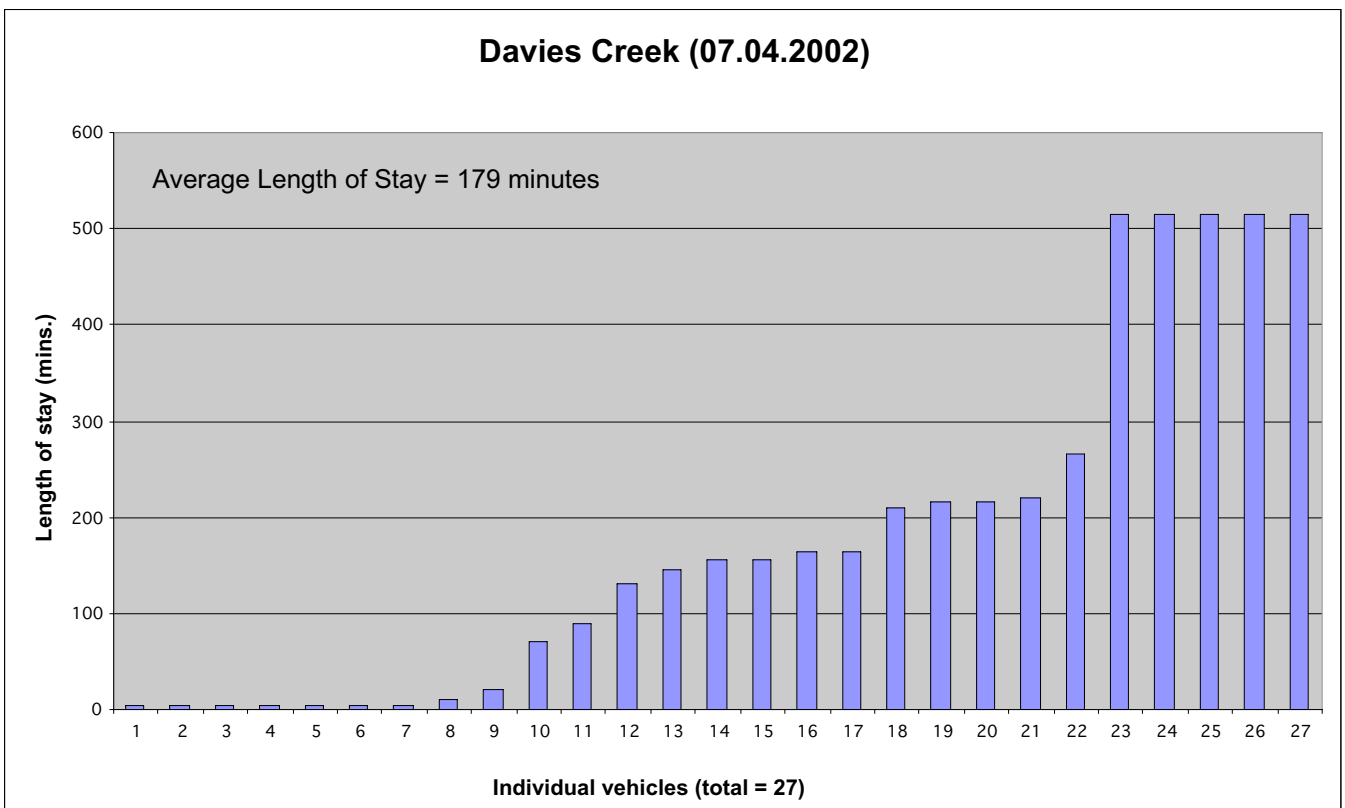


Figure 6: Length of stay of each vehicle at Davies Creek on Day 2 (07.04.2002).

Traffic Counter Data

Key Findings

The traffic counter was installed at Davies Creek for 12 months (September 2001 – September 2002). The following key findings are associated with this data set.

Yearly Estimates = 6,897 vehicles and 24,415 visitors

Monthly Records: Figure 7

- On average, **571 vehicles** (range = 421 – 795) and **2,021 people** (range = 1,490 – 2,814) visited Davies Creek each month.
- **October 2001 and January 2002** received the **highest** visitation rates during which time vehicle numbers exceeded 750. The quietest months were November 2001, and February and March 2002. Overall, there are no large differences in monthly visitation rates.

Weekly Records: Figure 8

- On average, **134 vehicles** (range = 70 – 213) and **474 people** (range = 248 – 754) visit Davies Creek each week.
- There were two discernible periods of increased vehicular traffic levels recorded during sampling: **October 2001** (week 1) and **July 2002** (week 3).
- The highest number of vehicles and visitors was in **July 2002, Week 3**, during which week **213 vehicles and 754 visitors** used this site. The quietest week was in May, Week 1.

Daily Records: Figure 9 and Table 1

- On average, **19 vehicles** (range = 3 – 69) and **67 people** (range = 11 – 244) visited Davies Creek each day.
- During the week little change in visitation rates occurred - **Average weekday use = 14.2 vehicles per day.**
- Highest number of visitations in a one day period occurred on 27th January 2002 (69 vehicles and 244 visitors).
- Weekends were slightly busier than weekdays with Sunday recording, on average, 38 vehicles (range 6 – 61), and 134 people. Sunday visitation rates higher than Saturday - **Average weekend use = 31.5 vehicles per day.**

Comparative Traffic Counter Data

No comparative Manidis Roberts data available.

TRAFFIC COUNTER/METRO COUNT DATA: DAVIES CREEK

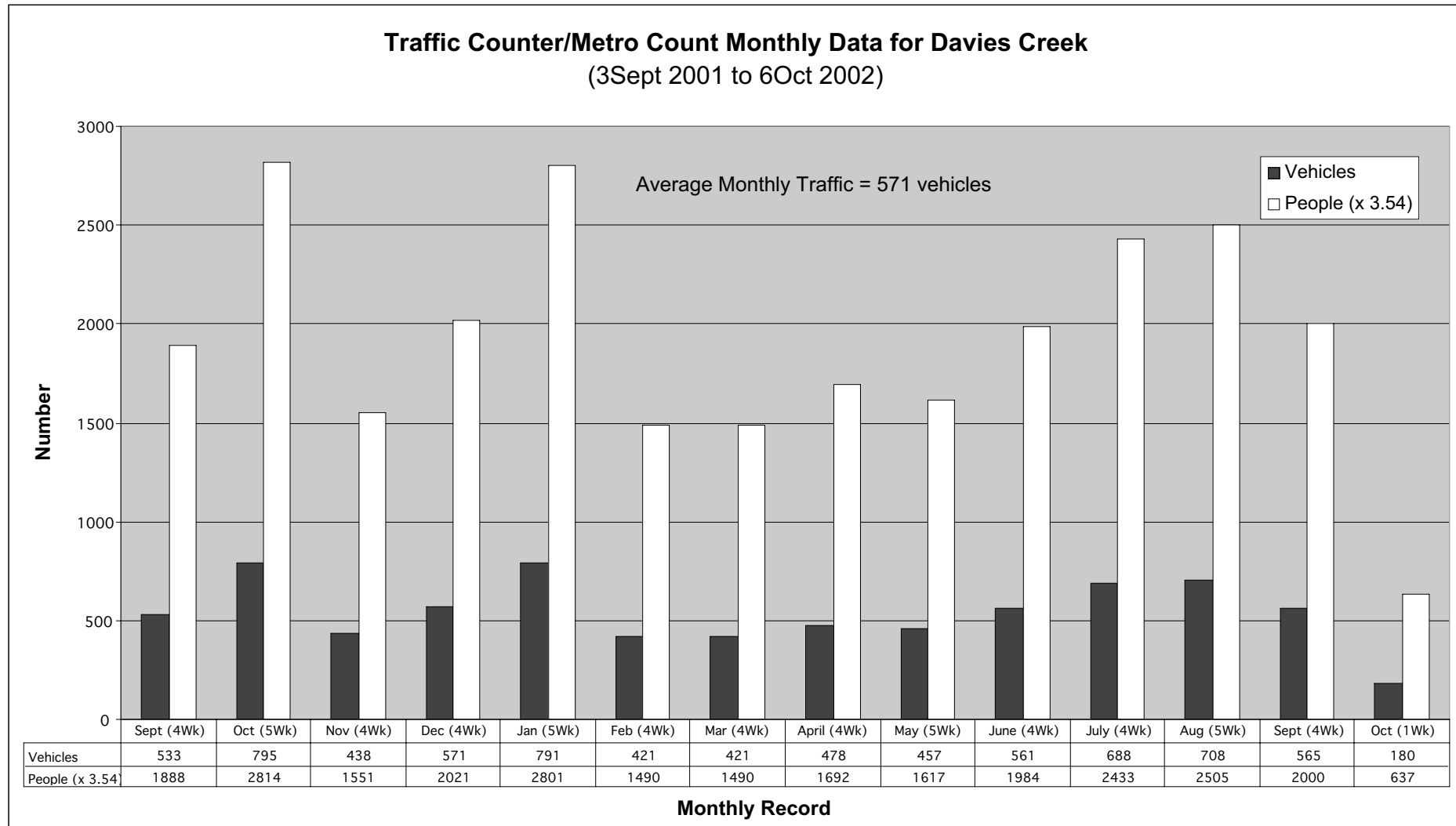


Figure 7: Monthly Records for Vehicles and Visitors at Davies Creek.

TRAFFIC COUNTER/METRO COUNT DATA: DAVIES CREEK

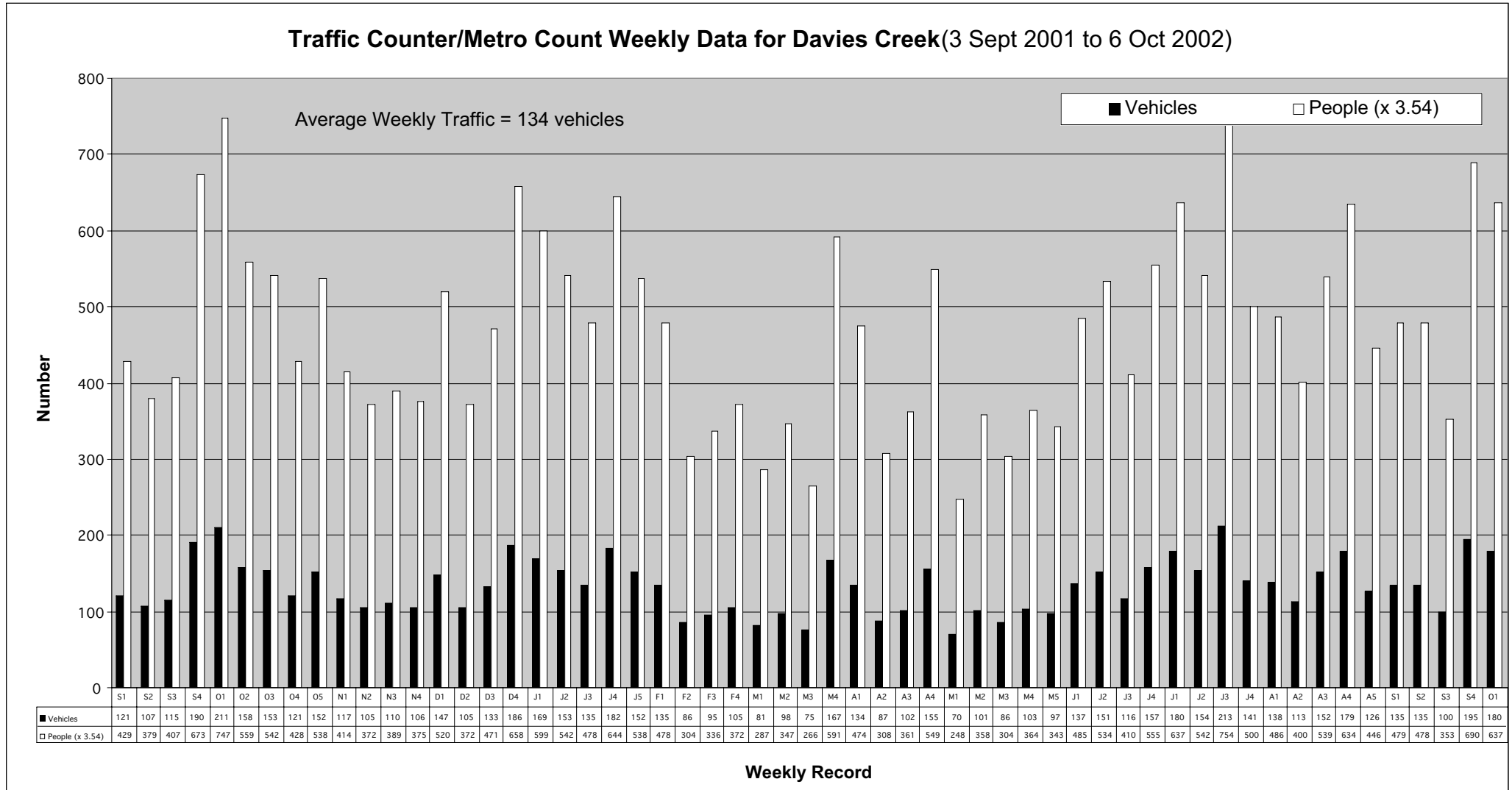


Figure 8: Weekly Records for Vehicles and Visitors at Davies Creek.

TRAFFIC COUNTER/METRO COUNT DATA FOR DAVIES CREEK**Table 1:** Daily Records of Vehicles and Visitors.

SEPTEMBER 2001														
Data highlighted in yellow are the daily averages for this month. Traffic counter was not installed until Week 2.														
2001	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 3-9Sept	11	39	13	46	16	57	16	57	19	67	25	89	21	74
Wk 2 10-16Sept	12	43	15	53	12	43	14	50	8	28	17	60	31	110
Wk 3 17-23Sept	11	39	9	32	13	46	11	39	12	43	25	89	35	124
*Wk 4 24-30Sept	11	39	16	57	22	78	24	85	38	135	33	117	46	163
OCTOBER 2001														
2001	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
*Wk 1 1-7Oct	15	53	26	92	37	131	21	74	24	85	34	120	56	198
Wk 2 8-14Oct	16	57	16	57	18	64	16	57	21	74	27	96	45	159
Wk 3 15-21Oct	13	46	21	74	14	50	9	32	13	46	45	159	39	138
Wk 4 22-28Oct	8	28	11	39	17	60	8	28	15	53	23	82	41	145
Wk 5 29-4 Nov	11	39	12	42	17	60	15	53	11	39	41	145	47	166
NOVEMBER 2001														
2001	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 5-11Nov	6	21	10	35	14	50	20	71	13	46	14	50	41	145
Wk 2 12-18Nov	5	18	9	32	12	42	7	25	16	57	21	74	36	127
Wk 3 19-25Nov	16	57	9	32	16	57	13	46	10	35	19	67	29	103
Wk 4 26-2Dec	7	25	5	18	8	28	9	32	8	28	29	103	42	149
DECEMBER 2001														
Data highlighted in yellow are daily averages of this month. (Blue = Public holidays)														
2001	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 3-9Dec	11	39	13	46	14	50	15	53	15	53	27	96	54	191
Wk 2 10-16Dec	18	64	20	71	13	46	9	32	6	21	16	57	24	85
*Wk 3 17-23Dec	13	46	20	71	9	32	18	64	9	32	30	106	36	127
*Wk 4 24-30Dec	21	74	67	237	12	42	14	50	10	35	24	85	38	135

MAY 2002														
Blue = Public Holidays														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 29-5May	11	39	9	32	9	32	9	32	7	25	11	39	17	60
Wk 2 6-12May	17	60	6	21	6	21	11	39	14	50	12	42	35	124
Wk 3 13-19May	11	39	8	28	8	28	7	25	11	39	17	60	24	85
Wk 4 20-26May	15	53	8	28	11	39	13	46	8	28	16	57	32	113
Wk 5 27-02Jun	12	42	14	50	9	32	11	39	8	28	20	71	23	81
JUNE 2002														
Blue = Public Holidays														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 03-09Jun	6	21	12	42	17	60	16	57	15	53	27	96	44	156
Wk 2 10-16Jun	42	149	15	53	15	53	25	89	10	35	12	42	32	113
Wk 3 17-23Jun	15	53	12	42	11	39	8	28	15	53	24	85	31	110
*Wk 4 24-30Jun	13	46	12	42	20	71	23	81	17	60	32	113	40	142
JULY 2002														
Data highlighted in yellow are the daily averages for this month.														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
*Wk 1 01-07Jul	17	60	20	71	26 Tsv	92	24	85	22	78	34	120	37	131
Wk 2 08-14Jul	21	74	19	67	20	71	19	67	22	78	25	86	28	99
Wk 3 15-21Jul	19	67	23	81	34	120	19	67	40 Cns	142	27	96	51	181
Wk 4 22-28Jul	16	57	14	50	20	71	11	39	18	64	23	81	39	138
AUGUST 2002														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 29-04Aug	16	57	19	67	12	42	15	53	8	28	21	73	47	166
Wk 2 05-11Aug	13	46	12	42	14	50	15	50	17	60	13	46	30	106
Wk 3 12-18Aug	14	50	19	67	14	50	16	57	15	53	31	110	43	152
Wk 4 19-24Aug	11	39	8	28	13	46	13	46	33	117	40	142	61	216
Wk 5 26-01Sep	20	71	11	39	15	53	12	42	9	32	28	99	31	110

SEPTEMBER 2002														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 1 02-08Sep	13	46	22	78	16	57	14	50	13	46	29	103	28	99
Wk 2 09-15Sep	11	39	16	57	13	46	11	39	20	71	45	159	19	67
Wk 3 16-22Sep	8	28	8	28	8	28	11	39	8	28	22	78	35	124
*Wk 4 23-29Sep	15	53	27	96	28	99	24	85	30	106	30	106	41	145

AUGUST 2002														
Data that are highlighted in green are the daily averages for the site data set.														
2002	MON		TUE		WED		THU		FRI		SAT		SUN	
	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
*Wk 1 30-06Oct	20	71	26	92	29	103	16	57	26	92	25	88	38	134

AVERAGES	14	49	14	49	14	50	14	50	15	54	25	88	38	134
----------	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Note: *These dates indicate school holidays;
 People estimates are based on vehicle numbers x 3.54, the average number of people in vehicles established from questionnaire, item # 8,
 Data that are highlighted are not included in the overall averages.

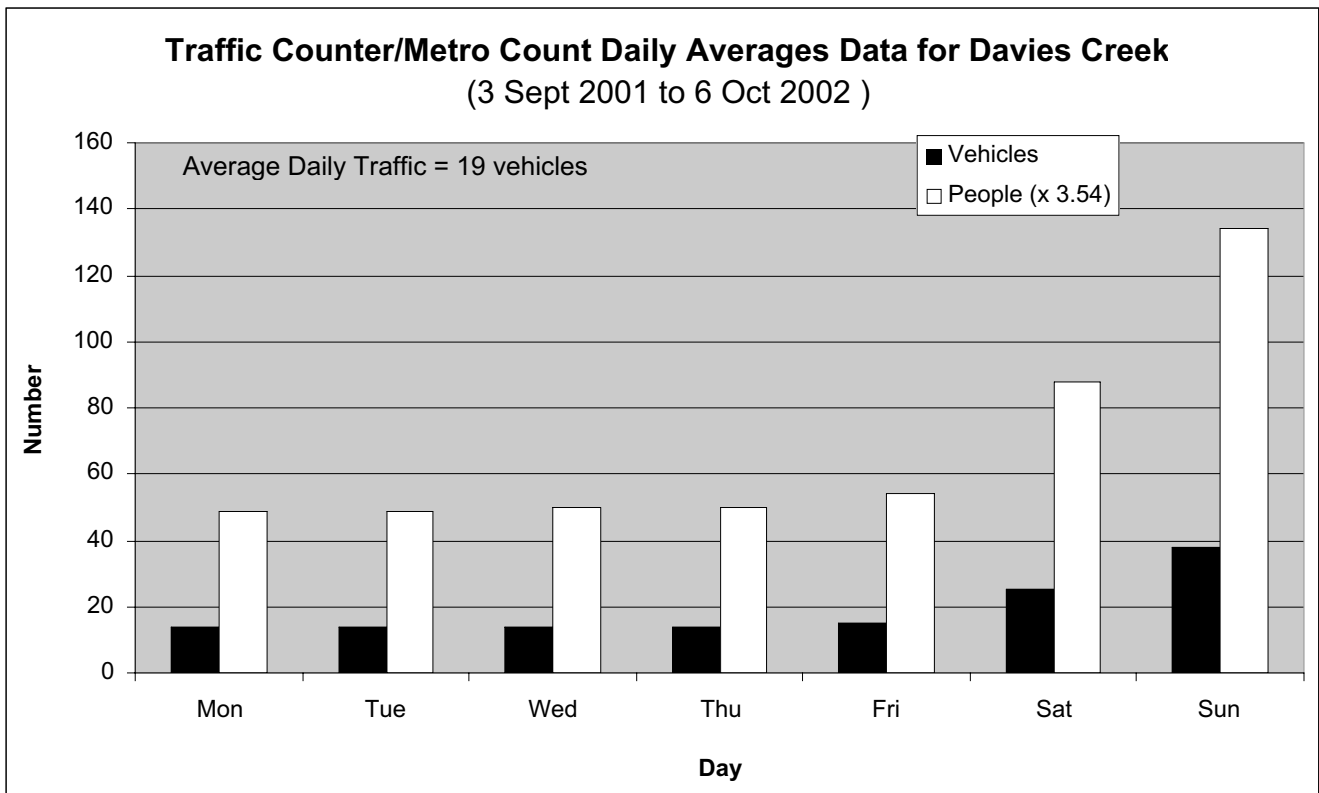


Figure 9: Average daily vehicle and visitor numbers for Davies Creek.

Comparative Traffic Counter Data : Davies Creek

(Source: Manidis Roberts 1993/1994 study, Bentrupperbäumer & Reser, 2000, WTMA Traffic Counter Records 1994-1997)

Figure 10: Monthly visitor estimates established since 1994

- a. Visitor estimates for the period 1994-1998 have been based on 3.5 people per vehicle as established by the Manidis Roberts 1993/94 study;
- b. Visitor estimates for 2001-2002 period have been based on 3.54 people per vehicle as established by this study;
- c. Visitor estimates were the highest for 1995;
- d. Visitor estimates for this study period, 2001-2002, were the lowest;
- e. The busiest month appears to be January (1995, 2002).

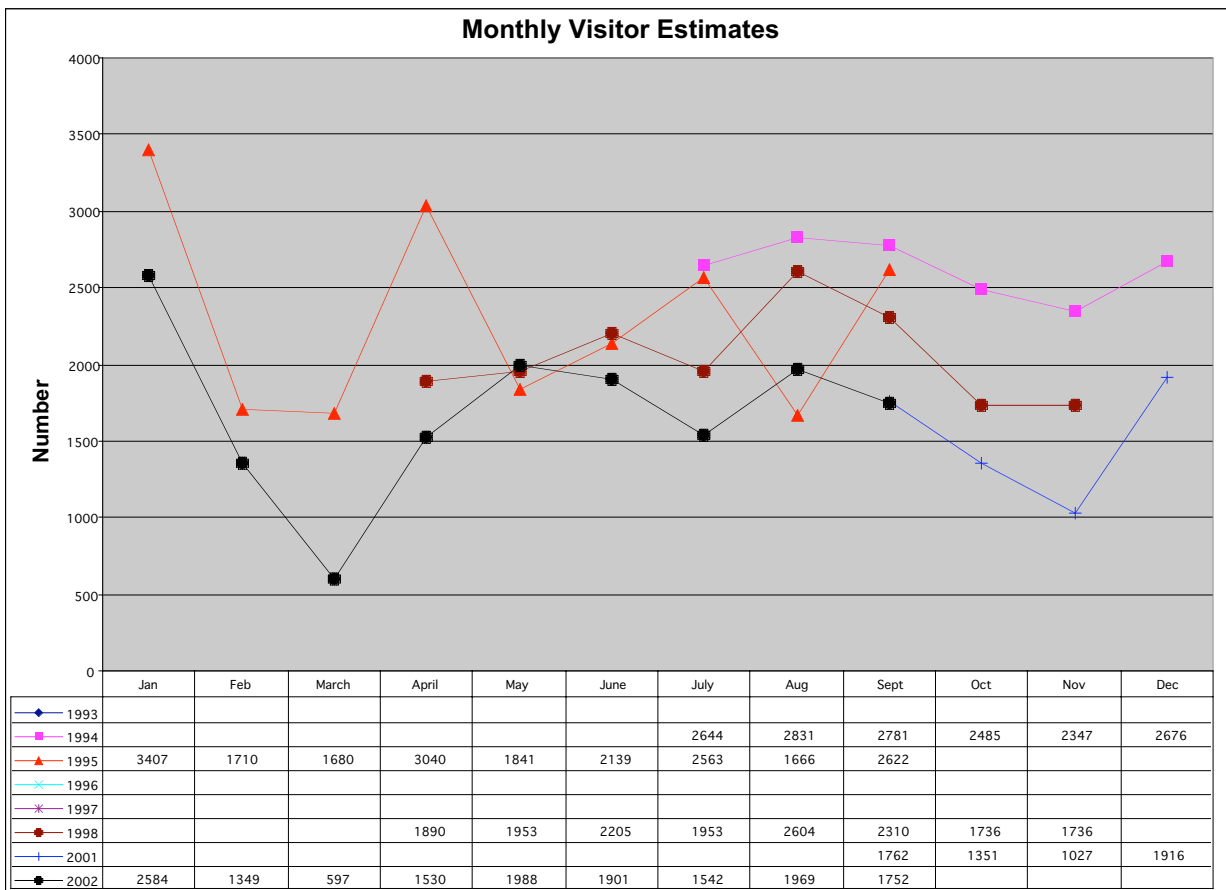
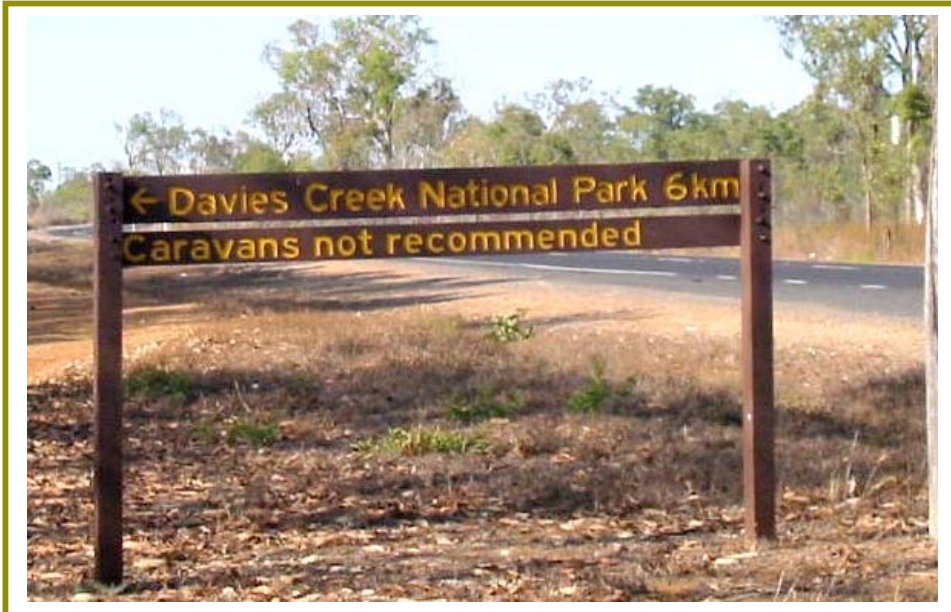


Figure 10: Monthly visitor estimates for Davies Creek established from WTMA traffic counter data 1994 – 1997, Bentrupperbäumer 1998 study, and this study, 2001-2002. Data for 1996 and 1997 was not available.

Section Four

Management Considerations



-
- Presentation
 - Opportunities
 - Specific Problems & Issues
-

Presentation

- **Significance** *Natural & Cultural Attributes, Historical Context*
 - **Management Agency** *Identity and Presence, Conservation and Protection*
 - **Information** *Sources and Signage*
 - **Structural Features** *Layout and Design, Infrastructure and Facilities*
-

Although Davies Creek is not a Wet Tropics World Heritage Area site (WTWHA), management considerations presented in this section of the report have been developed in a way comparable to the other nine WTWHA sites in this study given its close proximity to the WTWHA and the similarities with QPWS in terms of some key management principles.

A national park is to be managed to –

- (a) *As the cardinal principle, “provide, to the greatest possible extent, for the permanent preservation of the area’s natural condition and the protection of the area’s cultural resources and values; and*
- (b) *Present the area’s cultural and natural resources, and their values; and*
- (c) *Ensure that the only use of the area is nature-based and ecologically sustainable.”*

(The State of Queensland, EPA, 2001, p.7)

*The Wet Tropics Management Authority (WTMA) was established to manage the area to meet Government commitments under the World Heritage Convention which are specifically to protect, conserve, **present**, transmit to future generations, and rehabilitate the Wet Tropics WHA.*

(WTMA, 2000, p.4).

Presentation in the context of a protected area property and with respect to visitor sites encompasses the significance and meaning of protected area status, the nature of the natural and cultural attributes as ‘heritage values’ for which an area has been protected, and the historical context of the site, including its natural history and history of human use, association and meaning. Presentation also encompasses a number of other management responsibilities, including maintenance, communication, site design, amenity provision, and identification of those authorities and agencies responsible for the management of the site. While many of these considerations are often subsumed under the term ‘interpretation’, the term presentation is used here along with subheadings to more directly address the specific mandate and multiple responsibilities of the relevant management authorities.

● **Significance: *Natural and Cultural Attributes, Historical Context***

Natural and Cultural Attributes A principal aspect of presentation of a protected area site is natural and cultural heritage interpretation. Indigenous and nonindigenous cultural heritage information is absent from Davies Creek and what natural /ecological information is present is very limited and mainly embedded within the text of the information available at the camp registration infrastructure (Section 2 Site Inventory pg 62). Given that such signage can play a critical role in enhancing visitor, and in particular local visitor, awareness of these most important protected area attributes, it would be important for management to consider the inclusion of such information in some way at this site.

Historical Context Another consideration with respect to significance of the site relates to its predominant use by local residents (Section 1 Visitor Survey pg 20-21). Interpretation material which addresses the post-contact history of the site is also absent. Such historical information (e.g., changing land use, roads, initial protected area status) might well be of interest to both indigenous and nonindigenous local residents as well as visitors and may provide an additional way of encouraging visitor appreciation of human connectedness with country. Interpretation material could also include the history and significance of this protected area, and what this means in terms of management and visitation, protection and preservation.

Management Agency: *Identity and Presence, Conservation and Protection*

Identity & Presence

A related presentation issue is level of visitor and other user awareness of the management agency (ies) responsible for management of the site. It is a concern that just over half of the visitors did not appear to know who the management agency responsible for Davies Creek was (Section 1 Visitor Survey pg 34-35). This is noteworthy given that this site attracts repeat visits from local Australian visitors in particular (Section 1 pg 22-23), and has signage that specifically identifies the site as the *Davies Creek National Park* (Section 2 Site Inventory pg 60-61). This lack of awareness and/or confusion amongst visitors has clear implications for the non reporting of critical incidents or damage, the provision of any type of feedback to managers, the public representation of agencies, and management performance monitoring.

Conservation & Protection

Visitors and other users appear to consider the overall management of the Davies Creek site in a reasonably favourable way as indicated by direct and indirect item responses relating to their appraisal of the condition and management particularly of the natural environments (Section 1 Visitor Survey pgs 26-27). Appraisal of the built environment on the other hand is far less favourable (Section 1 Visitor Survey pgs 32-33). In addition, their perceptions of the quality/status of biophysical and structural indicators of impact (Section 1 Visitor Survey pg 38-39) were closely aligned with that of the researchers who had undertaken a comprehensive assessment at the site at the same time (Section 2 Site Inventory, pg 56-57; Wilson 2002). In terms of the built environment, a substantial upgrade of facilities would be required to not only accommodate for visitor needs but also to reduce visitor impacts on the site. Such an upgrade does not necessarily mean an increase in facilities, rather a better presentation of what is critical to minimise visitor impact on the biophysical setting.

Information *Sources and Signage*

Sources

Presentation of and the decision to visit sites such as Davies is closely linked to and influenced by the way in which relevant information is accessed or sourced. Clearly the high local use of this site and the many repeat visitors would explain the lack of use of information sources such as information centres or web sites, etc and alternatively the high dependence on prior knowledge and/or word of mouth of this user group for information about Davies Creek (Section 1 Visitor Survey, pg 22-23). Given this, a carefully considered site-based information dissemination program needs to be adopted to insure that this important and substantial user group has access to all relevant and critical protected area information.

Signage

Another important presentation issue and management responsibility at sites such as Davies Creek is the provision of signage that clearly identifies rules and regulations, safety issues, and directions. Here at Davies Creek such signage is evident throughout though minimal (Section 2 Sign Inventory pg 60-65). In addition, visitor appraisal of various aspects of such signage was quite low (Section 1 Visitor Survey pg 30), although their overall condition was found to be good (Section 2 Sign Inventory pg 60-65).

Structural Features *Layout and Design, Infrastructure and Facilities*

Layout and Design

The current site layout and design at Davies Creek was not very legible, or functional (Section 2 Site Inventory pg 56-57). The reality of the layout of the site is that it reflects what is very basic in terms of a QPWS day use and camping site, and so its continued functioning as such a site now appears to be presenting a number of management problems. In particular the presence of bbqs in very poor condition and the lack of firewood encourages visitors to collect firewood from wherever possible and/or establish fires in undesignated areas. A clearer site layout and design task needs to be undertaken, one that clearly identifies use and non uses areas.

Infrastructure and Facilities

The infrastructure and facilities at Davies Creek does not appear to provide for most of the visitor needs nor the needs of protecting the environment. In addition, the built environment is not regarded very highly as indicated by direct and indirect item responses relating to visitor appraisal of the adequacy, appeal, condition and management of the built environment (Section 1 Visitor Survey pgs 32-33). While most facilities available are used (Section 1 Visitor Survey pgs 32-33), there are also those which are not at all well maintained. Providing limited facilities can remain the management policy at Davies Creek, but these facilities must be better presented as this not only presents to the public the management effort and consideration, it also reduces biophysical impact on the system.

Opportunities

● **Recreational**

Activity-based Opportunities

● **Experiential**

Experience-based Opportunities

● **Educational**

Knowledge-based Opportunities

Opportunities in the context of protected area visitor sites have traditionally been seen to encompass a spectrum of activity-based recreation outcomes within which experience-based opportunities have been embedded. Knowledge-based considerations have on the whole been absent. Here in this discussion this concept has been broadened to profile and highlight the importance of experience-based and knowledge-based opportunities in addition to activity-based opportunities at sites such as Davies Creek as separate but interlinked entities. The term opportunities along with the subheadings thus allow for a more direct linking of management considerations to specific needs of visitors in terms of opportunities sought, available and utilised.

● **Recreational**

Activity-based

Activity-based

The activity-based recreational opportunities available at Davies Creek are largely those of a 'QPWS' day use and overnight camping site, and include swimming, picnicing, and a short walking track. The activities reported by respondents (Section 1 Visitor Survey pg 32-33) indicate that the site was providing for and facilitating those activities which most visitors were seeking in a reasonable way. An activity some visitors felt was not recognised was mountain biking.

● **Experiential**

Experience-based

Experience-based

Experience-based opportunities at Davies Creek include nature watching, relaxation, socialising with family and friends, as well as the opportunity of encountering, experiencing, and appreciating the natural environment. Such opportunities were identified by visitors as being the most important in terms of their reasons for visiting this site (Section 1 Visitor Survey pg 24-25), and were significantly more important than activity-based reasons. This strong endorsement of such opportunities (Section 1 Visitor Comments pg 44-45) suggests that whatever future management regimes are put in place, they must provide for such opportunities. Experiences such as genuine solitude, 'wilderness' experience, and wildlife encounters are somewhat difficult to achieve at Davies Creek given the physical landscape, the pattern of use, and the layout, extent, and general character of the site. Nevertheless other important experience-based opportunities that continue to attract visitors to this site and reflect the strong local use association are place connection and identification.

● **Educational**

Knowledge-based Opportunities

Knowledge-based

Knowledge-based opportunities at Davies Creek are diverse and challenging. Such opportunities are linked to the natural attributes of the site, as well as the human use and need for such places. The immediate availability and easy accessibility of a very different forest and landscape type compared to most other tropical environments, the very different flora and fauna present, and the management challenges associated with presenting, preserving and conserving such places provide endless knowledge-based opportunities. Such opportunities are rarely acknowledged as an important contributor to the spectrum of site level opportunities despite its public good, educational, management and international significance. Davies Creek provides a view of a very different yet equally important set of natural attributes.

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WTWHA Reports 2001/2002

The reports produced by the Rainforest CRC Project 4.1 research team for the 2001 and 2002 Wet Tropics World Heritage Area site surveys and the Wet Tropics World Heritage Area community survey are listed below.

WTWHA Site Level Data Reports:

Bentrupperbäumer, J. M. (2002a) *Murray Falls: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. (2002b) *Davies Creek: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. (2002c) *Barron Falls: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. (2002d) *The Crater: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. (2002e) *Lake Barrine: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. (2002f) *Marrdja: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

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Bentrupperbäumer, J. M. (2002j) *Mossman Gorge: Site Level Data Report 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

Bentrupperbäumer, J. M. & Reser, J.P. (2002a) *Measuring and Monitoring the Impacts of Visitation and Use in the Wet Tropics World Heritage Area: A Site Based Bioregional Perspective*. Rainforest Cooperative Research Centre: Cairns.

- Attachment: *Research Procedural Manual: Measuring and Monitoring the Impacts of Visitation and Use in the Wet Tropics World Heritage Area*. Rainforest Cooperative Research Centre: Cairns.

WTWHA Community Survey Reports:

Bentrupperbäumer, J. M. & Reser, J.P. (2002b) *The Role of the Wet Tropics in the Life of the Community: A Wet Tropics World Heritage Area Community Survey 2001/2002*. Rainforest Cooperative Research Centre: Cairns.

- Attachment: *Research Procedural Manual: Wet Tropics World Heritage Area Community Survey 2001/2002*. Rainforest Cooperative Research Centre: Cairns.
