

The Crater

Site Level Data Report

2001/2002



Joan M Bentrupperbäumer



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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 non indigenous 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 Pegoraro and Jenny Butler.

B. Field Assistants across the region

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 Pegoraro, 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 the Crater

Ben Trupperbäumer (Field Supervisor), Margit Cianelli, Sunny Pegoraro, Hilde Slaatten, Josh Guy, Rik Morgan (Traffic Counter)

D. Research Colleagues

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

E. WTMA Personnel

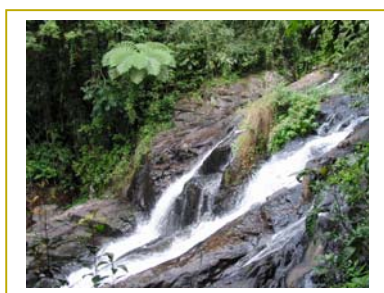
Max Chappell, Campbell Clarke, Dr Steve Goosem and Ellen Weber.

Funding:

This research (Site-Level Visitor Survey across ten WTWHA sites) together with the WTWHA Community Survey (Contract # 654) has been funded by the Wet Tropics Management Authority (20%), the Rainforest CRC (26%), and James Cook University (In-kind infrastructure and services - 54%).

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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 2002 a 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 Level 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.

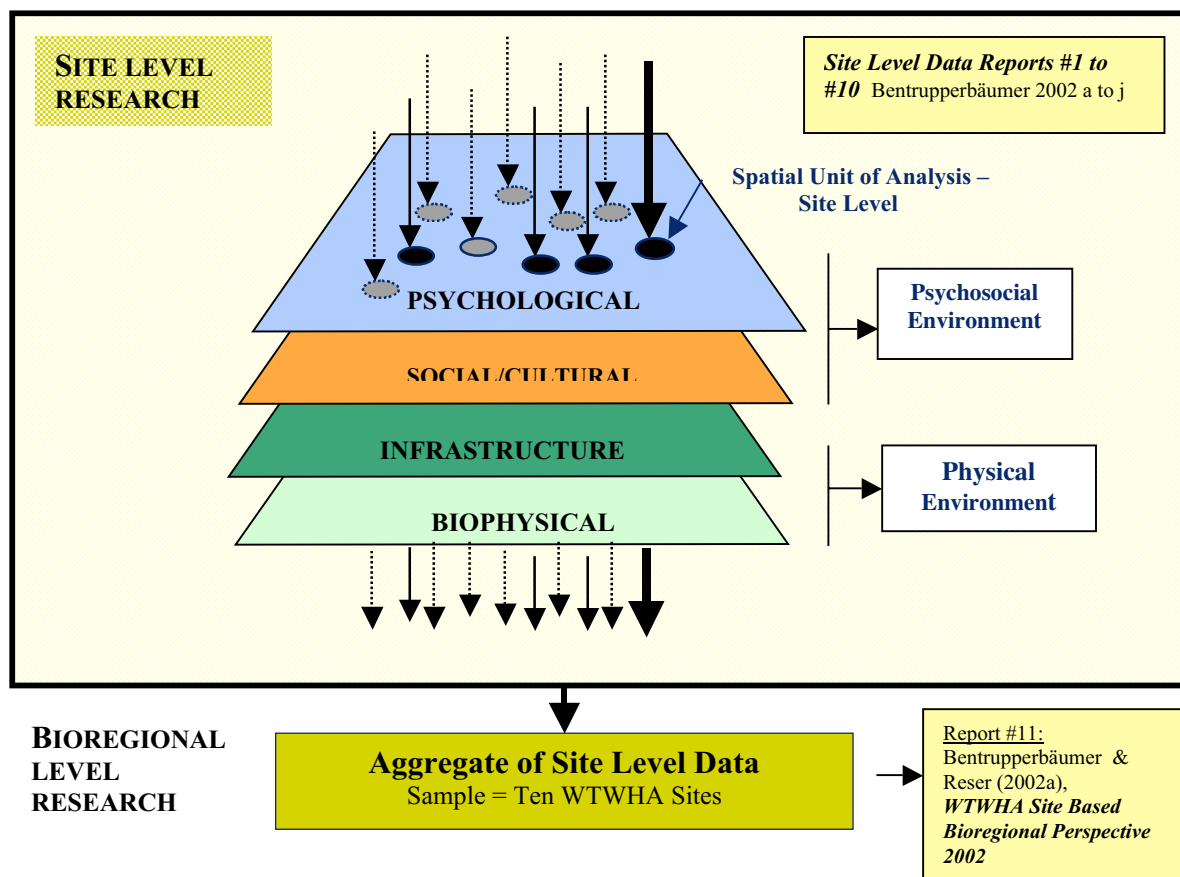


Figure 1: Diagrammatic representation of the research layers, domains and report outputs for this research .

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 & Wildlife Service and Wet Tropics World Heritage site, *The Crater*, 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

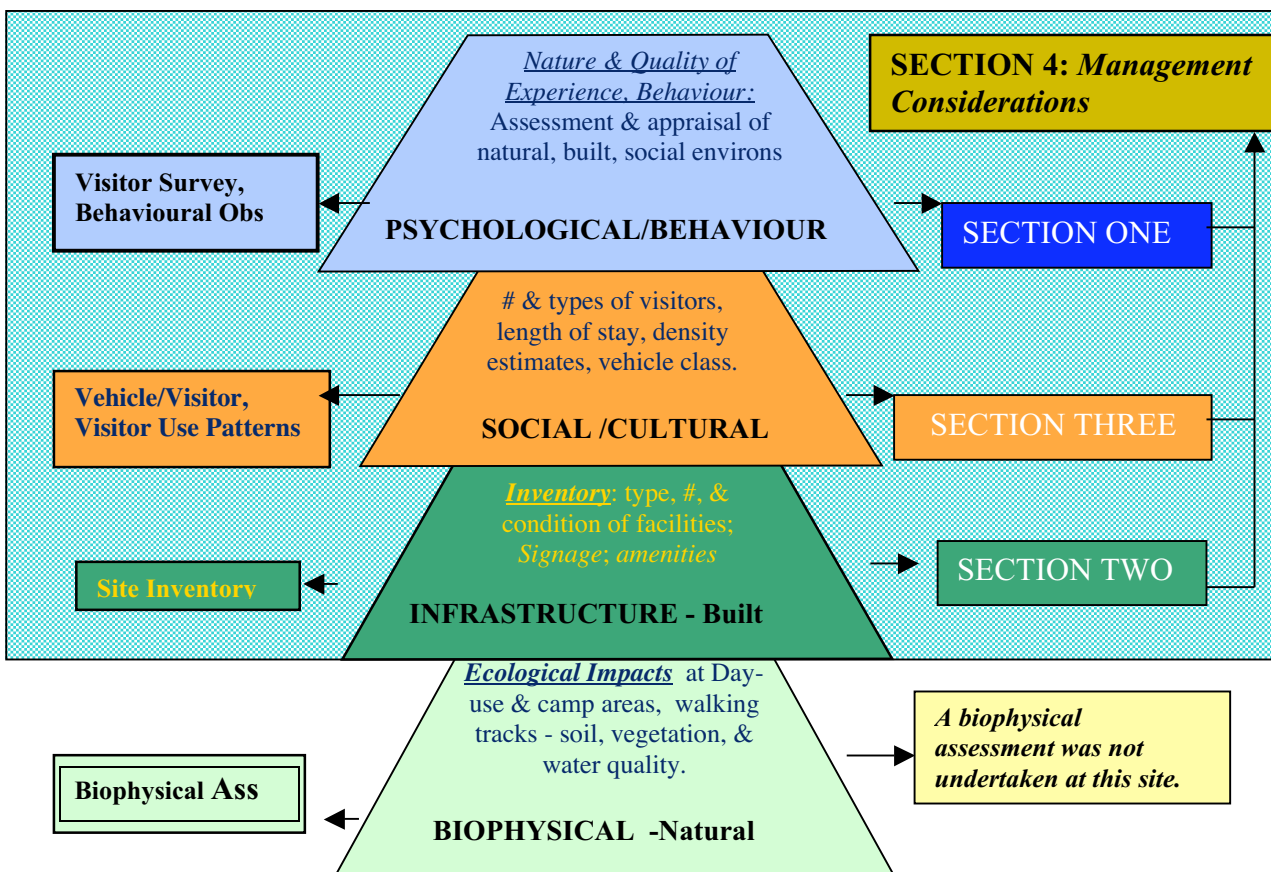


Figure 2: Diagrammatic representation of the report layout and report sections.

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 over time, 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

The Crater is situated within the Mt Hypipamee National Park at Longlands Gap on the southern Evelyn Tableland, approximately 25km south of Atherton. The Crater is a Wet Tropics World Heritage site and occurs in the central 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

At this high altitude site two distinct vegetation types are evident. They are the wet sclerophyll forest dominated by brush box and the open eucalypt forest of rose gum, and high altitude rainforest. Soils on the site were formed from the underlying basalt and granite parent material. These features of the site support a diversity of plants, possums (seven recorded, Ritchie, 1995) and birds. In addition to the diversity of flora and fauna, the primary natural attraction at the site is a large volcanic pipe. Another important feature is the rise of the Barron River and Dinner Falls.

Indigenous and Non indigenous Cultural Environment

While information about the indigenous significance of a nearby Tableland National Park, the Crater Lakes National Park (Lake Eacham and Lake Barrine), is available nothing is known about the Aboriginal people who lived in and around this site, the Mt Hypipamee National Park. Nevertheless, "Aboriginal people are known to have a strong spiritual ties with the Tableland and the forest remnants protected today in national and conservation parks. Their stories, songs and legends continue to give special meaning to the landscape" (QPWS, 2002).

Built Environment

The Crater site has been designed for day usage, providing visitors with the following facilities: car park area, rubbish bins, BBQs, tables and seating, a walking track and toilets. No camping facilities are available. Signage is evident throughout the site. 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 opportunity available at this site is the short walks (see Section 1). There are two walking tracks present. One leads directly to the Crater and is classified as *Pathway 1*, the other is a circuit to Dinner Falls and is classified as a *Graded Track* (Wet Tropics Walking Strategy, 2001). The current status of both of these tracks is outlined in detail in Section 2. Visitor comments relevant to these tracks are presented in Section 1. Other recreational opportunities available include: swimming, picnicking, photography, bird/wildlife watching, spotlighting.

Experiential In addition to the activity-based recreational opportunities outlined above, the Crater provides a spectrum of important experiential opportunities including: rest and relaxation, social outing and interaction including socialising with family and friends, nature appreciation and experience such as observing scenery, wildlife encounters, place attachment. During the busy times, weekends, school holidays, etc, solitude is not an experience achievable at this site due to continuous occupation. The picnic area, the Crater Pathway and Lookout and Dinner Falls graded track and swimming area can be very busy and are not designed to accommodate for privacy.

Visitation

Compared to other sites in the Wet Tropics, the Crater experiences relatively low levels of visitation with approximately 51,000 visitors per year (Mossman Gorge > 400,00 visitors per year). This visitation is lowest in February (851 vehicles) and highest in October (2,220 vehicles), and is spread evenly across the week days with a slight increase during weekends.

Site Maps

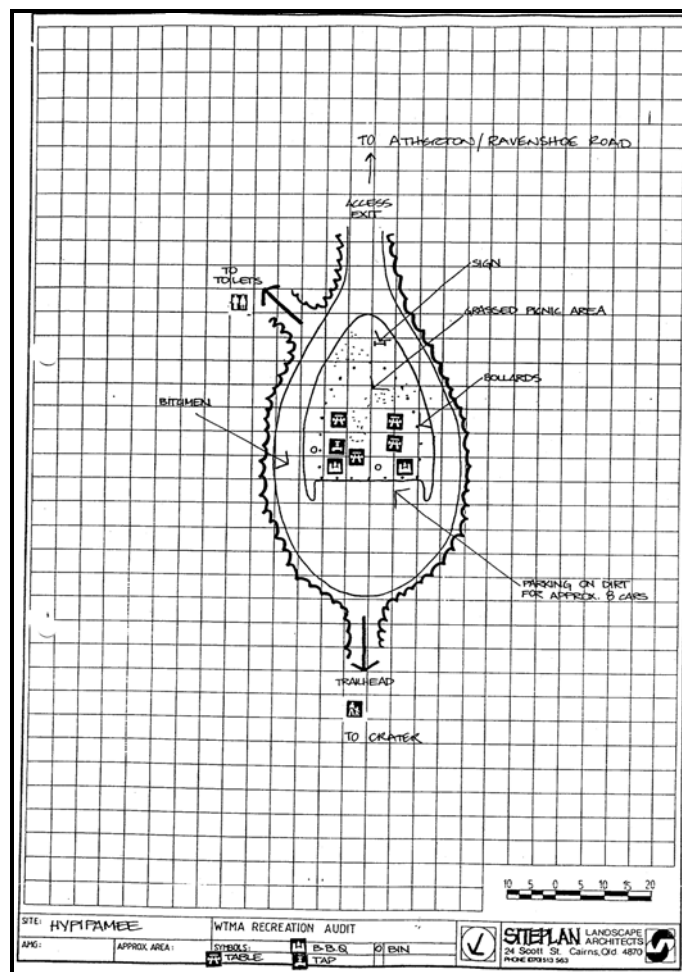
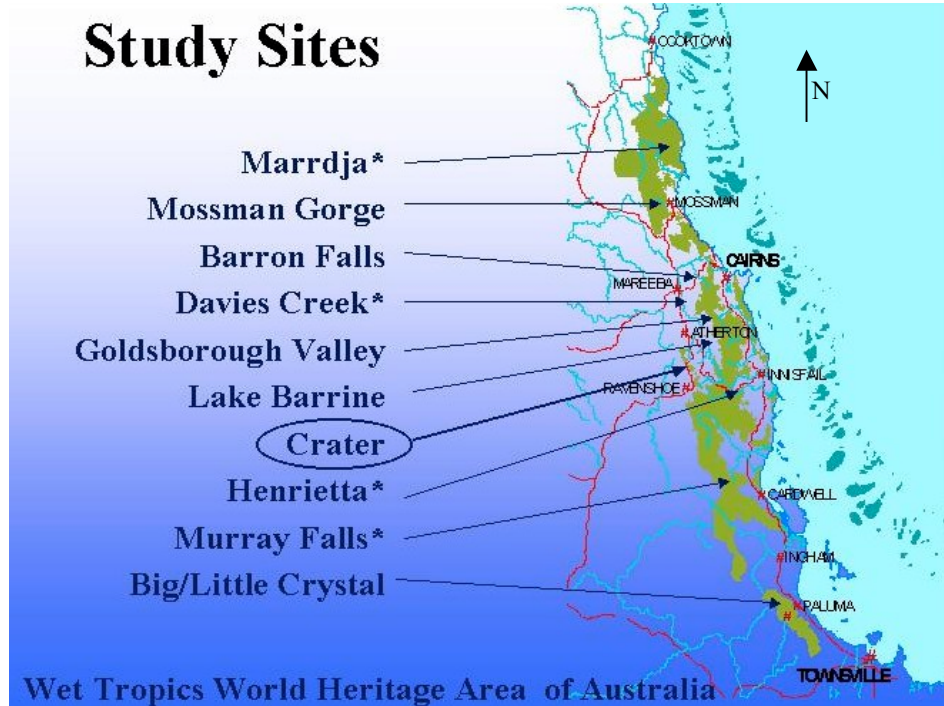


Figure 3: Site location within the Wet Tropics World Heritage Area.

Figure 4: The Crater site map. (Source: SitePlan Landscape Architects, 1993)

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 The Crater 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.

Wet Tropics Management Authority

The Primary Goal for the Wet Tropics World Heritage Area is to implement Australia's international duty to *“protect, conserve, present, rehabilitate and transmit to future generations the Wet Tropics World Heritage Area, within the meaning of the World Heritage Convention.”*

Site Specific Management Intent

The Crater site is classified as a Zone D site by the WTMA's zoning scheme. This zoning system is based on a “distance from disturbance” model. The WTMA management intent for this zone type is described below:

“To accommodate developed visitor facilities to enable visitors to appreciate and enjoy the Area. To ensure that the impact of visitor infrastructure is managed to minimize the effect on the integrity of the Area” (Wet Tropics Management Authority, 1997 p.33).

In addition, the Wet Tropics Management Authority's (WTMA) Visitor Opportunity Class system describes The Crater site as a Visitor Facility Node (Class 4). The criteria for this category of site, as defined by the WTMA (1997 p.94), are detailed below:

- An area where a visitor may expect opportunities for presentation, intensive social interaction, and where management presence may be obvious;
- Accessible by vehicle along presentation roads;
- Having developed visitor facilities such as formal car parks, toilets, picnic facilities and camping areas;
- Providing access to a range of recreation opportunities;
- Having the potential for further development of visitor facilities.

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 **382**.

Visitor Profile

- The Crater 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 the Crater because they *have been before*. *Road signs* and *word of mouth* are also important sources of information. Very few visitors to the Crater use information centres.

Reasons for Visiting

- The primary reasons given for why people visit the Crater are to *see the natural features and scenery* and *to be close to/experience nature*.

Visitor Appraisal of Natural Environment

- Visitors find the *natural features* of the Crater to be *very interesting* and in *good condition*.
- *Natural features* at the Crater *enhanced visitor enjoyment* of their visit.

Time Spent and Activities Engaged in

- Visitors spend just enough time at the Crater to undertake the *short walk* to the Crater Lookout Platform – *half to one hour*. Very few visitors spend more than one hour at the site.
- Very few visitors use the site for picnics.
- About one third of visitors spend time looking at signage/interpretation material.

Visitor Appraisal of Signage

- Of the information types available *natural/ecological information* received the highest assessment.
- 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 those (20%) who disagree.
- *Natural, ecological, cultural and historical information* were the type of additional information most frequently sought by visitors.

Visitor Appraisal of Built Environment

- Overall, visitors are satisfied with the *condition of the facilities* and find them *adequate*.

- The most frequently requested additional facilities include *more/better toilets and shelter shed*.
- Facilities that were in *bad condition or were not sufficient detracted* from visitor enjoyment of their visit.

Visitor Knowledge of Management Agencies

- Visitors on the whole are *unfamiliar* with the agency responsible for managing the Crater.
- The World Heritage status of the Crater is also *unknown* to the vast majority of visitors.

Visitor Appraisal of Social Environment

- *Experienced crowding* does not appear to be a problem for the majority of visitors to the Crater.
- However, the *behaviour of others detracted* from visitor enjoyment of the Crater.

Experience & Satisfaction

- *Visitor satisfaction* was *moderately high*.

Comments

Visitors mainly commented on the *negative aspects* of the site.

- *Lack of information/signage* was most frequently commented on including insufficient signage in relation to: directions along track and main road, hazardous plants, safety, Aboriginal significance, age of trees, rainfall patterns.
- Comments related to improvement of *facilities* included:
 - need wood for bbqs
 - tables and toilets need painting
 - need composting toilets
 - properly marked parking bays
 - safety rails for small children
 - need more picnic tables, bbq
 - need better toilets,
 - track to Dinner Falls to be paved and not so steep.

Positive comments were related to those *facilities* considered good such as sealed walking track and good shade and eating areas, and the *unique experience* of the crater.

Behavioural Observations

From the behaviours recorded at the Crater in September 2001 and April 2002, the following were most frequently observed.

• Domestic animals

Despite signage stating that animals are prohibited, a dog that was not on a leash was taken on a walk through the forest.

• Habituated/Scavenging/Feeding Wildlife

Birds such as brush turkeys and lewin honeyeaters showed clear signs of being habituated to human presence and feeding was observed.

• Prohibited Activity

A number of visitors may well be camping at the Crater.



Section Two:

Infrastructure Inventory and Profile

Key Findings

Site Infrastructure Inventory & Assessment

- The Crater contains three distinct activity nodes – *Picnic Area*, *Crater Lookout* and *Walking Track*.
- Within each of these activity nodes a variety of *infrastructure* has been established.

Picnic area

- The infrastructure varies in terms of condition. The *bbqs* are in *need of repair* and the *toilets need upgrading*.
- The grassed area is *maintained* and there is a *general absence of litter*.
- Areas around the *taps need attention*.
- *Stinging trees* along edges of the road need to be removed.
- *Lack of sufficient designated parking* results in bogs and erosion along road edges.
- *Lack of firewood* results in damage to surrounding vegetation.

Theme - Walking Track to Crater Lookout

- The infrastructure is generally good though *graffiti is present along platform rails*.
- *Litter is evident around platform* and *within the Crater* itself.
- Current use of *undesigned trails* around Crater is evident.

Walking Track to Dinner Falls

- The track is *severely eroded* in parts resulting in extensive root exposure and damage.
- Continued use of *undesigned trails* (short cuts) is evident.

Comparison with previous inventory (1997)

- The walking track to the Crater Lookout platform has been upgraded.
- Habituated wildlife remain at the site.
- Access road has been upgraded.

Site Information and Signage

- A total of *22 sign structures* containing *36 information types* relevant to the Crater were recorded along the main road, access road and at the Crater site itself.
- Signs were located in *each of the activity nodes* plus along the *main road* and *access road*.
- The majority of the signs were for the purpose of *visitor orientation*.
- The *interpretive signage* present focused on *natural and geological information*.
- *No foreign language signs* were present.
- Compared with the original sign audit (SitePlan 1993), there has been a *20% increase* in signage at the Crater most of which has been in the area of visitor orientation.



Section Three:

Vehicle and Visitor Monitoring

Key Findings

Vehicle and Visitor Records

- Most common vehicle type accessing the Crater was the *car* (74%).
- The highest number of people at the site at one time was **78** (1420 hours 1st April 2002).
- The highest number of vehicles at the site at one time was **30** (1200 hours 31st March 2002), which is well beyond the capacity of the car park.
- Most of the visits to the Crater occurred from between 1100 and 1600 hours – the busiest time.
- On average, people stayed at the Crater for **54.5 minutes**.

Traffic Counter Data

- A total of **23,397 vehicles** and **62,704 people** visited the Crater between September 2001 and 2002.
- On average, **1,931 vehicles** and **5,173 people** visit this site *each month*, range 851 to 3,208 vehicles.
- **July 2002** received the *highest visitation rates*, **November 2001** the *lowest*.
- On average, **450 vehicles and 1,206 people** visit the Crater *each week*, range 189 to 854 vehicles.
- **Daily** vehicle numbers range from **14 to 151**.
- Average *weekday* numbers were **60 vehicles** and **161 people per day**.
- Average *weekend* numbers were **75 vehicles** and **201 people per day**.



Section Four:

Management Considerations

Key Findings

Presentation

- The presentation of the Crater as a World Heritage Area site is problematic as very few visitors are aware of its World Heritage Area status.
- 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 well presented in terms of appeal, condition and management and in the interpretive signage present.
- Management identity of the site is not well presented and their responsibilities in terms of visitor appraisal of the condition and management of the built environment is moderately presented.
- Given the reliance on prior knowledge about the site, word of mouth, road signs and maps, presentation of relevant and critical WHA and management information needs to occur at the site.
- Site layout and design, infrastructure and facilities are reasonably legible and functional, but some redesigning and upgrading is required.

Opportunities

- The Crater is providing for and facilitating activity-based recreational opportunities in a reasonable way.
- Experienced-based opportunities are very important for visitors and are reasonably well accommodated for at this site.

Specific Problems and Issues

- Principal behaviour management problems relate to visitors violating regulations which continue to occur despite the presence of signage. This may require more innovative rule/regulation communication and possibly enforcement strategies.
- Inappropriate behaviour most evident included littering within and around the Crater itself.

Section One

Psychological & Behavioural

Visitor Survey & Behavioural Observations 2001 & 2002



SECTION ONE

-
- 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

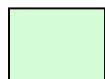
Survey Location: **Crater National Park**

	Stage 1	Stage 2
Survey Dates	29 th & 30 th September 2001	31 st March , 1 st April 2002
Survey Times	0830 to 1700 each day	0830 to 1700 each day
Weather	42.3% Sunny 22.0% Overcast 30.9% Raining 0.0% Hot 1.6% Warm 3.3% Cool	89.2% Sunny 10.0% Overcast 0.0% Raining 0.8% Hot 0.0% 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:

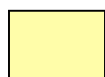


Stage 1: September 2001



Stage 2: April 2002

In addition, where comparative data is available from Manidis Roberts 1993 and 1994 data collection periods this is included in the relevant section and is represented in yellow.



Comparative Data (*Manidis Roberts 1993/1994*)

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

Questionnaire Profile

Because the Crater is a relatively low use site (51,000 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 539 people were approached to take part in this survey. Of the 428 (79.4%) who agreed to participate, 382 surveys were successfully completed and analysed. The results presented in this section are therefore very representative of those using the Crater 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 382 questionnaires made up this data set, the majority of which were completed on site. Four percent were take-homes and mailed back.

	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage	n	Percentage	N	Percentage
On-Site	116	94.3%	251	96.3%	367	96.1%
Take-Home	7	5.7%	8	3.7%	15	3.9%
Total	123	100%	259	100%	382	100%

b) Status of Questionnaire Returns

Of the 400 questionnaires returned, 4.5% were rejected for the following reasons: they were over 50% incomplete, respondents were too young, or they were posted back well after data entry and analysis had been completed.

	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage	n	Percentage	N	Percentage
Analysed: Completed	123	94.6%	259	95.9%	382	95.5%
Rejected: Incomplete, under age, returned too late etc.	7	5.4%	11	4.1%	18	4.5%
Total	130	100%	270	100%	400	100%

c) Non-Response Information

Of the 539 people approached over four days of survey distribution, 25.8% would either not take part or failed to return the survey. The main reason given by people was that they had *been surveyed out*. Many had completed surveys elsewhere. Field assistants found visitors on the whole to be co operative, interested in the research, and willing to participate. Of major concern is the now extensive use of survey methodology in the field.

Reasons	Stage 1: 2001		Stage 2: 2002		Combined	
	n	Percentage total # people approached (193)	n	Percentage total # people approached (346)	N	Percentage total # people approached (539)
Take-homes not returned	11	5.7%	17	4.9%	28	5.2%
Filled in other/same survey	31	16.0%	30	8.7%	61	11.3%
Language difficulties	7	3.6%	6	1.7%	13	2.4%
Had small children	2	1.0%	2	0.6%	4	0.7%
No time	4	2.0%	14	4.0%	18	3.3%
Not interested	8	4.1%	6	1.7%	14	2.5%
Do not wish to participate if it has any questions on "Abos"			1	0.3%	1	0.2%
Non-Response	63	32.6%	76	22.0%	139	25.8%

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

During this first data collection stage,

- The majority of visitors (respondents) to the Crater were **Australian** (as opposed to international visitors). Of the Australian visitors, most were **local** visitors, i.e., they lived within the Wet Tropics Bioregion;
- **Nonindigenous Australians** were the major ethnic group;
- The highest level of education achieved for the majority of visitors was **Tertiary B (University)**;
- While the average age of visitors was **38 years**, the majority were in the **30 – 39 age class**;
- More females participated in this survey than males.

Stage 2: April 2002 *Visitor Profile*

A number of variations in the visitor profile was evident in this second data collection stage.

- There was a considerable increase in the number of **Australian** visitors to the Crater during this survey distribution phase, with a corresponding decrease in international visitors. Of the Australian visitors, the majority lived within the Wet Tropics Bioregion – **local** visitors;
- **Nonindigenous Australians** were still the major ethnic group;
- The highest level of education achieved for the majority of visitors was **Secondary**;
- The average age of visitors declined slightly to **37 years**, with the majority in the **30 – 39 age class**;
- Almost equal numbers of males and females participated in this survey.

Combined Data & General Comments

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

- The majority of visitors to the Crater were **Australian (84.0%, n = 381)**, which is the same as the 1993 Manidis Roberts results (84.5%, n = 58), with international visitors at 16.0%. There were significantly more Australians at the site than international visitors overall [Chi-Square (df = 1) = 29.92], and significantly fewer international visitors in September 2001 compared to April 2002. Of the international visitors, the majority came from the **UK (22.9%)** followed by **Germany (18%)**;
- Of the Australian visitors, the majority were **locals (83.1%)**, i.e., living within the Wet Tropics Bioregion. Of these, **36.7%** came from **Cairns & district**, **27.6%** from **Townsville & district** and **21.4%** from the Tablelands;
- Just over half the visitors (55.6%) identified themselves as **Nonindigenous Australians**;

1. *This visitor profile suggests that the Crater 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 international visitors it is most popular with English/UK citizens and Germans.*

a) Background Information

QUESTIONS & RESULTS

1. Where do you live?

STAGE 1: (September/October 2001)						STAGE 2: (March/April 2002)															
N* = 123						N* = 258															
Australia 69.1% n = 85						Australia 91.1% n = 235															
Locals n = 40 (51.9%) (n = 77 responses)						Locals n = 156 (75.4%) (n = 207 responses)															
Cairns & District	n = 13	Babinda & Gordonvale	n = 1	Cairns & District	n = 59	Babinda & Gordonvale	n = 6	Innisfail	n = 2	Mission Beach	n = 2	Innisfail	n = 9	Ingham	n = 3						
Tableland & District	n = 10	Townsville & District	n = 12	Tableland & District	n = 32	Townsville & District	n = 42	Mossman / Daintree	n = 5												
Non-Locals n = 37 (48.1%)						Non-Locals n = 51 (24.7%)															
Overseas 30.9% n = 38						Overseas 8.9% n = 23															
Canada	n = 2	Ireland	n = 2	South Africa	n = 2	Canada	n = 1	Ireland	n = 2	Switzerland	n = 2	Czech	n = 1	Netherlands	n = 2	Switzerland	n = 2	UK	n = 3	USA	n = 2
England	n = 3	Netherlands	n = 2	Switzerland	n = 6	Germany	n = 4	New Zealand	n = 1	USA	n = 2	Hong Kong	n = 2	Sweden	n = 2						
Germany	n = 7	New Zealand	n = 2	UK	n = 4																
Holland	n = 3	Scotland	n = 2																		
Comparative Data 1993: Australian = 84.5% (Local = 56.9%); Overseas = 15.5% n = 58																					

2. How long have you lived there?

Period of Residence:	N = 120	Period of Residence:	N = 247
\bar{X} = 23.6 years ± SD 18.36 (range 0-69)		\bar{X} = 19.82 years ± SD 17.36 (range 0.1-65)	
≤ 10 years = 33.3%	> 10 years = 66.6%	≤ 10 years = 39.3%	> 10 years = 60.7%

3. How would you describe your ethnic background?

N = 123				N = 251			
Nonindigenous Australian 44.7%		Other 10.6%		Nonindigenous Australian 58.6%		Dutch 1.2%	
Canadian 4.1%		AngloIndian 0.8%		Indigenous Australian 3.6%		Dutch Indonesian 0.4%	
Swiss 7.3%		English/Irish 1.6%		American 2.0%		English / German 0.4%	
Chinese 0.8%		Dutch 3.3%		Canadian 0.8%		English / Irish/ Indigenous Aust. 0.4%	
Scottish 1.6%		Finnish 0.8%		Swedish 1.2%		Filipino 0.4%	
German 1.4%		Greek 0.8%		German 4.8%		Holland / PNG 0.4%	
Italian 3.3%		Irish/Scottish 1.6%		Swiss 0.4%		Hungarian 0.4%	
English 21.1%		Italian/English 0.8%		Italian 2.0%		Italian / Austrian 0.4%	
Irish 1.6%		Maltese 0.8%		Chinese 0.8%		Italian / Scottish/ Non Indig Aust. 0.4%	
		NZ 0.8%		English 8.8%		Indig Aust. 0.4%	
		NZ/Dutch 0.8%		Irish 2.8%		Maori/ Non Indig Aust. 0.4%	
		PNG 0.8%		Scottish 1.6%		NZ 2.4%	
		South African 2.4%		Other 12.6%		NZ/ Non Indig. Aust. 0.4%	
		West Samoan 0.8%		Austrian 0.4%		Polish 0.8%	
		Yugoslavian 0.8%		Chilean 0.4%		Scottish/ NonIndi Aust. 0.4%	
				Correct ancestors 0.4%		South African 0.4%	
				Czech 0.4%		Spanish 0.4%	
				Danish 0.4%		Sri Lankan 0.4%	

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

N = 120			N = 253		
Primary (1-8 years of education)	2.5%		Primary (1-8 years of education)	5.5%	
Secondary (9-12 years of education)	34.2%		Secondary (9-12 years of education)	37.2%	
Tertiary A (Technical or further educ institution)	25.8%		Tertiary A (Tech or further educ institution)	26.1%	
Tertiary B (University)	37.5%		Tertiary B (University)	31.2%	

5. Age

N = 114				N = 235			
\bar{X} = 38.00 years ± SD 12.80 (range 14-70)				\bar{X} = 36.99 years ± SD 13.59 (range 8-88)			
Age Categories:				Age Categories:			
< 20 years = 4.4%	40-49years = 23.7%			< 20 years = 8.5%	40-49 years = 17.4%		
20-29years = 25.4%	50-59 years = 11.4%			20-29years = 20.0%	50-59 years = 17.4%		
30-39years = 27.2%	> 60 years = 7.9%			30-39years = 34.0%	> 60 years = 2.5%		
Comparative Data 1993: 16-25 = 10.3%; 26-45 = 60.3%; 45-65 = 22.4% >60 = 6.9% n = 58							

6. Gender

N = 120			N = 253		
Male 43.4%	Female 56.6%		Male 48.6%	Female 51.4%	
Comparative Data 1993: Male = 53.4%; Female = 46.6% n = 58					

b) Transport & Travel Group

Key Findings

Stage 1: September 2001 *Travel Profile*

During this first data collection stage,

- *No visitors* to the Crater were with an ***organised tour***;
- On average there were ***2.7 people*** in each vehicle;
- The major group profile of people visiting the site was ***two adults who were not accompanied by children***;
- The majority of visitors travelled in ***privately owned*** vehicles;
- The ***most*** important source of prior information about the Crater was the ***“road sign”***. The important source not used was ***“from the web”***.

Stage 2: April 2002 *Travel Profile*

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

- *Again, no visitors* to the Crater were with an ***organised tour***,
- There was a slight increase in the average number of people per vehicle to ***3.13***;
- The major group profile of people was again ***two adults***;
- Almost all visitors travelled in ***privately owned*** vehicles;
- The ***two most*** important sources of prior information about the Crater were ***“have been here before”*** and ***“word of mouth”***. The important 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 the Crater were ***independent travellers*** (n = 381), which is the same as the 1993 Manidis Roberts results (n = 58);
- On average, there were ***2.99 people*** (n = 370) in each vehicle, which is slightly higher than 1993 Manidis Roberts results (2.7, n = 58);
- Most visitors (82.9%, n = 363) travelled in ***privately owned*** vehicles, which is higher than 1993 Manidis Roberts results (72.4%, n = 58);
- ***“Have been before”*** (39.4%, n = 381) appeared to be the most important source of prior information about the Crater. The information source not used at all was ***“from the web”***.

1. *Despite this data collection occurring over two school holiday periods, few family groups visit the Crater. The major group profile of visitors was ***two adults***.*
2. *It is clear that most people know of the Crater because they ***have been before***. It is a site that ***attracts a considerable number of repeat visits by local residents***.*
3. *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?									
<i>N = 123</i>	Yes	0%	No	100%	<i>N = 258</i>	Yes	0%	No	100%

8. If you travelled in a private or hired vehicle, how many people including yourself are in your vehicle?							
<i>N = 119</i>				<i>N = 252</i>			
People per Vehicle $\bar{X} = 2.68 \pm SD 1.06$ (range 1-6)				People per Vehicle $\bar{X} = 3.13 \pm SD 1.40$ (range 1-7)			
Adults per vehicle $\bar{X} = 2.17$ (n = 246)				Adults per vehicle $\bar{X} = 2.48$ (n=626)			
Children per vehicle $\bar{X} = 0.49$ (n = 58)				Children per vehicle $\bar{X} = 0.66$ (n = 166)			
Private vehicle 75.6% Hired Vehicle 24.4%				Private vehicle 86.5% Hired Vehicle 13.5%			
Comparative Data 1993: <i>People per vehicle = 2.7</i> <i>n = 58</i>							
<i>Private vehicle = 72.4%; Hired vehicle = 24.1%; Commercial = 0%; Other = 3.5%</i>							

9. How did you obtain prior information about this site?							
<i>N = 123</i>				<i>N = 258</i>			
		n	%		n	%	
	Have been here before	31	25.2%	Have been here before	119	46.1%	
	Road sign	39	31.7%	Road sign	37	14.3%	
	Word of mouth	33	26.8%	Word of mouth	82	31.8%	
	Map which said it was a tourist site	33	26.8%	Map which said it was a tourist site	34	13.2%	
	Tourist information centre in Nth Qld	13	10.6%	Tourist information centre in Nth Qld	12	4.7%	
	Tourist information centre	2	1.6%	Tourist inform	4	1.6%	
	Tourist leaflet	17	13.8%	Tourist leaflet	19	7.4%	
	Travel guide or book	14	11.4%	Travel guide or book	24	9.3%	
	From the web	0	0.0%	From the web	0	0.0%	
	Trip included in a package tour	2	1.6%	Trip included in a package tour	0	0.0%	
	Other	10	8.1%	Other	18	7.0%	
	<i>Friends</i>	4	3.3%	<i>Came with relative/partner/group of locals</i>	10	4.0%	
	<i>Husband been before</i>	1	0.8%	<i>Family recreation</i>	1	0.4%	
	<i>B&B owner</i>	3	2.4%	<i>Grew up in region/local</i>	4	1.6%	
	<i>Ranger</i>	2	1.6%	<i>My dad was here in 1967</i>	1	0.4%	
				<i>Other</i>	2	0.8%	
Specify: Tourist inform centre: <i>Motel</i> Tourist leaflet: <i>Tropical Atherton Tablelands; Birdwatchers Paradise;</i> Travel guide or book : <i>Discover Tablelands, Australia Outback</i>				Specify: Tourist inform centre: <i>Lake Eacham Hotel, McDonalds</i> Tourist leaflet: <i>Tropical Atherton Tablelands; Discover 2002; Eacham District Shire Info; NP Brochure; Yungaburra Visitor Guide</i> Travel guide or book : <i>Discover Tablelands, Lonely Planet</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 the Crater were *experiential*, followed by *activity*-based reasons. *Educational* reasons were least important;
- To *see the natural features and scenery* was the most important reason given with 60% of visitors rating this as *very important*;
- This was followed by three other experiential reason - *be close to/experience nature, experience the Wet Tropics*, and, closely linked to these two, *experience tranquillity*;
- Activity-based reasons were rated moderately important to important. Of these, *opportunities for short walks* rated the highest;
- Educational reasons were just slightly important to important. *Learning about Aboriginal culture* was the least important.

Stage 2: April 2002

During this second data collection stage, slight differences in responses were evident.

- The most important reasons for why people visit the Crater were again *experiential*, followed by *activity*-based reasons. Educational reasons were least important.
- To *see the natural features and scenery* was the most important reason given;
- This was followed by two other experiential reason - *be close to/experience nature* and *experience tranquillity*;
- Activity-based reasons were rated moderately important to important. Of these, *opportunities for short walks* 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 59.1% of visitors - *see natural features & scenery*; Visitors rated the experiential reasons *significantly higher* than activity reasons [$t(368) = 15.821$; $p = 0.00$];
- *Learn about aboriginal culture* was the least important reason given and was rated *not important* by 46% of visitors - Visitors rated the two educational reasons *significantly lower* than experiential [$t(363) = -26.251$; $p = 0.00$], and activity reasons [$t(361) = -12.904$; $p = 0.00$].

1. *The primary reasons given for people visiting the Crater are to see the natural features of the site and to be close to/experience nature.*
2. *Clearly activity-based reasons are secondary for most people.*
3. *Learning about the natural and cultural features of the site do not appear to be why people visit this site.*

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		2 = Slightly important		3 = Moderately important			
		4 = Important		5 = Quite 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>	115	11.3%	0.7%	27.8%	17.4%	13.0%	14.8%	3.50	
	250	18.8%	17.2%	24.4%	15.2%	11.6%	12.8%	3.22	
b) Learn about Aboriginal culture <i>(Educational)</i>	109	34.9%	22.9%	22.0%	9.2%	7.3%	3.7%	2.42	
	241	51.0%	19.1%	12.9%	7.9%	4.1%	5.0%	2.10	
c) See natural features and scenery <i>(Experiential)</i>	120	0.8%	0.8%	7.5%	13.3%	17.7%	60.0%	5.26	
	252	1.2%	0.8%	4.4%	11.5%	23.0%	58.7%	5.31	
d) Be close to/experience nature <i>(Experiential)</i>	113	2.7%	1.8%	9.7%	21.2%	22.0%	42.5%	4.86	
	251	3.6%	2.0%	12.7%	14.3%	25.9%	41.4%	4.81	
e) Socialise with family/friends <i>(Experiential)</i>	114	21.9%	9.6%	10.5%	19.3%	15.8%	22.8%	3.66	
	246	9.8%	7.7%	14.2%	17.5%	19.1%	31.7%	4.24	
f) Rest and relax <i>(Experiential)</i>	115	6.1%	8.7%	13.9%	22.6%	24.3%	24.3%	4.23	
	249	5.6%	6.4%	11.2%	20.1%	24.1%	32.5%	4.48	
g) Experience tranquility <i>(Experiential)</i>	116	1.7%	6.0%	8.6%	18.1%	28.4%	37.1%	4.77	
	247	4.0%	4.0%	10.1%	20.2%	23.5%	38.1%	4.69	
h) Experience the Wet Tropics <i>(Experiential)</i>	116	0%	2.6%	5.2%	22.4%	26.7%	43.1%	5.03	
	246	7.7%	5.7%	12.6%	19.1%	22.0%	32.9%	4.41	
i) Outdoor exercise <i>(Activity)</i>	115	10.4%	7.8%	16.5%	17.4%	23.5%	24.3%	4.09	
	250	9.2%	8.0%	18.8%	22.0%	22.0%	20.0%	4.00	
j) Opportunities for short walks <i>(Activity)</i>	116	6.0%	3.4%	17.2%	23.3%	25.9%	24.1%	4.32	
	247	8.9%	5.7%	14.2%	24.3%	24.7%	22.3%	4.17	
k) Opportunities for long walks <i>(Activity)</i>	109	18.3%	20.2%	18.3%	16.5%	12.8%	13.8%	3.27	
	245	23.7%	14.7%	20.8%	15.9%	10.6%	14.3%	3.18	
l) Other	120	0.8%	0.0%	0.8%	0.8%	2.5%	8.3%	NA = 86.7%	
	245	0.0%	0.0%	0.4%	0.4%	1.2%	5.7%	NA = 92.2%	
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>	12	Activity: Bird watching 3 Photography/film 3	n	Experiential: Show visitors 1 See my back yard 1 Family history 1	n	Educational: Learn about flora 1 fauna 1 Educate children 1 Personal research 1	n		
	27	Activity: Explore 2 Photography/film 3 Picnic 1 Swim 1 Walk dog 2 Day activity 1 Keep healthy 1 Play musical instrument 1	n	Experiential: Change of scenery 1 Feel energies 1 Gods creation 1 Just to see site 1 See nature untouched 1 Show kids childhood place 1 Show visitors 1 Spend time with girlfriend 1	n	Educational: Info re:massacre 1 Learn about ecology 1 Origin Barron R 1 Rocks - others 1 Other: See how site changed 1 Real estate opportunity 1 Vacation 1	n		

\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 the Crater was **high**;
- In particular, the majority of visitors found the natural environment to be **interesting, appealing** and in **good condition**;
- Over **67.5%** of visitors **somewhat to strongly agreed** that the natural environment was **well managed**;
- Just over half of visitors indicated **some level of concern** about the **impacts of human activity** on the natural environment at the Crater, while the majority of visitors did not consider the site to be 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, only slight variations in some responses were evident.

- Again, *visitor appraisal* of the positive aspects of the natural environment was **high**;
- The majority of visitors (55.6%) **strongly agreed** that the Crater was **interesting**;
- In terms of the condition of the natural environment, **82% somewhat to strongly agreed that it appeared to be good**;
- Over **80%** of visitors **somewhat to strongly agreed** that the natural environment was **well managed**;
- Visitors were again **slightly concerned** about the **impacts of human activity** on the natural environment, but, did not consider the site to be disturbed or impacted.

Combined Data & General Comments

For the combined data set,

- Aspects of the natural environment that were most highly rated were the **interest factor** ($\bar{X} = 5.35$), **condition** ($\bar{X} = 5.17$), and **appeal of natural attractions and scenic beauty** ($\bar{X} = 5.16$).
- Few visitors (**11.1%**) 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 the Crater to be very interesting and in good condition.*
2. *Of the natural features that the small number of visitors reported expecting to find at the Crater 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.	120	0%	0.8%	0.8%	12.5%	26.7%	59.2%	5.42	
	259	0.4%	0.8%	2.3%	15.1%	25.9%	55.6%	5.32	
b) I would like to spend more time exploring this natural environment.	119	0%	4.2%	16.0%	31.9%	21.8%	26.1%	4.50	
	257	1.2%	4.3%	11.7%	28.8%	25.3%	28.8%	4.59	
c) In terms of natural attractions and scenic beauty this site is appealing.	119	0%	0%	5.9%	18.5%	36.1%	39.5%	5.09	
	257	0%	1.2%	3.9%	16.3%	32.3%	46.3%	5.19	
d) The condition of the natural environment at this site appears to be good.	118	0%	0.8%	1.7%	18.6%	43.2%	35.6%	5.11	
	256	0.4%	1.2%	4.3%	12.1%	36.7%	45.3%	5.20	
e) The natural environment at this site is well managed.	120	0.8%	0%	5.0%	26.7%	40.0%	27.5%	4.88	
	259	0.8%	1.2%	6.2%	16.2%	35.9%	39.8%	5.05	
f) I am concerned about the impacts of human activity on the natural environment at this site.	115	11.3%	13.9%	16.5%	22.6%	15.7%	20.0%	3.77	
	255	12.2%	11.0%	17.3%	22.0%	16.9%	20.8%	3.83	
g) This site appears to be disturbed and impacted.	114	21.9%	23.7%	16.7%	11.4%	18.4%	7.9%	3.04	
	254	26.4%	28.7%	20.5%	16.1%	4.3%	3.9%	2.55	

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

N = 118		Yes 11.9%	No 88.1%	N = 253		Yes 10.7%	No 89.3%
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>	14	<u>Natural/Biological:</u> Animals/wildlife 6 Birdlife 4 Golden Bower Bird 2 Cassowary 1 Possums 1		<u>Natural/Physical</u>		<u>Built/Structural</u> More picnic tables & BBQ 1 Covered picnic tables 1	
	23	<u>Natural/Biological:</u> Animals 6 Birdlife 3 Possums/tree kang /bandicoots 2 Leeches 1 Scrub Turkeys 2		<u>Natural/Physical</u> Blowhole in river 1 Disappointingly dry Falls/Steep 2		<u>Built/Structural</u> Pipeline/weir 1 Area to observe natural fauna 1 Info Aboriginal Culture 1 Trail map 1	

e) Time Spent and Activities

Key Findings

Stage 1: September 2001 *Activity Profile*

During this first data collection stage,

- The majority of visitors, **79.7%**, spent between ***half and one hour*** at the site;
- Besides ***observing scenery***, the activity most visitors engaged in was taking the ***short walk*** to the Crater lookout;
- ***Photography*** was also an activity quite a number of people engaged in;
- Of those visitors who would have liked to engage in other activities, to ***see more wildlife*** was the most frequently identified.

Stage 2: April 2002 *Activity Profile*

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

- Again, the majority of visitors, **80.1%**, spent between ***half to one hour*** at the site;
- Besides ***observing scenery*** and ***relaxing***, most visitors took the ***short walk*** to the Crater lookout;
- ***Photography*** was also a popular activity with about a third of the visitors;
- Of those visitors who would have liked to engage in other activities, many identified activities that were ***prohibited***, such ***camping, going into the Crater, getting closer to the falls, and walking the dog on a lead***.

Combined Data & General Comments

1. *These results suggest that, overall, visitors spend just enough time at the Crater which allows them to do the short walk to the Crater lookout – **half to one hour**. Very few visitors spend more than one hour at the site(10.4%).*
2. *Very few visitors use the site for picnics (13.1%).*
3. ***About a third** of visitors do spend the time looking at **interpretive material**.*
4. *Photography and bird watching are activities undertaken by 37% and 29% of visitors.*

e) Time Spent and Activities

QUESTIONS & RESULTS

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

N = 123				N = 251			
	%		%		%		%
less than 1/2 hour	11.4%	About 3 hours	0.8%	less than 1/2 hour	8.8%	About 3 hours	0.4%
About 1/2 hour	38.2%	About 4 hours	0.8%	About 1/2 hour	32.7%	About 4 hours	0.0%
About 1 hour	41.5%	Overnight	0.0%	About 1 hour	47.4%	Overnight	1.2%
About 2 hours	7.3%			About 2 hours	9.6%		

Comparative Data 1993: <1/2 hr = 41.4%, ~1 hr = 46.6%, 1-<2hrs = 5.2%; 2-<4hrs = 3.4%, n = 58

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

N = 123				N = 254			
Activities:	%	Activities:	%	Activities:	%	Activities:	%
Observing scenery	88.6%	Observing scenery	92.1%	Observing scenery	92.1%	Observing scenery	92.1%
Bird watching	30.9%	Bird watching	26.4%	Bird watching	26.4%	Bird watching	26.4%
Observe other wildlife	15.4%	Observe other wildlife	25.6%	Observe other wildlife	25.6%	Observe other wildlife	25.6%
Photography/painting/drawing	42.3%	Photography/painting/drawing	33.1%	Photography/painting/drawing	33.1%	Photography/painting/drawing	33.1%
Picnic/barbeque	13.8%	Picnic/barbeque	11.8%	Picnic/barbeque	11.8%	Picnic/barbeque	11.8%
Using café/restaurant	0%	Using café/restaurant	0.0%	Using café/restaurant	0.0%	Using café/restaurant	0.0%
Camping	0%	Camping	0.8%	Camping	0.8%	Camping	0.8%
Walking – Short (1 hr or less)	82.9%	Walking – Short (1 hr or less)	80.3%	Walking – Short (1 hr or less)	80.3%	Walking – Short (1 hr or less)	80.3%
Walking – Long (1-6 hours)	4.1%	Walking – Long (1-6 hours)	1.6%	Walking – Long (1-6 hours)	1.6%	Walking – Long (1-6 hours)	1.6%
Swimming	0%	Swimming	7.9%	Swimming	7.9%	Swimming	7.9%
Guided tour	0.8%	Guided tour	0%	Guided tour	0%	Guided tour	0%
Looking at interpretation material	26.8%	Looking at interpretation material	29.1%	Looking at interpretation material	29.1%	Looking at interpretation material	29.1%
Relaxing	34.7%	Relaxing	51.2%	Relaxing	51.2%	Relaxing	51.2%
<i>Other</i>	3.3%	<i>Other</i>	3.5%	<i>Other</i>	3.5%	<i>Other</i>	3.5%
Ignoring noisy family tourists	0.8%	Looking for animals	0.4%	Looking for animals	0.4%	Looking for animals	0.4%
Completing this survey	2.4%	Completing this survey	1.9%	Completing this survey	1.9%	Completing this survey	1.9%
		Mental relaxation	0.4%	Mental relaxation	0.4%	Mental relaxation	0.4%
		Naming plants	0.4%	Naming plants	0.4%	Naming plants	0.4%
		Showing children/explaining fauna	0.4%	Showing children/explaining fauna	0.4%	Showing children/explaining fauna	0.4%

Comparative Data 1993: Swimming = 8.6%; Walking (long) = 36.2%; Walking(short) = 62.0%; Nature Study = 84.5%
 Photography = 51.7%; Relaxing = 55.2%; Scenic viewing = 31.0%; Bird Watching = 27.6% n = 58

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

N = 108	Yes	12.0%	No	88.0%	N = 222	Yes	13.5%	No	86.5%
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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 = 13		n		N = 26		n	
	Natural Environ	Built Environ	Social Environ	n	Natural Environ	Built Environ	Social Environ	n
	See more wildlife	Shelter from rain	Walks with fewer people	4		Shelter from rain		1
	Swim	Read more interp material	Rules/regulation	1		Read more interp material		1
		Long walks	Walk dog			Long walks		1
	Birdwatching	Electric bbq	Explore without others	1		Electric bbq		1
	See more wildlife	Refreshment stand	Peace & quite	2		Refreshment stand		2
	Identify trees	Observe crater/falls		1		Observe crater/falls		1
	Swim	Indigenous info		3		Indigenous info		2
	Throw stone into water			1				1
		Rules/regulation				Rules/regulation		
		Camping		3		Camping		3
		Go into crater		2		Go into crater		2
		Closer to falls		1		Closer to falls		1
		Walk dog on lead		2		Walk dog on lead		2

f) Information

Key Findings

Stage 1: September 2001 *Information/Signage Use*

During this first data collection stage,

- While most visitors strongly agreed that *directive/orientation signage* was easy to locate, slightly fewer agreed that such signage enabled them to find their way round the Crater;
- Just under a quarter of visitors were unable to *determine* the *rules and regulations* (20.9%) or clearly identified what was *acceptable activity* (21.8%);
- **40.7%** of visitors disagreed that *safety* information was *easy to locate* and **37.8%** disagreed that it was *understandable*;
- Visitor assessment of the *natural / ecological* information was moderately high and, compared with the other information types, the highest.

Stage 2: April 2002 *Information/Signage Use*

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

- Visitor assessment of the *directive/orientation signage* at the Crater 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 the Crater was slightly lower for this data collection stage compared to the first;
- A considerable number of people disagreed that *safety* information was easy to locate (47%), and that it was understandable (42%);
- While visitor assessment of the *natural / ecological* information was lower for this data collection stage compared to the first on the whole it was higher than for the other information types.

Combined Data & General Comments

- While overall most visitors found the maps at the Crater easy to locate ($\bar{X} = 4.94$, n = 363), wayfinding ability as determined by presentation of information on the maps did not receive as high an assessment ($\bar{X} = 4.73$, n = 351);
- While most visitors agreed that *rules and regulations* at the Crater were easy to determine and enabled them to identify acceptable activity, there is a concern about the 74 and 73 visitors respectively (20%) who disagreed;
- Also of concern are the **154** visitors (45%) who disagreed that *safety* information was *easily locate* and the **136** visitors (41%) who disagreed that what was available was easy to understand;
- The *natural/ecological* information received the highest assessment of all other information types.

f) Information

QUESTIONS & RESULTS

16. Did you refer to any of the information available at this site today?	Yes	74.6%	No	25.4%
	Yes	76.1%	No	23.9%

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			
<i>All of the signs from (a) to (d) were present at the Crater (see Section 2 for details).</i>		n	1	2	3	4	5	6	\bar{X}
a) The maps and directions at this site: i) were easy to locate		119	3.4%	2.5%	5.9%	12.6%	20.2%	55.5%	5.10
		244	4.1%	4.1%	3.7%	18.0%	29.9%	40.2%	4.86
	ii) helped me to find my way round	116	1.7%	3.4%	6.9%	17.2%	26.7%	44.0%	4.96
		235	4.3%	6.0%	8.5%	19.6%	28.9%	32.8%	4.61
b) The rules and regulations at this site: i) were easy to determine		120	6.7%	5.0%	9.2%	14.2%	27.5%	37.5%	4.63
		245	4.5%	7.8%	7.8%	20.0%	26.5%	33.5%	4.57
	ii) enabled me to clearly identify acceptable activities	115	7.0%	5.2%	9.6%	20.0%	22.6%	35.7%	4.53
		238	5.0%	8.8%	6.3%	19.7%	27.7%	32.4%	4.53
c) The safety information at this site: i) was easy to locate		113	19.5%	9.7%	11.5%	18.6%	21.2%	19.5%	3.71
		230	17.8%	14.8%	14.3%	20.0%	16.1%	17.0%	3.53
	ii) was easy to understand	111	18.0%	9.9%	9.9%	16.2%	21.6%	24.3%	3.86
		223	16.6%	12.1%	13.5%	19.7%	17.0%	21.1%	3.72
d) The natural/ecological information at this site: i) was interesting		116	2.6%	1.7%	1.7%	13.8%	38.8%	41.4%	5.09
		251	2.0%	3.6%	6.4%	14.3%	34.7%	39.0%	4.93
	ii) was clearly presented	117	2.6%	2.6%	3.4%	14.5%	33.3%	43.6%	5.04
		246	2.0%	2.4%	6.1%	15.4%	35.4%	38.6%	4.96
	iii) helped me better understand the ecological processes of this area	114	2.6%	2.6%	3.5%	14.9%	34.2%	42.1%	5.02
		243	3.3%	3.7%	6.2%	16.9%	35.0%	35.0%	4.81
f) The indigenous cultural information at this site: i) was interesting ii) was clearly presented ii) helped me to understand the significance of this area for indigenous Australians	<p><i>No indigenous cultural information was present at the Crater (See Section 2)</i></p> <p><u>Specific Comments re: Aboriginal Information (n=1)</u> <i>"If indigenous information was part of the site I would not have visited"</i></p>								

g) Site Facilities & Management Issues

Key Findings

Stage 1: September 2001

Visitor Appraisal

During this first data collection stage,

- The **walking track** to the Crater and associated facilities were the **most frequently** used of all facilities present. Most visitors also used the toilet facilities. The most frequently requested additional facility was **a shelter**;
- The overall **condition** of facilities was rated the highest followed by their adequacy and then appeal;
- The management of facilities was not rated as high;
- Over half the visitors (52%) did **not agree** that the presence of a **ranger** was important;
- Of those who did agree to the ranger's presence, the reason most frequently identified was to **provide information/education**.

Stage 2: April 2002

Visitor Appraisal

During this second data collection stage, visitor appraisal of facilities varied slightly.

- The **walking track** to the Crater and associated facilities were again the **most frequently** used of all facilities present. The most frequently requested additional facility was **more/better toilets**;
- The overall **condition** of facilities was rated the highest followed by their adequacy and management;
- The appeal of facilities was rated the same as for the first data collection period;
- Just over half the visitors (52%) **agreed** that the presence of a **ranger** was important;
- The reasons most frequently identified were to **provide information/education** and to **answer questions**.

Combined Data & General Comments

- The **walking track** to the Crater and associated facilities were the most frequently used;
- The facility most often requested was **some form of shelter** – currently none exists at the site;
- **Condition of facilities** received the highest rating ($\bar{X} = 4.89$), with 70.9% of visitors somewhat and strongly agreeing that the condition was good;
- Of the 52% of visitors for whom the presence of a ranger was important, the majority identified **providing information/education** as the reason.

-
1. *The walking track to the Crater is the most popular facility at this site.*
 2. *Overall, visitors are satisfied with the condition and adequacy of facilities at the Crater.*

g) Site Facilities & Management Issues

QUESTIONS & RESULTS

19. What facilities have you used at this site today?

N = 121		%	N = 250		%
Picnic table	33.9%	Walking track	90.1%	Picnic table	30.8%
Shelter shed	-	Boardwalk	48.8%	Shelter shed	-
Restaurant/café	-	Viewing platform/lookout	75.2%	Restaurant/café	-
Rubbish bin	26.4%	Fire place	2.5%	Rubbish bin	26.0%
Toilet	57.9%	Barbeque	2.5%	Toilet	38.0%
Tap	10.7%	Other (carpark)	1.7%	Tap	15.2%
				Other (carpark, shady spot)	1.2%

Comparative Data 1993: Walking track = 89.7%; toilet = 39.7%; picnic table = 12.0%; Tap = 20.7%; viewing platform from lookout = 86.2%; rubbish bin = 8.6%; grassed area = 5.2% n = 58

20. Were there particular facilities at this site you were expecting to find which were not available?

N = 110	Yes	10.9%	No	89.1%	N = 218	Yes	9.6%	No	90.4%
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If yes, please specify:

N = 12		n	N = 21		n
More picnic table/chairs	2	2	More picnic table/chairs	1	1
Shelter shed/cover over picnic tables	6	6	Shelter shed	1	1
Barbeque	1	1	Camping area	1	1
			Gas Barbeque	1	1
			More seats	1	1
			Toilets/change rooms	3	3
			Map showing circuit	1	1
			More parking	1 (1)	1 (1)
			Tree signage	1	1
			Facilities to walk dog	2	2
			Guide with Info	1	1
			Quality path to falls	1	1
			Refreshment stand/shop	2	2
			Could be upgraded	1	1
			Don't overcrowd	1	1
			Play ground	1	1

21. Please rate the extent to which you agree or disagree with each of the following statement about the facilities and management at this site by circling one number for each statement.

	n	Strongly Disagree	1	2	3	4	5	6	Strongly Agree	\bar{X}
a) This site is appealing in terms of the character and attractiveness of the facilities.	119	1.7%	5.0%	7.6%	20.2%	32.8%	32.8%	4.76		
	250	1.2%	2.0%	10.4%	22.8%	32.8%	30.8%	4.76		
b) The facilities at this site are adequate .	118	1.7%	2.5%	6.8%	24.6%	32.2%	32.2%	4.80		
	254	1.6%	1.6%	7.5%	20.9%	40.6%	28.0%	4.81		
c) The overall condition of the facilities at this site appears to be good.	119	1.7%	1.7%	8.4%	21.0%	35.3%	31.9%	4.82		
	252	0.8%	0.8%	5.2%	20.6%	44.4%	28.2%	4.92		
d) The facilities and infrastructure at this site are well managed .	116	0.9%	3.4%	9.5%	25.9%	32.8%	27.6%	4.69		
	249	0.4%	1.2%	8.4%	22.9%	41.0%	26.1%	4.81		
e) The presence of a ranger at sites like this is important to me.	117	20.5%	17.1%	14.5%	17.9%	11.1%	18.8%	3.38		
	245	14.3%	13.9%	17.6%	18.4%	13.1%	22.9%	3.71		

22. If you agreed the presence of a ranger was important, what are the reasons for this?

N = 116		n	%	N = 247		n	%
To provide information/education	50	43.1%	To provide information/education	115	46.6%		
To answer questions	44	37.9%	To answer questions	109	44.1%		
To take us on guided walks	22	19.0%	To take us on guided walks	41	16.6%		
For safety/security	34	29.3%	For safety/security	84	34.0%		
To give directions	22	19.0%	To give directions	49	19.8%		
For lodging complaints about other behaviour	14	12.1%	For lodging complaints about other behaviour	38	15.4%		
For site maintenance	31	26.7%	For site maintenance	95	38.5%		
Other			Other:				
Control damage and behaviour	1		Ensure that behaviour of visitors is in line	1	0.4%		
			Ensure that everything remains in its natural state	1	0.4%		
			Ensure that rules & regulations are followed (no camping)	4	1.6%		
			Safety for cars so they don't get broken into	1	0.4%		
			Watch out for wildlife	1	0.4%		

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

During this first data collection stage,

- Just over a quarter of visitors identified the Crater as having special significance. The most frequent unprompted response was because of its *crater, volcanic and geological activity*;
- The majority of visitors, **63.9%**, either *did not know* or *answered incorrectly* as to who the management agency responsible for the Crater was;
- Of those who did identify an agency only **32.5%** *identified National Parks* (in its various formats) as the management agency, **6.3%** *identified WTMA*;
- When provided with a choice, *most visitors* labelled the Crater a *National Park*. **19%** identified it as a *National Park and World Heritage Area*;
- Most visitors preferred sites with *fairly well developed facilities*.

Stage 2: April 2002

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

- More visitors considered the Crater to have special significance. The most frequent unprompted response was because it was *a National Park*;
- Although a much lower percentage, again the majority of visitors, **53.3%**, either *did not know* or *answered incorrectly* as to who the management agency responsible for the Crater was;
- Of those who did identify an agency, **48.2%** *identified National Parks* (in its various formats) as the management agency, **4.2%** *identified WTMA*;
- When provided with a choice, *most visitors* labelled the Crater a *National Park*, and **14.9%** identified it as a *National Park and World Heritage Area*;
- Again, most visitors preferred sites with *fairly well developed facilities*.

Combined Data & General Comments

- The majority of visitors (54%) either *did not know* or provided an *incorrect answer* when asked who manages the Crater;
- When given a choice the majority believed the site to be managed by *National Parks*.
- Only 27.8% of visitors identified the Crater as a World Heritage Area.

1. *Visitors remain unfamiliar with the agency responsible for managing this site.*
2. *The World Heritage status is also not known by the vast majority of the visitors.*
3. *These results clearly suggest that the role of different land management agencies is not 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 28.1% No 71.9%					N = 244 Yes 32.0% No 68.0%				
If yes, please specify:									
N = 32		n		n	N = 61		n		n
Crater/volcanic/geological	14		Golden Bower Bird	1	Crater/volcanic/geological	39		Tourist attraction	1
Unique Habitat/Forest type	5		Unique fauna	1	Unique Habitat/Forest type	4		World heritage/NP naturalness	8
Start of Barron/water source	2		World heritage/NP	5	Start of Barron/water source	3		Spiritual/Gods place	2
Famous site	1		Family history	1	Nostalgic appeal	1		Massacre site	1
					Not cleared	1			

24. What agency or department do you think manages this site?							
N = 111			n	%	N = 259		
Management Agency or Department:					Management Agency or Department:		
National Parks/Parks & Wildlife/QPWS			31	28.0%	National Parks/Parks & Wildlife/QPWS		
National Parks & WT			3	2.7%	National Parks & WT		
National Parks & Forestry			2	1.8%	NP/EPA/		
DNR/Forestry			8	7.2%	DNR/Forestry		
Forestry & Tourism			1	0.9%	Dept Environmrnt/Conservation		
Environment & Heritage			2	1.8%	Dept Main Roads		
WT/WTMA			4	3.6%	WT/WTMA		
Qld Govt			5	4.5%	Council/Eacham Shire Council		
Rainforest Protection			1	0.9%	Local Govt/Govt/Qld Govt		
Unanswered /Don't Know			54	48.6%	Unanswered /Don't Know		
					Rainforest CRC		
					CALM/AFFA		
					92		
					35.5%		

25. Which of the following labels applies to this site?							
N = 121		%		%	N = 249		%
National Park (NP)		46.3%	NP & WHA	19.0%	National Park (NP)		55.0%
State Forestry (SF)		5.8%	NP & SF	2.5%	State Forestry (SF)		3.2%
World Heritage Area (WHA)		12.4%	SF & WHA	0.8%	World Heritage Area (WHA)		11.2%
Don't know		13.2%	NP, SF, WHA	0%	Don't know		12.4%
					NP, SF, WHA		1.6%

26. Which of the following natural areas do you most prefer visiting?			
N = 122		%	N = 249
Natural area with:			Natural area with:
no facilities (eg. no toilets, no designated camp ground)		1.6%	no facilities (eg. no toilets, no designated camp ground)
few facilities (eg. rough walking tracks)		8.2%	few facilities (eg. rough walking tracks)
limited facilities (eg. walking tracks evident , some directional signage)		24.6%	limited facilities (eg. walking tracks evident , some directional signage)
fairly well developed facilities (eg. well marked tracks, extensive signage)		44.3%	fairly well developed facilities (eg. well marked tracks, extensive signage)
very well developed facilities (eg. camp grounds, visitor centre)		17.2%	very well developed facilities (eg. camp grounds, visitor centre)
don't know/don't care		4.1%	don't know/don't care
			3.5%
			8.6%
			29.0%
			33.7%
			20.0%
			5.1%

h) Other Visitors & Experience

Key Findings

Stage 1: September 2001

During this first data collection stage,

- While the majority of visitors ***did not think*** there were ***too many other people*** at the Crater, nevertheless 21% did agree that there were too many people there;
- They also ***did not feel*** that the people who were there ***impacted on their own behaviour or experience*** of the site;
- Most visitors agreed that other visitors at the site were on the whole environmentally responsible;
- In terms of their experience of the Crater, visitors rated their ***enjoyment*** of the site ***highest*** with many strongly disagreeing that there were disappointing aspects;
- Most visitors ***mildly to somewhat agreed*** that their visit had been a ***special experience***.

Stage 2: April 2002

During this second data collection stage, visitor responses were higher on all items.

- While visitors ***did not think*** there were ***too many people*** at the Crater, fewer strongly disagreed with this – 30.7% compared to 41.3%;
- While visitors ***did not feel*** that the people who were at the Crater ***impacted on their own behaviour or experience*** of the site, again fewer strongly disagreed with this;
- The majority of visitors agreed that other visitors were on the whole environmentally responsible;
- Visitors rated their ***enjoyment*** of the site ***highest*** with many strongly disagreeing that there were disappointing aspects;
- Most visitors ***mildly to somewhat agreed*** 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 the Crater;
- 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 the Crater.
 2. Reported visitor ***satisfaction***, as measured by enjoyment, worth the money, disappointment, was moderately 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.	121	41.3%	20.7%	17.4%	6.6%	5.8%	8.3%	2.40
	254	30.7%	22.0%	20.5%	15.0%	5.1%	6.7%	2.62
b) The presence of other people at this site prevented me from doing what I wanted to.	122	54.9%	23.8%	9.8%	4.9%	2.5%	4.1%	1.89
	250	49.6%	22.8%	12.8%	5.6%	4.8%	4.4%	2.06
c) The behaviour of other visitors at this site has been on the whole environmentally responsible.	122	12.3%	5.7%	9.0%	9.0%	31.1%	32.8%	4.39
	253	13.8%	7.1%	8.3%	12.3%	31.6%	26.9%	4.21
d) The behaviour of some visitors at this site detracted from my enjoyment of this site.	121	62.8%	17.4%	8.3%	5.0%	4.1%	2.5%	1.78
	251	51.4%	19.5%	11.2%	6.8%	8.0%	3.2%	2.10

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.	120	3.3%	9.2%	14.2%	40.8%	15.8%	16.7%	4.07
	250	6.0%	7.6%	26.4%	29.6%	18.8%	11.6%	3.82
b) For me visiting this site has been a special experience.	120	1.7%	5.8%	10.8%	34.2%	24.2%	23.3%	4.43
	252	2.8%	7.5%	20.2%	25.0%	27.8%	16.7%	4.17
c) I thoroughly enjoyed my visit to this site today.	122	0.8%	0.0%	2.5%	24.6%	40.2%	32.0%	4.99
	252	0%	0.8%	6.3%	23.4%	33.7%	35.7%	4.97
d) It was well worth the money I spent to come to this site.	107	4.7%	0.9%	6.5%	19.6%	28.0%	40.2%	4.86
	225	2.2%	1.8%	8.4%	26.2%	24.0%	37.3%	4.80
e) I was disappointed with some aspects of this site.	119	38.7%	28.6%	10.9%	10.1%	8.4%	3.4%	2.31
	243	46.1%	19.3%	18.9%	6.2%	4.1%	5.3%	2.19

j) Additional Open-ended Items

Key Findings

Stage 1: September 2001

During this first data collection stage,

- **Additional information** requirements were predominantly related to *natural and ecological* information followed closely by *cultural and historical* information;
- While a number of issues were identified as **enhancing visitor enjoyment**, most were related to *natural features* of the site in particular the crater and the falls;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were related to the *facilities* at the site – *lack of, bad condition of facilities*.

Stage 2: April 2002

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

- **Additional information** requirements were again predominantly related to *natural and ecological* information followed by *cultural and historical* information;
- Issues most frequently identified with **enhancing visitor enjoyment** were related to *natural features* – falls and crater;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were those to do with the *facilities and behaviour of other people*.

Combined Data & General Comments

1. *Natural, ecological, cultural and historical information* was the type of additional information most frequently sought by visitors.
2. *The natural features* at the Crater were what enhanced visitor enjoyment of their visit.
3. *Facilities that were in bad condition or were not sufficient* and *behaviour of other visitors* detracted from visitor enjoyment of the Crater.

k) 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 40 respondents to this questions, 6 indicated that no more additional information was required;				Of the 71 respondents to this questions, 4 indicated that they were not interested in info; 1 = its beautiful like this;			
Maps/Orientation	n	Natural/Ecological/Geological	n	Maps/Orientation	n	Natural/Ecological/Geological	n
Trail/loop	1	Environmental /ecological info	1	Path to falls	3	Environmental /ecological info	4 (1)
Guided walks	1	Geological formation/Historical	6	Trail/loop	4	Geological formation/Historical	5 (2)
Rules/Regulations/Safety		Wildlife/plants at site/insects	11	Rules/Regulations/Safety		Wildlife/plants at site/insects	17 (3)
Clear Safety/advice notices	2	Where to find birds/Bird display	1(1)	Safety/advice notices	1	Bird display	(1)
Restrictions of swimming	1	Cultural/Historical Information		No feeding wildlife	1	Waterfall Info	(1)
General:		Indigenous culture/occupation/history/significance	6	Restrictions of swimming	1	Rainfall	1
Difficulty of walks	1	/activity in area	6	General:		Forest Size	(1)
Background info	2	Historical Info	1	Better signage	1	Cultural/Historical Information	
				Foreign language signage	1	Indigenous culture/occupation/history/significance	17 (2)
				Information on road	1	/activity in area	
				Better understanding	1	Historical Info	5 (1)
				overall			

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

N = 118	Yes	26.3%	No	73.7%	N = 247	Yes	34.8%	No	65.2%
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If yes, please specify:

Natural:	n	PsychoSocial:	n	Natural/Biophysical:	n	Other:	n
Rainforest	1	Friendly people	1	Big old trees/Habitat/Rainforest	4	cleanliness of area	2
Falls/Crater	9	My good friend	1	Falls/Crater	18	cool weather	2
Natural environ/scenery	1	Untouchable/Awesome	2	Natural environ/scenery	4	history	1
Birds	2	Natural and peaceful/quite	2	Birds	4	preservation of area	2
Facilities:		Other:		Fairly untouched	1	informative & educational	1
Long/Good walking track	3	I am indigenous to the area	1	Swim in falls/swim	4	Psychosocial:	
Good signs	1	Chance to get away with wife	1	Night spotlighting	1	Friendly people	
		Being here while it rained	1	Seeing start of Barron	1	Peaceful, quite, natural	1
		Returning after 28 years and still the same	1	Sound of water	1	Bringing/Being with friends	2
				Facilities:		Family/Company/mates	6
				Good track/boardwalk	8	Relaxation	1
				Geological /rock info /Signage	6	Showing my kids	1
				Liked the rough track	1	Awesome	1
				Lookout/platform at crater	5	Surprise effect	1
				Shaded tables	1		
				Wheel chair access to crater	1		

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

N = 121	Yes	18.2%	No	81.8%	N = 251	Yes	15.5%	No	84.5%
----------------	-----	-------	----	-------	----------------	-----	-------	----	-------

If yes, please specify:

Natural/Biophysical:	n	Other:	n	Natural/Biophysical:	n	Other:	n
Erosion on paths	1	Rain	4	Heavily compacted earth	1	People on unmarked tracks	1
Rules/Regulations/safety		Facilities:		Lack of water	1	Facilities:	
Had to leave dog in car	1	Seats wet	1	Not many animals	1	Parking/Need more car parks	2
Lack safety rail for kids	1	Bad parking	1	Weeds at falls	1	Lack disabled access	1
		Car park/road too close to site	1	Rules/Regulations/safety		Cars	1
		Lack of interp signage/info	2	Lack safety info	1	Lack of history/indig info	1
PsychoSocial:		Toilet	1	No where to walk dog	2	Toilet/bad condition	2
noisy people throwing stones	2	Bins require lids	1	PsychoSocial:		Need more chairs/tables	1
visitors loving area to death	1	Better track to Diner Falls	1	Boys running through forest	1	No wood bbq	1
		Tracks in poor condition	1	Person throwing rocks/rubbish	2	Not enough info/length track	2
				Too many/noisy people	9	Quality of Path to falls/dangerous	5

Comments on Questionnaire

Key Findings

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

Stage 1: September 2001

- The majority of comments reflected visitors' negative experiences at the Crater. The negative comments mainly focused on the ***inadequate, insufficient and poor condition of facilities, inappropriate behaviour of other visitors***, as well as ***poor condition of walking track to Dinner Falls***.
- Visitors also reported that they were disappointed about ***lack of information***, e.g., hazardous plants, native flora and fauna, distance from road.
- Visitors would like to see ***a ranger present to control the "environmental vandals"***.
- Comments that suggested improvements with the site focused on:
 - properly marked parking bays,
 - safety rails for small children,
 - need more picnic tables, bbqs,
 - need better toilets,
 - track to Dinner Falls to be paved and not so steep.
- The positive comments focused on the unique experience of the crater.

Stage 2: April 2002

- Visitors again mainly commented on the ***negative aspects*** of the site.
- ***Lack of information/signage*** was again frequently commented on including insufficient signage in relation to: directions along track and main road, hazardous plants, safety, Aboriginal significance, age of trees, rainfall patterns.
- Comments related to improvement of ***facilities*** included:
 - need wood for bbqs,
 - tables and toilets need painting
 - need composting toilets
- ***Positive comments*** were related to those ***facilities*** considered good such as sealed walking track and good shade and eating areas.

ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE**SITE : *The Crater*****SEPTEMBER 2001**

The following are additional comments made by 23 respondents (19%) who completed the questionnaire at the Crater

<u>Date</u>	<u>Comments</u>
29.09.01	The crater was a unique experience. It was hard to walk away. <i>(Australian visitor, female, 40 years).</i>
29.09.01	Why is Germany listed as an option for country of residence and not Holland? You must shame yourself for the mistake. Keep an eye on people's behaviour!!! <i>(Dutch visitor, male, 27 years).</i>
29.09.01	In reference to country of residence: does the Netherlands not exist? Or are there too little Dutch visitors? <i>(Dutch visitor, male, 60 years).</i>
29.09.01	Coming back after 28 years and the forest still being the same enhanced my enjoyment of the site. <i>(Australian visitor, female, 33 years).</i>
29.09.01	My enjoyment was detracted by the lack of a properly marked parking bay so that maximum number can park in correct spot and reduce damage to environment. <i>(Australian visitor, female, 33 years).</i>
29.09.01	Erosion of paths took away from my satisfaction in visiting The Crater. <i>(Australian visitor, male, 36 years).</i>
29.09.01	The lack of a safety rail for little children detracted from my enjoyment of the site. <i>(Australian visitor, male, 29 years).</i>
30.09.01	I loved the rainforest walk and spectacular scenery at the crater lookout; plus the platform was really lovely and attractive, and improved the lookout. <i>(Australian visitor, female, 35 years).</i>
30.09.01	Distance from major turn-off to site should be marked on all visitor signage at main road. <i>(Australian visitor, male & female, age: ?).</i>
30.09.01	I was disappointed only because the waterfall lacked enough water! <i>(New Zealand visitor, female, 50+ years).</i>
30.09.01	In terms of the overall condition of the site: the toilets could be made more upmarket. <i>(New Zealand visitor, male, age: ?).</i>
30.09.01	The presence of a ranger is very important, as there are some abusive people around: especially environment vandals. Here's hoping that the "purse strings" of the Federal Government will release funds to maintain, protect and develop such a wonderful natural resource. <i>(Australian visitor, male, 43 years).</i>
30.09.01	The fact that I had to leave my dog in the car detracted from my enjoyment of this site. <i>(Australian visitor, male, 41 years).</i>
30.09.01	From my experience I say that most people will enjoy this site and that I expected to see more birds. I will tell my friends about this place and tell them if they come anywhere around this area, I would recommend to come here. <i>(Australian visitor, female, 16 years).</i>
30.09.01	The track to Dinner Falls needs to be paved and not so steep. I also think that you could put in more picnic tables and barbecue areas. <i>(Australian visitor, female, 40 years).</i>
30.09.01	No information about stinging trees or wait-a-while – Beware! <i>(Australian visitor, female, 45 years).</i>
30.09.01	I was disappointed because I couldn't get a great photo of the crater. That's all. <i>(Australian visitor, male, 27 years).</i>

- 30.09.01 In my opinion, this area is a little over-developed: car park and road are much too close to the sightseeings - it's too easy to explore, danger of disturbance. As long as I know that a sensitive environment is cared for - even inaccessible to me – I am quite happy.
(German visitor, male, age: ?).
- 30.09.01 Drove past a road sign and turned in. I enjoyed the experience. I thought the area was clean and well-maintained.
(Australian visitor, male, 42 years).
- 30.09.01 The visitors loving the area to death detracted from my enjoyment of The Crater.
(Australian visitor, male, 55 years).
- 30.09.01 I was unable to read and learn more about the natural fauna and flora. I consider this vital and crucial to learn more and appreciate our environment. I wish there was more information about the area. Dogs should not be allowed in this area. Needs a lid on bin in toilet.
(Australian, female, age: ?).
- 30.09.01 Rocks dislodged adjacent to track that were thrown in river suggests other visitors are not being entirely environmentally responsible.
(Australian visitor, male, 35 years).

ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE**CRATER: March/April 2002**

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

<u>Date</u>	Comments
31.03.02	Question needs to be asked about access to site for wheelchairs (disabilities), older walkers, parents with push chairs etc. The Crater is extremely accessible to these people. <i>(UK visitor, female, 51 years)</i>
31.03.02	A 1 metre tall stinging tree on the edge of the road, in the parking area, not signed, posing a bad sting to anyone now knowing what the plant is. <i>(Italian - Australian visitor, male, 54 years)</i>
31.03.02	Could be enhanced by using aboriginal names and explanations etc., and fix paths. <i>(Swiss - Australian visitor, male, 50 years)</i>
31.03.02	Good shade and eating areas. Well sealed main path. Good water provision. Minor issues: No wood for barbecues, toilets and tables need to be painted, more safety signage needed at falls lookout (insurance risk high) and it is unclear if camping is allowed or not. <i>(Australian visitor, male, 52 years)</i>
01.04.02	More direction signs needed between crater and falls. <i>(Swedish visitor, female, ? years)</i>
01.04.02	Composting toilets should be installed. <i>(English – Australian visitor, female, 54 years)</i>
01.04.02	The track down the stairs from the crater does not indicate that it goes to the waterfall. More information on the rainfall patterns and where exactly the water from the waterfall originates – hasn't been raining for and while yet, water is still streaming down. More information on Aboriginal significance. <i>(Spanish – Australian visitor, male, 37 years)</i>
01.04.02	Got lost trying to find the Crater from Malanda. Better signage needed on upper Barron road. <i>(Australian visitor, female, 25 years)</i>
01.04.02	Need more clear road signage for better direction. <i>(Sri Lankan – Australian visitor, male, 34 years)</i>
01.04.02	Need better sign posts on the roads leading to the Crater, so people know they're leading in the right direction. It would also be interesting to find out the age of some of the big old trees. <i>(Australian visitor, female, 27 years)</i>

Comments to Field Assistants

The following comments were reported to the field assistants at Crater.

Details

SITE : Crater September 2001

The following are comments made by 4 visitors to the field assistants at Crater.

<u>Date</u>	<u>Comments</u>	
29.09.01	Very prolific birdlife.	(1301)
30.09.01	Dog – people take little dog and leash on walk. They asked if ranger had been. But filled out form.	(1375)
30.09.01	Will be posted, local people, keen to comment.	(1378, 1379)
30.09.01	Early 40's man (didn't know what indigenous meant)	(1415)

SITE : Crater April 2002

The following are comments made by 4 visitors to the field assistants at Crater.

<u>Date</u>	<u>Comments</u>	
01.04.02	Initially reluctant – elderly female companion descendent of discoverer of crater.	(1085)
01.04.02	Taking photos of environmental sites on Atherton/Tablelands (Atherton, Lake Barrine, Eacham, etc. for daughter's university course)	(1097, 1098)
01.04.02	German young traveller. Totally interested in reptiles and islands (they got an Easter egg from us).	(1067, 1068)
01.04.02	Ranger from Cape Tribulation.	(764)

BEHAVIOURAL EVENTS**Key Findings**

Combined Data Sets

From the behaviours recorded at the Crater in September 2001 and April 2002, the following behaviours were the most frequently observed.

- **Domestic Animals**

Despite signage stating that animals are prohibited, a dog that was not on a leash was taken on a walk through the forest.

- **Habituated/Scavenging/Feeding Wildlife**

Birds such as brush turkeys and lewin honeyeaters showed clear signs of being habituated to human presence and actual feeding was observed.

- **Prohibited Activity**

A number of visitors may well be camping at the Crater.

BEHAVIOURAL EVENTS

The following table outlines the observations of behavioural events made opportunistically by field assistants during the period of administration of surveys and counts of vehicles/visitors. Time did not allow for any detailed or systematic recording of behavioural events, nevertheless the following table provides an overview of some critical events.

Behavioural Topic	Comment : OCTOBER 2001	Comment: April 2002
Domestic Animals	30.09.01 <ul style="list-style-type: none"> • Dog (not even on leash). 	<ul style="list-style-type: none"> • N/A
Deliberate Damage to Plants	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Undesignated Area Use	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Speeding	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Risk Activity	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Aggressive Behaviour	<ul style="list-style-type: none"> • N/A 	30.03.02 <ul style="list-style-type: none"> • Loud music in car. 16.05 hrs.
Other	29.09.01 <ul style="list-style-type: none"> • Habituated lewin. 09.05 hrs. • Habituated male turkey. 09.15, 09.30 hrs. • Turkey. 13.05 hrs. 	30.03.02 <ul style="list-style-type: none"> • Vehicle already on-site at time of arrival – possibly camped overnight. 08.30 hrs. 31.03.02 <ul style="list-style-type: none"> • Camped overnight in no-camping site. • Feeding wildlife (bird on table). 01.04.02 <ul style="list-style-type: none"> • Car already on-site – possibly camped overnight. 08.35 hrs. • Threw rubbish on ground – reprimanded by friend – picked up. 15.39 hrs.

Section Two

Infrastructure Inventory and Profile



-
- Site Infrastructure Inventory
 - Site Information and Signage
-

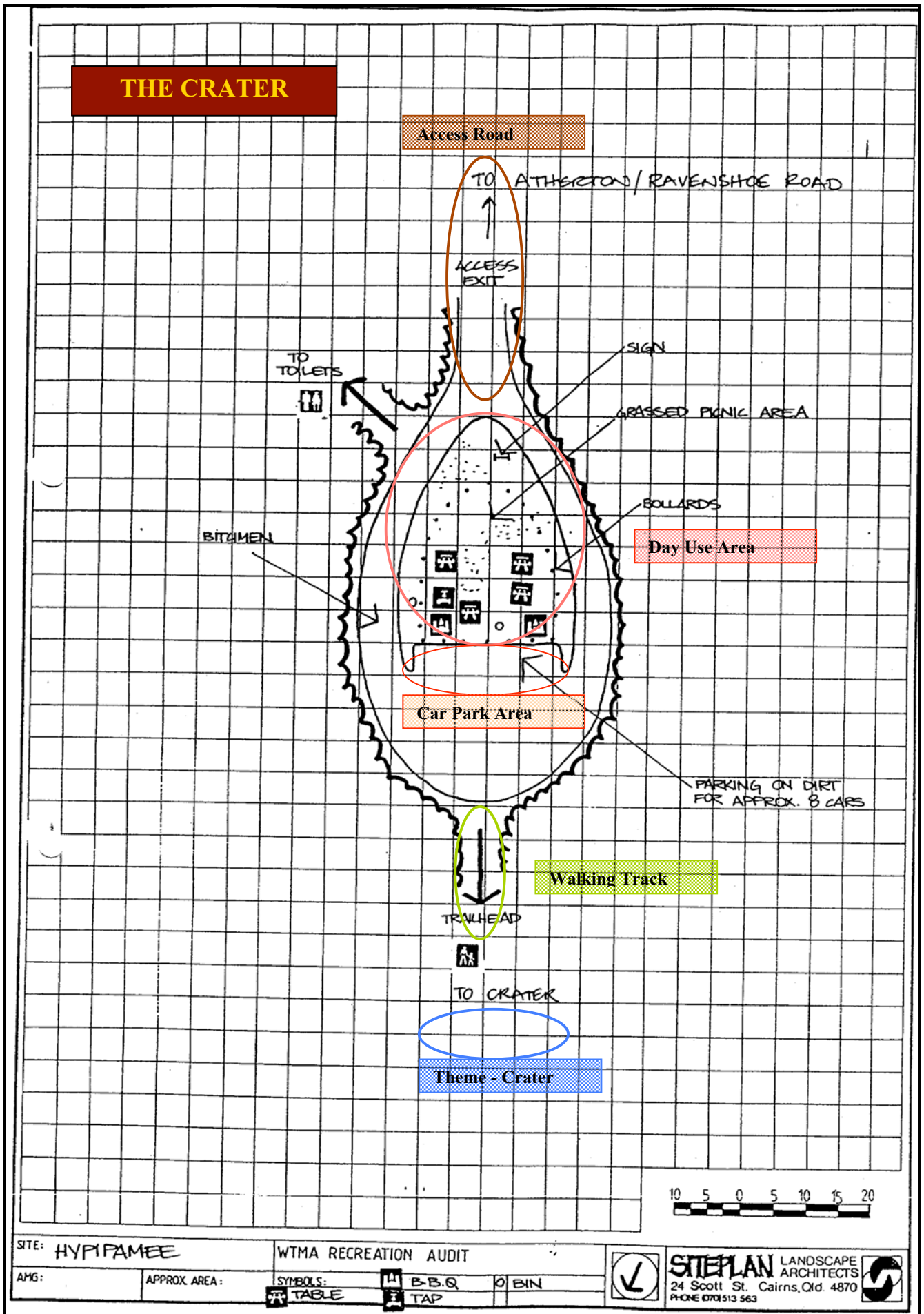


Figure 1: The Crater site map (Source: SitePlan 1993 modified to include activity nodes).

Site Infrastructure Inventory

The following table is a summary version of the inventory of features/facilities recorded by the author at the site first in 1997 (yellow shading), and again in 2002. Details of signage and facilities are presented in the following pages.

THE CRATER		Wet Tropics Site No.: 60 Dates Assessed: 18 th December 1997, and April 2002				Management Agency: EPA/QPWS				
Site Parameters		Annual vehicle/visitor # Site Access: Road Type: Road Conditions:				Vehicles = 22 428 Visitors = 78 568 Road Sealed Minor erosion / few potholes				
		Vehicles = 23,397 Visitors = 62,704 Road Sealed No erosion / no potholes								
		Car Park		Day Use Area		Walking Track to Crater		Theme – Crater Lookout Area		
Facilities / Infrastructure		1997	2002	1997	2002	1997	2002	1997	2002	
Landscaping: Signage*: Corporate Identity Visitor Orientation Visitor Advice Regulatory Interpretative Foreign Language Capacity/Description: <i>*For full signage details see Pages 54-</i>		Medium Absent Absent Absent Absent 14 x 20 m	Hard Absent Absent Absent Absent 14 x 20 m	Hard 2 2 2 2 Approx 12 seating spaces; central grassed area	Hard 2 2 2 2 Approx 12 seating spaces; central grassed area	Soft 4 Absent 2 1 Graded, bare earth, hiking trail	Hard 4 Absent 2 1 400m Bitumen, wooden track – wheel chair access	Hard Absent Absent Absent Absent Scenic & activity	Hard Absent 2 Absent 1 Scenic, wooden & steel structure	
Amenities / Utilities										
Toilets: Showers: Bins: Water: Power: Telephone: Other <i>*For full inventory see Pages 52-53</i>		Absent Absent Absent Absent Absent Absent	Absent Absent Absent Absent Absent Absent	2 septic 2 wheelie Present Absent 2 wood BBQs, 3 tables	2 septic Absent Present Absent 2 wood BBQs, 2 tables	Absent Absent Absent Absent Absent	Absent Absent Absent Absent One bench	Absent Absent Present Absent 1 seat	Absent Absent Present Absent 1 wooden sitting bench	
Appeal										
Attractiveness: Naturalness (within) Naturalness (surrounds) Nuisance insects Built environment Shade Noise (human origin):		Low High Low Low 60%	Low High Low Low 60%	Medium High Low Medium Low	Medium High Low Medium Low	Medium High Low Medium 95%	Medium High Nil Medium 95%	High High Low High 43%	High High Nil High 43%	
Biophysical										
Landform: Elevation Vegetation: Geology: Water body:		Level 950m Nil Basalt Absent	Gently inclined 950m Rainforest + grass Basalt Absent	Gently inclined 950m Rainforest & sclerophyll Basalt & granites River (Fresh)	Gently inclined 950m Rainforest & sclerophyll Basalt & granites River (Fresh)	Gently inclined 950m Rainforest & sclerophyll Basalt & granites Crater lake				
Impact Assessment										
Condition Indicators: Litter (visual impact) Litter (amount) Litter (type) Waste Management Wear on facilities Vandalism / graffiti Environmental Indicators: Soil erosion Exotic weeds Exotic ornamentals Vegetation Wildlife		Medium 6-20 items Paper, cig, bottle tops Nil Medium High Low Low Low Nil No mutilation / breakage Habituated scrub turkeys and Lewin honeyeater	Medium 15 items Paper, cig, plastic tops Nil High Low Low Low Nil No mutilat / breakage Habituated turkeys and Lewin honeyeater	Medium 6 - 20 items Paper, cig butts Bins clean Medium Low Nil Low break, med mutilat. Habituated turkeys and Lewin honeyeater	Medium 20 items Paper, cig, plastic Bins Clean High Low Medium Low Nil Low break, med mutilat. Habituated turkeys and Lewin	Low Low Paper, cig butts Nil High Nil Medium Nil Nil Medium mutilation No habituated wildlife	Low Low Paper Nil Low Nil Nil Nil Medium mutilation No habituated wildlife	Nil Nil Absent Nil Nil Nil Nil Nil No breakage, low mutilatio No habituated wildlife	Medium 20 items Paper, cig, plastic Nil Low Medium No breakage, low mutilation No habituated wildlife	
Additional Notes		<ul style="list-style-type: none"> Birds are clearly being fed. No formal parking bays. Bollards prevent cars from entering central grassed area. 				<ul style="list-style-type: none"> Birds are clearly being fed. BBQs need repair & toilets need to be improved. 		<ul style="list-style-type: none"> 7 social trails with medium - severe erosion. 		Landscaping = sealed bitumen with boardwalk Evidence of a social trail and erosion down to Dinner Falls. New facilities, no signage present.

Site Infrastructure Inventory

Details

A. Car Park

Parking Area: One parking area services both the day use area and the walking tracks. This car park is sealed and separated from the day use area by bollards. No designated parking bays are present but capacity is estimated to be maximum eight cars. Many vehicles park along the road side when car park is full. Parking becomes a concern in terms of erosion, bog holes and a cause of conflict when vehicles park haphazardly along road edge. The presence of stinging trees along the road/forest edge is also a concern given this parking situation.

B. Day Use Area

Amenities Area: Toilet block (septic) is set back into the forest. Access is via a sealed short track. These facilities are well sign posted in day use area and at beginning of track to toilet block. Disabled access is possible.

Picnic Area: There is one central grassed picnic area which is defined by the road and surrounding bollards.

Facilities	#	Type/Condition
Tables	2	Timber
Benches around table	2 x 2	Timber
BBQ	2	Cement; in poor condition; wood is collected from forest for these BBQs
Bins	2	Wheelie
Taps	2	Boggy at base of tap

C. Theme – The Crater Lookout & Walking Track

Walking Track: The majority of the walking track to the Crater Lookout Platform is sealed with one short boardwalk section across the first gully. No steps are present which allows for wheel chair access along the whole of this 400m track.

Lookout Platform Area: The platform is very well constructed from timber and steel. It is in good structural condition, however there is evidence of people climbing above/around the platform to gain a better view of the Crater. Graffiti is present along the rails and litter evident around the edges of the platform and within the Crater itself.

Facilities	#	Type/Condition
Rails	continuous	Steel verticals
Platform	1	timber
Sitting Benches	1	timber

D. Walking Track – To Dinner Falls

Walking Track: From the Crater lookout platform the walking track to Dinner Falls is unsealed, often steep, and extensively eroded along most of the length. A number of undesignated trails (shortcuts) exist along this track.

Falls Lookout Area: The lookout area is small (2 people), unsealed, slippery, and enclosed with two horizontal steel rails.

A. Parking Area



Car Park

D. Walking Track – Dinner Falls



Dinner Falls Lookout Area

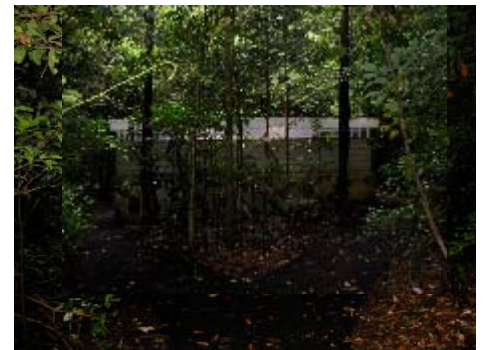
B. Day Use Area



Picnic Tables, BBQs, Tap and Bins



Detail: Tap and BBQ

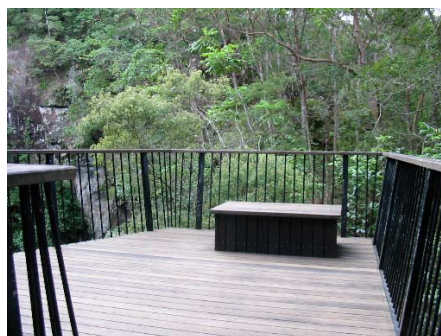


Toilet Block

C. Theme – The Crater Lookout/Platform



Sealed Track to Crater lookout



Crater Lookout Platform and Bench



Boardwalk to Lookout Platform

Note: Details of signage next section.

Site Information and Signage

The information and signage for the six key nodes of the site (main and access roads, day use/picnic area, walking track to Crater and Dinner Falls, and Theme - the Crater activity area) has been 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 frequency of information according to these categories and within each of the activity nodes.

Key Findings

- A total of **22 sign structures** containing **36 information types** relevant to the Crater have been recorded along the main road, access road and at the Crater site itself (Table 1). Number of sign structures represents a **20% increase** in signage from the original sign audit undertaken in April 1993, assuming this was a complete sign audit (SitePlan, 1993).
- While most of these signs (41.7%) are for the purpose of **visitor orientation**, none include a map of the site.
- *Visitor advice* is mainly in the form of symbols.
- The **interpretive** signage present focuses on **ecological and geological information** and is located along the walking track to the Crater Lookout Platform and at the platform.
- Surprisingly only **two corporate identity** signs are present and they are along the main road.
- No **foreign language** signage is present at this site.

Table 1: Nature and number of signs at The Crater.

Sign Category	Main Road (Kennedy H'way)	Access Road (short sealed)	Day Use /Picnic Area	Walking Track – Crater Lookout	Walking Track – Dinner Falls	Theme –Crater Lookout Platform	TOTAL
Interpretive				3		1	4 (3)
Visitor orientation	6	1	3	5			15 (12)
Visitor advice		6			2	2	10 (5)
Regulatory		3	2				5 (3)
Corporate Identity	2						2 (1)
TOTAL Information Types	8	10	5	8	2	3	36
# Sign Structures	5	2	4	6	2	3	22
<i>SitePlan 93</i>							(24)

Comparative Data Set

SitePlan undertook an audit of signage at the Crater in April 1993. Information from this audit has been included in the above table (*italics and parenthesis*) for comparative purposes.

Main Road (Kennedy Highway)

Visitor Orientation Signs (6)



Kennedy Highway - One along the north and south entrance



Kennedy Highway/Access Road Entrance

Corporate Identity (2)



Kennedy Highway: One along the north and south entrance

Access Road (short sealed road)

Visitor Orientation Sign (1)



Visitor Orientation (1), Advice (5), regulations (3)



Day Use/Picnic Area Signage

Visitor Orientation Signs (3)

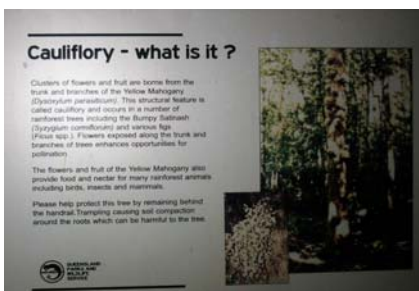


Regulatory Signs (2)

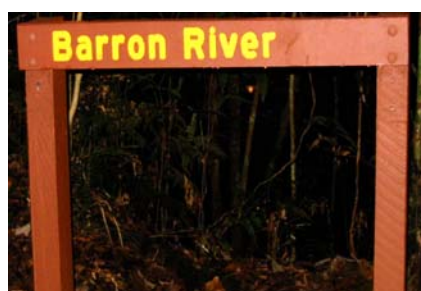


Walking Track

Interpretive Signs (3 Ecological)



Visitor Orientation Signs (5)



Visitor Advice Signs (2)



Theme – Crater Activity Area

Interpretive Signs (1 Ecological)



Visitor Advice (2)



Section Three

Vehicle and Visitor Monitoring



S E C T I O N T H R E E

-
- Vehicle and Visitor Records
 - Traffic Counter Data
-

Vehicle and Visitor Records: *The Crater*

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

	Visitors					Vehicles				
	Major Type	# in 8hrs	# per vehicle	Highest # at one time	Time: hours	Major Type	# in 8hrs	Highest # at one time	Time : hours	Average Length of Stay
29 Sept 2001	Couples 42%	233	3.28	60	1600	Cars 74%	71	15	1600	50 mins
30 Sept		203	2.64	48	1215		77	15	1600	57 mins
31 March 2002	Couples 44%	329	2.63	77	1200	Cars 66%	125	30	1200	53 mins
1 April		333	2.75	78	1420		121	28	1400	58 mins

Traffic Counter Data: *The Crater*

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	62,704					23,397		
Monthly	5,173	8,597	July 2002	2,281	February 2002	1,931	3,208	851
Weekly	1,206	2,289	July 2002 Week 1	507	February 2002 Week 2	450	854	189
Daily : Weekdays	161	356	1 st April 2002	38	4 th March 2002	60	133	14
Daily: Weekends	201	404	20 th July 2002	64	24 th March 2002	75	151	24

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 (29th & 30th September 2001) and Stage 2 (31st March & 1st April 2002). This is the first time this type of data has been collected at the Crater and so previous data is unavailable for comparative purposes.

Stage 1: 29th and 30th September 2001

Pattern of access to and use of the Crater :

Figure 1

General

- **Vehicle Type:** The majority of vehicles using the site over the two days of observation were *cars* (74%). There were *no commercial coaches/buses* using the Crater during this period.
- **Visitor Category:** The Crater appears to be favoured by *independent visitors* with couples (two people) making up the major visitor category over these two days (42.4%).

Day 1 (29th September 2001 - Saturday)

- A total of **233 people** in **71 vehicles** visited the Crater during this eight hour observation period.
- There were **two distinct peaks** in visitor numbers around **1330 and 1600 hours**;
- The highest number of visitors at the site at any one time was **60 at 1600 hours**. At 1330 hours visitor numbers were 42. Visitor numbers remained at around 10 and above from 0900 and 1700 hours.
- The highest number of vehicles at the site at any one time was **15 at 1600 hours**. For most of the day number of vehicles at the site remained below 10.

Day 2 (30th September 2001 - Sunday)

- A total of **203 people** in **77 vehicles** visited the Crater during this eight hour observation period.
- There was **one distinct peak** in vehicle and visitor numbers **between 1130 and 1200 hours**, followed by three smaller peaks at 1345, 1445 and 1530.
- The highest number of visitors at the site at any one time was **48 at 1215 hours**. For most of the day the number of visitors at the site at any one time remained above ten. Between 1100 and 1530 hours this increased to above 20.
- The highest number of vehicles at the site at any one time was **15 at 1600 hours**. For most of the day number of vehicles at the site remained below 10.

Length of Stay:

Figures 2 and 3

- While there were fewer vehicles observed at the site on Day 1 (71 vehicles) than on Day 2 (77 vehicles), there were more people (233 visitors Day 1, 203 visitors Day 2).
- The average length of stay was **50 minutes** on Day 1, and **57 minutes** on Day 2.
- On Day 1, 28% of the vehicles stayed longer than one hour. On Day 2 this had increased to 48%.

VEHICLE AND VISITOR COUNT DATA: THE CRATER

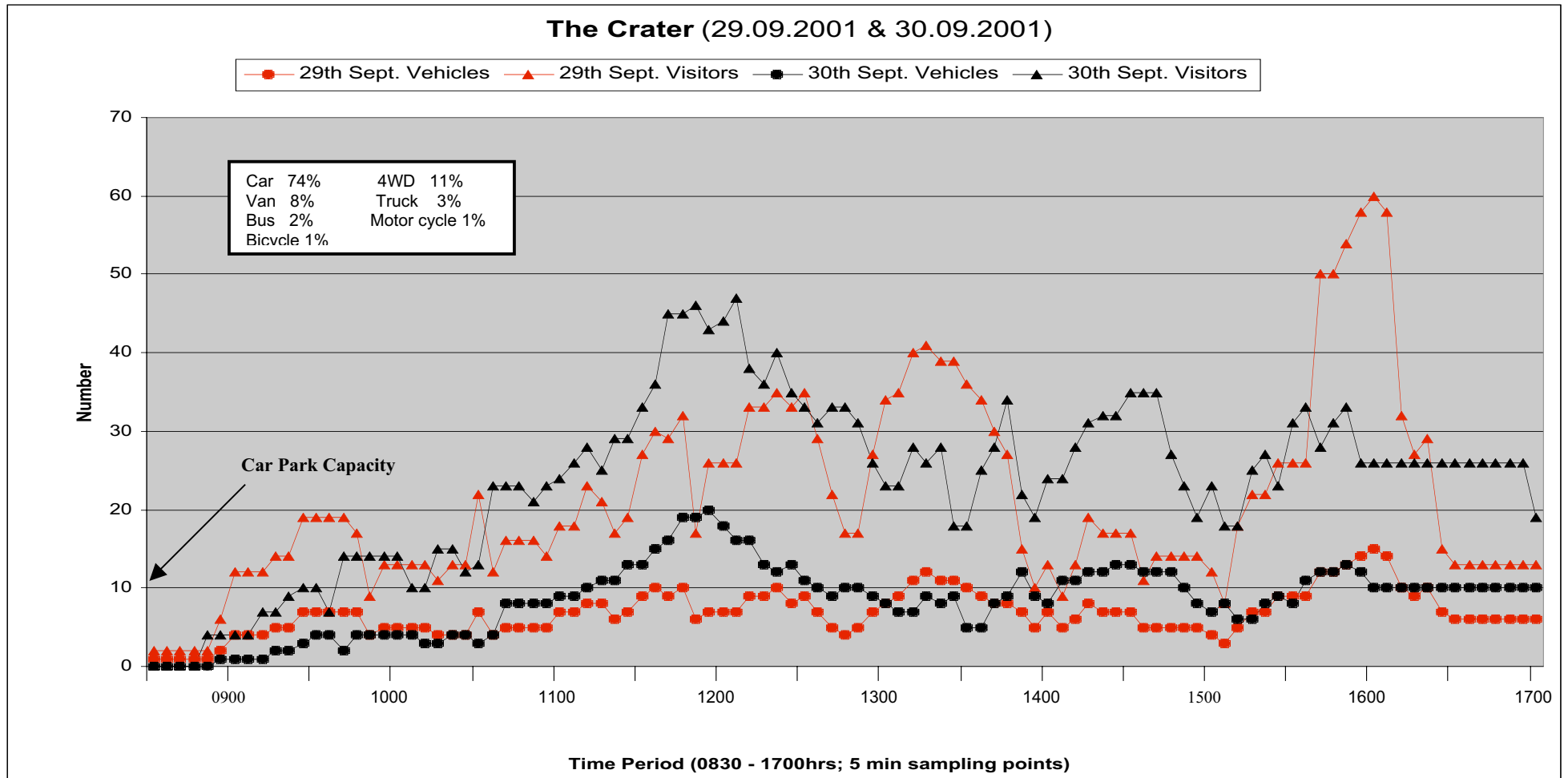


Figure 1: Records for Vehicles and Visitors over two eight hour periods.

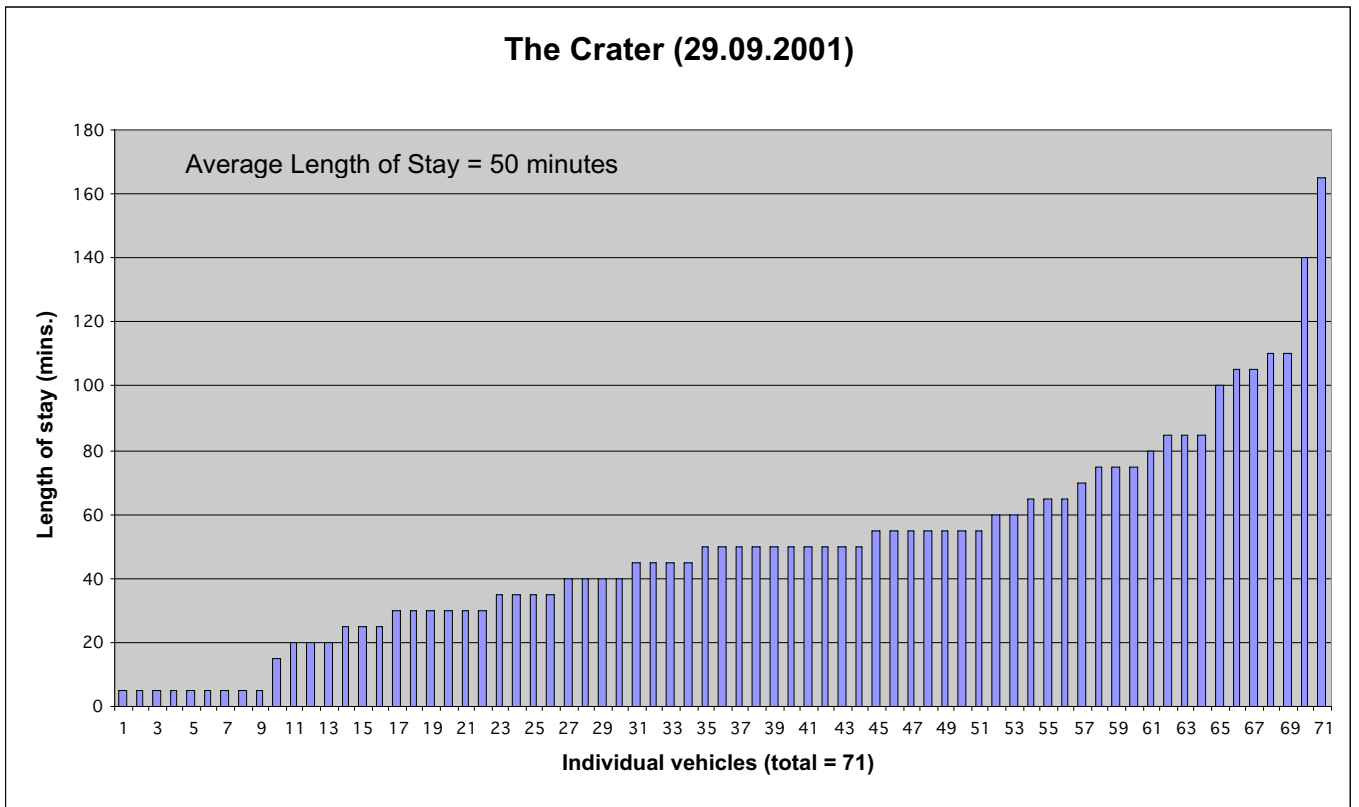


Figure 2: Length of stay of each vehicle at The Crater on Day 1 – 29.09.2001.

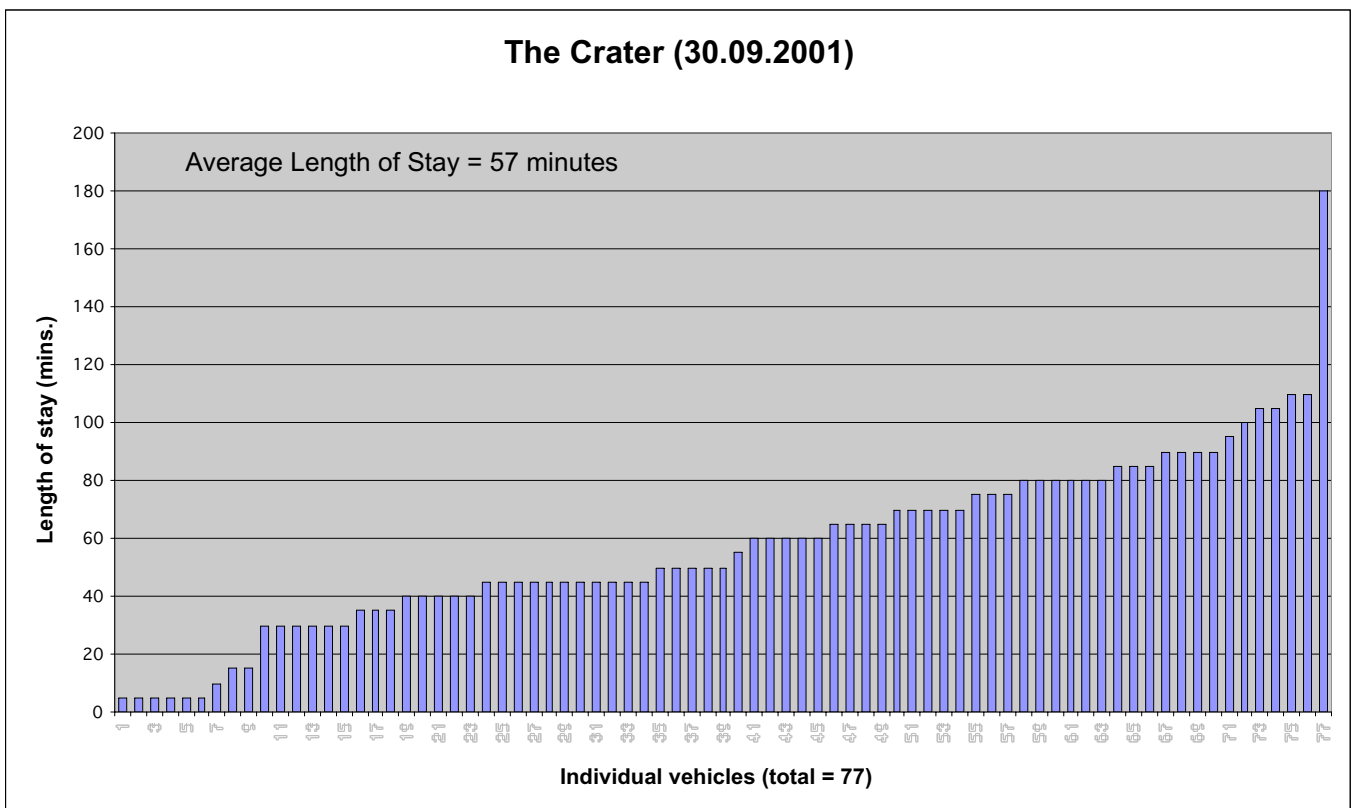


Figure 3: Length of stay of each vehicle at The Crater on Day 2 – 30.09.2001.

Vehicle and Visitor Records

Key Findings

Stage 2: 31st March and 1st April 2002

Pattern of access to and use of the Crater :

Figure 4

General

- **Vehicle Type:** The majority of vehicles using the site over the two days of observation were *cars (66%)*. There were *no commercial coaches/buses* using the Crater during this period.
- **Visitor Category:** The Crater appears to be favoured by *independent visitors* with couples (two people) making up the major visitor category over these two days (44.3%).
- Vehicle and visitor numbers were similar on both days (Day 1 = 125 vehicles/329 visitors; Day 2 = 121 vehicles/333 visitors).

Day 1 (31st March 2002 - Saturday)

- A total of *329 people* in *125 vehicles* visited the Crater during this eight hour observation period.
- There was one *distinct peak* in vehicle and visitor numbers around *1330 and 1200 hours*;
- The highest number of visitors at the site at any one time was *77 at 1200 hours*. Visitor numbers declined after midday but remained *above 30 from 1015 hours through till 1600 hours*.
- The highest number of vehicles at the site at any one time was *30 at 1200 hours*.

Day 2 (1st April 2002 - Sunday)

- A total of *333 people* in *121 vehicles* visited the Crater during this eight hour observation period.
- There were six *distinct peaks* in vehicle and visitor numbers *between 1215 and 1515 hours*, - 1215, 1315, 1400, 1415, 1500, and 1515hours.
- The highest number of visitors at the site at any one time was *78 at 1420hours*.
- For most of the day the number of visitors at the site at any one time remained above 30. Between 1130 and 1530 hours this increased to above 40.
- The highest number of vehicles at the site at any one time was *28 at 1400 hours*.

Length of Stay:

Figures 5 and 6

- While there were more vehicles observed at the site on Day 1 (125vehicles) than on Day 2 (121vehicles), there were slightly fewer people (329 visitors Day 1, 333 visitors Day 2).
- The average length of stay was *53 minutes* on Day 1, and *58 minutes* on Day 2.
- On Day 1, 30% of the vehicles stayed longer than one hour. On Day 2 this had increased to 40%.

VEHICLE AND VISITOR COUNT DATA: THE CRATER

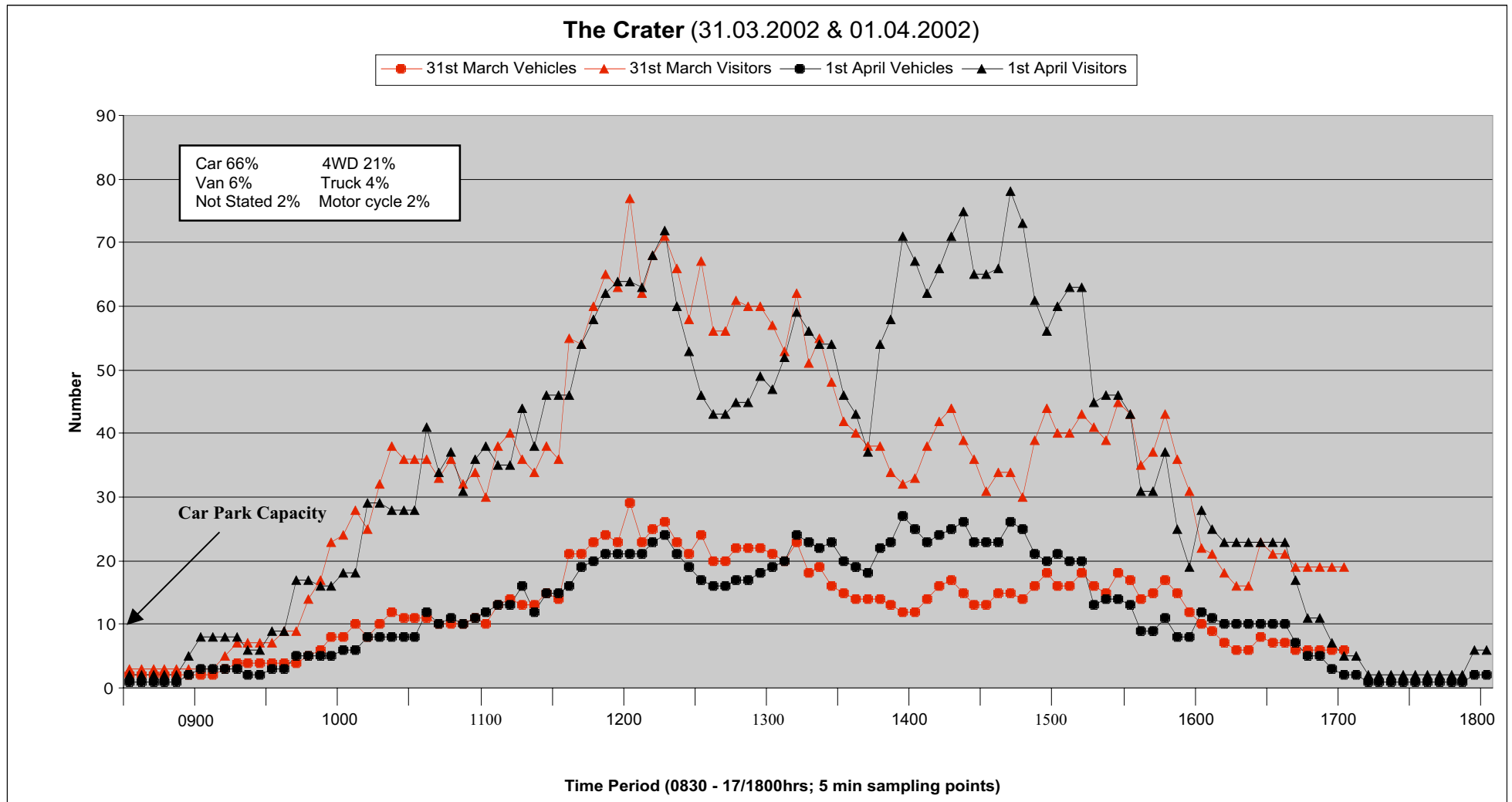


Figure 4: Records for Vehicles and Visitors at the Crater over two eight hour periods.

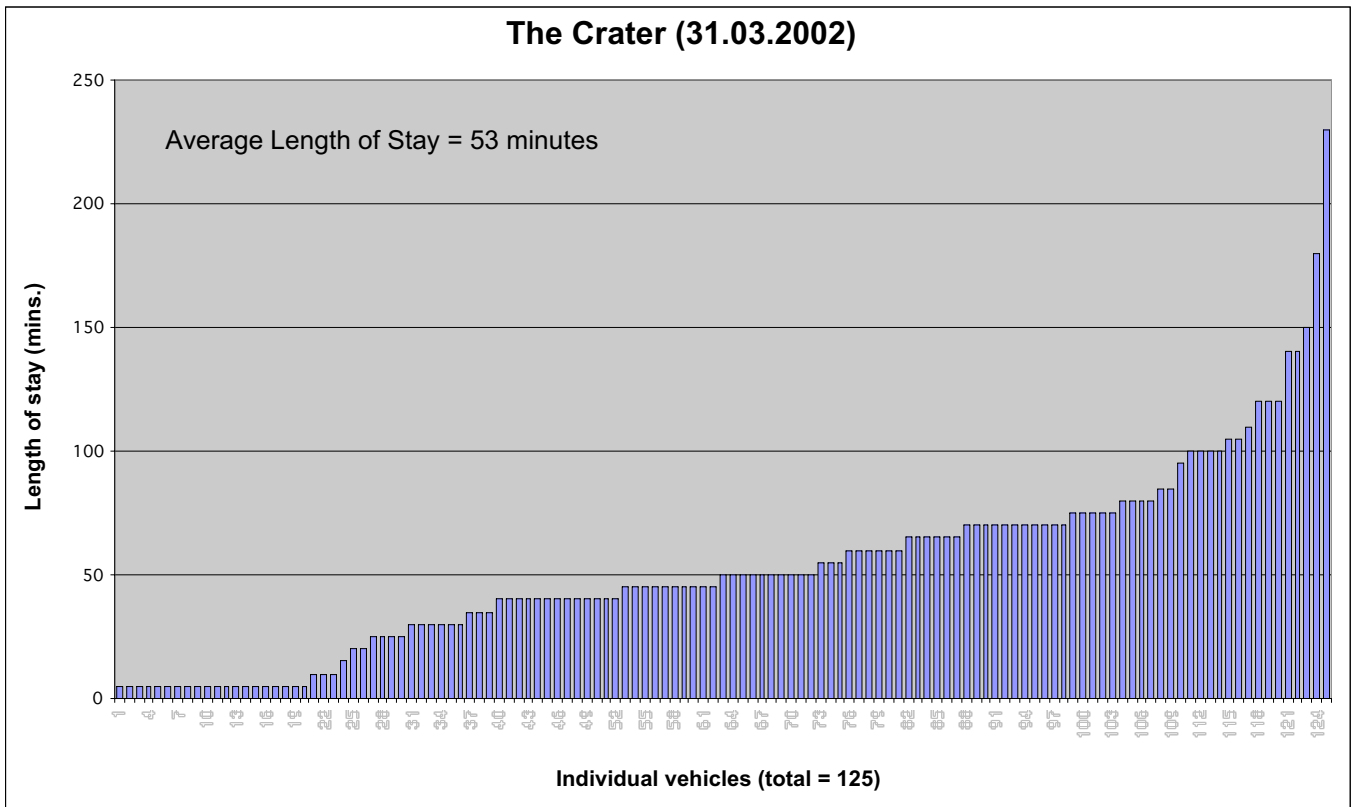


Figure 5: Length of stay of each vehicle at The Crater on Day 1 – 31.03.2002.

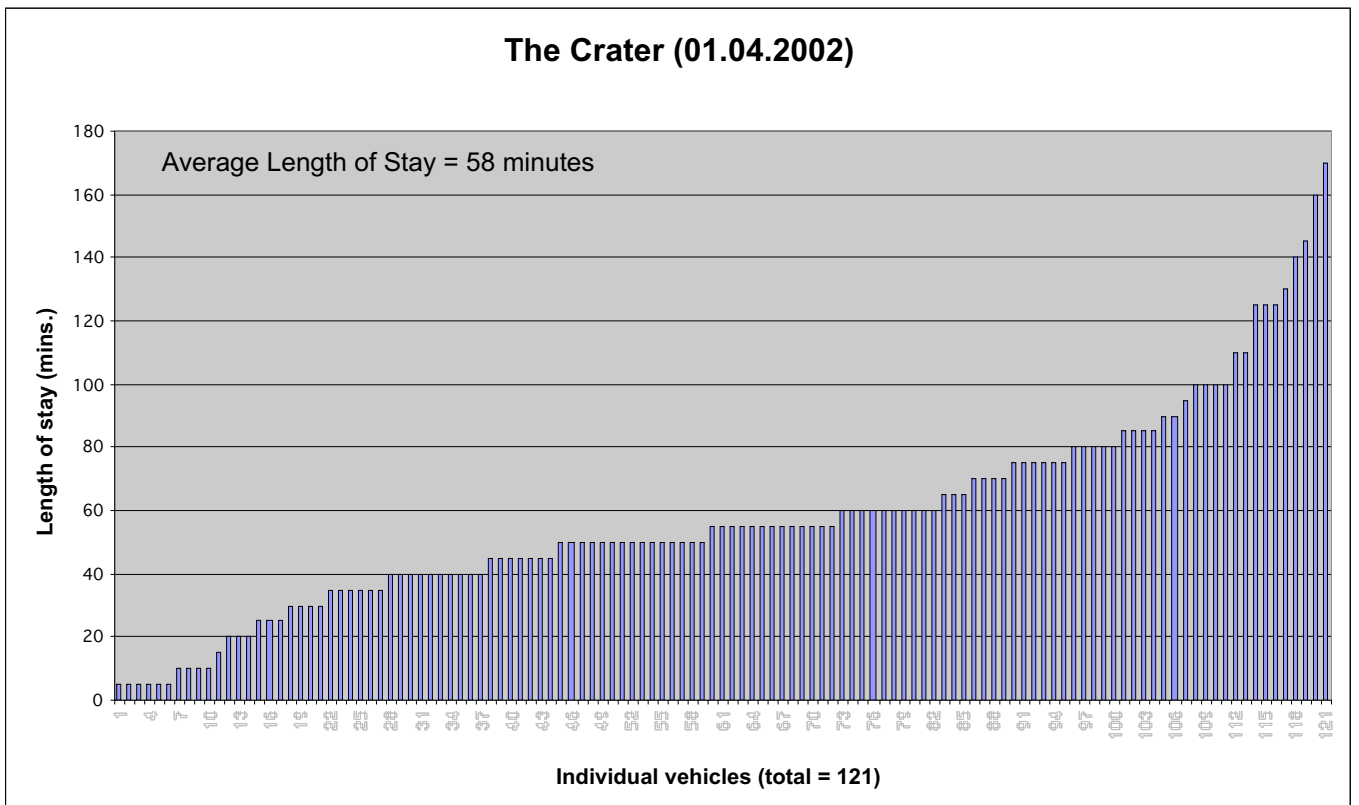


Figure 6: Length of stay of each vehicle at The Crater on Day 2 – 01.04.2002.

Traffic Counter Data

Key Findings

The traffic counter was installed at the Crater for 12 months (September 2001 – September 2002). The following key findings have been established from this data set.

Yearly Estimates = 23,397 vehicles and 62,704 visitors

Monthly Records:

Figure 7

- On average **1931 vehicles** (range = 851 – 3,208) and **5,173 people** (range = 2,281 – 8,597) visited the Crater each month.
- **October 2001 and June, July, August 2002** received the **highest** visitation rates during which months vehicle numbers exceeded 2,200. Even though the numbers for October and August were higher due to these being five week months, they nevertheless were, on average, representative of the busiest period.

Weekly Records:

Figure 8

- On average **450 vehicles** (range = 189 – 854) and **1,206 people** (range = 507 – 2,289) visit the Crater each week.
- There was one discernible period of increased vehicular traffic levels recorded during sampling: July (week 1)
- The highest number of vehicles and visitors was in **July 2002, Week 1**, during which week **854 vehicles and 2289 visitors** used this site.

Daily Records:

Figure 9 and Table 1

- On average, **64 vehicles** (range = 14 – 151) and **172 people** (range = 38– 404) visit the Crater each day. **Average weekday use = 60 vehicles per day;**
- Weekends are slightly busier than weekdays with Sunday recording, on average, 77 vehicles (range 24 – 151), and 207 people (highest number = 404 people on 20th July 2002). **Average weekend use = 75 vehicles per day.**

Comparative Traffic Counter Data

A. Estimated visitor use at the Crater 1992/93: (Source: Manidis Roberts 1993/94)

- vehicles = 24,868; people = 67,145 (calculated on 2.7 people per vehicle)
- Average weekend use = 57.4 vehicles
- Average weekday use = 35.1 vehicles

B. Estimated visitor use at the Crater 1998: (Source: Bentrupperbäumer & Reser 2000)

- vehicles = 22,428; people = 78,568 (calculated on 3.5 people per vehicle)

TRAFFIC COUNTER/METRO COUNT DATA: THE CRATER

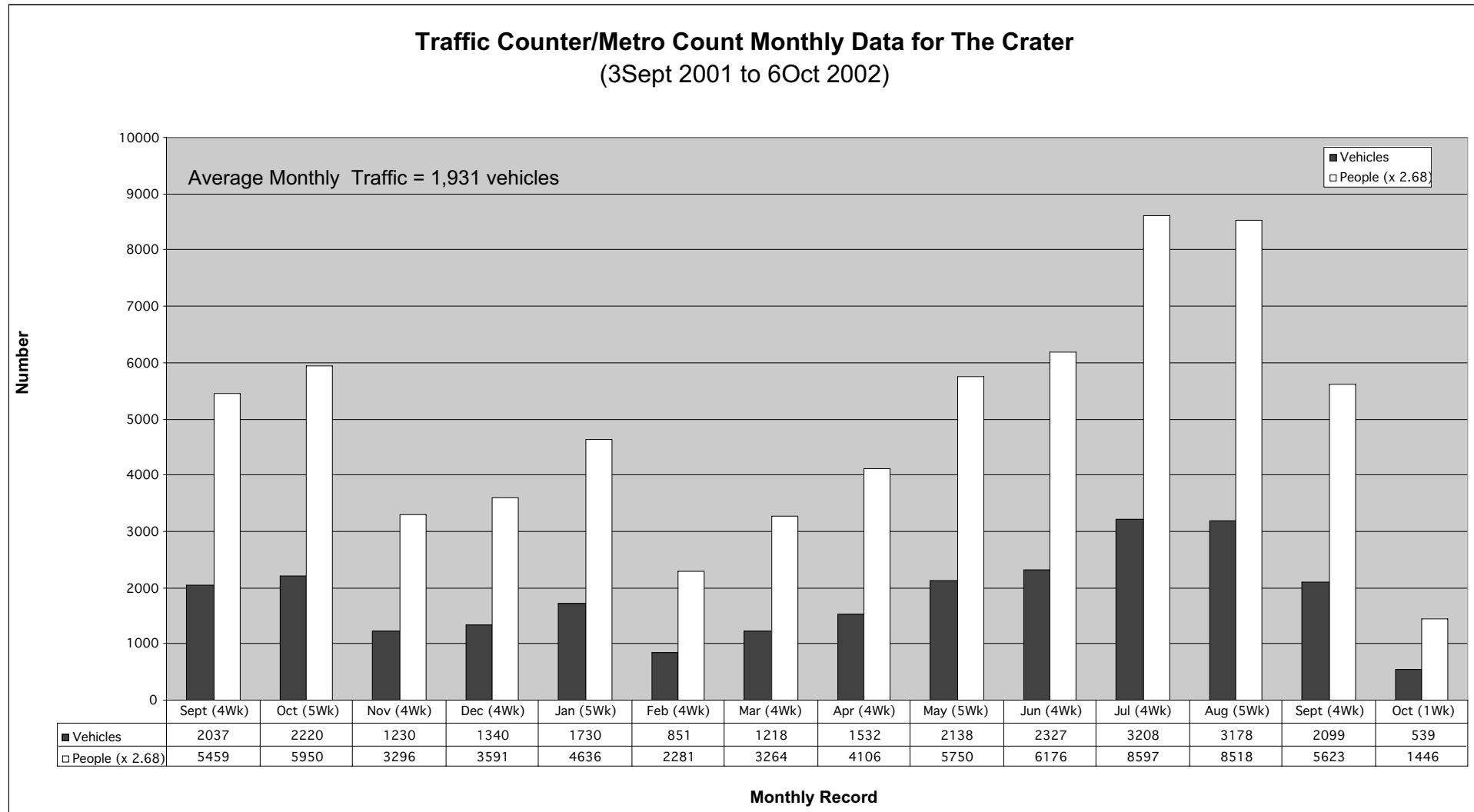


Figure 7: Monthly Records for Vehicles and Visitors at the Crater.

TRAFFIC COUNTER/METRO COUNT DATA: THE CRATER

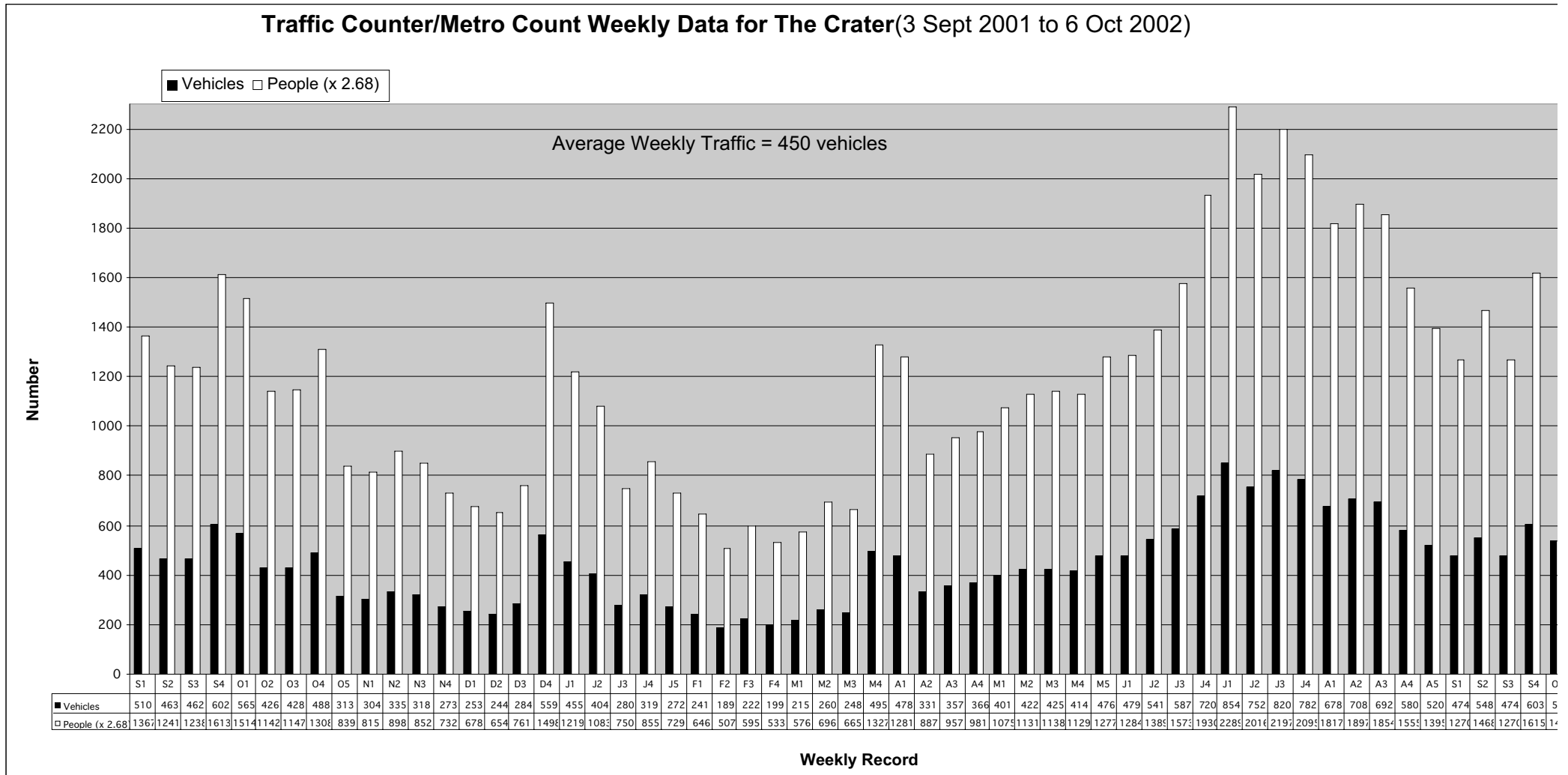


Figure 8: Weekly Records for Vehicles and Visitors at the Crater.

TRAFFIC COUNTER/METRO COUNT DATA FOR THE CRATER

Table 1: Daily Records of Vehicles and Visitors.

SEPTEMBER 2001														
Data that are highlighted in yellow are the daily averages for this month. Traffic counter 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	73	196	70	188	71	190	73	196	68	182	74	198	81	217
Wk 2 10-16Sept	71	190	70	188	54	145	77	206	58	155	63	169	71	190
Wk 3 17-23Sept	78	209	66	177	58	155	41	110	64	172	77	206	79	212
*Wk 4 24-30Sept	71	190	74	198	101	271	100	268	82	220	83	222	93	249
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	76	204	88	236	70	188	75	201	74	198	95	255	89	239
Wk 2 8-14Oct	74	198	65	174	51	137	40	107	62	166	68	182	68	182
Wk 3 15-21Oct	58	155	54	145	71	190	52	139	45	121	59	158	91	244
Wk 4 22-28Oct	57	153	73	196	84	225	61	163	48	129	90	241	76	204
Wk 5 29-4 Nov	49	131	47	126	39	105	37	99	48	129	54	145	41	110
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	42	113	37	99	46	123	41	110	44	118	37	99	58	155
Wk 2 12-18Nov	32	86	34	91	38	102	53	142	53	142	77	206	50	134
Wk 3 19-25Nov	33	88	45	121	37	99	38	102	45	121	50	134	71	190
Wk 4 26-2Dec	34	91	50	134	52	139	34	91	28	75	27	72	49	131
DECEMBER 2001 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	29	78	31	83	31	83	34	91	30	80	44	118	55	147
Wk 2 10-16Dec	34	91	32	86	31	83	39	105	30	80	38	102	41	110
*Wk 3 17-23Dec	41	110	36	96	40	107	25	67	36	96	42	113	66	177
*Wk 4 24-30Dec	38	102	39	105	103	276	108	289	78	209	88	236	106	284

JANUARY 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 31Dec-6Jan	52	139	80	214	72	193	68	182	62	166	53	142	69	185
*Wk 2 7-13Jan	71	190	53	142	45	121	50	134	59	158	57	153	70	188
*Wk 3 14-20Jan	38	102	35	94	53	142	49	131	31	83	36	96	40	107
*Wk 4 21-27Jan	31	83	53	142	36	96	31	83	30	80	53	142	87	233
Wk 5 28Jan-3Feb	71	190	28	75	21	56	23	62	25	67	50	134	54	145
FEBRUARY 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 4-10Feb	27	72	29	78	30	80	31	83	34	91	40	107	51	137
Wk 2 11-17Feb	31	83	33	88	17	46	22	59	22	59	27	72	39	105
Wk 3 18-24Feb	23	62	26	70	22	59	26	70	30	80	44	118	52	139
Wk 4 25-3Mar	27	72	15	40	21	56	20	54	33	88	41	110	42	113
MARCH 2002 Data that are 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 4-10Mar	14	38	25	67	26	70	33	88	33	88	43	115	42	113
Wk 2 11-17Mar	20	54	31	83	31	83	24	64	31	83	74	198	49	131
Wk 3 18-24Mar	38	102	39	105	30	80	41	110	33	88	44	118	24	64
Wk 4 25-31Mar	28	75	45	121	49	131	23	62	83	222	135	362	133	356
APRIL 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 1-7Apr	133	356	58	155	62	166	43	115	59	158	66	177	58	155
Wk 2 8-14Apr	44	118	50	134	31	83	49	131	37	99	66	177	54	145
Wk 3 15-21Apr	41	110	41	110	44	118	48	129	46	123	56	150	81	217
Wk 4 22-28Apr	50	134	45	121	41	110	55	147	49	131	62	166	65	174

MAY 2002														
Data that are 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 29-5May	53	142	52	139	41	110	50	134	44	118	74	198	88	236
Wk 2 6-12May	78	209	40	107	72	193	45	121	48	129	61	163	78	209
Wk 3 13-19May	58	155	65	174	42	113	56	150	55	147	84	225	65	174
Wk 4 20-26May	52	139	55	147	59	158	61	163	51	158	68	182	68	182
Wk 5 27-2Jun	52	139	64	172	70	188	54	145	60	161	84	225	92	247
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 3-9Jun	48	129	67	180	57	153	55	147	50	134	90	241	112	300
Wk 2 10-16Jun	81	217	86	230	80	214	65	174	63	169	88	236	78	209
Wk 3 17-23Jun	60	161	80	214	76	204	86	230	78	209	92	247	115	308
*Wk 4 24-30Jun	70	188	80	214	96	257	117	314	106	284	126	338	125	335
JULY 2002														
Data that are 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 1-7Jul	132	354	127	340	125 Tsv	335	107	287	104	279	125	335	134	359
Wk 2 8-14Jul	109	292	98	263	108	289	79	212	103	276	107	287	148	397
Wk 3 15-21Jul	104	279	117	314	96	257	103	276	112 Cns	300	151	404	137	367
Wk 4 22-28Jul	110	295	102	273	90	241	116	311	109	292	115	308	140	375
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	89	239	97	260	103	276	86	230	90	241	93	249	123	322
Wk 2 05-11Aug	117	314	94	252	96	257	99	265	92	247	105	281	105	281
Wk 3 12-18Aug	95	255	90	241	94	252	78	209	96	257	124	332	115	308
Wk 4 19-25Aug	85	228	88	236	77	206	90	241	73	196	100	268	67	180
Wk 5 26-01Sep	75	201	75	201	76	204	79	212	64	172	72	193	79	212

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	50	134	59	158	80	214	53	142	64	172	74	198	94	252
Wk 2 09-15Sep	77	206	81	217	74	198	63	169	81	217	105	281	67	180
Wk 3 16-22Sep	63	169	69	185	77	206	68	182	52	139	72	193	73	196
*Wk 4 23-29Sep	80	214	91	244	77	206	75	228	84	225	86	230	100	268

OCTOBER 2002 Data highlighted in green are the daily averages for the overall 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	74	198	79	212	71	190	78	209	87	233	73	197	77	207

AVERAGES	60	161	60	162	60	161	58	156	59	158	73	197	77	207
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Note: *These dates indicate school holidays.

People estimates are based on vehicle numbers x 2.68, the average number of people in vehicles established from questionnaire, item # 8. Data that are highlighted are not included in the overall averages.

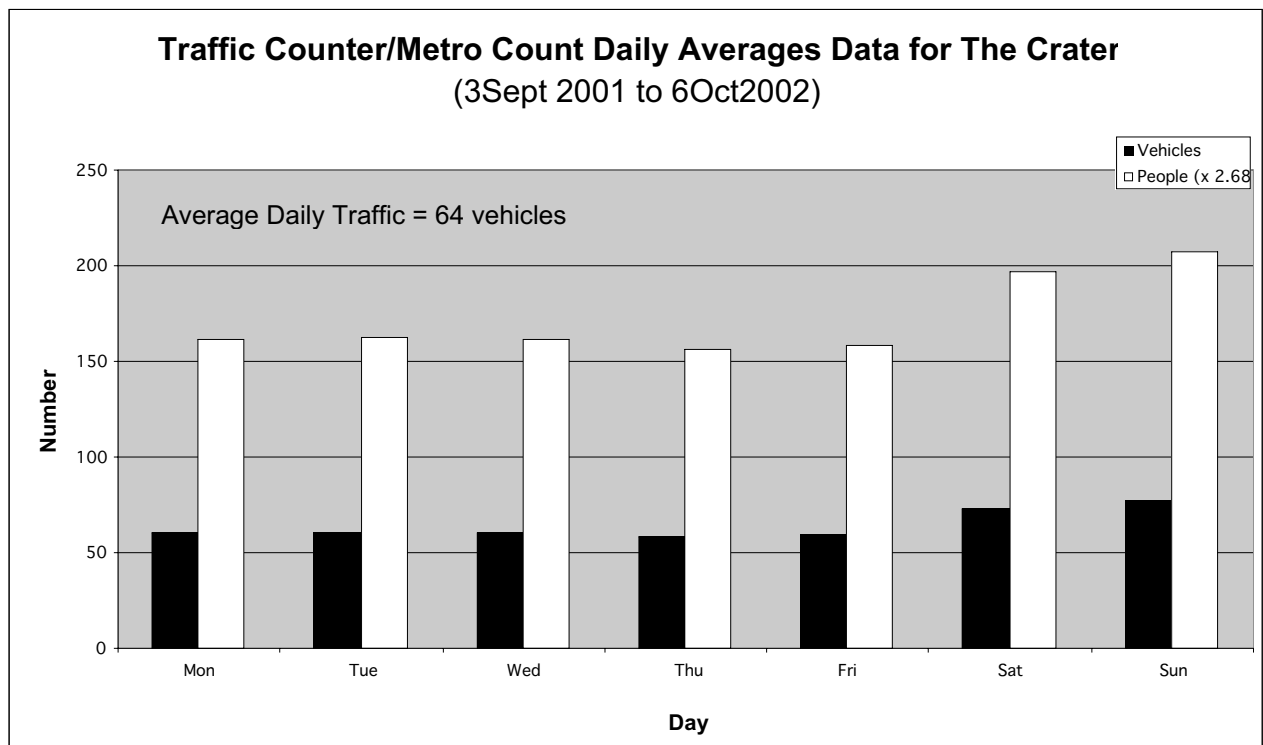


Figure 9: Average daily vehicle and visitor numbers for The Crater.

Comparative Traffic Counter Data : Crater

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

Figure 10: Monthly visitor estimates established since 1994

- 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;
- Visitor estimates for 2001-2002 period have been based on 2.7 people per vehicle as established by this study;
- Visitor estimates were the highest for 1998;
- Visitor estimates for this study period, 2001-2002, were similar to 1998 and 1994;
- Consistently, monthly visitor estimates through the mid year period are the highest – June, July, August.

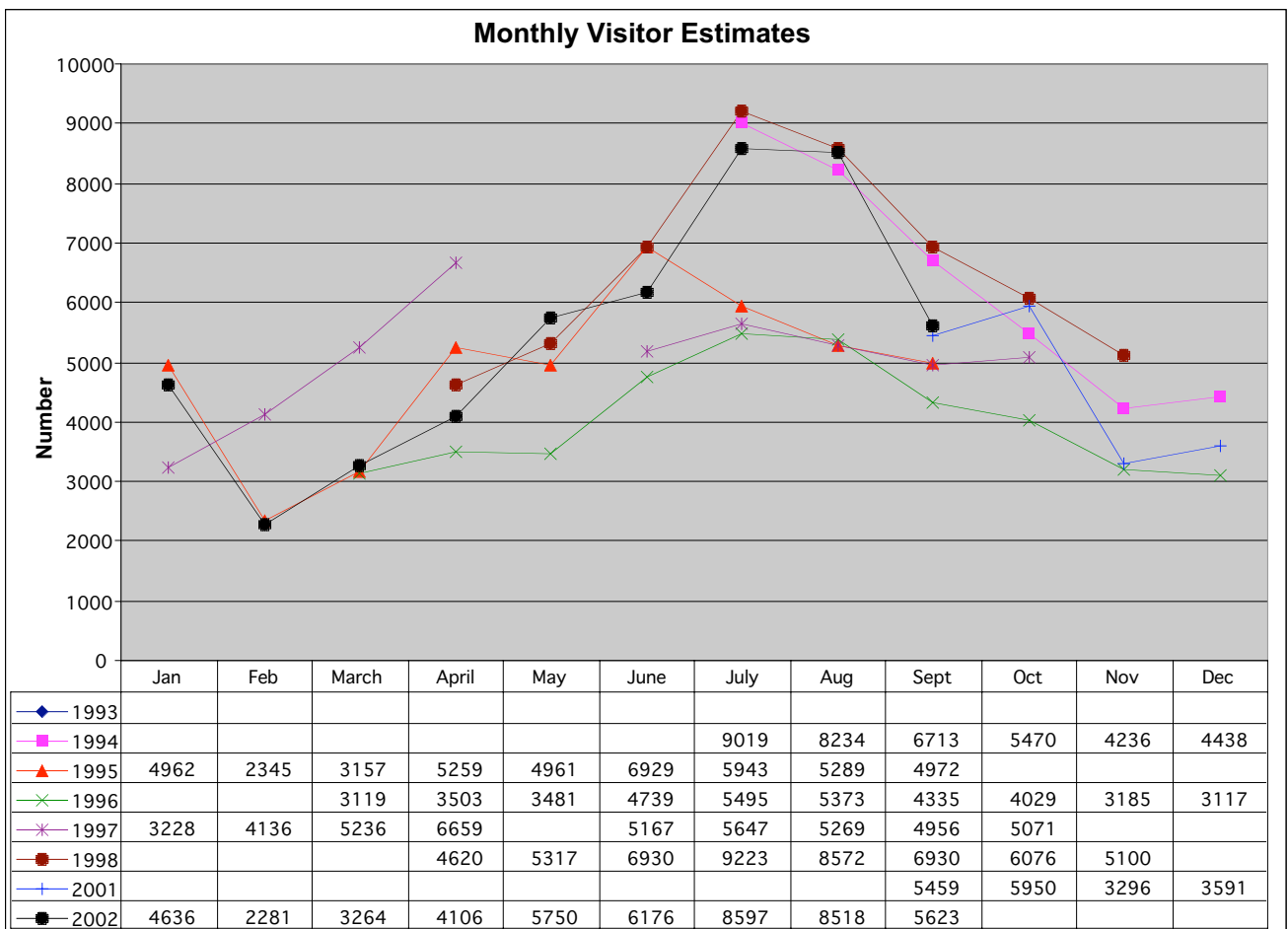


Figure 10: Monthly visitor estimates for the Crater established from WTMA traffic counter data 1994 – 1997, Bentrupperbäumer 1998 study, and this study, 2001-2002.

Section Four

Management Considerations



-
- Presentation
 - Opportunities
 - Specific Problems & Issues
-

Presentation

- **Significance** *WHA Status, 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*
-

*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, pg.4).

Presentation in the context of a World Heritage property and with respect to Wet Tropics World Heritage Area (WTWHA) visitor sites encompasses the significance and meaning of World Heritage status, the nature of the natural and cultural attributes as ‘heritage values’ for which an area has been listed, 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 a World Heritage management authority.

● **Significance:** *WHA Status, Natural and Cultural Attributes*

WHA Status The presentation of the Crater as a WTWHA site appears to be problematic. It is of concern that approximately 70 percent of respondents were not aware that the Crater had any special significance, and only 14 percent of respondents appeared to be aware that this site was a part of the WTWHA (Section 1 Visitor Survey pgs 34-35). This is especially noteworthy in that 80.1 percent of visitors surveyed were Australian, and 63.6 percent of these Australian visitors were local residents (Section 1 Visitor Survey pg 20-21), who would be expected to be knowledgeable about the status of this area. However, it is important to note that signs specifically identifying the Crater as a WTWHA site are not present at the site nor along the access road (Section 2 Site Inventory pgs 60-61). Signs along the main road, the Kennedy Highway, rely on the new *Australia’s Tropical Rainforests World Heritage* logo as a means of identifying the Crater as a World Heritage Area. However, due to a general lack of community/public awareness of the recently changed agency logo (6.8%, Bentrupperbaumer & Reser, 2002b), it is doubtful that this is yet an effective way of communicating the World Heritage significance of the Crater.

Natural and Cultural Attributes A principal aspect of presentation of a WTWHA site is natural and cultural heritage interpretation. There is an absence of indigenous cultural heritage information at the Crater despite the strong cultural history of the Ngadjon-jii tribe who identify the Crater as a culturally significant site (DNRM, 2001; Huxley 1998). Additionally, it is reported that members of the Ngadjon-jii tribe are now starting to have some involvement in the management and maintenance of the district around the Crater (Review Steering Committee, 1998). Complementing these two cultural aspects is the finding that when visitors were asked what additional information they would like to see presented at the Crater, cultural and historical information were frequently requested (Section 1 Visitor Survey pg 39). Therefore, the requests for cultural and historical information by visitors, together with the historic and present involvement of the Ngadjo-jii tribe with the site, should provide a foundation and context for the presentation of such information, which would be of interest to many visitors. All four of the interpretive signs at the Crater provided information on the ecological aspects of the site (Section 2 Sign Inventory pgs 52-55). The presentation of this information was positively assessed by many visitors and was considered to have enhanced their visit to the Crater (Section 1 Visitor Survey pgs 31 & 39). However, visitors commented that they would like more geological-historical information as well as some information on the wildlife and vegetation aspects of the site (Section 1 Visitor Survey pg 39).

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

Identity & Presence A related presentation issue was level of visitor and other user awareness of the management agency (ies) responsible for management of the site. It is a concern that 63 percent of visitors did not appear to know who the management agency responsible for the Crater was (Section 1 Visitor Survey pg 34-35). This is noteworthy given that this site attracts repeat visits from both local and domestic Australian visitors (Section 1 pg 22-23). 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 Generally visitors and other users appear to be moderately impressed with the overall management of the Crater as indicated by direct and indirect item responses relating to their appraisal of the condition and management of the natural environments (Section 1 Visitor Survey pgs 26-27; 32-33). Appraisal of the built environment on the other hand was less favourable (Section 1 Visitor Survey pgs 32-33). Visitors identified many aspects of the built environment that detracted from their experience of the setting including the toilet and parking facilities, rubbish bins, Dinner Falls track condition, bbqs and picnic facilities (Section 1 Visitor Survey pgs 38-39). In terms of the built environment, clearly an 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 the WTWHA and the decision to visit sites such as the Crater 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 in Stage 2 of the data collection (April 2002) would explain the use of word of mouth and the many repeat visits to the Crater. Similarly, the presence of non-locals to the Crater in Stage 1 of the data collection (October 2001) would explain the high use of information sources such as road signs, word of mouth and maps (Section 1 Visitor Survey, pg 22-23). This indicates that source information on the Crater is both wide and varied as well as being readily accessible to locals and non-locals.

Signage Another important presentation issue and management responsibility at sites such as the Crater is the provision of signage that clearly identifies rules and regulations, safety issues, and directions. Here at the Crater such signage is evident throughout (Section 2 Sign Inventory pg 52-54). In addition, visitor appraisal of various aspects of such signage was high, particularly in regards to the location of the orientation signage (Section 1 Visitor Survey pg 30-31). The overall condition of the signage was found to be good (Section 2 Sign Inventory pg 52-55). Of concern however, is the lower visitor appraisal of the safety signage (Section 1 Visitor Survey, pg 30-31), which is potentially a product of the limited amount of such signage and hence the lack of identification of what could constitute a safety issue (Section 2 Sign Inventory pg 52-55). This aspect combined with visitors' concerns about the presence of stinging trees on the road edge, the lack of safety rails for children, and the considerably eroded and slippery walking track (Section 1 Visitor Comments pgs 41-43) needs to be considered in future risk and safety communication strategies. Visitor comments also revealed a problem with wayfinding in terms of locating the Crater from the main road (Section 1 Visitor Comments pgs 41-43). The location of orientation signage on the main road may need to be reconsidered in order to address this issue.

Structural Features *Layout and Design, Infrastructure and Facilities*

Layout and Design Most aspects of the current site layout and design at the Crater appears to be legible and reasonably functional (Section 2 Site Inventory pg 48). However, this is a day use only site, primarily providing for a 'short-walk' experience, with some limited swimming opportunities. Possibilities for improvement in design and layout would need to be considered primarily in the context of mitigating the current biophysical impacts of the Dinner Falls walking track, and potential use conflicts in car park and picnic area.

Infrastructure and Facilities The infrastructure and facilities at the Crater appears to provide for most of the visitor needs as they were considered to be adequate, appealing, in good condition and well managed. However this was somewhat contradicted by visitor comments at the end of the survey (Section 1 Visitor Survey pgs 32-33, 38-43). Most of the facilities present at the site are well used (Section 1 Visitor Survey pgs 32-33) except for the bbqs which need to be replaced (Section 2 Site Inventory pg 49). A safety concern relates to the quality of the walking path to Dinner Falls which is reflected in visitor comments (Section 1 Visitor Survey pg 39 & 41), and in the infrastructure inventory (Section 2 Infrastructure Inventory pg 49) and the presence of stinging trees. The current parking facilities and lack of space another problem perceived by visitors (Section 1 Visitor Survey pgs 38-39). This was confirmed in the vehicle counts undertaken at the Crater over the four days of data collection. The number of

vehicles present at one time was 30, which is well above the car park capacity of approximately 10 (Section 3 Vehicle and Visitor monitoring pg 58). Clearly, more parking spaces are need. The poor condition of the toilet facilities was also frequently commented on by visitors (Section 1 Visitor Survey pgs 39-43), which again was confirmed in the Infrastructure Inventory (Section 2 Site Inventory pg 49). In addition, the status of these facilities detracted for visitors' enjoyment of the site. Given these results it is recommended that these facilities be upgraded or improved as soon as possible.

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 the Crater 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 the Crater are largely those of a National Park day use site, and include picnicing, a short walking track, a small swimming area, and a open grassed section for other activities. The site does not provide for longer bush walks or wilderness adventure activities. The activities reported by respondents (Section 1 Visitor Survey pgs 28-29) indicate that in general the site was providing for and facilitating those activities which most visitors were seeking in a reasonable way (Section 1 Visitor Survey pgs 32-33).

Experiential

Experience-based

Experience-based Experience-based opportunities at the Crater include nature watching, relaxation, and contemplation, as well as the opportunity of encountering, experiencing, and appreciating the WTWHA. These experiential opportunities were identified by visitors as being the most important in terms of their reasons for visiting this site (Section 1 Visitor Survey pgs 24-25), and were regarded by visitors to be more important than activity-based reasons. This strong endorsement of such opportunities is reflected in various visitor comments (Section 1 Visitor Comments pgs 38-43) that support the current management regime which provides for such opportunities. Even though experiences such as solitude, 'wilderness' experience, and wildlife encounters are somewhat difficult to achieve at the Crater given its layout, extent, general character, and pattern of use, the site nevertheless appears to accommodate for current visitor needs.

Educational

Knowledge-based Opportunities

Knowledge-based Knowledge-based opportunities at the Crater are varied in terms of quantity and diversity and are clearly linked and relevant to the unique ecological and natural attributes of the site. Such opportunities are also linked to the human use and need for such places. The immediate access to a complex high altitude forest, the very different flora and fauna present, and the management challenges associated with presenting, preserving and conserving such places provide a number of knowledge-based outcomes. Such opportunities are rarely acknowledged as an important contributor to the spectrum of site-level opportunities despite their public good, educational, management and international significance.

Specific Problems and Issues

● **Problems** *Regulation Violation*

● **Issues** *Use/User Conflicts, Inappropriate Behaviour, Crowding and Overuse*

The Crater is a reasonably well-managed and maintained site which has a quite modest and manageable volume of visitation and use (Section 3 Traffic Information pg 58). Nevertheless, there are problems, issues and concerns that are related to visitor behaviour and use of the site that require consideration.

● **Problems** *Regulation Violation*

Regulation Violation Regulation violations that are evident at the Crater include bringing of dogs, camping overnight at the site, and walking along undesignated trails (Section 1 Behavioural Observations pg 45; Section 2 Infrastructure Inventory pg 49). These types of behaviour are occurring despite signs clearly stating that all such activities are prohibited (Section 2 Sign Inventory, pgs 53-55), and, in the case of use of undesignated trails, why such behaviours are not allowed (eg. walking off tracks: "Shortcutting causes erosion, please stay on the track" Section 2 Sign Inventory pg 55). Such regulation violation may require a different message communication strategy in the case of dogs, for example, explaining why their presence in such a setting is a problem. In the case of use of undesignated trails, this is potentially linked to the current condition of the unsealed track and a lack of any substantial rehabilitation program on those trails that continue to be used.

● **Issues** *Use/User Conflicts, Inappropriate Behaviour, Crowding and Overuse*

Use/user conflict Overall, use/user conflict appears to be minimal at this site as evident in the visitor assessment of the behaviour of others at the site (Section 1 Visitor Survey pg 36-37). This is perhaps largely due to the moderate visitation levels at the Crater (Section 3 Vehicle and Visitor monitoring pg 58), and the general layout of the site (Section 2 Infrastructure Inventory pg 48). However, some visitors were disturbed by the presence of digs and noisy children.

Inappropriate Behaviour Despite the majority of visitors to the Crater indicating that the behaviour of others was on the whole environmentally responsible, and that the presence of others did not detract from their enjoyment of the site (Section 1 Visitor Survey pgs 36-37), visitor comments indicated otherwise (Section 1 Visitor Survey pg 39). Some visitors said they were disturbed by too many noisy people and the throwing of objects into the crater (Section 1 Visitor Survey pg 39). The site inventory also indicates that visitors are littering / not using the bins in the car park and day use areas, as well as there being medium levels of graffiti and vandalism at the Crater lookout area (Section 2 Infrastructure Inventory pg 49). The throwing of objects into the Crater itself will become a serious management issue as the inaccessible and non-degradable litter accumulates within and around the edges of the Crater itself presenting a very polluted setting.

Crowding and Overuse It is also noteworthy that visitors expressed concerns over potential problems relating to too many visitors and overcrowding (Section 1 Visitor Survey pg 39). This again is an interesting response given that the Crater receives relatively low numbers of visitors (Section 3 Vehicle and Visitor monitoring pg 58), and that at the time of the survey respondents did not experience crowding (Section 1 Visitor Survey pgs 36-37). The experiences of crowding were predominantly felt due the lack of parking facilities and other visitors' behaviour.

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<http://www.wettropics.gov.au/>

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.

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

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

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

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.