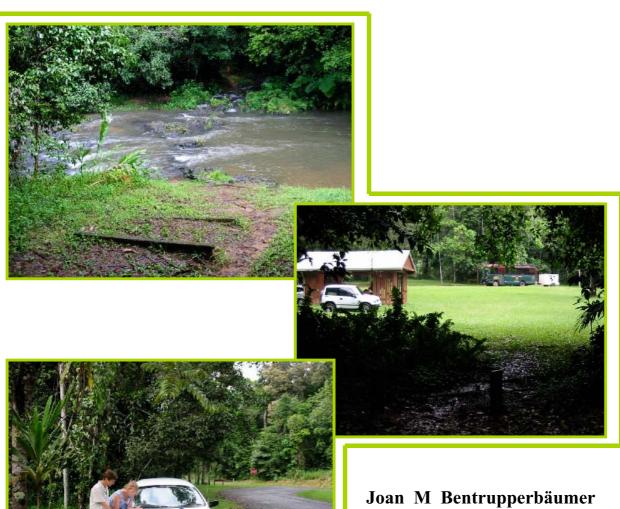
Henrietta Creek Site Level Data Report 2001/2002





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Published by the Cooperative Research Centre for Tropical Rainforest Ecology and Management.

Dr Joan M Bentrupperbäumer Rainforest CRC & JCU PO Box 6811 • CAIRNS • 4870 Phone 40 42 1357 • Fax 40 42 1390 Email: Joan.Bentrupperbaumer@jcu.edu.au

November 2002

For this research:

James Cook University Ethics Approval No.

H1272

Queensland National Parks & Wildlife Service Permit No.

FNQ06

Wet Tropics Management Authority Contract No.

654

Terms of Reference

Visitor Use Survey

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

Background

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

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

- traffic counts
- site observations
- visitor interviews

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

Aims:

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

(Ref: WTMA Contract # 654, 2001)

About the Author

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

Acknowledgments

The success of this research project, which was undertaken across ten sites within the Wet Tropics World Heritage Area, has very much depended on the many people involved in various research related tasks. In particular I would like to acknowledge my colleague Dr Joseph Reser who has worked together with me over a number of years now developing and refining the analytic framework, survey instruments, and methodologies for this multidisplinary 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 analytic 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 this project

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

A. Data Processors

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

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 Henrietta Creek

Robyn Wilson (Field Supervisor), Cheryl Cornelius, Cleo Wilson, Shannon Bros. 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 2002a to j). In addition, this site-level sampling allows for an accurate and meaningful aggregate picture of what is happening at a bioregional or World Heritage Area level, as long as data collection sites and data collection are representative (see Report #11, Bentrupperbäumer & Reser 2002a, WTWHA Bioregional 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.

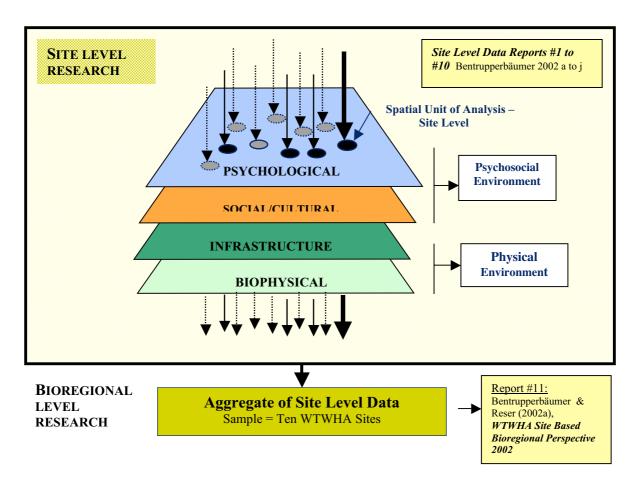


Figure 1: Diagrammatic representation of the research layers, domains and report outputs for this research.

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, *Henrietta Creek*, during 2001 and 2002. Since the primary objective of this report is to provide key site-level data of relevance to all levels of management, from on-ground to policy, planning, monitoring and reporting, details of methodology are not included here. This information is available in a separate but accompanying report (Report #11, Bentrupperbäumer & Reser, 2002a). When *comparative data* from previous studies are available they are included in each relevant section. When such data is from studies other than the authors, methodology and specific measures are often different. The layout of this report, which compliments the research domains presented in Figure 1, is outlined in Figure 2 and the discussion that follows.

SITE LEVEL REPORT

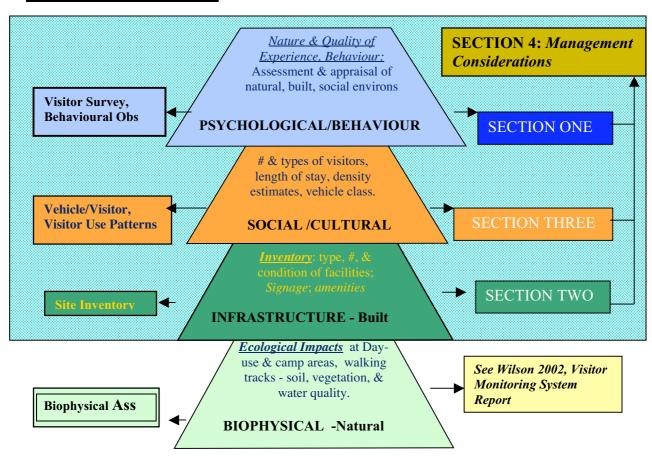


Figure 2: Diagrammatic representation of the report layout and report sections.

The layout of this report is in four sections. The first three sections present data which reflect the strategic sampling across three research domains, while the fourth section addresses key management considerations. The data in this report is presented in some considerable detail the purpose of which is to allow for the identification in future monitoring of changes in the system 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, visitor 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 & 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

Henrietta Creek is situated within the Wooroonooran National Park just off the Palmerston Highway, 33 kilometres west of Innisfail. Henrietta Creek is a Wet Tropics World Heritage site and occurs in the cental coast 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

The vegetation found within the Palmerston region is mostly dense tropical rainforest. The rainforests are described as being complex mesophyll vineforests, meaning that these rainforests have reached their peak development (WTMA website). Typical of these types of rainforests, the soil is highly fertile and is mostly basaltic mixed with basic volcanics, mixed colluvia and riverine alluvia (WTMA website). The climate is hot and humid, with approximately 3000mm of rain annually (Horsfall, 2001). These features of the site support a diversity of plants, and wildlife. In addition to the diversity of flora and fauna, the primary natural attractions close to Henrietta Creek are Nandroya Falls, Tchupalla Falls, Wallicher Falls and Crawford's lookout.

Indigenous and Nonindigenous Cultural Environment

The Palmerston region has a long Indigenous occupational history. In 1870 when European explorers settled in the area, the Mamu people occupied an extensive area of land along the Palmerston (Horsfall, 2001). Like other rainforest people, the Mamu made use of many food plants that are poisonous without the appropriate processing (Horsfall, 1987). The indigenous population density of the region was high, which indicates that the environment was a fertile and productive one, supporting a large population. The Palmerston highway is named after Christie Palmerston, an explorer and gold prospector. In1884, Palmerston led a team on horseback along his route "Palmerston track". They spent two years upgrading the section between Beatrice River and Henrietta creek (Horsfall, 2001).

Built Environment

The Henrietta Creek site has been designed for day usage and camping, providing visitors with the following facilities: car park area, picnic and camping areas, picnic tables, bbqs, toilet block, shelter shed, and walking tracks. Signage is present throughout the site. The layout of the site is presented in Figure 4. See Section 2 for details of infrastructure/built environment, including signage.

Opportunities

Recreational The main activity-based recreational opportunities available at this site are swimming, picnicking, camping, and walking (see Section 1 for details). There are a number of walking tracks nearby, of which access the nearby Crawford's lookout, Tchupalla Falls, Wallicher Falls and Nandroya falls. These tracks vary in difficulty, and are classified as Graded Tracks (Wet Tropics Walking Strategy, 2001). Visitor comments and usage relevant to the tracks and infrastructure are presented in Section 1. Other recreational opportunities available include: photography and bird/wildlife watching.

Experiential In addition to the activity-based recreational opportunities outlined above, Henrietta Creek provides important experiential opportunities such as nature appreciation and experience including observing scenery and possible wildlife encounters, socialising with family and friends, rest and respite.

Visitation

Compared to other sites in the Wet Tropics, Henrietta Creek experiences low levels of visitation with approximately 25,500 visitors per year (Mossman Gorge > 400,00 visitors per year). This visitation is lowest in February, March and April (406 - 601 vehicles) and highest in January (992 vehicles), and is spread evenly across the week days but with considerable increase during weekends.

Site Maps

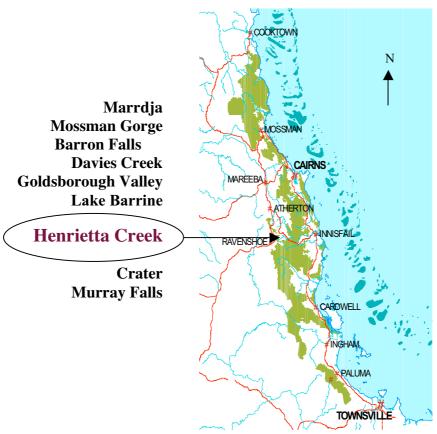


Figure 3: Site location within the Wet Tropics World Heritage Area.



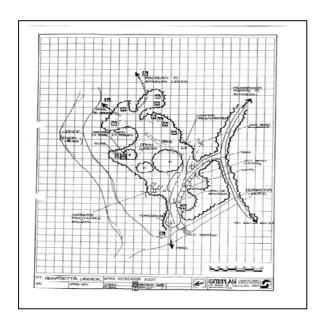


Figure 4: Henrietta Creek site map. (Source: SitePlan Landscape Architects, 1993)

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 Henrietta Creek site. According to the management principles for Queensland's National Parks:

A national park is to be managed to -

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

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

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

A range of opportunities will be provided for visitors to enjoy parks, and interpretative 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

Henrietta Creek 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 Henrietta Creek 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 99.

Visitor Profile

- In general, Henrietta Creek is a site used more by Australian (55.6%) than international visitors (44.4%). Interestingly there were more Australian visitors at Henrietta Creek in the dry season, and more overseas visitors in the wet season. The majority of Australian visitors were locals (live in the WTWHA bioregion).
- It is a site most frequently used by people between 30 and 39 years of age who travel in a private car.

Prior Information Sources used

Most people know of Henrietta Creek because of the *road sign*. Have been before and a
 map that said it was a tourist site were also important sources of information. Very few
 visitors to Henrietta Creek used information centres, tourist leaflets or the web.

Reasons for Visiting

• The primary reasons given for why people visit Henrietta Creek were to *see the natural features and scenery* and *to be close to/experience nature.*

Visitor Appraisal of Natural Environment

- Visitors found the *natural features* of Henrietta Creek to be *in good condition* and *interesting*.
- Of the natural features that a small number of visitors were expecting to find but were unable to, most were *fauna related*.

Time Spent and Activities Engaged in

- Visitors spent just enough time at Henrietta Creek to undertake the short walk—half to one hour. Of those few visitors who spent more than two hours at the site, the majority camped overnight.
- About one quarter of visitors used the site for picnics.
- Birdwatching and photography were also activities undertaken by some visitors.

Visitor Appraisal of Signage

- Of the information types available at the site, *natural/ecological information* received the lowest assessment.
- Visitors found the rules and regulations easier to determine than all other information present at Henrietta Creek.
- The majority of visitors found the safety information easy to locate and easy to understand.
- *Natural, ecological, cultural and historical information* were the types of additional information most frequently requested by visitors.

Visitor Appraisal of Built Environment

- The *toilets* and *walking track* were the most frequently used facilities at Henrietta Creek.
- The most frequently requested additional facilities were *better barbecues*, and *more tables* and chairs.
- The majority of visitors were reasonably satisfied with the condition of the facilities at Henrietta Creek.
- Of those visitors who believed that the presence of a ranger at the site was important, the reasons most frequently given were to *provide information / education* and for *safety and security*.

Visitor Knowledge of Management Agencies

- The majority of visitors were *unfamiliar* with the agency responsible for managing Henrietta Creek.
- The World Heritage status of Henrietta Creek was also unknown to the vast majority of visitors.

Visitor Appraisal of Social Environment

• *Experienced crowding* and the *behaviour of other visitors* did not appear to be a problem for the majority of visitors to Henrietta Creek.

Experience & Satisfaction

- Visitor satisfaction of Henrietta Creek, as measured by *enjoyment* and the visit to the site being *well worth the money*, was moderately high.
- Aspects of Henrietta Creek that enhanced visitor enjoyment were related to the natural features of the site, particularly the waterfalls, creek and rainforest.

Comments

Visitors mainly commented on the *positive aspects* of Henrietta Creek.

- The majority of comments focused on the natural features and facilities of the area in general. Many overseas visitors commented on the standard of the facilities.
- Comments relating to improvement of *facilities* included:
 - more signage at the beginning of the track to improve wayfinding,
 - more information on wildlife,
 - more and better maintained facilities for campers, e.g. bins, covered areas.

Behavioural Observations

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

Undesignated Area Use.

Due to the heavy down pour of rain during Stage 2 of data collection, a number of visitors to Henrietta Creek were observed using the shelter shed to camp in.

• Interaction with wildlife.

During both stages of data collection, it was evident that the presence of marsh flies detracted from visitor enjoyment of Henrietta Creek. In some cases, visits to the site were shortened.



Section Two:

Infrastructure Inventory and Profile

Key Findings

Site Infrastructure Inventory & Assessment

- Henrietta Creek Site contains two distinct activity nodes Day Use /Camp Area and Walking Tracks.
- Within each of these nodes a variety of *infrastructure* has been established.

Day Use/ Camp Area area

- The infrastructure varies in terms of condition. The *bbqs* are in *need of repair* or they must be *removed*.
- The grassed area is *maintained* and there is a *general absence of litter*.
- Camp Area is boggy in the wet.
- Camping areas need to be better defined.
- Lack of designated parking results in bogs and erosion along road edges.

Walking Track to Goolagans (400m section)

- Infrastructure is minimal with just a few signs present.
- Track condition good.

Site Information and Signage

- A total of 26 actual sign structures and 44 separate information types relevant to Henrietta Creek were recorded along the main road, access road and at the main section of the site itself.
- In terms of numbers of actual sign structures this represents a 30% increase from the original sign audit undertaken in April 1993, assuming this was a complete sign audit (SitePlan, 1993);
- Most of the signs provided *visitor advice* type information (36.4%), and *regulatory* type information (31.8%);
- The *interpretive* information consisted of very limited biological information which was embedded within the camp registration and site information;
- Apart from the logo on the road signs, there were no signs specifically identifying this as a World Heritage Area site;
- No foreign language signs were present at Henrietta Creek.



Section Three:

Vehicle and Visitor Monitoring

Key Findings

Vehicle and Visitor Records

- Most common vehicle accessing Henrietta Creek was the car (58%).
- The highest number of people at the site at one time was 55 (1220 hours 14th April 2002).
- Most of the visits to Henrietta Creek occurred just prior to midday and throughout the mid afternoon, between 1100 and 1400 hours.
- On average, people stayed at Henrietta Creek for *49 minutes* (approximately three quarters of an hour).

Traffic Counter Data

- A total of *9,367 vehicles* and *25,386 people* visited Henrietta Creek in one year (September 2001-2002).
- On average, 780 vehicles/2,115 people visited this site each month, range 476 to 992 vehicles.
- January, July and August received the highest visitation rates.
- On average, **180** vehicles/**488** people visited Henrietta Creek each week, range 102 to 312 vehicles.
- *Daily* vehicle numbers ranged from 4 to 75.
- Average weekday vehicle number was 24 per day, which represents a decrease from previous records (19.6 vehicles (wet), 28.9 (dry) Manidis Roberts, 1993/1994).
- Average *weekend* vehicle number was *32 per day*, which again represents a decrease from previous records (41.9 vehicles (wet), 38.3 (dry) Manidis Roberts, 1993/1994).



Section Four:

Management Considerations

Key Findings

Presentation

- The presentation of Henrietta Creek 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.
- Natural attributes are well presented in terms of appeal, condition and management of the site.
- 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.
- Legibility, functionality, and environmental sensitivity of the infrastructure and facilities, layout and design is a concern, so some redesigning and upgrading is required.

Opportunities

- Henrietta Creek 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 occur despite the presence of signage. This may require more innovative rule/regulation communication and redesign and upgrading of facilities.
- Inappropriate behaviour most evident included littering.

Section One

Psychological & Behavioural

Visitor Survey & Behavioural Observations 2001 & 2002



- 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: Henrietta Creek – Wooroonooran National Park

	Stage 1	Stage 2			
Survey Dates	29 th & 30 th September 2001	12 th - 14 th April 2002			
Survey Times	0830 to 1700 each day	0830 to 1700 each day			
Weather	94.5% Sunny 2.7% Overcast 0.0% Raining 1.4% Hot 1.4% Warm 0.0% Cool	13.8% Sunny 31.0% Overcast 51.7% Raining 0.0% Hot 0.0% Warm 3.4% 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.



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

Questionnaire Profile

Because Henrietta Creek is a low use site (25,500 visitors per year - 2001/2002), it was possible during the survey distribution period to approach almost every visitor to the site. In fact it was difficult to get the numbers required for the study. Over five days of field work 139 people were approached to take part in this survey. Of the 99 (72.2%) who agreed to participate, all surveys were successfully completed and analysed. The results presented in this section are therefore very representative of those using Henrietta 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 **99 questionnaires** made up this data set, the majority of which were completed on site. Twenty-one percent were take-homes and mailed back.

	Stag	ge 1: 2001	Stago	e 2: 2002	Combined		
	n Percentage		n	Percentage	n	Percentage	
On-Site	52	74.3%	26	89.7%	78	78.8%	
Take-Home	18	25.7%	3	10.3%	21	21.2%	
Total	70	100%	29	100%	99	100%	

b) Status of Questionnaire Returns

Of the **99 questionnaires returned**, all were analysed.

	Stage	1: 2001	Stage 2	2: 2002	Combined		
	n	Percentage	n	Percentage	n	Percentage	
Analysed: Completed	70	100%	29	100%	99	100%	
Rejected: Incomplete,							
under age, returned too	0	0	0	0	0	0	
late etc.							
Total	70	100%	29	100%	99	100%	

c) Non-Response Information

Of the **139 people approached** over five days of survey distribution, 28.8% would either not take part or failed to return the survey. The main reasons for the no responses were *failure to return the survey* and visitors had *been surveyed out*. Many had completed surveys elsewhere. Of major concern is the now extensive use of survey methodology in the field.

	St	age 1: 2001	Sta	nge 2: 2002	C	ombined
Reasons	n	Percentage total # people approached (94)	n	Percentage total # people approached (45)	N	Percentage total # people approached (139)
Take-homes not returned			15		15	11.1%
Filled in other/same survey	14				14	10.1%
Language Difficulties	1		1		2	1.4%
No Time	6				6	4.3%
Not Interested	3				3	2.2%
Other						
Non-Response	24	25.5%	16	35.6%	40	28.8%

a) Background Information

Key Findings

Stage 1: September 2001 Visitor Profile

During this first data collection stage,

- The majority of visitors (respondents) to Henrietta Creek were *Australian* (as opposed to international visitors). Of the Australian visitors, just over half 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 by the majority of visitors was **Secondary**;
- While the average age of visitors was 38.7 years, the majority were in the 20 29 age class;
- More males participated in this survey than females.

Stage 2: April 2002 Visitor Profile

Due to poor weather conditions, there were not as many respondents to the survey in Stage 2 compared to Stage 1. There are some noticeable differences in visitor demographics in Stage 2.

- The majority of visitors in Stage 2, were from overseas. Australian visitors made up just over one third of the visitor numbers;
- Of those *Australian* visitors to Henrietta Creek, the majority lived within the Wet Tropics;
- *German* visitors, followed by *English* visitors were the major ethnic groups;
- Unlike Stage 1, the highest level of education achieved by the majority of visitors was *Tertiary B* (*University*);
- The average age of visitors declined slightly to 36.8 years, with the majority in the 30 39 age class;
- Unlike Stage 1, 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:

- Just over half of the visitors to Henrietta Creek were *Australian (55.6%)*, which is considerably lower compared to the 1993 Manidis Roberts results (82.7%), with international visitors at 44.4%. Of the international visitors, the majority came from *Germany* (29.6%);
- Of the Australian visitors, the majority were *locals* (36.2%), i.e., living within the Wet Tropics Bioregion. Of these, 28.6% came from the *Tablelands*.
- Just under a third of visitors (31.3%) identified themselves as *Nonindigenous Australians*;
- 1. This visitor profile suggests that Henrietta Creek is a site used by a diversity of visitors many just using the site as a quick stop over while travelling from one place to another.
- 2. The site is used most frequently by people between 30-39 years of age.
- 3. Of the international visitors it is most popular with Germans.

a) Background Information

QUESTIONS & RESULTS

1. Where do you live?

STAC	E 1: (Sep	otembe	er/Oct	tober 2001)		STA	GE :	2: (Mar	ch/Apı	ril 2002)	
$\frac{n = 70}{\text{Australia}} $ 61.4%			n = 43		$\frac{n^* = 29}{\text{Australia}}$			37.9%		n = 11		
Locals	n = 22 ((53.7%))	(n = 41 response)	nses)	Locals	n =	= 6	(66.7%)	(n	= 9 responses)	
Tablelands $n = 8$ Innisfail & Babinda $n = 4$		n = 5 n = 4 n = 1	Cair	ns & Dis Inni	strict sfail	n = 1 n = 1	Town	Ingham sville & District				
Non-Locals	n = 19	(46.3%))			Non-Local	ls	n = 3	3 (33.3%))		
Overseas	38.6	5%		n = 27		Overseas			62.1%		n =	18
Switzerland n = 1 Germany n = 8 Netherlands n = 1	New Z	UK n cealand n weden n	1 = 5	Canada Israel		Germany	n = 8		Holland	n = 2	UK	n = 8
Comparative 1	Data 1993:	Aus	stralian	= 82.7% (Loca	al = 79.3%	Overseas	s = 17.3%	6	n = 29	•		

2. How long have you lived there?

Period of Residence: $\underline{n = 66}$	Period of Residence: $\underline{n=28}$
\overline{X} = 26.83 years ± SD 19.82 (range 0.1-66)	\overline{X} = 20.9 years ± SD 18.02 (range 0.25-63)
≤ 10 years = 25.8% > 10 years = 74.2%	≤ 10 years = 39.3% > 10 years = 60.7%

3. How would you describe your ethnic background?

n = 67				n = 29			
		Other	19.5%			Other	13.8%
Nonindigenous Australian	34.3%	Non Indig / English	3.0%	Nonindigenous Australian	17.2%	British	6.9%
Indigenous Australian	11.9%	Swiss / German	1.5%	Indigenous Australian	3.4%	Dutch	6.9%
Canadian	1.5%	English / Scottish / NZ	1.5%	American	3.4%		
Swedish	3.0%	Israeli	4.5%	German	31.0%		
German	13.4%	Croatian	1.5%	Malaysian	3.4%		
English	15.0%	Australian	1.5%	English	27.6%		
Japanese	1.5%	NZ	3.0%				
		Polish	1.5%				
		Dutch	1.5%				

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

n = 69			n = 29	%
<u>n = 69</u> Primary	(1-8 years of education)	10.1%	Primary (1-8 years of education)	0.0%
Secondary	(9-12 years of education)	42.0%	Secondary (9-12 years of education)	13.8%
Tertiary A	(Technical or further educ institution)	21.7%	Tertiary A (Tech or further educ institution)	13.8%
Tertiary B	(University)	26.1%	Tertiary B (University)	72.4%

5. Age

$\frac{N-62}{X} = 38.74 \text{ years } \pm \text{SD } 15.41 \text{ (range } 13-66)}$	$\frac{n=27}{X}$ = 36.89 years ± SD 12.26 (range 20-65) Age Categories:
20 years = 4.8% 40-49 years = 12.9% 20-29 years = 30.6% 50-59 years = 17.7% 30-39 years = 19.4% > 60 years = 14.5%	<pre>< 20 years = 3.7%</pre>
Comparative Data 1993: 16-25 = 13.8%; 26-45 = 58.6%.	; $45-65 = 24.1\%$ $>65 = 3.5\%$ $n = 29$

6. Gender

$\underline{n=70}$	Male 55.7%	Female 44.3%	n = 29	Female 51.	7% Male	48.3%
Comparat	ive Data 1993:	Male = 75.9%; F	male = 24.1%	n = 29		

b) Transport & Travel Group

Key Findings

Stage 1: September 2001 Travel Profile

During this first data collection stage,

- During this data collection stage no visitors to Henrietta Creek 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 *families / groups*;
- Just under three quarters of visitors travelled in privately owned vehicles;
- The **most** important source of prior information about Henrietta Creek was the "*road sign*". The information sources not used were "*tourist leaflet*", "*the web*", and "*trip included in a package tour*".

Stage 2: April 2002 Travel Profile

There were some slight differences evident in this second data collection stage.

- Unlike Stage 1, there were visitors to Henrietta Creek who were with an *organised tour*,
- There was a slight decrease in the average number of people per vehicle to 2.2;
- Unlike Stage 1, the major group profile of people was *two adults*;
- Just over half of the visitors travelled in *private* vehicles;
- The two most important sources of prior information about Henrietta Creek were "map which said it was a tourist site" and "road sign". The two information sources not used was "the web" and "trip included in a package tour".

Combined Data & General Comments

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

- Majority of visitors to Henrietta Creek were *independent travellers* (97%), which is slightly lower compared to the 1993 Manidis Roberts results (100%);
- On average, there were *2.57 people* in each vehicle, which is similar to 1993 Manidis Roberts results (2.5);
- Most visitors (69.7%), travelled in *privately owned* vehicles, which is lower than 1993 Manidis Roberts results (93.1%);
- "Road sign" was the most important source of prior information about Henrietta, used by 39.4% of respondents. The information sources not used at all were "the web" and "trip included in tour".
- 1. Most people know of Henrietta Creek because of the **road signs.** In addition this site attracts a number of **repeat visitors**, mainly locals who stop for a break in their journey to elsewhere.
- 2. Very few people rely on **information centres or tourist leaflets** for information about this site.

b) Transport & Travel Group

QUESTIONS & RESULTS

7. A	re you with	an organ	ised to	our?					
n = 70	<u>Yes</u>	0.0%	No	100.0%	n = 29	Yes	10.3%	No	89.7%
					JCU Terrestrial	Resour	ce Field Trip		n = 3

8. If you travelled in a private or hired vehicle, he vehicle?	ow many people including yourself are in your
n = 68	n = 25
People per Vehicle $\overline{X} = 2.71 \pm \text{SD } 1.20$ (range 1-6)	People per Vehicle $\overline{X} = 2.20 \pm SD \ 0.87$ (range 1-5)
Adults per vehicle $\overline{X} = 2.37$ (n = 161)	Adults per vehicle $\overline{X} = 2.12 \text{ (n=53)}$
Children per vehicle $\overline{X} = 0.41$ (n = 28)	Children per vehicle $\overline{X} = 0.12 (n = 2)$
Private vehicle 74.2% Hired Vehicle 25.8%	Private vehicle 56.5% Hired Vehicle 43.5%
Comparative Data 1993: People per vehicle = 2.5 Private vehicle = 93.1%;	n = 29 Hired vehicle = 6.9%; Commercial = 0%;

= <u>70</u>	n	%	n = 29	n	%
Have been here before	21	30.0%	Have been here before	3	10.3%
Road sign	31	44.3%	Road sign	8	27.6%
Word of mouth	11	15.7%	Word of mouth	7	24.1%
Map which said it was a tourist site	7	10.0%	Map which said it was a tourist site	11	37.9%
Tourist information centre in Nth Qld	3	4.3%	Tourist information centre in Nth Qld	1	3.4%
Tourist information centre	1	1.4%			
Tourist leaflet	0	0.0%	Tourist inform	1	3.4%
Travel guide or book	11	15.7%	Tourist leaflet	2	6.9%
From the web	0	0.0%	Travel guide or book	3	10.3%
Trip included in a package tour	0	0.0%	From the web	0	0.0%
			Trip included in a package tour	0	0.0%
Other	4	5.7%			
Came with relative / partner / locals	1	1.4%	Other .	3	10.39
Ground keeper recommended site	1	1.4%	From lecturer	3	10.39
Grew up in region / local	1	1.4%			
Told by locals	1	1.4%			
pecify:			Specify:		
ourist inform centre: N/A			Tourist inform centre: <i>Bahinda</i>		
				116: :	D /
ourist leaflet: N/A			Tourist leaflet: Atherton Tableland map, Innisfail an	ia Missioi	п Веасһ
ravel guide or book: Camping in Qld			Travel guide or book: Lonely Planet		

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 Henrietta Creek were *experiential*, followed by *activity*-based reasons. *Educational* reasons were least important;
- To *be close to / experience nature* and *see natural features and scenery* were the most important reasons given with *52.5%* of visitors rating these as *very important* in both instances;
- These were followed by two other experiential reasons experience tranquillity, and experience the Wet Tropics;
- Activity-based reasons were rated moderately important to important. Of these, *opportunities for* short walks, followed by out door exercise rated the highest;
- Educational reasons were just slightly important to important. *Learning about Aboriginal culture* was rated by visitors as being 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 Henrietta Creek were *experiential*, followed by educational reasons. Unlike Stage 1, activity reasons were least important.
- To *see the natural features and scenery* was the most important reason given;
- This was followed by one other experiential reason *experience the Wet Tropics*, and an educational reason *learn about native animals and plants*;
- Activity-based reasons were rated moderately important to important. Of these, *opportunities for* short walks again rated the highest;
- Of the educational reasons, *learn about Aboriginal culture* was rated the lowest, with 44% of visitors labeling this reason as *not important*.

Combined Data & General Comments

- The most important reason given for visiting the site was rated *very important* by 54% of visitors *see natural features & scenery.* Visitors rated the experiential reasons *significantly higher* than activity-based reasons [t(86) = 7.17; 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(86) = -8.62; p = 0.00], and activity-based reasons [t(86) = -2.09; p = 0.03].
- 1. The primary reasons given for people visiting Henrietta Creek were 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 does not appear to be why people visit this site.

c) Reasons for Visiting

QUESTIONS & RESULTS

today. 1 = Not important 4 = Important		lightly impo Quite imports		3 = Moder 6 = Very in		t		
	Not Important						Very Important	
	n	1	2	3	4	5	6	\overline{X} *
a) Learn about native animals and plants	61	16.4%	11.5%	16.4%	18.0%	14.8%	23.0%	3.72
(Educational)	26	3.8%	15.4%	15.4%	11.5%	3.8%	50.0%	4.46
b) Learn about Aboriginal culture	59	47.5%	8.5%	8.5%	18.6%	10.2%	6.8%	2.56
(Educational)	25	44.0%	8.0%	16.0%	4.0%	12.0%	16.0%	2.80
c) See natural features and scenery	61	3.3%	3.3%	6.6%	16.4%	18.0%	52.5%	5.00
(Experiential)	26	0.0%	0.0%	7.7%	11.5%	23.1%	57.7%	5.31
d) Be close to/experience nature	61	3.4%	1.7%	6.8%	11.9%	23.7%	52.5%	5.08
(Experiential)	27	0.0%	7.4%	7.4%	18.5%	18.5%	48.1%	
e) Socialise with family/friends	58	29.3%	5.2%	8.6%	19.0%	20.7%	17.2%	
(Experiential)	25	40.0%	12.0%	8.0%	12.0%	12.0%	16.0%	
f) Rest and relax	62	9.7%	0.0%	4.8%	12.9%	33.9%	38.7%	4.77
(Experiential)	27	11.1%	7.4%	11.1%	18.5%	29.6%	22.2%	
g) Experience tranquility	61	4.9%	4.9%	6.6%	14.8%	18.0%	50.8%	4.89
(Experiential)	26	11.5%	7.7%	19.2%	19.2%	19.2%	23.1%	3.96
h) Experience the Wet Tropics	60	6.7%	1.7%	11.7%	11.7%	28.3%	40.0%	4.73
(Experiential)	26	0.0%	7.7%	15.4%	11.5%	30.8%	34.6%	
i) Outdoor exercise	69	10.2%	10.2%	15.3%	18.6%	25.4%	20.3%	
(Activity)	24	25.0%	8.3%	12.5%	20.8%	12.5%	20.8%	
j) Opportunities for short walks	61	9.8%	9.8%	16.4%	18.0%	21.3%	24.6%	
(Activity)	26	11.5%	7.7%	11.5%	7.7%	38.5%	23.1%	
k) Opportunities for long walks	59	23.7%	13.6%	20.3%	15.3%	10.2%	16.9%	
(Activity)	25	36.0%	8.0%	20.0%	4.0%	20.0%	12.0%	3.00
l) Other	65	0.0%	0.0%	0.0%	1.5%	4.6%	15.4%	N/A
	27	0.0%	0.0%	0.0%	3.7%	3.7%	18.5%	78.5% N/A
Specify other reasons:		Activity:		n Experientia		I=4	10.070	74.1% n
Reasons provided have been placed into three major categories. Those that are related to activity, experience, education. The fourth category is "other".	15	See w Coffee breal Sig Phot	aterfalls c / lunch htseeing Work ography To sleep illet stop	1 6 1 1 1 1 1 3		Other:		
	7	Activity:	1	n <u>Experienti</u>	al: n people 1	Other: Assess the	dy insects	3

 $[\]overline{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 Henrietta Creek was moderately high;
- In particular, the majority of visitors somewhat to strongly agreed that the natural environment was in *good condition*, *appealing* and *interesting*;
- Over three quarters of visitors (79%) 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 Henrietta Creek, but the majority of visitors did not consider the site to be disturbed or impacted;
- Those visitors expecting other natural features at the site mainly expected *more wildlife* to be present.

Stage 2: April 2002 *Visitor Appraisal*

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

- Again, *visitor appraisal* of the positive aspects of the natural environment was *moderately high*;
- The majority of visitors (53.6%) *strongly agreed* that Henrietta Creek was *interesting*;
- In terms of the natural environment, half of the visitors *strongly agreed* to wanting to *explore the environment at Henrietta Creek more*;
- In each case, over 30% of visitors *strongly agreed* that the *natural environment* at Henrietta Creek *appeared to be good* and was *appealing*;
- Just over half of the visitors were *concerned* to some degree 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 *condition* ($\overline{X} = 5.22$), interesting ($\overline{X} = 5.21$), and appeal of natural attractions and scenic beauty ($\overline{X} = 5.10$).
- Some visitors (22.8%) did have particular expectations of what they would find or encounter.
 - 1. These results suggest that, overall, visitors find the natural features of Henrietta Creek to be interesting and in reasonable condition.
 - 2. Of the natural features that the small number of visitors reported expecting to find at Henrietta Creek but were unable to, most were **fauna-related**.

d) Natural Environment

QUESTIONS & RESULTS

11.	The following statements are about the <u>natural features</u> of this site. Please rate the extent which you agree or disagree with each statement by circling the number that best reflects our level of agreement /disagreement.								
	1 = Strongly Disagree 4 = Mildly Agree		Somewhat Somewhat			Iildly Disa trongly Ag			
			Strongly Disagree					trongly gree	
		n	1	2	3	4	5	6	X *
a)	The natural environment at this site is	61	0.0%	3.2%	0.0%	17.7%	38.7%	40.3%	5.16
	interesting.	28	0.0%	0.0%	3.6%	14.3%	28.6%	53.6%	5.32
b)	I would like to spend more time exploring this natural environment.	61	3.3%	4.9%	1.6%	32.8%	23.0%	34.4%	4.70
	exploring this natural environment.	28	0.0%	0.0%	10.7%	17.9%	21.4%	50.0%	5.11
c)	In terms of natural attractions and scenic beauty this site is appealing.	62	0.0%	1.6%	0.0%	19.4%	37.1%	41.9%	5.18
	orani, and one is appearing.	26	0.0%	0.0%	3.8%	30.8%	34.6%	30.8%	4.92
d)	The condition of the natural environment at this site appears to be good.	62	0.0%	1.6%	0.0%	9.7%	41.9%	46.8%	5.34
		29	0.0%	3.4%	6.9%	10.3%	48.3%	31.0%	4.97
e)	The natural environment at this site is well managed.	62	1.6%	0.0%	1.6%	17.7%	37.1%	41.9%	5.15
	wen managed.	29	0.0%	6.9%	10.3%	10.3%	48.3%	24.1%	4.72
f)	I am concerned about the impacts of human activity on the natural	60	26.7%	10.0%	16.7%	20.0%	3.3%	23.3%	3.33
	environment at this site.	29	3.4%	17.2%	24.1%	17.2%	13.8%	24.1%	3.93
g)	This site appears to be disturbed and impacted.	59	39.0%	28.8%	16.9%	6.8%	5.1%	3.4%	2.20
	r	27	25.9%	29.6%	14.8%	11.1%	11.1%	7.4%	2.74

12. At this site were there any natural features you were expecting to find which were not present? n = 68Yes 20.6% No 79.4% 17.9% 82.1% n = 28Yes No Natural/Biological: Natural/Physical n Built/Structural n n Birds Gems in natural Camp site further If yes, please specify: Butterflies / moths off road 1 Climbing kangaroos More tables (in 13 Turkeys 2 Responses provided have been placed into sun) Platypus three major categories. Those related to More wildlife natural/biological features, natural/physical Natural/Physical Built/Structural features, and the built/structural features of Natural/Biological: Wildlife (platypus) the environment. 5

e) Time Spent and Activities

Key Findings

Stage 1: September 2001 Activity Profile

During this first data collection stage,

- Just under half of the visitors, 49.2%, spent approximately *half an hour or less* at the site;
- Besides observing scenery, the activities most visitors engaged in was relaxing and taking a short walk;
- Observing wildlife and photography were also activities that some visitors engaged in.

Stage 2: April 2002 Activity Profile

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

- Unlike Stage 1, the majority of visitors, 31%, *camped over night* at Henrietta Creek. Of the day visitors, the majority spent *half an hour or less* at the site;
- Observing scenery and taking a short walk, were again the two most frequently engaged activities;
- *Observing wildlife* and having a *picnic / barbeque* were also frequently reported;
- Of those visitors who would have liked to engage in other activities, many identified activities that
 were connected to the natural environment, especially exploring and camping, however the heavy
 rain prevented these activities from happening.

Combined Data & General Comments

- 1. These results suggest that, overall, visitors spend enough time at Henrietta Creek which allows them to do the short walk half to one hour.
- 2. About **one quarter** of visitors use the site for picnics (26.3%).
- 3. Photography and birdwatching are activities undertaken by 21.2% and 23.2% of visitors.

e) Time Spent and Activities

QUESTIONS & RESULTS

n = 69	%		%	n = 29	%		%
less than 1/2 hour	24.6%	About 3 hours	15.9%	less than 1/2 hour	24.1%	About 3 hours	0.0%
About 1/2 hour	24.6%	About 4 hours	1.4%	About 1/2 hour	17.2%	About 4 hours	3.4%
About 1 hour	13.0%	More than 4 hours	1.4%	About 1 hour	17.2%	More than 4 hours	0.0%
About 2 hours	8.7%	Overnight	10.1%	About 2 hours	6.9%	Overnight	31.0%

etivities: $\frac{n=70}{n}$	%	Activities: $\frac{n=29}{}$	%
Observing scenery	51.4%	Observing scenery	82.8%
Bird watching	20.0%	Bird watching	31.0%
Observe other wildlife	27.1%	Observe other wildlife	37.9%
Photography/painting/drawing	24.3%	Photography/painting/drawing	13.8%
Picnic/barbeque	22.9%	Picnic/barbeque	34.5%
Using café/restaurant	0.0%	Using café/restaurant	0.0%
Camping	7.1%	Camping	31.0%
Walking – Short (1 hr or less)	31.4%	Walking – Short (1 hr or less)	51.7%
Walking – Long (1-6 hours)	14.3%	Walking – Long (1-6 hours)	13.8%
Swimming	11.4%	Swimming	17.2%
Guided tour	0.0%	Guided tour	0.0%
Looking at interpretation material	8.6%	Looking at interpretation material	10.3%
Relaxing	48.6%	Relaxing	41.4%
Other	11.3%	Other	17.0%
Eating lunch	2.8%	Analysing facilities & management	3.4%
Sleeping	1.4%	Answering survey	3.4%
Completing this survey	7.1%	Cooking & eating	
		Lecture	3.4%
		Removing leeches	3.4%

15. Were there particular things you	wanted to do	at this s	site which you we	re un	nable to do?	
n = 70 Yes 11.4% No 88.6%	N	N = 25	Yes = 44.0%		No = 56.0%	
If yes, please specify: Responses provided have been placed into five major categories. Those activities related to	<u>n = 4</u> <u>Natural Env</u> Sit by creek /		Built Environ Sit at a table Cooking	1	Social Environ Rules/regulation Collect gems	n 1
natural, built, or social environment, and rules/regulations.	n = 7 Natural Env Rain: couldn't car explore Swim: not en	mp or e area 3	Built Environ Shower Rules/regulation		Social Environ If not on tour – would have done a walk	_

f) Information

Key Findings

Stage 1: September 2001 Information/Signage Use

During this first data collection stage,

- Most visitors (42.3%) strongly agreed that *directional signage* was easy to locate at Henrietta Creek. However, slightly fewer visitors (37.3%) strongly agreed that such signage enabled them to find their way round;
- Over three quarters of visitors (77.6%) agreed to being able to *determine* the *rules and regulations* at Henrietta Creek. Similarly, 79.2% of visitors agreed to being able to clearly identify what was *acceptable activity*;
- 44.7% of visitors strongly agreed that *safety* information was *easy to locate*, and 46.8% strongly agreed that it was *understandable*;
- Visitor assessment of the *natural / ecological* information was low.

Stage 2: April 2002 Information/Signage Use

During this second data collection stage, visitor assessment of information differed slightly.

- In this stage, a lot fewer people *strongly agreed* that *maps* were *easy to locate* (28.6%), or assisted with *way finding* (20%);
- Overall, visitor assessment of the *rules and regulations* at Henrietta Creek was slightly higher for this data collection stage compared to the first, however in this stage there were fewer people who strongly agreed to the information being easy to determine (31.8%), and to being able to identify acceptable activities (35%);
- Approximately 95% of visitors agreed to some extent that *safety* information was easy to locate (95.3%), and that it was understandable (95%);
- Visitor assessment of the *natural / ecological* information was lower for this data collection stage compared to the first.

Combined Data & General Comments

- Visitor assessment of all information sources was only within the range of slightly to somewhat agree.
- Visitor assessment of the *rules and regulations* at Henrietta Creek was the highest compared to the other information types easy to determine ($\overline{X} = 4.82$), identify acceptable activity ($\overline{X} = 4.81$);
- Visitor assessment of *safety* information received the second highest ratings ($\overline{X} = 4.59$ to 4.72);
- Visitors slightly to somewhat agreed that the *maps* at Henrietta Creek were easy to locate ($\overline{X} = 4.63$), though wayfinding ability as determined by presentation of information on the maps received a slightly lower assessment ($\overline{X} = 4.45$);
- The *natural/ecological* information received the lowest assessment of all information types.

f) Information

QUESTIONS & RESULTS

16. Did you refer to any of the information	n = 70 Yes	34.3%	No	65.7%
available at this site today?	n = 25 Yes	60.0%	No	40.0%

	Strongly Disagree						Strongly Agree				
All of the signs from (a) to (d) were present at Henrietta Creek (see Section 2 for details).	n	1	2	3	4	5	6	\overline{X}			
a) The maps and directions at this site: i) were easy to locate	52	11.5%	0.0%	9.6%	25.0%	11.5%	42.3%	4.52			
,	21	0.0%	4.8%	0.0%	23.8%	42.9%	28.6%	4.90			
<i>ii)</i> helped me to find my way round	51	9.8%	2.0%	7.8%	25.5%	17.6%	37.3%	4.51			
u) helped life to liftd my way found	20	5.0%	0.0%	30.0%	10.0%	35.0%	20.0%	4.30			
b) The rules and regulations at this site: i) were easy to determine	48	6.1%	0.0%	16.3%	14.3%	14.3%	49.0%	4.78			
,	22	0.0%	0.0%	9.1%	22.7%	36.4%	31.8%	4.91			
ii) enabled me to clearly identify acceptable	52	6.3%	0.0%	14.6%	16.7%	14.6%	47.9%	4.77			
activities	20	0.0%	5.0%	10.0%	10.0%	40.0%	35.0%	4.90			
c) The safety information at this site: i) was easy to locate	47	12.8%	4.3%	10.6%	14.9%	12.8%	44.7%	4.45			
,	21	0.0%	0.0%	4.8%	28.6%	38.1%	28.6%	4.90			
ii) was easy to understand	47	10.6%	4.3%	6.4%	14.9%	17.0%	46.8%	4.64			
ii) was easy to understand	20	0.0%	0.0%	5.0%	30.0%	35.0%	30.0%	4.90			
d) The natural/ecological information at this site:	45	13.3%	6.7%	13.3%	24.4%	13.3%	28.9%	4.04			
i) was interesting	21	0.0%	9.5%	23.8%	42.9%	9.5%	14.3%	3.95			
	44	15.9%	4.5%	11.4%	25.0%	13.6%	29.5%	4.05			
ii) was clearly presented	20	0.0%	10.0%	35.0%	20.0%	25.0%	10.0%	3.90			
<i>iii</i>) helped me better understand the	44	15.9%	6.8%	11.4%	27.3%	9.1%	29.5%	3.95			
ecological processes of this area	20	0.0%	15.0%	35.0%	20.0%	20.0%	10.0%	3.75			
f) The indigenous cultural information at this site: i) was interesting				_							
ii) was clearly presented	No indigenous information present at this site										
ii) helped me understand the significance of this area for indigenous Australians	ıs										

g) Site Facilities & Management Issues

Key Findings

Stage 1: September 2001

Visitor Appraisal

During this first data collection stage,

- The *toilet facilities* at Henrietta Creek were the *most frequently* used of all facilities present. Many other visitors also used the *walking track* and *picnic tables*. The most frequently requested additional facilities were more *tables and chairs* and *gas barbecues*;
- The overall *condition* of facilities was rated the highest followed by their *adequacy* and a*ppeal*;
- The management of facilities was rated moderately high, with 41.7% of visitors *strongly agreeing* that the facilities were *well managed*;
- Over half of the visitors *agreed* that the presence of a *ranger* at the site was important;
- Of those who did agree to the ranger's presence, the reasons most frequently identified were for *safety and security*, and to *provide information and education*.

Stage 2: April 2002

Visitor Appraisal

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

- The walking track at Henrietta Creek was the most used facility. This was followed by the toilet facilities and the picnic tables;
- The overall *visitor appraisal* of facilities was lower in Stage 2 compared to Stage 1;
- The overall *condition* of the facilities was rated the highest with *40% strongly agreeing* that the condition of the facilities was good. About one quarter of visitors strongly agreed that the facilities were *appealing* (24%), *adequate* (28%) and *well managed* (22.2%);
- Over half of the visitors (56%) disagreed to the presence of a *ranger*;
- Of those who did agree to the presence of a ranger, the reasons most frequently identified were to *provide information/education* and *to answer questions*.

Combined Data & General Comments

- The toilets and walking track at Henrietta Creek were the most frequently used facilities;
- The facilities most often requested by visitors were *picnic tables*, *gas bbq and showers*;
- Condition of facilities received the highest rating (X = 5.17), with 81.3% of visitors somewhat and strongly agreeing that the condition was good;
- Of the 54.1% of visitors for whom the presence of a ranger was important, the majority identified *providing information/education* and *safety and security* as the reasons.
 - 1. The **toilets** and **walking track** at Henrietta Creek were the most frequently used facilities at this site.
 - 2. Overall, visitors were satisfied with the **condition** of facilities at Henrietta Creek.

g) Site Facilities & Management Issues

QUESTIONS & RESULTS

19. What fo	19. What facilities have you used at this site today?									
n = 67	%		%	n = 27	%		%			
Picnic table	34.3%	Walking track	45.6%	Picnic table	40.7%	Walking track	88.9%			
Shelter shed	11.9%	Boardwalk	0.0%	Shelter shed	29.6%	Boardwalk	3.7%			
Restaurant/café	0.0%	Viewing platform/lookout	14.9%	Restaurant/café	0.0%	Viewing platform/lookout	22.2%			
Rubbish bin	26.9%	Fire place	3.0%	Rubbish bin	14.8%	Fire place	7.4%			
Toilet	62.7%	Barbeque	1.5%	Toilet/showers	66.7%	Barbeque	0.0%			
Тар	20.9%	Other (campsite, creek, road)	3.0%	Тар	40.7%	Other (campsite)	3.7%			
Comparative Date	Comparative Data 1993: Walking track = 44.8%; toilet = 44.8%; picnic table = 17.2%;									
		viewing platform from lookou	t = 10.3%;	shelter shed =	6.9%.	grassed area = 31%	n = 29			

20. Were there part	icular f	facilities at this site yo	ou were	expectin	ig to find wh	ich were	not available?	
$\underline{n=66}$ Yes	7.6%	No 92.4%		n = 25	Yes 2	20.0%	No 80.0%	
If yes, please s	pecify:							
$\frac{n=5}{\text{More tables & chair}}$ Decent gas BBO	_	Tour guide to fossicking areas			that works proper Biodegradable so		More covered picnic areas Showers	

sbout the <u>facilities</u> and <u>management</u> at this site by circling one number for each statement. Strongly Disagree Strongly Agree										
n	1	2	3	4	5	6	\overline{X}			
61	0.0%	1.6%	3.3%	23.0%	23.0%	49.2%	5.15			
25	0.0%	4.0%	8.0%	28.0%	36.0%	24.0%	4.68			
61	0.0%	0.0%	1.6%	19.7%	32.8%	45.9%	5.23			
25	4.0%	0.0%	8.0%	20.0%	40.0%	28.0%	4.76			
61	0.0%	1.6%	1.6%	13.1%	36.1%	47.5%	5.26			
25	0.0%	4.0%	12.0%	8.0%	36.0%	40.0%	4.96			
60	0.0%	1.7%	1.7%	21.7%	33.3%	41.7%	5.12			
27	0.0%	7.4%	11.1%	14.8%	44.4%	22.2%	4.63			
60	20.0%	10.0%	11.7%	21.7%	18.3%	18.3%	3.63			
25	20.0%	16.0%	20.0%	16.0%	12.0%	16.0%	3.32			
	_	what are	the reas	ons for th	is?					
38.7%			To provi			10	% 37.09 33.39			
9.7%			-		guided walks		3.7%			
2.770				For	afety/security	6	22.29			
40.3%										
		For loc	laina compl	To g	give directions ther behaviour	2	7.4%			
	n 61 25 61 25 61 25 60 27 60 25 r was in	Strongly Disagree n 1 61 0.0% 25 0.0% 61 0.0% 25 4.0% 61 0.0% 25 0.0% 60 0.0% 27 0.0% 60 20.0% 25 20.0%	Strongly Disagree n 1 2 61 0.0% 1.6% 25 0.0% 4.0% 61 0.0% 0.0% 25 4.0% 0.0% 61 0.0% 1.6% 25 0.0% 4.0% 60 0.0% 1.7% 27 0.0% 7.4% 60 20.0% 10.0% 25 20.0% 16.0% **T was important, what are ** ** ** ** ** ** ** ** **	Strongly Disagree n 1 2 3 61 0.0% 1.6% 3.3% 25 0.0% 4.0% 8.0% 61 0.0% 0.0% 1.6% 25 4.0% 0.0% 8.0% 61 0.0% 1.6% 1.6% 25 0.0% 4.0% 12.0% 60 0.0% 1.7% 1.7% 27 0.0% 7.4% 11.1% 60 20.0% 10.0% 11.7% 25 20.0% 16.0% 20.0%	Strongly Disagree n 1 2 3 4 61 0.0% 1.6% 3.3% 23.0% 25 0.0% 4.0% 8.0% 28.0% 61 0.0% 0.0% 1.6% 19.7% 25 4.0% 0.0% 8.0% 20.0% 61 0.0% 1.6% 13.1% 25 0.0% 4.0% 12.0% 8.0% 60 0.0% 1.7% 1.7% 21.7% 27 0.0% 7.4% 11.1% 14.8% 60 20.0% 10.0% 11.7% 21.7% 25 20.0% 16.0% 20.0% 16.0% **To provide information of the proposition of the propos	Strongly Disagree Strongly Disagree n 1 2 3 4 5 61 0.0% 1.6% 3.3% 23.0% 23.0% 25 0.0% 4.0% 8.0% 28.0% 36.0% 61 0.0% 0.0% 1.6% 19.7% 32.8% 25 4.0% 0.0% 8.0% 20.0% 40.0% 61 0.0% 1.6% 13.1% 36.1% 25 0.0% 4.0% 12.0% 8.0% 36.0% 60 0.0% 1.7% 1.7% 21.7% 33.3% 27 0.0% 7.4% 11.1% 14.8% 44.4% 60 20.0% 10.0% 11.7% 21.7% 18.3% 25 20.0% 16.0% 20.0% 16.0% 12.0% To provide information/education	Strongly Disagree 1			

g) Site Facilities & Management Issues Cont'd

Key Findings

Stage 1: September 2001

During this first data collection stage,

- Just under 20% of visitors identified Henrietta Creek as having special significance. The most frequently reported unprompted response was because the site is a Wet Tropics National Park;
- The majority of visitors, 60%, either did not know or answered incorrectly when asked who was the management agency responsible for Henrietta Creek;
- Of those who did identify an agency, 40% identified National Parks (with its various labels) as the management agency;
- When provided with a choice, *most visitors (39.7%)* labeled Henrietta Creek a *National Park. 20.6%* identified it as a *National Park and World Heritage Area*;
- Most visitors preferred sites with *limited facilities*, however, many also indicated that they preferred sites with fairly well developed facilities.

Stage 2: April 2002

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

- A greater percentage of visitors (42.3%) in Stage 2, considered Henrietta Creek to have special significance. The most frequently reported unprompted response was because it was *a National Park* and *World Heritage Area*;
- Similar to Stage 1, the majority of visitors, 59.3%, either did not know or answered incorrectly when asked who the management agency responsible for Henrietta Creek was;
- Of those who did identify an agency, 40.7% identified *National Parks* (with its various labels) as the management agency;
- When provided with a choice, half of the visitors labelled Henrietta Creek a National Park, and 21.4% identified it as a National Park and World Heritage Area;
- Many more visitors preferred sites with *limited facilities*.

Combined Data & General Comments

- The majority of visitors (57.7%) either *did not know* or provided an *incorrect answer* when asked who manages Henrietta Creek;
- When given a choice the majority believed the site to be managed by National Parks.
- 14% of visitors identified Henrietta Creek as a World Heritage Area, and 20% as a National Park and 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?											
$\underline{n=63}$	Yes 19	.0%	No	81.0%		<u>n = 26</u>	Yes	42.3%	No	57.7%	
<i>If y</i>	es, please sp	ecify	•								
	Connection to land cellent gem stones Natural beauty	1	Wet Tr	Falls ropics NP WHA	n 1 6 1		Indigenous site Vorld Heritage Area biodiversity around	3(1)	One of a few	National Park Rainforest camping areas	_

24. What agency or department do you think manages this site?								
n = 70	n	%	n = 27	n	%			
Management Agency or Department:								
National Parks/Parks & Wildlife/QPWS	28	40.0%	Management Agency or Department:					
Natural Resources / State Forestry	2	2.8%	National Parks/Parks & Wildlife/QPWS	11	40.7%			
WHA	2	2.8%	DNR	1	3.7%			
WTMA	2	2.8%	Conservation	1	3.7%			
Rainforest CRC	1	1.4%	Palmerston	2	7.4%			
Government	1	1.4%						
			Unanswered /Don't Know	12	44.4%			
Unanswered /Don't Know	34	48.6%						

25. Which of the following labels applies to this site?							
n = 68 National Park (NP) State Forestry (SF) World Heritage Area (WHA) Don't know	1.5% 16.2%		20.6% 0.0% 0.0%	National Park (NP) State Forestry (SF) World Heritage Area (WHA)	3.6% 10.7%	NP & WHA NP & SF SF & WHA NP, SF, WHA	0.0% 0.0%

26. Which of the following natural a	reas do y	ou most prefer visiting?	
n = 63	%	n = 29	%
Natural area with: no facilities (eg. no toilets, no designated camp ground) few facilities (eg. rough walking tracks) limited facilities (eg. walking tracks evident, some directional signage) fairly well developed facilities (eg. well marked tracks, extensive signage) very well developed facilities (eg. camp grounds, visitor centre)	9.5% 25.4% 23.8%	Natural area with: no facilities (eg. no toilets, no designated camp ground) few facilities (eg. rough walking tracks) limited facilities (eg. walking tracks evident, some directional signage) fairly well developed facilities (eg. well marked tracks, extensive signage) very well developed facilities (eg. camp grounds, visitor centre)	10.3% 44.8% 17.2%
don't know/don't care	22.2%	don't know/don't care	0.0%

h) Other Visitors & Experience

Key Findings

Stage 1: September 2001

During this first data collection stage,

- The majority of visitors (90.1%) *did not agree* that there were *too many other people* at Henrietta Creek;
- They also *did not agree* that the people who were there *impacted on their own behaviour or experience* of the site;
- Two thirds of visitors (65%) agreed that other visitors at the site were on the whole environmentally responsible;
- In terms of their experience of Henrietta Creek, visitors rated their *enjoyment* of the site *highest* with many strongly disagreeing that there were disappointing aspects;
- Just under three quarters of visitors (71.2%) *agreed* to some extent that their visit had been a *special experience*.

Stage 2: April 2002

During this second data collection stage, visitor responses were slightly different.

- Just under three quarters of visitors (73.1%) *strongly disagreed* to there being too many people at the site;
- Similarly, 76.9% of visitors *strongly disagreed* that the presence of other people *impacted on their own behaviour or experience* of the site;
- Although the majority of visitors agreed that other visitors were on the whole environmentally responsible, one third strongly disagreed;
- Visitors rated their *enjoyment* of the site *highest* with many strongly disagreeing that there were disappointing aspects;
- Most visitors (59.3%) *mildly 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 Henrietta Creek;
- Visitor experience of the site was highest in terms of *enjoyment* and *worth the money*.
 - 1. Experienced **crowding**, as measured by number, presence and behaviour of others, does not appear to be a problem at Henrietta Creek.
 - 2. Reported visitor **satisfaction**, as measured by enjoyment and worth the money, was moderately high.

h) Other visitors

QUESTIONS & RESULTS

			Strongly Disagree		Strongly Agree					
		n	1	2	3	4	5	6	\overline{X}	
a)	There were too many people at this site today.	61	63.9%	16.4%	9.8%	3.3%	1.6%	4.9%	1.77	
	•	26	73.1%	19.2%	3.8%	3.8%	0.0%	0.0%	1.38	
b)	The presence of other people at this site prevented me from doing what I	62	77.4%	8.1%	1.6%	1.6%	0.0%	11.3%	1.73	
	wanted to.	26	76.9%	15.4%	3.8%	3.8%	0.0%	0.0%	1.35	
c)	The behaviour of other visitors at this site has been on the whole	60	25.0%	3.3%	6.7%	11.7%	20.0%	33.3%	3.98	
	environmentally responsible.	23	34.8%	0.0%	8.7%	4.3%	30.4%	21.7%	3.61	
d)	The behaviour of some visitors at this site detracted from my enjoyment of this	61	68.9%	13.1%	4.9%	4.9%	0.0%	8.2%	1.79	
	site.	25	72.0%	16.0%	8.0%	0.0%	0.0%	4.0%	1.52	

i) Experience Questions & results

28.	The following statements are abwhich you agree or disagree with	-						e exten	t to
			Strongly Disagree					ongly gree	
		n	1	2	3	4	5	6	\overline{X}
a)	I experienced a real sense of involvement and connection with this	61	4.9%	6.6%	26.2%	32.8%	14.8%	14.8%	3.90
	place.	25	8.0%	8.0%	28.0%	32.0%	16.0%	8.0%	3.64
b)	For me visiting this site has been a special experience.	59	3.4%	8.5%	16.9%	33.9%	22.0%	15.3%	4.08
		27	7.4%	0.0%	7.4%	59.3%	7.4%	18.5%	4.15
c)	I thoroughly enjoyed my visit to this site today.	59	1.7%	0.0%	6.8%	22.0%	30.5%	39.0%	4.97
		27	3.7%	0.0%	7.4%	44.4%	25.9%	18.5%	4.44
d)	It was well worth the money I spent to come to this site.	51	13.7%	3.9%	5.9%	19.6%	21.6%	35.3%	4.37
		21	14.3%	0.0%	9.5%	38.1%	19.0%	19.0%	4.05
e)	I was disappointed with some aspects of this site.	55	47.3%	25.5%	9.1%	9.1%	7.3%	1.8%	2.09
		23	34.8%	30.4%	4.3%	17.4%	13.0%	0.0%	2.43

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 aspects were identified as **enhancing visitor enjoyment**, most were related to *natural features* of the site, in particular the rainforest, and the waterfalls;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were related to insects *marsh flies*.

Stage 2: April 2002

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

- Additional information requirements were again predominantly related to natural and ecological information;
- Similar to Stage 1, aspects most frequently identified with **enhancing visitor enjoyment** were related to *natural features* especially waterfalls and creek;
- The most frequently reported aspects of the visit that **detracted from visitor experience** were those to do with the *rain* and the *facilities*, in particular the roads and tracks.

Combined Data & General Comments

- 1. Natural, ecological, cultural and historical information were the types of additional information most frequently sought by visitors.
- 2. The **natural features** at Henrietta Creek were what enhanced visitor enjoyment of their visit.
- 3. Facilities such as the track, the weather, and marsh flies detracted from visitor enjoyment of Henrietta Creek.

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 18 respondents	to tl	nis question, 1 indicated that	no	Of the 9 respondents to	thi	is question, 1 indicated that the	V	
more additional inform				would like no more add		•	,	
	n		n		n		n	
Maps/Orientation		Natural/Ecological/Geological		Maps/Orientation		Natural/Ecological		
No maps	1	Facts re: gems, timber, minerals	1	Clearer maps of walks	2	Wildlife	4(3)	
Rules/Regulations/Safety		Types of birds, tress & animals	4			Plant labels	1	
No rules	1	Seasonal wildlife	1			Conservation	(1)	
General:		Watch out for leeches	1	Rules/Regulations/Safety				
		Bush tucker labels	1			Cultural/Historical Information		
						Indigenous Culture	(2)	
		Cultural/Historical Information				S	` ′	
		Indigenous cultural info	5	General:				
		White / local history						
						** Did not see any information	1	

	29. Were there any particular aspects of your visit that increased/enhanced your enjoyment of this site?							
n = 63 Yes 2	5.4%	No 74.6%		$\underline{n=26}$ Yes	42.3%	No 57.7%		
If yes, please	spec	ify:						
Natural: Swim Beauty of the rainforest Good weather Platypus Waterfalls Facilities: Picnic tables Shady parking Information on wildlife	3 1 1 2 1 1	PsychoSocial: Tranquillity / Peacefulness Other: Very tidy		Heavy do Large area of undisturbe Not Lots of waterfalls Rat Kangaroo & lots Facilities: Clean ee	ed forest 1 training 1 s / creek 2	PsychoSocial: Visit from ranger Other:	n (1)	

<i>30</i> .	30. Were there any particular aspects of your visit that took away/detracted from your enjoyment of this site?													
<u>n = 63</u>	Ye	es 28.6	%	No	71.4%		<u>n = 26</u>	Yes	38.5%		No	61.5%		
	If yes, please specify:													
	l/Biophy	sical: Marsh flies Leeches		Facilities: Other: Water crossi	Camp ground		Natural/Bi Rules/Reg PsychoSoc	ulations/saf	Leeches Rain ety	n 1 3		No rubbish bi s muddy & erodin worn & dangerou Answering surve	g s	1 1 1
<u>Psycho</u>	Social:	Traffic Noise	1				2 5,1 0110000					Noise of roa Rubbish in toilet	d	2

Comments on Questionnaire

Key Findings

The following are key findings from comments made by visitors to Henrietta Creek.

Stage 1: September 2001

- The majority of comments reflected visitors' *positive experiences* at Henrietta Creek. In two cases, visitors (from the U.K) described the site as adding to the overall enjoyment of their trip. In both cases, they were *impressed with the size and quality of the facilities*.
- Other comments were varied. Some visitors were uncomfortable with the *marsh flies*, while others indicated that there should be *more signage* at the beginning of the track to make it easier to follow.
- Comments that suggested improvements with the site focused on:
 - more signage on the track.
- Overall, the majority of the comments were positive.

Stage 2: April 2002

Like Stage 1, comments were varied.

- Many comments focused on the *positive aspects and experiences* of the site. In particular, the *ranger's information*, and the area in general, often described by visitors as being *'beautiful'* and *'excellent'*.
- Negative comments focused on *paying to camp* at the site, the *poor condition of the road*, and the *information provided* at the site.
- A respondent suggested that there should be *additional information on flora and fauna*, as well as *illustrations* of the different species. The map of the area was also negatively commented upon, with the respondent suggesting that the *approximate length and time* of the walking tracks be included on this map. This particular respondent also focused on the lack of facilities of the area, specifically, *rubbish bins, covered tables and chairs*.

HENRIETTA CREEK: September 2001

ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE

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

<u>Date</u>	Comments
25.09.01	We have been impressed with the size and quality (in natural history terms) of the Reserve and facilities (camping, walking tracks, and general access). At least as good as anywhere we have been in the world and many respects the <u>best.</u> We have visited around 45 countries.
	(UK Visitor, male, 60 years)
25.09.01	We have visited a large number of National Parks and State Forests during our visit to Australia. Our experience has been wonderful, e.g:Access to areas; privileged to be able to visit indigenous areas; privileged to be able to visit non indigenous cultural sites; friendly, helpful rangers; excellent facilities e.g., toilets, showers, shelters, information, leaflets, signs, centres, guides, videos; Low prices; Mostly clean bush camping sites (info on not burying toilet paper at sites may help). We are careful of our impact everywhere. Thank you – Australian Environmental Agencies.
	(UK Visitor, female, 45 years)
20.00.01	
30.09.01	My only comment would be to add signs at the beginning of the track stating that there are water crossings. Also some signs may make track slightly easier to follow.
	(Australian Visitor, female, 26 years)
30.09.01	I would like to see the re-introduction of fossicking hand only. (Indigenous Australian Visitor, male, ? years)
30.09.01	Marsh flies drove me to distraction.
	(NZ Visitor, female, 49 years)
30.09.01	The lady handing out these leaflets was very polite and friendly.
	(Australian Visitor, female, 32 years)
30.09.01	The park is in a high standard of condition although I didn't stay long.
	(NZ Visitor, female, 13 years)
30.09.01	We were in our caravan and appreciated a good rest area to have our lunch and smokos. I do not like people who overstay at rest areas where a time limit applies, so areas not supervised?
	(Australian Visitor, female, 66 years)
30.09.01	Qs4: Vegetation appears to be excellent; hardly saw any wildlife, only birds; BBQ in poor condition; Saw no feral or domestic animals.
	(Australian Visitor, female, 62 years)

HENRIETTA CREEK: April 2002

ADDITIONAL COMMENTS MADE BY RESPONDENTS ON QUESTIONNAIRE

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

<u>Date</u>	Comments
12.04.02	Thanks to the very nice ranger. He gave us information and was very helpful. (Dutch visitor, 39 years, female).
13.04.02	Falls drive was well set out and well worth doing. We didn't really explore the area due to bad weather, a day of mud. If campsite had power for the campervan we'd have stayed here. I don't like snakes so my fear stops me from enjoying rainforest walks.
	(UK visitor, 30 years, male).
13.04.02	Generally feel a ranger is quite important on hand as something similar like a D.O.C. Centre which they have in NZ which will give you good information at walking tracks, safety, and how to be environmentally sound. Theis accessibility to such a service would be most useful – have to also consider for those people who can't read! The area is very beautiful and probably the most impressive area I've seen on the east coast.
	(UK visitor, 34 years, female).
13.04.02	Excellent. Should be more like it and should be free to stay. What do we pay rates and taxes for? (Australian visitor, 40 years, female).
14.04.02	We came here to investigate the Lepidoptera (moth) fauna as part of a project on a certain moth family that is indigenous to Australia.
	(German visitor, 41 years, male).
14.04.02	Roads need upgrade – badly! Visitor information signs need more information on natural systems including plant species and animal species. Signs should have illustrations of birds, mammals, significant rainforest plants along with brief descriptions on their features, habitat and what their role is in the overall rainforest system. This would allow visitors to identify what they are seeing and feel a sense of belonging. It will also help them to understand the conservation value of the area. A prime example of what I am talking about can be found along the walking in the Lucia State Forest outside of Mission Beach. It is managed by the State Forestry Department. Also, the map of the area is too broad a scale. Need a map of Henrietta Creek area showing walking trails and natural features on trails as will as length of trail and approximate time it takes. When providing camping areas it is important to provide facilities for the campers. The toilet facilities are excellent but other facilities such as showers, designated car park (so campers don't stop tourists from parking on park or grass), more rubbish bins and more covered areas and tables and chairs. Information signs and parking permit stand are not in an appropriate spot. Need to be in an area so that they are seen when you first enter. I am an environmental science student and these are just a few obvious suggestions from first impressions of the area.
	(UK visitor, 20 years, female).

Comments to Field Assistants

Key Findings

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

Stage 1: September 2001

- The majority of comments made to field assistants focused on the presence of the marsh flies and the facilities of the site.
- In regards to the facilities on the site, field assistants were asked if there were any showers and gas barbecues present on the site. An emergency phone in the area was suggested by a visitor as an additional facility.

Stage 2: April 2002

• Comments made to field assistants during Stage 2, focused on the facilities of the area; particularly the absence of bins, a shower and the lack of information regarding wildlife.

ADDITIONAL COMMENTS MADE BY RESPONDENTS TO FIELD ASSISTANTS

SITE : Henrietta Creek September/October 2001

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

<u>Date</u>	Comments
29.09.01	Man wanted a shower on the site. (Anon.)
29.09.01	Two men wanted gas barbecues on the site and a ranger to be present. (Anon.)
29.09.01	"The impatiens at Nandroya Falls look lovely": couple of biologists who didn't know they are exotic. (Anon.)
29.09.01	"More room in camping area – they are like suburbia." (Anon.)
30.09.01	German group who did not know what "weeds" were. (Anon.)
30.09.01	"How long does this survey take? We have filled out surveys at the dam and at the dam wall – not J.C.U., though, yesterday"; "Get rid of the Marsh flies!"
30.09.01	"Do you have a Japanese form?"; "Very nice area."
	(793)
30.09.01	Need an emergency phone in area s mobile doesn't work (2 different groups of people who pulled into the area with vehicle problems).
30.09.01	Is there a phone close to this location?
30.09.01	Does a ranger check these sites at night? We don't like stopping in locations where we are alone and likely to be frightened by local yobbo's (Retired couple with van).
30.09.01	Need an emergency phone in the area. (Anon.)
25.10.01	Visitors from overseas: visited a couple of weeks ago. Marsh flies worse then, but still bad. (822 - 825)
25.10.01	Walked to platypus watch – short stop. (814, 815)
25.10.01	Completed short walk to platypus watch. (818)

ADDITIONAL COMMENTS MADE BY RESPONDENTS TO FIELD ASSISTANTS

SITE : Henrietta Creek April 2002

The following are comments made by 11 visitors to the field assistants at Henrietta Creek.

<u>Date</u>	Comments
12.04.02	Two females camping overnight; would not go walking because of concern for valuables being left: no-one else around; unaware that platypus viewing area so close – would have gone early in the morning. "This area is not tranquil due to road." It is very difficult for international visitors to know where to dispose their rubbish. We cannot take it on the plane with us." At least they could provide us with directions as to where the next waste disposal place is."
	(Anon.)
12.04.02	Had collected a water sample which contained minute water mites and wanted to know what they were. Is planning to take the sample back to Germany.
	(German male)
13.04.02	Arrived late and sat in vehicle eating sandwich and wondering what to do, as it was so wet and still raining. Had intended walking Nandroya but by 16.00 hrs starting to look dark and still raining. Drove on.
	(Anon.)
13.04.02	Couple live in area and visit site frequently.
13.04.02	(2119)
13.04.02	Disappointed that there weren't guides to wildlife.
10.002	(2114)
13.04.02	Woman from Cairns showing area to her folks. Came looking for platypus.
13.04.02	(2109 - 2111)
14.04.02	Entomologists – female: PhD student (ANU) collecting moths – stayed overnight. Male showed his collecting permit – said he was told to show it if speaking to people.
	(2112, 2113)
14.04.02	Site needs a shower.
17.07.02	(Anon.)

BEHAVIOURAL EVENTS

Key Findings

Combined Data Sets

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

• Undesignated area use

During Stage 2, field assistants observed that due to a heavy down pour during the night, a lot of overnight visitors camped underneath the shelter shed. Additionally, due to the heavy down pour during this period, a bus group had to use the toilets to get changed in.

Other behaviours observed varied, many being Stage specific (only observed during one stage, and not the other). However, during both stages (especially Stage 1), visitors were often agitated by the presence of marsh flies. Field assistants observed that visits to the area were shortened due to this problem.

Behaviours such as vandalising information signs and litter in the toilets were also observed.

BEHAVIOURAL EVENTS

The following are critical incidental observations of behavioural events made opportunistically by field assistants during the period of administration of surveys and counts of vehicles/visitors.

Behavioural Topic	Comment: SEPTEMBER, OCTOBER 2001	Comment: April 2002
Domestic Animals	30.09.01 • Three dogs in cage – drive through – dogs let out. 11.55 hrs.	• N/A
Deliberate Damage to Plants	• N/A	• N/A
Undesignated Area Use	• N/A	 12.04.02 Two campers using shelter shed to camp in (very heavy rain overnight). Park car next to shed. 10.30 hrs. Bus group having to use toilets to change in – very heavy downpour). 13.30 hrs. 14.04.02 Campers using shelter shed overnight to camp in (heavy rain overnight). Hung clothes in shelter. Ran a generator overnight to power light for insect trap.
Speeding	• N/A	• N/A
Risk Activity	• N/A	• N/A
Aggressive Behaviour	30.09.01 • People yelling in creek. 11.20 hrs.	• N/A
Other	 Writing on information signs. 11.20 hrs. Picnicking – table 1: 11.00 – 11.15 hrs, table 2: 11.00 – 11.30 hrs, table 3: 13.00 hrs, table 4: 15.00 hrs. Interaction with insects: Marsh flies. 30.09.01 Picnicking Interaction with insects: Marsh flies. (present throughout the day: worse 10.00 – 16.00 hrs). Interaction with wildlife: 10 year old child throwing food at butcher bird. 11.15 hrs. 25.10.01 Interaction with insects: Marsh flies affecting people, ie. stay at site shortened. 	 Road traffic very loud. 10.30 hrs. Marsh flies, mosquitoes, sandflies harassing visitors. 10.30 hrs. 13.04.02 Indigenous woman from Cape York—often stops here and she fishes for bream, also turtles, which are her favourite food. Fish with a line and bread for bait. 14.04.02 Visitor sorting insects at picnic table in shelter. Litter in ladies' toilets: takeaway box, coffee cups, bag of garbage. 08.30 hrs.

S E C T I O N

Section Two

Infrastructure Inventory and Profile



- Site Infrastructure Inventory
- Site Information and Signage

HENRIETTA CREEK

Map of the layout of the site including the delineation of the use/impact nodes which have been assessed.

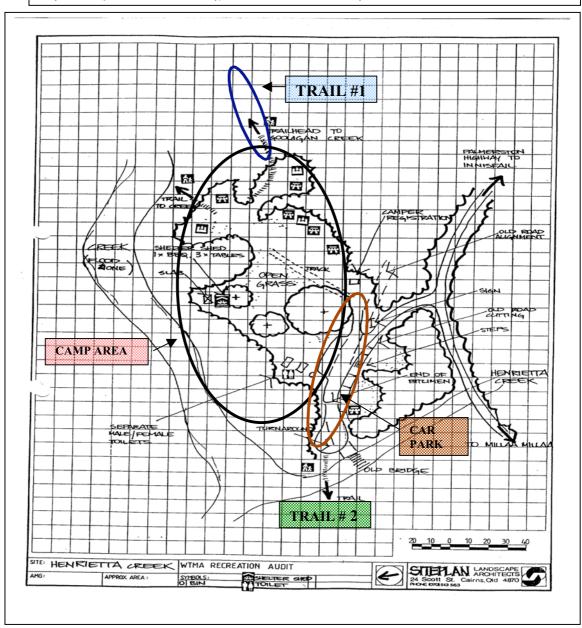


Figure 1: Henrietta Creek site map and activity nodes (Source: SitePlan 1993 modified).

Site Infrastructure Inventory

Key Findings

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

HENRIETTA	Wet Tropics Site No.: 65 Management Agency: EPA/QPWS Date Assessed: 23.3.99 & 29.9.01						
CREEK	Date Assessed: 23.3.99 & 29.9.01						
Site Parameters Annual vehicle/visitor # Site Access: Road Type: Road Conditions:	Vehicle s = 11,86 Road Sealed Minor erosion / few	potholes	Vehicle s = 9,367; Visitors = 25,386 Road Sealed Minor erosion / few potholes				
	Access Road/Car	Park	Day Use/Camp	Area	Trail – Henrietta to Goolagan		
Facilities / Infrastructure Landscaping:	1999 Medium	2002 Medium	Medium	Medium/soft	Soft	Soft	
Signage: Corporate Identity	Absent	1	1	1	Absent	Absent	
Visitor Orientation	2	1	2	1	2	3	
Visitor Advice	2	2	5	6	2	Absent	
Regulatory	1	3	2	1	2	1	
Interpretive	Absent	Absent	Absent	Absent	Absent	1	
Foreign Language	Absent	Absent	Absent	Absent	Absent	Absent	
Capacity / Description:	Bitumen; gravel	Bitumen; gravel, dirt	4 camp spaces	4 camp spaces	Gravel, 400m	Gravel, 400m (to bush pool)	
Amenities / Utilities	A1	A.1 4	Comment	Comment	Alexant	A 1	
Toilets: Showers:	Absent Absent	Absent Absent	Composting Absent	Composting x 4 Absent	Absent Absent	Absent Absent	
Bins:	Absent	Absent	Absent	Absent	Absent	Absent	
Water:	Absent	Absent	Present	Present	Present	Creek	
Power:	Absent	Absent	Absent	Absent	Absent	Absent	
Telephone:	Absent	Absent	Absent	Absent	Absent	Absent	
Other	Absent	Absent	Basins, 4 wood	Basins, 3 old	Absent	Absent	
			BBQs,	BBQs, 1 tap			
			5 tables, 1 shelter shed	5 tables, 1 shelter shed			
Appeal			onerer one	SHOWER SHOW			
Attractiveness:							
Naturalness (within)	Low	Low	Medium	Medium	High	High	
Naturalness (surroundings)	Medium	Medium	High	High	High	High	
Nuisance insects Built environment	Medium Low	High Low	Medium Medium	High Low/Medium	High	High Medium	
Shade	5%	5-10%	0 to 80%	0 to 80%	90%	90%	
Noise (human origin):	High - cars	High – cars,	Medium - cars	Medium – cars	Low	Low	
, , ,	-	close to road		from road			
Biophysical Landform:	Level		Gently-moderate	inalinad	Gently inclined		
Altitude:	600m		600m	memed	600m		
Vegetation:	Rainforest on edges		Rainforest		Rainforest		
Geology:	Basalt		Basalt Basalt				
Water body:	Absent		Absent		Creek		
Impact Assessment:							
Condition Indicators:							
Litter (visual impact)	Nil	Nil	Medium	Low	Low	Low	
Litter (amount)	Nil	Nil	>21 items	< 15 items	<5 items	<5 items	
Litter (type)	Nil	Nil	Tins, paper	Paper, plastic	-	-	
Waste Management	Nil	No bins	Nil	No bins	Nil	No bins	
Wear on facilities	-	-	High	High	Low	Low	
Vandalism / graffiti	-	-	-	Medium	-	=	
Environmental Indicators:							
Soil erosion	Medium	Medium	Medium - high	Medium	Medium	Low	
Exotic weeds Exotic ornamentals	Low Nil	Low Nil	High High - ferns	High High - ferns	Nil Nil	Nil Nil	
Vegetation	High breakage,	No breakage,	Med breakage,	High breakage,	Low breakage,	Low breakage,	
Vegetation	high mutilation	low mutilation	high mutilation	high mutilation	low mutilation	low mutilation	
Wildlife	No evidence of	No evidence of	No evidence of	No evidence of	No evidence of	No evidence of	
	habituation	habituation	habituation	habituation	habituation	habituation	
Additional Notes	1999: Landscaping is		1999: Recent pain		1999: High erosio		
	gravel. No formal pa bollards.	arking bays or	any graffiti on fur BBQ plates are m		2001: Some of the track are rotting.	e signs along the	
	2001: Remains unch	anged Road	are disintegrating.		nack are rotting.		
	slightly boggy when		2001: BBQs not f				
	anginay ooggy when wet. 2001: DDQs not functional.						

Site Infrastructure Inventory

Details

A. Car Park Area

Car park area is not formally defined nor contains designated parking bays. Widening of the access road suggests this is the car park area. No bollards are present. The 'car park' is situated above the day use/camping area and would mainly be used by walking track users.

B. Day Use/Camping Area

Amenities Area: Composting toilet block. This is located at the north west end of the day use/camping area and on the side of the access road to the beginning of the Nandroya Falls walking trail.

Day use/Camp Area: The first section is a large, mown grassed area in the centre of which is a shelter shed. The road runs to one side of this grassed area and into a forested section which contains very basic facilities. These facilities suggest four broad camp areas. No numbered campsites; no defined parking areas; no vehicle barriers. Camp registration is located within the grassed area. The layout of the grassed area and the limited facilities present would suggest that this is the day use area.

Facilities	#	Construction/Condition
Tables	5	Timber
Sitting Benches	10	Timber
Fire Ring & plate	=	-
BBQ (brick)	3	Concrete/ in very poor
		condition
Wood store/table (brick)	=	-
Bins	-	-
Taps	1	
Shelter Shed	1	Timber, concrete, iron. In
		good condition

C. Trail #1 – Henrietta Creek to Goolagan Creek

This is a *graded* track (WTWTS, 2001) which winds through the forest along the edge of Henrietta Creek. For this project only the first part of the trail was assessed, i.e. to the point where the trail crosses Henrietta Creek. A platypus viewing area is present along this section of the trail together with interpretive signage. The trail condition is good.

The Nandroya Falls Walking track was assessed in detail for the Visitor Monitoring System project and results can be found in the VMS report (Wilson, 2002).

A. Day Use/Camp Area



Shelter Shed



Camping Registration

BBQs



Toilet Block





Note: Details of signage next section.

Site Information and Signage

The information and signage for the site has been grouped, as best as possible, according the Department of Natural Resource's five broad sign categories. The inventory includes number of actual sign structures and frequency of information types (according to these categories) within each of the activity nodes. This inventory does not include an assessment of sign content. The signage along Nandroya Falls Track and the full length of Goologans is not included in this audit.

Key Findings

- A total of **26 actual sign structures** containing **44 separate information types** relevant to Henrietta Creek were recorded along the main road, access road and at the main section of the site itself (Table 1).
- In terms of number of actual sign structures this represents a 30% increase from the original sign audit undertaken in April 1993, assuming this was a complete sign audit (SitePlan, 1993);
- Most of the signs provided *visitor advice* (36.4%), and *regulatory* type information (31.8%);
- The *interpretive* information consisted of very limited biological information which was embedded within the camp registration and site information;
- Apart from the logo on the road signs, there were no signs specifically identifying this as a World Heritage Area site;
- *No foreign language* signage was present at Henrietta Creek.

Table 1: Number of sign structures and type of information at Henrietta Creek.

Sign Category	Main Road	Access Road/Car Park	Day Use Camp Area	Track -(Goologans & Nandroya to first creek crossing)	TOTAL
Interpretive			1		1
Visitor orientation	4	3	2	3	12
Visitor advice		11		5	16
Regulatory		3	7	4	14
Corporate Identity			1		1
TOTAL Information Types	4	17	11	12	44
# Actual Sign Structures	4	5	9	8	26
SitePlan 93 # Sign structures					(18)

Comparative Data Set

SitePlan undertook an audit of signage at Henrietta Creek in April 1993. Due to the quality of this information it was only possible to determine total number of sign structures rather than actual sign categories.

Main Road (Palmerston Highway)







Access Road (bitumen road)











Day Use / Picnic Area Signage











Camp Area Signage







Track - Goologans (signage to creek crossing)









Track - Nandroya (signage to first creek crossing)







Section Three

Vehicle and Visitor Monitoring



- Vehicle and Visitor Records
- Traffic Counter Data

Henrietta Creek: Summary Table of Visitor and Vehicle Data

	Visitors					Vehicle	es			
	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	Families/	36	2.12	13	1120	cars	17	5	1120	68 mins
30 Sept	groups 52%	149	2.7	28	1120	(58%)	55	8	1120	37 mins
12 April		21	2.63	14	1100		8	4	1130	56 mins
13 April	Couples 55%	44	2.44	7	1015	cars (57%)	18	2	1015	20 mins
14 April		77	4.28	55	1220		18	8	1220	62 mins

Note: Data based on four x eight hour observations and one x five hour observation of vehicles and visitor occupancy in September 2001 and April 2002.

Henrietta Creek: Summary Table of Traffic Counter Data

	Visitors					Vehicles		
	Average	Highest #	Time 0f Highest	Lowest #	Time 0f Lowest	Average	Highest #	Lowest #
Yearly		25	5,386 visitor	·s		ç	,367 vehicle	S
Monthly	2,115	2,688	January 2002	1,290	February 2002	780	992	476
Weekly	488	846	December 2001 Week 4	276	February 2002 Week 2	180	312	102
Daily : Weekdays	65	195	1 st January 2002	11	20th February 2002	24	72	4
Daily: Weekends	84	203	30 th December 2001	35	13 th April 2002	31	75	13

Note: Data based on the continuous recording of traffic using the traffic counter/metro count system from November 2001 to October 2002.

Vehicle and Visitor Records

Key Findings

D ata 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 (12th, 13th & 14th April 2002). This is the first time this type of data has been collected at Henrietta Creek and so previous data is unavailable for comparative purposes.

Stage 1: 29th and 30th September 2001

Pattern of access to and use of Henrietta Creek

Figure 1

General

- Vehicle Type: The majority of vehicles using the site over the two days of observation were cars (58%).
- *Visitor Category:* Henrietta Creek appears to be favoured by *independent visitors* with families and/or small groups making up the major visitor category over these two days (52%).

Day 1 (29th September 2001 - Saturday)

- A total of 36 people in 17 vehicles visited Henrietta Creek during this eight hour observation period.
- There was *one distinct peak* in visitor numbers around *1120 hours*.
- The highest number of visitors at the site at any one time was 13 at 1120 hours. Visitor numbers remained below 5 for most of the day.
- The highest number of vehicles at the site at any one time was 5 at 1120 hours. For most of the day number of vehicles at the site remained below 3.

Day 2 (30th September 2001 - Sunday)

- A total of **149 people** in **55 vehicles** visited Henrietta Creek during this eight hour observation period.
- There was one distinct peak in visitor numbers between 1120 and 1130 hours.
- The highest number of visitors at the site at any one time was 28 at 1120 hours. For most of the day the number of visitors at the site at any one time remained between 10 and 20.
- The highest number of vehicles at the site at any one time was **8** at **1120** hours. For most of the day number of vehicles at the site remained below 5.

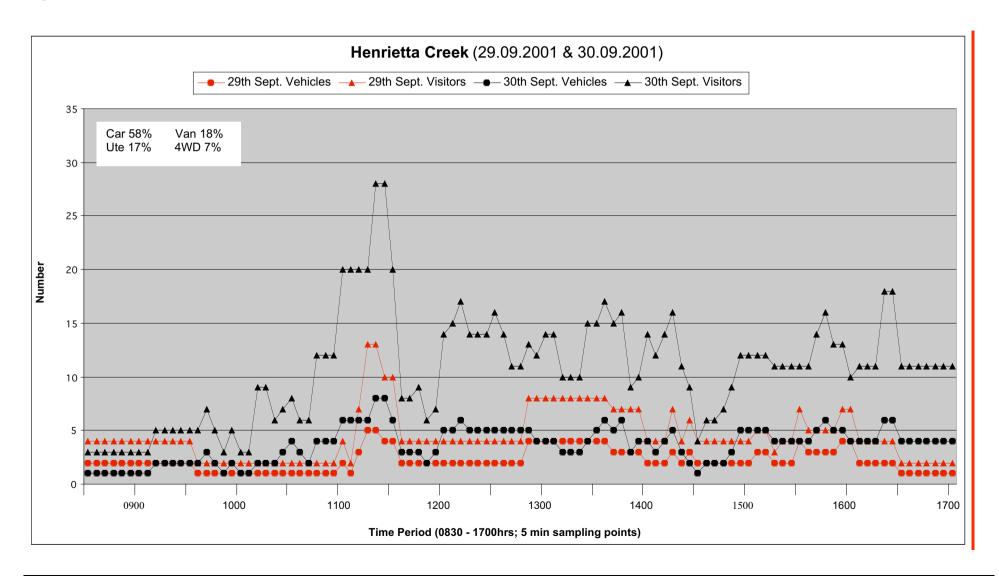
Length of Stay

Figures 2 and 3

- There were fewer vehicles observed at the site on Day 1 (17vehicles) compared to Day 2 (55 vehicles), and there were fewer people (36 visitors Day 1, 149 visitors Day 2).
- The average length of stay was 68 minutes on Day 1, and 37 minutes on Day 2.

VEHICLE AND VISITOR COUNT DATA: <u>HENRIETTA CREEK</u>

Figure 1: Records for Vehicles and Visitors at Henrietta Creek.



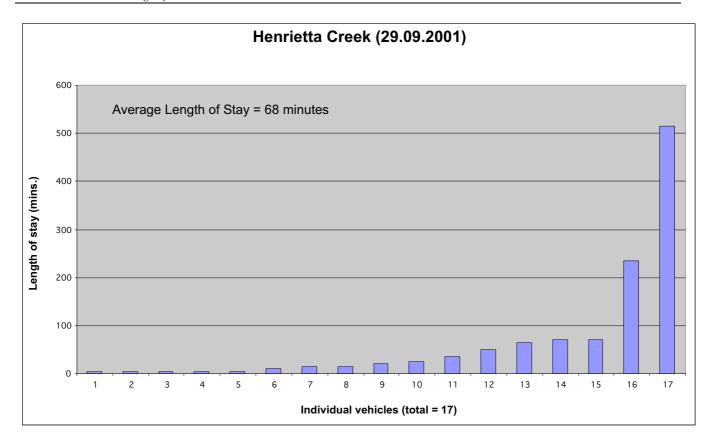


Figure 2: Length of stay of each vehicle at Henrietta Creek Day 1 - 29.09.2001.

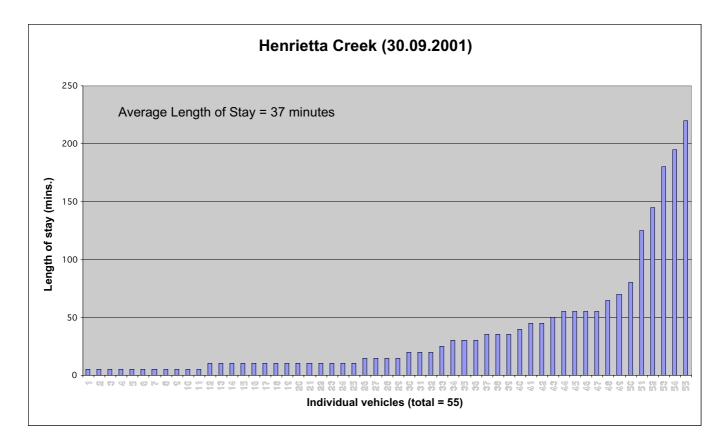


Figure 3: Length of stay of each vehicle at Henrietta Creek on Day 2 - 30.09.2001.

Vehicle and Visitor Records

Key Findings

Stage 2: 12th, 13th and 14th April 2002

Due to very low numbers three days of observations were undertaken during this stage.

Pattern of access to and use of Henrietta Creek

Figure 4

General

- Vehicle Type: The majority of vehicles using the site over the observation periods were cars (57%).
- *Visitor Category:* Henrietta Creek appears to be favoured by *independent visitors* with couples (two people) making up the major visitor category (55%).

Day 1 (12th April 2002 - Friday)

- A total of 21 people in 8 vehicles visited Henrietta during this five hour observation period.
- There were *two distinct peaks* in visitor numbers between *1100 and 1130 hours*;
- The highest number of visitors at the site at any one time was 14 at 1100 hours.
- The highest number of vehicles at the site at any one time was 4 at 1130 hours.

Day 2 (13th April 2002 - Saturday)

- A total of 44 people in 18 vehicles visited Henrietta during this eight hour observation period.
- The highest number of visitors at the site at any one time was 7 at 1015 hours.
- The highest number of vehicles at the site at any one time was 2 at 1015 hours.

Day 3 (14th April 2002 - Sunday)

- A total of 77 *people* in 18 vehicles visited Henrietta during this eight hour observation period.
- The highest number of visitors at the site at any one time was 55 at 1220 hours.
- The highest number of vehicles at the site at any one time was 8 at 1220 hours.

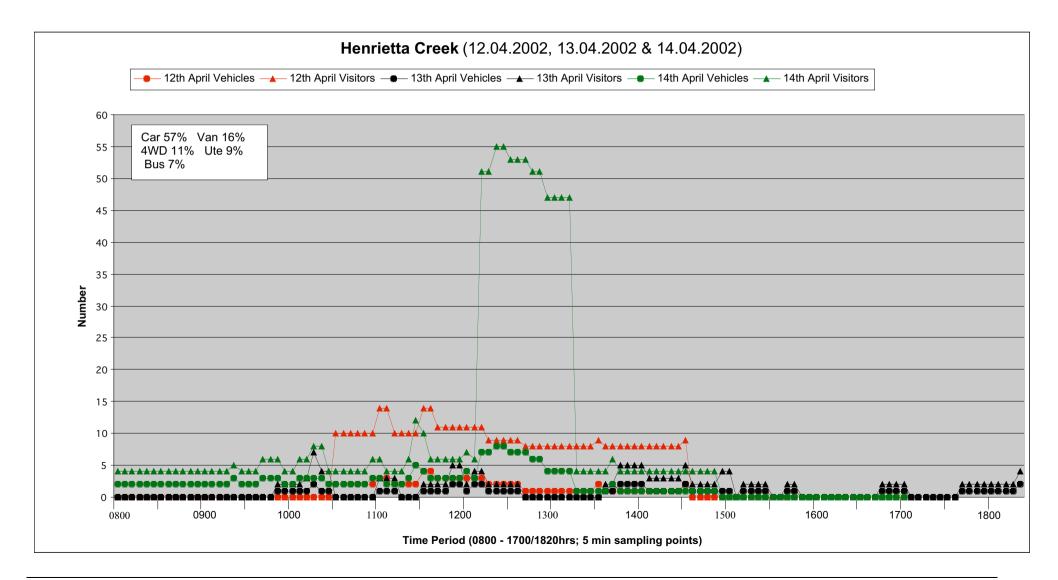
Length of Stay

Figures 5, 6 and 7

• The average length of stay was 56 minutes on Day 1, and 20 minutes on Day 2, and 62 minutes on Day 3.

VEHICLE AND VISITOR COUNT DATA: <u>HENRIETTA CREEK</u>

Figure 4: Records for Vehicles and Visitors at Henrietta Creek.



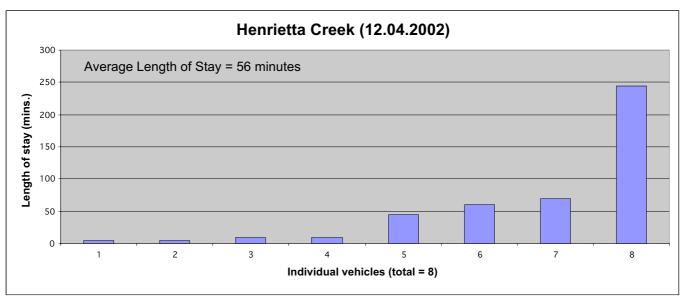


Figure 5: Length of stay of each vehicle at Henrietta Creek on Day 1 - 12.04.2002.

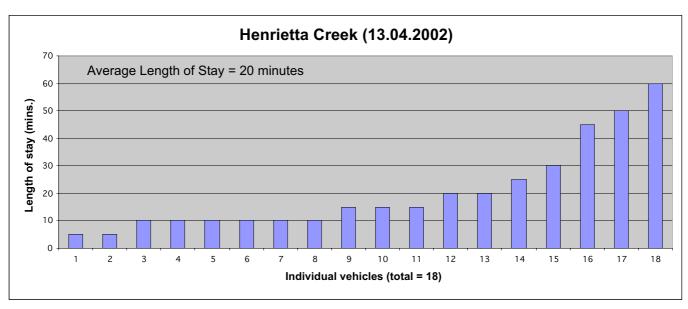


Figure 6: Length of stay of each vehicle at Henrietta Creek on Day 2 - 13.04.2002.

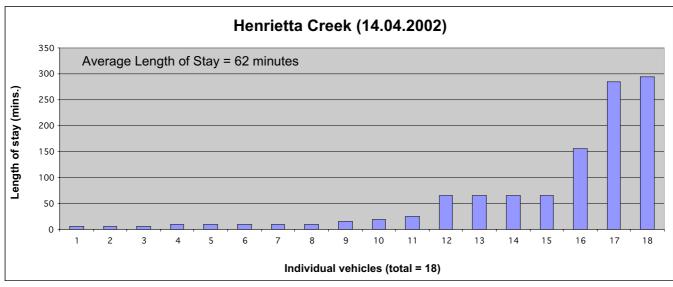


Figure 7: Length of stay of each vehicle at Henrietta Creek on Day 3 - 14.04.2002.

Traffic Counter Data

Key Findings

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

Yearly Estimates = 9,367 *vehicles and 25,386 visitors*

Monthly Records

Figure 8

- On average 780 vehicles (range = 476 992) and 2,115 people (range = 1,290 2,688) visited Henrietta Creek each month.
- *January 2002* received the *highest* visitation rates during which period vehicle numbers were just under 1,000. The quietest period was February.

Weekly Records

Figure 9

- On average 180 vehicles (range = 102 312) and 488 people (range = 276 846) visit Henrietta each week.
- There was one discernible period of increased vehicular traffic levels recorded during sampling: **December** (week 4). The quietest period was in February 2002, Week 2.
- The highest number of vehicles and visitors was in *December 2001, Week 4*, during which week *312 vehicles and 846 visitors* used this site.

Daily Records

Figure 10 and Table 2

- On average, 26 vehicles (range = 4 75) and 71 people (range = 11 203) visit Henrietta each day. Average weekday use = 24 vehicles per day;
- Weekends are slightly busier than weekdays with Sunday recording, on average, 32 vehicles (range 13 75), and 87 people (highest number = 203 people on 30th December 2001). Average weekend use = 31 vehicles per day.

Comparative Traffic Counter Data

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

- a. Yearly estimates vehicles = 11,607; people = 31, 429 (calculated on 2.7 people per vehicle)
- b. Average weekend use 41.9 vehicles (wet), 38.3 (dry)
- c. Average weekday use 19.6 vehicles (wet), 28.9 (dry)
- B. Estimated visitor use at Henrietta Creek 1998: (Source: Bentrupperbäumer & Reser 2000)
- vehicles = 11,863; people = 41,521 (calculated on 3.5people per vehicle)

TRAFFIC COUNTER/METRO COUNT DATA: <u>HENRIETTA CREEK</u>

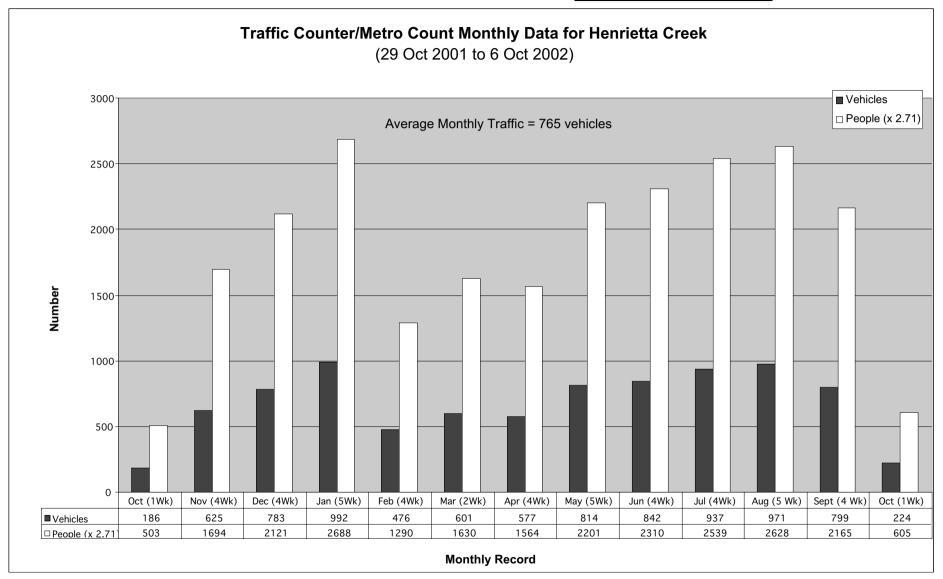


Figure 8: Monthly Records for Vehicles and Visitors at Henrietta Creek.

TRAFFIC COUNTER/METRO COUNT DATA: HENRIETTA CREEK

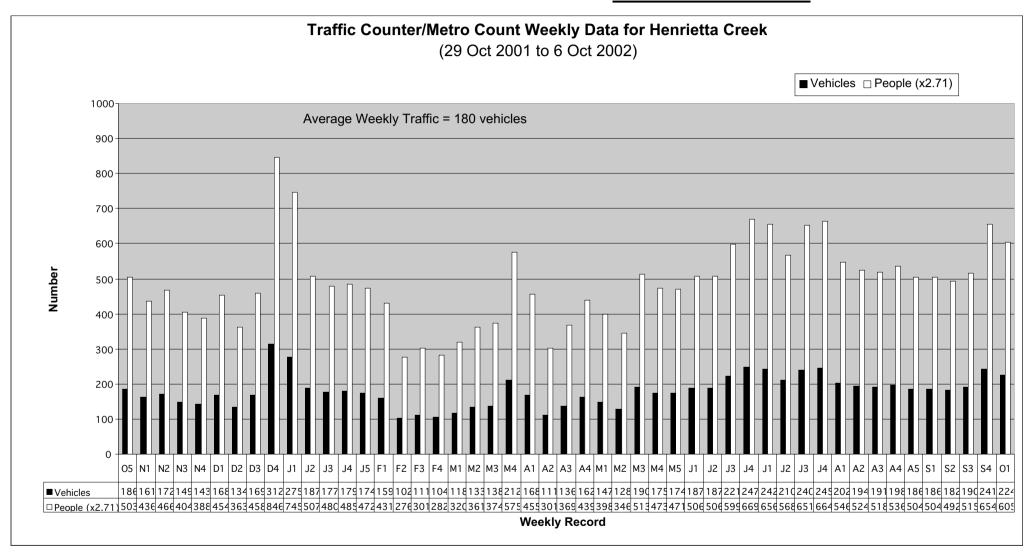


Figure 9: Weekly Records for Vehicles and Visitors at Henrietta Creek.

TRAFFIC COUNTER/METRO COUNT DATA FOR <u>HENRIETTA CREEK</u>

Table 1:Daily Records of Vehicles and Visitors.

OCTOBER 2001 Data highlighted in green are daily averages from the overall site data set. Traffic counter was not installed until beginning of November

2001	MON		TUE		WED		THU		FRI		SAT		SUN	
2001	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
Wk 5	23		23		21		23		<mark>25</mark>		28		43	
29Oct-4Nov		<i>61</i>		<i>62</i>		<i>58</i>		<u>62</u>		<u>68</u>		<i>75</i>		117

NOVEMBER 2001

2001	MON		TUE		WED		THU		FRI		SAT		SUN	
2001	Vehicles	People												
Wk 1	12		14		23		25		23		21		45	
5-11Nov		33		38		62		68		62		57		122
Wk 2	9		20		22		26		25		33		38	
12-18Nov		24		54		60		70		68		89		103
Wk 3	22		20		14		10		28		26		31	
19-25Nov		60		54		38		27		76		70		84
Wk 4	12		24		21		22		10		14		40	
26-2Dec		33		65		57		60		27		38		108

DECEMBER 2001

Blue = Public Holidays

2001	MON				WED		THU		FRI		SAT		SUN	
2001	Vehicles	People												
Wk 1	19		26		16		21		19		27		41	
3-9Dec		51		70		43		57		51		73		111
Wk 2	23		20		11		13		15		33		22	
10-16Dec		62		54		30		35		41		89		60
*Wk 3	24		20		25		22		22		23		35	
17-23Dec		65		54		68		60		60		62		95
*Wk 4	27		28		54		46		48		36		75	
24-30Dec		73		76		146		125		130		98		203

JANUARY 2002

Blue = Public Holidays

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People												
*Wk 1	32		72		31		27		28		40		48	
31Dec-6Jan		87		195		84		73		76		108		130
*Wk 2	16		30		31		32		26		19		34	
7-13Jan		43		81		84		87		70		51		92
*Wk 3	21		25		26		27		27		27		25	
14-20Jan		57		68		70		73		73		73		68
*Wk 4	26		26		23		16		22		25		42	
21-27Jan		70		70		62		43		60		68		114
Wk 5	57		15		20		20		23		20		21	
28Jan-3Feb		154		41		54		54		62		54		57

FEBRUARY 2002

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People												
Wk 1	15		17		17		15		23		27		47	
4-10Feb		41		46		46		41		62		73		127
Wk 2	21		13		13		9		11		18		18	
11-17Feb		57		35		35		24		30		49		49
Wk 3	19		8		4		13		11		23		35	
18-24Feb		51		22		11		35		30		62		95
Wk 4	8		17		10		11		10		20		30	
25-3Mar		22		46		27		30		27		54		81

MARCH 2002 Data highlighted in yellow are daily averages from this month.

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People	Vehicles	People	Vehicles	People								
Wk 1	9		15		12		15		17		19		31	
4-10Mar		24		41		33		41		46		51		84
Wk 2	15		15		16		14		21		<mark>29</mark>		23	
11-17Mar		41		41		43		38		57		<mark>79</mark>		62
Wk 3	18		20		13		18		25		19		27	
18-24Mar		49		54		35		49		68		51		73
Wk 4	10		15		15		30		48		49		45	
25-31Mar		27		41		41		81		130		133		122

APRIL 2002 Blue = Public Holidays

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People												
*Wk 1	34		21		18		23		22		24		28	
1-7Apr		92		57		49		62		60		65		76
Wk 2	17		18		19		10		19		13		18	
8-14Apr		46		49		51		27		51		35		49
Wk 3	8		14		16		10		27		32		30	
15-21Apr		22		38		43		27		73		87		81
Wk 4	16		19		24		28		31		24		21	
22-28Apr		43		51		65		76		84		65		57

MAY 2002 Blue = Public Holidays

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People												
Wk 1	19		25	•	17		16		25		26		19	
29-5May		51		68		46		43		68		70		51
Wk 2	27		13		11		19		18		21		19	
6-12May		73		35		30		51		49		57		51
Wk 3	22		29		18		26		32		34		29	
13-19May		60		79		49		70		87		92		76
Wk 4	17		26		22		19		26		25		40	
20-26May		46		70		60		51		70		68		108
Wk 5	21		25		21		30		23		19		35	
27-2Jun		57		68		57		81		62		51		95

JUNE 2002 B1	lue = Public Holidays
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2002	MON	MON			WED	WED		THU		FRI		SAT		
2002	Vehicles	People												
Wk 1	20		23		23		30		27		28		36	
3-9Jun		54		62		62		81		78		76		98
Wk 2	52		19		23		24		25		24		20	
10-16Jun		141		51		62		65		68		65		54
Wk 3	23		20		25		35		26		50		42	
17-23Jun		62		54		68		95		70		136		114
*Wk 4	40		33		35		35		28		40		36	
24-30Jun		108		89		95		95		76		108		98

JULY 2002 Data highlighted in yellow are daily averages for this month.

	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	D /	Vehicles	D	Vehicles	n 1	Vehicles	D 1	Vehicles	D 1	Vehicles	n	Vehicles	D I
	venicies	People	venicies	People										
*Wk 1	32		34		38		29		34		35		40	
1-7Jul		87		92	Tsv	103		79		92		95		108
Wk 2	28		25		26		31		30		39		31	
8-14Jul		76		68		70		84		81		106		84
Wk 3	39		38		29		34		42		26		32	
15-21Jul		106		103		79		92	Cns	114		70		87
Wk 4	29		31		33		37		41	•	40		<mark>34</mark>	•
22-28Jul		79		84		89		100		111		108		<mark>93</mark>

AUGUST 2002

2002	MON		TUE		WED		THU		FRI		SAT		SUN	
2002	Vehicles	People												
Wk 1	29		20		30		31		33		26		33	
29-04Aug		79		54		81		84		89		70		89
Wk 2	23		21		33		26		28		30		33	
05-11Aug		62		57		89		70		76		81		89
Wk 3	27		29		20		24		29		33		29	
12-18Aug		73		79		54		65		79		89		79
Wk 4	25		30		20		28		28		33		34	
19-25Aug		68		81		54		76		76		89		92
Wk 5	25		25		23		24		31		27		31	
26-01Sep		68		68		62		65		84		73		84

SEPTEMBER 2002

2002	MON		TUE		WED	WED		THU		FRI		SAT		
2002	Vehicles	People												
Wk 1	31		23		18		22		21		31		40	
02-08Sep		84		62		49		60		57		84		108
Wk 2	28		23		20		28		26		30		27	
09-15Sep		76		62		54		76		70		81		73
Wk 3	16		30		35		26		22		25		36	
16-22Sep		43		81		95		70		60		68		98
*Wk 4	26		32		28		32		38		43		42	
23-29Sep		70		87		76		87		103		117		114

OCTOBER :	2002	Data hi	ghlighte	ed in gr	een are	the dail	y averag	ges for t	he site d	lata set.				
2002	MON		TUE		WED	WED		THU		FRI		SAT		
2002	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
*Wk 1	41		37		30		26		28		28		<mark>34</mark>	
30-06Oct		111		100		81		70		76		<i>76</i>		<u>91</u>
AVERAGES	24	64	24	64	22	60	24	64	26	70	28	76	34	91

Note: *Indicates that these dates are school holidays.

People estimates are based on vehicle numbers x 2.71, the average number of people in vehicles established from questionnaire, item # 8, , Data that are highlighted have not been included in the overall averages.

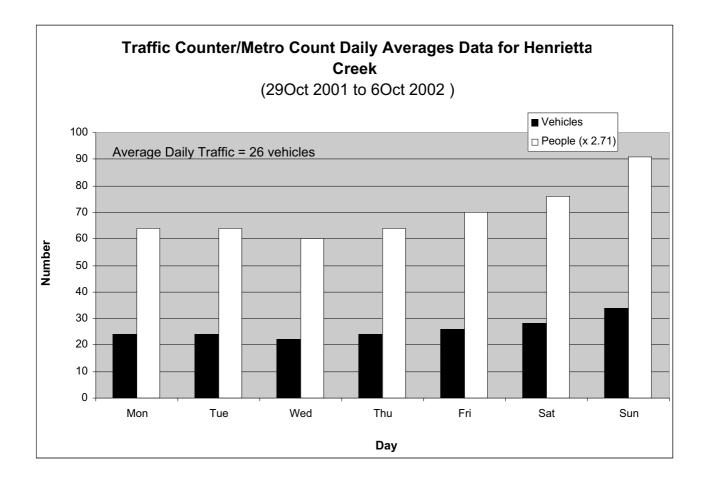


Figure 11: Average daily vehicle and visitor numbers for Henrietta Creek.

Comparative Traffic Counter Data: Henrietta Creek

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

Figure 10: Monthly visitor estimates established since 1994

- a. Visitor estimates for the period 1994-1998 have been based on 3.5 people per vehicle as established by the Manidis Roberts 1993/94 study;
- b. Visitor estimates for 2001-2002 period have been based on 2.71 people per vehicle as established by this study;
- c. Visitor estimates were the highest for 1998;
- d. Visitor estimates for this study period, 2001-2002, were the lowest across most months;
- e. Consistently, monthly visitor estimates through the mid year period are the highest June, July, August.

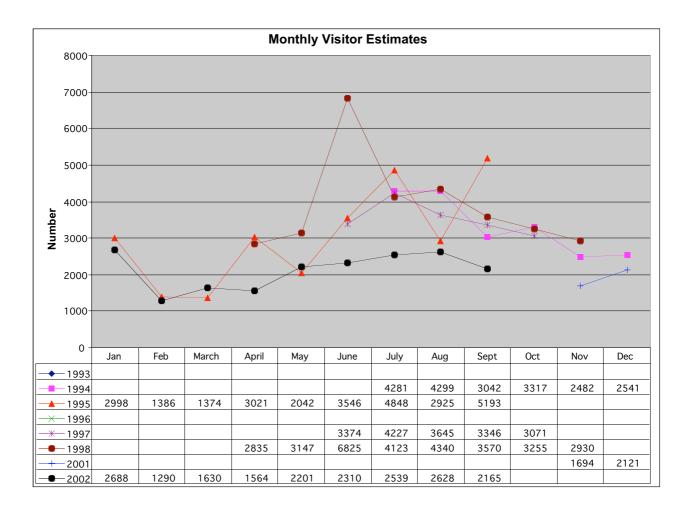


Figure 11: Monthly visitor estimates for Henrietta Creek established from WTMA traffic counter data 1994 – 1997, Bentrupperbäumer 1998 study, and this study, 2001-2002.

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 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. Given that Henrietta Creek could be considered as the southern gateway to the beginning of the tableland section of the WTWHA, presentation is clearly an important consideration.

Significance: WHA Status, Natural and Cultural Attributes, Historical Context

WHA Status The presentation of Henrietta Creek as a Wet Tropics World Heritage Area site (WTWHA) is problematic. Approximately 70 percent of respondents were not aware that the area had any special significance, and only 35 percent of respondents were aware that this site was part of the WTWHA (Section 1 Visitor Survey pg 34-35). Of the visitors surveyed, approximately half were Australian visitors and half were overseas visitors (Section 1 Community Survey pgs 20-21). In general, the survey results across the WHA sites suggest that overseas visitors are more likely to know of the WHA status of a site than locals. However, here at Henrietta Creek both local and non local visitors are unaware of the WHA status of the site. It is worth noting that this is a site that has two signs containing the new logo *Australia's Tropical Rainforests World Heritage* at different locations along the access road (Section 2 Site Inventory pg 56-57), but Henrietta Creek does not have a specific sign within the site that identifies it as a World Heritage Area. The presence of such as sign would be more likely to improve awareness of the WHA status of Henrietta Creek.

Natural and Cultural Attributes A principal aspect of presentation of a WTWHA site is natural and cultural heritage interpretation. There is no indigenous cultural information present at Henrietta Creek despite the long indigenous occupation of the area by the Mamu tribe (Section 1 Visitor Survey pgs30-31). When visitors were asked what additional information they would like to see presented at Henrietta Creek, many requested more cultural and historical information (Section 1 Visitor Survey pgs 38-39). The addition of such information, particularly now that the Mamu tribe are having a greater involvement in the Palmerston region, may well enhance visitors' experiences of Henrietta Creek and increase their awareness of this important WTWHA attribute. Additionally, the Palmerston region has a rich non-indigenous history that was also requested by a few visitors (Section 1 Visitor Survey pgs 38-39). In addition to the absence of indigenous and nonindigenous cultural information at the site itself, natural and ecological information is very limited and mainly embedded within the camp registration information. Visitor appraisal of what natural/ecological information is present at the site (Section 1 Visitor Survey pgs30-31) reflects their dissatisfaction with what is available. Furthermore, this type of information was most frequently

requested by visitors (Section 1 Visitor Survey pgs 38-39). Carefully considered and located natural and cultural information would be beneficial to the overall presentation and experience of Henrietta Creek.

Historical Context

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

9

Management Agency: Identity and Presence, Conservation and Protection

Identity & Presence A related presentation issue is level of visitor and other user awareness of the management agency (ies) responsible for management of the site. It is a concern that 60 percent of visitors did not know who the management agency responsible for Henrietta Creek was (Section 1 Visitor Survey pgs 34-35). This is noteworthy given that this site attracts repeat visits from mostly local visitors (Section 1 pg 22-23). Additionally, there is only one sign present at Henrietta Creek identifying this area as a National Park and this is incorporated within the information at and adjacent to the camp registration (Section 2 Sign inventory pgs 56-58). This lack of awareness and/or confusion amongst visitors has clear implications for the nonreporting of critical incidents or damage, the provision of any type of feedback to managers, the public representation of agencies, and management performance monitoring.

Conservation & Protection Visitors and other users are reasonably satisfied with the overall management of the Henrietta Creek site 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). Their moderate level of appraisal of the built environment is consistent with the fact that the majority of visitors to Henrietta Creek prefer limited facilities, which is currently the situation at this site (Section 2 Site Inventory pgs 52-53).



Information

Sources and Signage

Sources Presentation of the WTWHA and the decision to visit sites such as Henrietta Creek are closely linked to and influenced by the way in which relevant information is accessed or sourced. Visitors to Henrietta Creek obtain information about the site from a variety of sources, depending on if the visitors are local or non-local. The high local use of the site in Stage 1 would explain the predominant use of 'prior knowledge' and 'word of mouth' as a means of knowing about the site. This is different in Stage 2 when the high use by non locals is reflected in the use of sources of information such as 'maps' (Section 1 Visitor Survey pgs 22-23). Overall however, the road signs at Henrietta Creek are most effective, and may explain some of the reasons for stopping at the site including toilet stop and coffee break / lunch (Section 1 Visitor Survey pgs 24-25). It is clear from the results that information sources such as the web and tourist information centres are not used by visitors to find out about Henrietta Creek.

Signage Another important presentation issue and management responsibility at sites such as Henrietta Creek is the provision of signage that clearly identifies rules and regulations, safety issues, and directions. Here such signage is evident throughout (Section 2 Sign Inventory pgs 56-59). Visitor appraisal of various aspects of the signage was moderately high (Section 1 Visitor Survey pg 30), and their overall condition was found to be good (Section 2 Sign Inventory pg 56).



Structural Features

Layout and Design, Infrastructure and Facilities

Layout and Design Much of the current site layout and design at Henrietta Creek does not appear to be very legible, functional, nor environmentally sensitive (Section 2 Site Inventory pgs 52-53). There are aspects of the layout and design of the site that could, through relatively minimal effort, improve legibility, functionality and environmental sensitivity considerably. The current layout and design of the camping area is in particular need of attention. While the physical extent of the site appears to mitigate potential use conflicts and distribute visitors over the site in a way which can maximise choice and options, the facilities and infrastructure do not.

Infrastructure and Facilities The addition of the relatively new composting toilets has improved the status of the infrastructure and facilities at Henrietta Creek considerably. In spite of visitor appraisal of the facilities as being adequate, the site infrastructure inventory reveals that, particularly in the camp area, infrastructure is highly worn with medium levels of vandalism, as well as high mutilation of vegetation (Section 2 Site Infrastructure Inventory pg 53). This apparent inconsistency between visitor appraisal and the infrastructure inventory may best be explained by the preference of this visitor group for natural areas with limited facilities (Section 1 Visitor Survey pg 35). However, what is clear is that while limited facilities can still remain the management strategy for this site, what facilities are available need to be well presented, functional, and environmentally sensitive (for example, the bbq/fire place facilities are in a very poor condition). A decision has to be made as the whether to upgrade or remove them completely, thereby dissuading visitors to create their own and in so doing damage the environment. Given that Henrietta Creek can be a very wet site, the presence of just one shelter shed is clearly insufficient. Out of desperation campers shelter in this facility despite signage stating otherwise, making this unavailable to day visitors. Some visitors to Henrietta Creek expected more covered tables and chairs with barbecues that were better maintained (Section 1 Visitor Survey pgs 32-33).

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 prospects 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 Henrietta Creek as separate but interlinked entities. The term opportunities along with the subheadings thus allow for a more direct linking of management considerations to specific visitor needs in terms of opportunities sought, available and utilised.



Recreational

Activity-based

Activity-based The activity-based recreational opportunities available at Henrietta Creek are largely those of a National Park day use and overnight camping site with limited facilities, and include swimming, picnicing, a short walking track, and open grassed areas for other activities. The site also caters for longer bush walks, however, it appears that only a minority of visitors use such tracks (Section 1 Visitor Survey pg 29). The activities reported by respondents indicate that the site was providing for and facilitating those activities which most visitors were seeking in a reasonable way (Section 1 Visitor Survey pgs 28-29).



Experiential

Experience-based

Experience-based Experience-based opportunities at Henrietta Creek include nature watching (specifically,platypus observing), relaxation, and contemplation, as well as the opportunity of encountering, experiencing, and appreciating the WTWHA. Such opportunities were identified by visitors as being the most important in terms of their reasons for visiting this site (Section 1 Visitor Survey pg 24-25), and were significantly more important than activity-based reasons. The importance of the experiential aspects of visiting Henrietta Creek is evident by visitor comments relating to aspects of the site that enhanced visitor enjoyment (Section 1 Visitor Survey pg 39). Many visitors indicated that the tranquility and peacefulness, as well as the natural aspects of the site enhanced their enjoyment.



Educational

Knowledge-based Opportunities

Specific Problems and Issues

Problems Risk Activity and Regulation Violation

Issues Use/User Conflicts, Inappropriate Behaviour

Henrietta Creek is a reasonably well-managed site which has a low volume of visitation and use (Section 3 Traffic Information), and while it does not present any substantial problems or issues there are those related to site layout and design, infrastructure and facilities which have been identified previously. In this section, human management concerns most of which are linked to facilities and require consideration are outlined below.



Problems

Regulation Violation

Regulation Violation The regulation violations observed at Henrietta Creek came only in the event of heavy down pour in which some visitors camped underneath the shelter shed, and the toilets were used by a bus group to get changed in. The presence of domestic animals at Henrietta Creek was also reported despite signage indicating the domestic animals were prohibited (Section 2 Sign Inventory pgs 56-59).



Issues

Use/User Conflicts, Inappropriate Behaviour

Use/user conflict Overall, use/user conflict appears to be rare 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 largely due to the extensive layout of the setting which allows visitors to establish their own personal/family space (Section 2 Site Inventory pgs 52-53). This is also due to the low to moderate levels of visitation (Section 3 Traffic Information).

Inappropriate Behaviour Visitors to Henrietta Creek were observed vandalising information signs and littering in the toilets (Section 1 Behavioural Observations pgs 45-47).

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WTWHA Reports 2001/2002

The reports produced by the Rainforest CRC Project 4.1 research team for the 2001 and 2002 Wet Tropics World Heritage Area site surveys and the Wet Tropics World Heritage Area bioregion 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.
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