

Sustainable Nature Based Tourism: Planning and Management

Report on Visitation and Use at Emmagen Creek, Far North Queensland, 2009/2010



Julie Carmody and Bruce Prideaux



Australian Government
Department of the Environment,
Water, Heritage and the Arts



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Emmagen Creek, Far North Queensland, 2009/2010

Julie Carmody and Bruce Prideaux
School of Business, James Cook University, Cairns



Australian Government
**Department of the Environment,
Water, Heritage and the Arts**

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Acronyms and Abbreviations

| | |
|--------------------|--|
| DERM | Queensland Department of Environment and Resource Management |
| MTSRF | Marine and Tropical Sciences Research Facility |
| N | Entire survey sample |
| n | Portion of survey sample |
| QPWS | Queensland Parks and Wildlife Service |
| WTMA | Wet Tropics Management Authority |
| WTWHA | Wet Tropics World Heritage Area |

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Key Findings

The following key findings are based on a visitor survey (N = 36) undertaken at Emmagen Creek between October 2008 and April 2010. Where findings are reported as a mean, 1 represents the lowest level of agreement with given statements by survey respondents, while 6 represents the highest level of agreement.

Respondent Profile

- Emmagen Creek is a low-visitation site, with higher rates of vehicle traffic traversing the Bloomfield Track.
- The mean age of survey respondents was 36 years.

Travel Patterns

- International visitors in rented vehicles (48%) were the largest surveyed group.
- Respondents at Emmagen Creek had travelled from Mossman (20%), Cairns (14.3%) and towns and protected area sites north of the Daintree River (54.1%).
- After visiting Emmagen Creek, 57.1% of respondents were intending to visit sites and areas north of the Daintree River but south of Emmagen Creek.
- Information sources used to locate Emmagen Creek were largely word-of-mouth (45.8%), a map (31.5%) or a tourist information centre (22.8%).

Reasons for Visiting Emmagen Creek

- Reasons for visiting Emmagen Creek included seeing the natural environment (mean = 5.23) and to be close to nature (5.17).
- Domestic visitors were motivated by the ability to experience tranquility (mean = 4.93) and relax (4.40).

Perceptions of the Natural Environment

- The natural environment is considered interesting (mean = 5.44), appealing (5.44) and in good condition (5.36).
- Emmagen Creek was not considered to be severely disturbed or impacted (mean = 2.36).

Perceptions and Use of the Site Facilities

- There was general agreement that the site facilities were adequate (mean = 3.68), and some agreement that the facilities were good (4.06) and appealing (4.03).
- The presence of a ranger at the site was not considered an important issue (mean = 2.97).

Perceptions of Signage

- Some directional and informative signage was desired but not imperative.

Satisfaction with the Visitor Experience

- Respondents enjoyed the natural environment, contributing to an almost wilderness experience, and the lack of visitor numbers at Emmagen Creek.

CAPE TRIBULATION - DAINTREE NATIONAL PARK

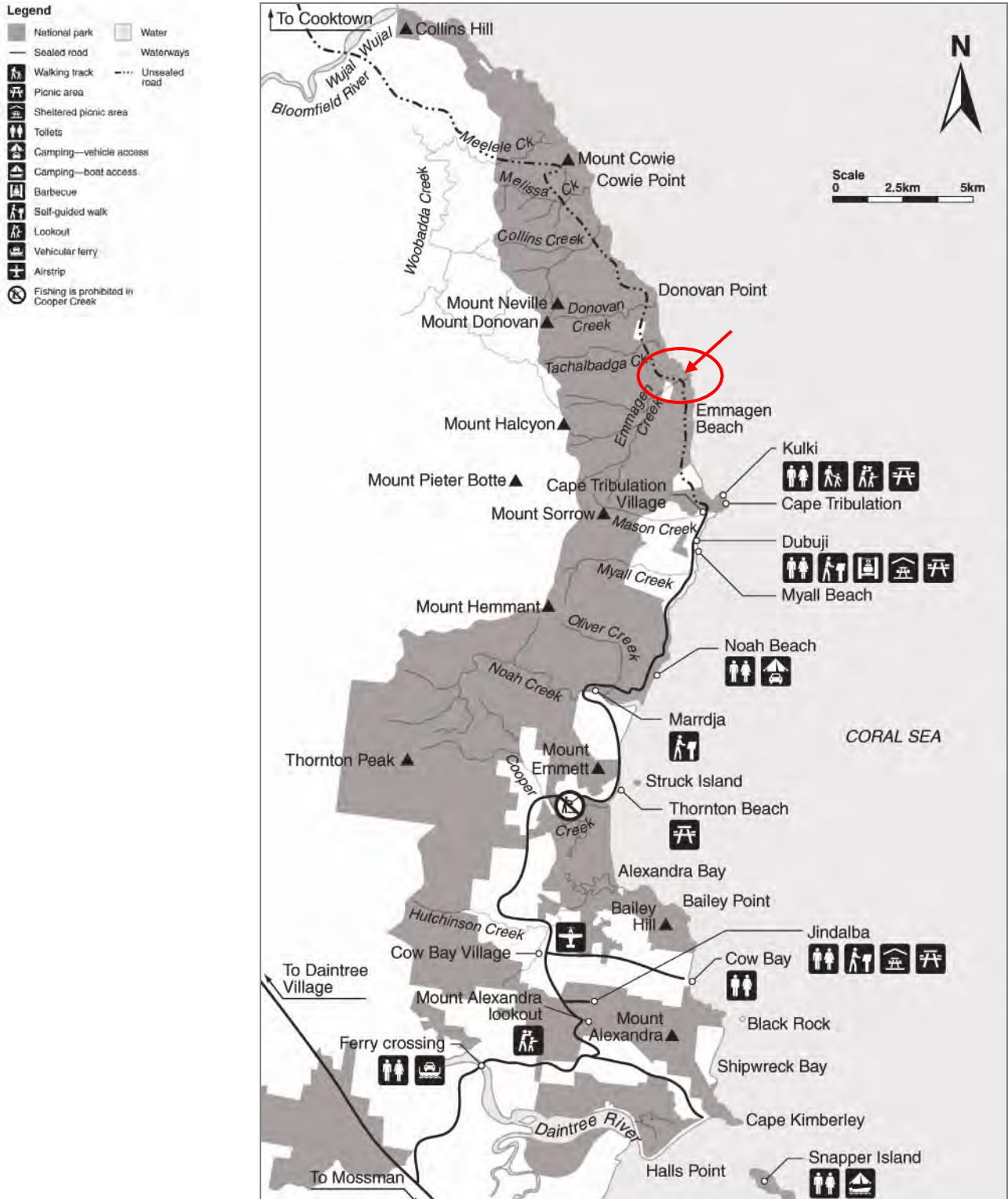


Figure i: Cape Tribulation (Daintree National Park), showing the Emmagen Creek crossing on the Bloomfield Track. Map courtesy of Queensland Parks and Wildlife Service, Department of Environment and Resource Management.

1. Introduction

This report is one of a series of ten that examine visitor activity at sites within Wet Tropics rainforests. The aim of the research was to provide a snapshot of visitor activity to inform management on how sites are used and investigate visitors' views on site management. Visitor data was collected using a self-completed visitor survey. Collectively the series of reports will provide an overall understanding of how visitors use the rainforest and provide managers with feedback that can be used for site management and future planning.

Responsibility for the management of the Wet Tropics rainforests is shared by the Wet Tropics Management Authority (WTMA) and the Queensland Department of Environment and Resource Management (DERM). The WTMA was established after listing of the Wet Tropics as a World Heritage site and is responsible for the planning of visitor sites across the Wet Tropics World Heritage Area (WTWHA). The Queensland Parks and Wildlife Service (QPWS), an agency of the DERM, has responsibility for the day to day management of site infrastructure including toilets, car parking, signage, viewing lookouts, boardwalks, walking trails and other recreational facilities. The Wet Tropics has a large number of visitor sites, some of which have high rates of visitation. A number of sites have relatively low visitation rates, but all offer unique nature-based visitor experiences.

1.1 Site Location and Description

Emmagen Creek is located in the northern section of Daintree National Park, approximately nine kilometres north of Cape Tribulation Village and seven kilometres north of the popular Kulki visitor site. Emmagen Creek is the last visitor site in the Daintree National Park and the first creek crossing on the Bloomfield Track. Many of the vehicles that pass through the site are driven by locals. The site is undeveloped with no built facilities apart from a sign indicating the presence of crocodiles and a short track that connects the road to a freshwater swimming hole. The track leading to the swimming hole is not well marked. Car parking is available along the side of the road and in one poorly maintained pull-off area. The traditional custodians of the area are the Eastern Kuku Yalanji. A map of Daintree National Park, showing the Emmagen Creek survey site is provided at Figure i.

1.2 Previous Research

A visitor use monitoring strategy was commissioned by the WTMA in 1993 to gain an understanding of visitor use and travel patterns. Manidis Roberts Consultants conducted visitor surveys in the wet season (March/April) and again in the dry season (September/October) of 1993 across 56 individual visitor sites and three conglomerate sites within the WTWHA. The research approach included traffic counts, site observations and visitor interviews. Three different surveys were used – one for independent travellers, one for those travelling with a commercial operator and one left at sites as a self-registration survey.

The estimated visitation to Emmagen Creek for the year 1993 was 2,115 vehicles and 13,628 visitors (Manadis Roberts, 1994). The average number of vehicles visiting the site during the dry season was ten on weekends and nine on weekdays. These numbers were estimated to fall by fifty percent during the wet season. Results for the site were based on a small sample size of only 19 respondents.

1.3 Traffic Counter Data

Traffic counter data is not collected by the DERM at Emmagen Creek given that a large amount of non-recreational vehicle traffic uses the road. A seven-day snap shot of vehicle traffic was collected by the Cairns Regional Council in June 2009. This data is only available if purchased.



2. Methodology

The aims of this report are to:

- Investigate visitor activities undertaken at Emmagen Creek; and
- Identify visitors' views about aspects of the site including its management.

Specific objectives of the research were to:

- Provide a snapshot profile of visitors to the Emmagen Creek site;
- Understand visitors' perceptions of the management of the site;
- Understand visitors' perceptions of the natural environment at the site;
- Gain an understanding of visitors' travel patterns within the Wet Tropics region; and
- Assess the suitability of the interpretative information provided at the site.

A convenience sampling technique was used and data was analysed with the SPSS v17 statistical package.

This research complements earlier research (Carmody and Prideaux, 2008) that investigated how local residents used the Wet Tropics and their views on its management.

2.1 Survey Instrument

To collect data on a range of issues related to visitor expectations and experiences, a survey (Appendix 1) was developed in conjunction with officers from the WTMA. The survey instrument was based on a previous survey used in 2001/2002 which enabled some general comparisons to be made with earlier research. The self-completed survey contained 29 closed and open-ended questions and provided space for respondents to write additional comments. Open-ended questions were used because they can test specificity of knowledge more effectively (as shown by Whitmarsh, 2009), provide richer responses (Altinay and Paraskevas, 2008) and can minimise social desirability bias (Budeanu, 2007). Survey questions were grouped into eight sections commencing with demographic data. Table 1 outlines the components of the survey. Survey staff recorded site details including location, date, time of collection and weather conditions on the front cover of the survey instrument.

Table 1: Components of the Emmagen Creek visitor survey.

| | | |
|---------------------|------------------------|---|
| Section A | Background information | Place of residence, occupation, education, age, gender |
| Section B | Travel and transport | Organised tour or free and independent traveller, travel party, mode of transport, pre- and post-visit of site, experience of protected natural areas |
| Section C | Reasons for visiting | Motivations, activities, time spent at site, willingness to pay |
| Section D | Natural environment | Perceptions of the natural environment |
| Section E | Site facilities | Use of site facilities, expectations of facilities, perceptions of facilities, ranger presence |
| Section F | Information | Prior information search, perceptions of on-site information, additional information required |
| Section G | Visitor experience | Aspects of visit that enhanced and detracted from experience, perceptions of crowding |
| Additional comments | | Open-ended to allow for any comments and feedback |

2.2 Survey Collection

Research assistants were stationed on the southern side of the Emmagen Creek crossing. Using a convenience sampling technique, visitors were approached either when they stopped their vehicles to view the creek, or returned from the swimming hole, and asked to participate in the survey. The researcher explained the purpose of the survey and the approximate time required to complete it. On completion, a postcard or WTMA cassowary sticker was offered as a token of appreciation. Table 2 outlines the schedule and collection of surveys for the Emmagen Creek site.

Table 2: Emmagen Creek visitor survey collection times and details (N = 36).

| Date | Day | Weather | Visitor Frequency | Percent of Total |
|------------------|-----------|-------------------|-------------------|------------------|
| 28 October 2008 | Tuesday | Sunny | 18 | 50.0 |
| 29 October 2008 | Wednesday | Sunny | 5 | 13.9 |
| 31 July 2009 | Friday | Overcast and cool | 5 | 13.9 |
| 27 November 2009 | Friday | Sunny | 5 | 13.9 |
| 26 April 2010 | Monday | Sunny and warm | 3 | 8.3 |
| Total | | | 36 | 100.0 |

Surveys were collected between 12.00 pm and 5.00 pm on weekdays and over a long weekend (26 April 2010) (Figure 1). On most days only a small number of vehicles stopped at the site. Other vehicles using the road were presumed to be driven by residents of the area or tourists who were not interested in stopping at the site. The largest collection of surveys occurred on 28 October 2008.

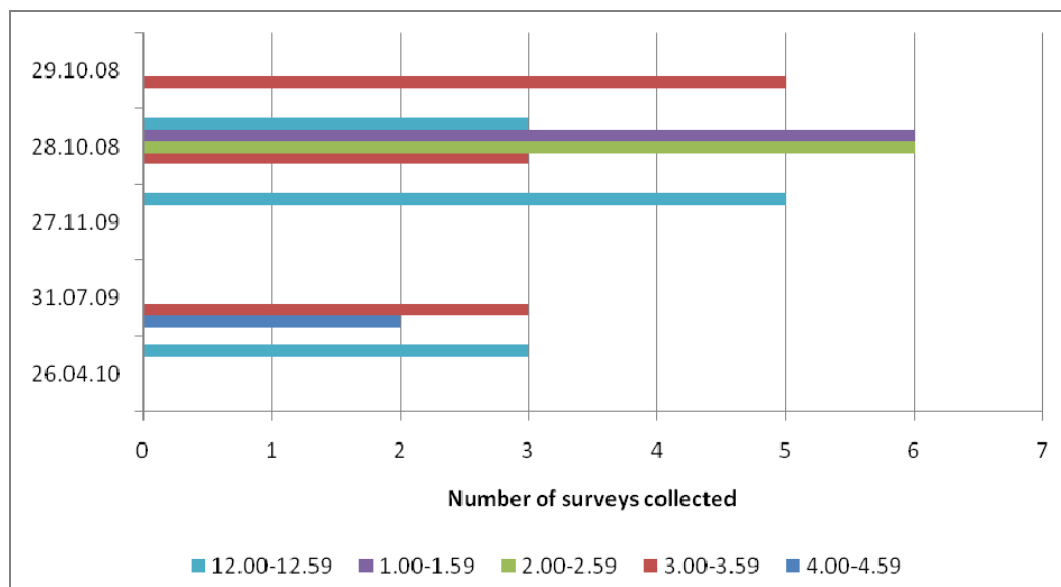


Figure 1: Surveys collected at Emmagen Creek by date and time (N = 36).

2.3 Non-response and Observations

Refusals to complete the survey were recorded on-site and are presented in Table 3. Due to the location of the site astride the north-south coastal road that services communities to the north, a large number of people passing through the site are local residents. Of the 51 people approached to participate in the survey, 29.3% declined (n = 15). The main reasons given for not completing the survey were 'being with a tour group' and 'no time'.

Table 3: Reasons given for not participating in the Emmagen Creek visitor survey (n = 15).

| Reason for not participating in survey | Frequency (n) | Percentage of total number of people approached (n = 51) |
|---|---------------|--|
| With a tour group | 5 | 9.8 |
| No time to participate | 5 | 9.8 |
| Not interested in participating | 2 | 3.9 |
| Postal surveys given out and not returned | 2 | 3.9 |
| Survey too long | 1 | 1.9 |
| Non-Response | 15 | 29.3 |

As part of the survey observations were made of visitor behaviour. On 28 October 2008, one vehicle was observed driving into the entrance of the walking track, while on another occasion a motorbike rider was observed doing 'wheel spins'. Litter and toilet paper were observed on the walking track, and on several occasions, people could not find the entrance to the track nor follow it to the swimming hole. On 26 April 2010, the number of vehicles driving through Emmagen Creek without stopping was recorded. In a three-hour time period from 9.30a m to 12.30 pm, fifteen vehicles were observed heading north and fourteen vehicles were observed heading south.

2.4 Limitations

There were some limitations associated with the research that should be considered prior to generalising the results:

- First, the survey was conducted using a convenience sampling approach and may not be representative of all visitor segments using the site;
- Second, the sample size was limited by time and budget constraints;
- Third, the survey was only available in English, resulting in a possible under-reporting of some nationalities visiting the site;
- Fourth, there was potential for social desirability bias occurring where respondents offered answers that are seen to be desirable or acceptable but may not reflect their true opinions. In most cases it is difficult to determine the level of social desirability for any given question;
- Fifth, while a small number of tour groups include Emmagen Creek in their itineraries, only a limited number of tour group members agreed to participate in the survey; and
- Finally, the nature of Emmagen Creek as a visitor site contributes to the difficulty in collecting surveys at the site. There are no facilities provided at the site and it is the first creek crossing on the way north along the Bloomfield Track. The majority of visitors stopped only for a short period of time.

Understanding the Results

Both closed questions with specific response options and open-ended questions were used in the visitor survey. The advantage of closed questions is that it allows the researcher to investigate specific issues of interest while open-ended questions provide a good indication of top-of-mind responses and concerns of interviewees. Closed response questions generally asked respondents to use a six-point Likert scale. In the following discussion, the results of closed questions are reported as means and as the percentage breakdown by the six items on the Likert scale. Means are useful for ranking in order of importance while percentage breakdown gives a clearer indication of the strength of agreement or disagreement with a particular given statement. The following discussion should be read with these considerations in mind. It should also be noted that not every question was answered by all respondents, thus the 'n' values of tables and figures may vary. The 'n' value reports valid responses. The 'N' value reports the entire sample.



Southern approach to Emmagen Creek crossing (Photo: Julie Carmody)

3. Findings

The results presented in this report are from the Wet Tropics Visitor Site Level Survey distributed at Emmagen Creek in 2009 and 2010.

3.1 Respondent Profile

Slightly more females (52.8%) than males (47.2%) completed the survey (N = 36).

Place of Residence

Respondents' places of residence are provided in Table 4. Slightly more international visitors (55.5%) than domestic visitors (44.5%) were surveyed. One-quarter of the respondents were from Europe (25.0%) followed by 16.7% from the United Kingdom. Domestic visitors were from Victoria (13.9%), New South Wales (13.9%) and far northern Queensland (13.9%).

Table 4: Origin of Emmagen Creek survey respondents (N = 36).

| | Frequency (n) | Percent (%) |
|---|---------------|--------------|
| DOMESTIC | | |
| Victoria | 5 | 13.9 |
| New South Wales | 5 | 13.9 |
| Far North Queensland | 5 | 13.9 |
| South Australia | 1 | 2.8 |
| Domestic Total | 16 | 44.5 |
| INTERNATIONAL | | |
| Europe | 9 | 25.0 |
| England / UK | 6 | 16.7 |
| North America | 2 | 5.5 |
| South America | 2 | 5.5 |
| Asia-Pacific | 1 | 2.8 |
| International Total | 20 | 55.5 |
| Total Domestic and International | 36 | 100.0 |

Occupation

The occupation of the respondents is provided in Figure 2. The largest occupational group was students (25.0%) with 19.6% (n = 10) from overseas. Professionals (16.6%) constituted the next largest group, followed by those in the service industry (13.9%). Small numbers of respondents indicated occupations in the remaining categories.

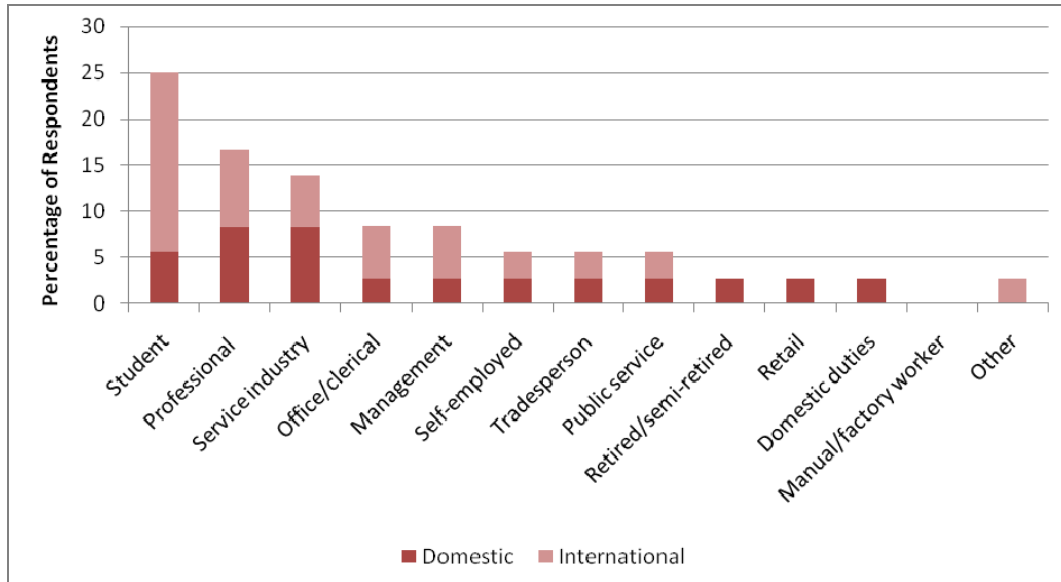


Figure 2: Occupations of Emmagen Creek survey respondents (N = 36).

Age

Figure 3 highlights the age ranges of respondents by whether they were domestic or international visitors. Respondents ranged in age from 18 to 63 years with the average age being 36 years. The largest group of respondents by age was the 20-29 years group followed by the 30-39 year (25.0%) and 40-49 year age groups (22.2%). International respondents dominated the 20-29 year age bracket, while domestic respondents were the largest group in the 30-39 and 40-49 year groups.

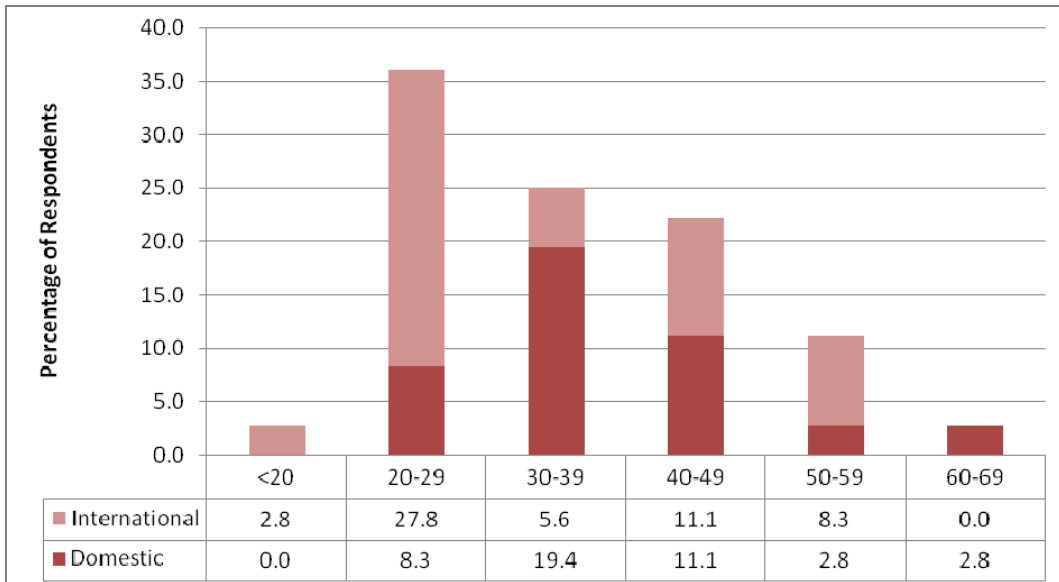


Figure 3: Age groups of Emmagen Creek survey respondents (n = 35).

Education

Figure 4 highlights survey respondents' education levels, where Tertiary A is defined as technical or further education, and Tertiary B is defined as a university qualification. Over half (57.2%) of respondents indicated they held a Tertiary B education with the majority of these being international respondents. The largest group of Tertiary A education respondents (34.3%) were domestic visitors (20.0%).

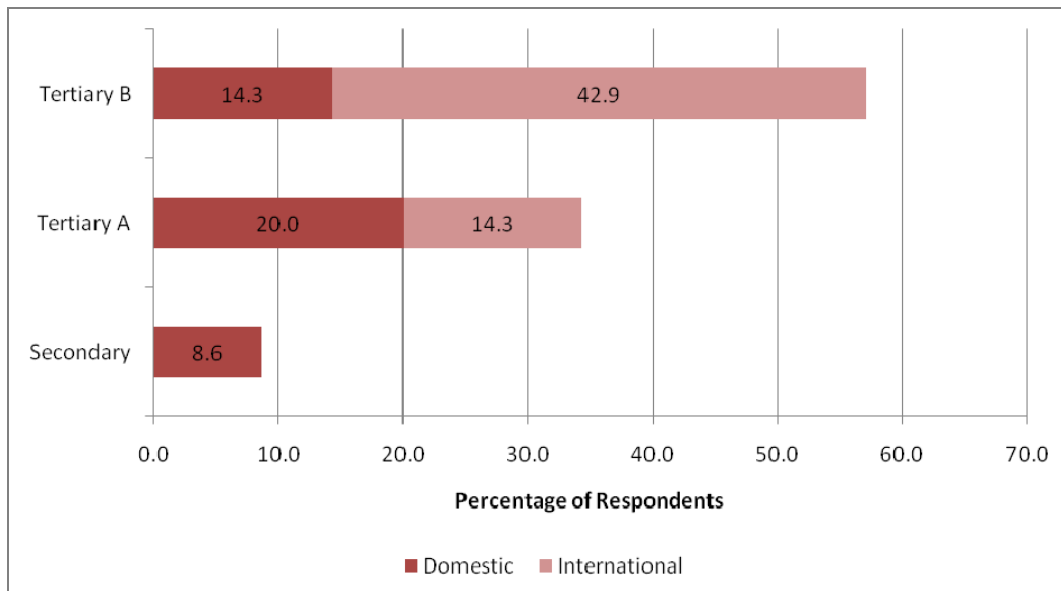


Figure 4: Levels of education attained by Emmagen Creek survey respondents (n = 35).

A cross-tabulation analysis of respondents' age and education is provided in Table 5. Those holding a Tertiary B education were mostly aged between 20 and 29 years (n = 11) and the largest number of respondents holding a Tertiary A qualification were aged 40-49 years (n = 5).

Table 5: Respondents' age and education (n = 35).

| Age Group | Primary (%) | Secondary (%) | Tertiary A (%) | Tertiary B (%) |
|----------------------------|--------------|---------------|----------------|----------------|
| < 20 years | - | - | 1 | - |
| 20-29 years | - | - | 2 | 11 |
| 30-39 years | - | 1 | 4 | 4 |
| 40-49 years | - | - | 5 | 2 |
| 50-59 years | - | 1 | - | 3 |
| 60-69 years | - | 1 | - | - |
| > 70 years | - | - | - | - |
| Total Respondents (n = 35) | 0.0% (n = 0) | 8.6% (n = 3) | 34.3% (n = 12) | 57.2% (n = 20) |
| Domestic | | 8.6% (n = 3) | 20.0% (n = 7) | 14.3% (n = 5) |
| International | | | 14.3% (n = 5) | 42.9% (n = 15) |

Travel Party and Mode of Transport

Figure 5 indicates that most respondents were travelling in a rented vehicle (68.0%), with the majority of these being international respondents (48.0%). Those travelling in private vehicles were mostly domestic respondents (24.0%). No respondents indicated that they travelled to the site by foot or bicycle.

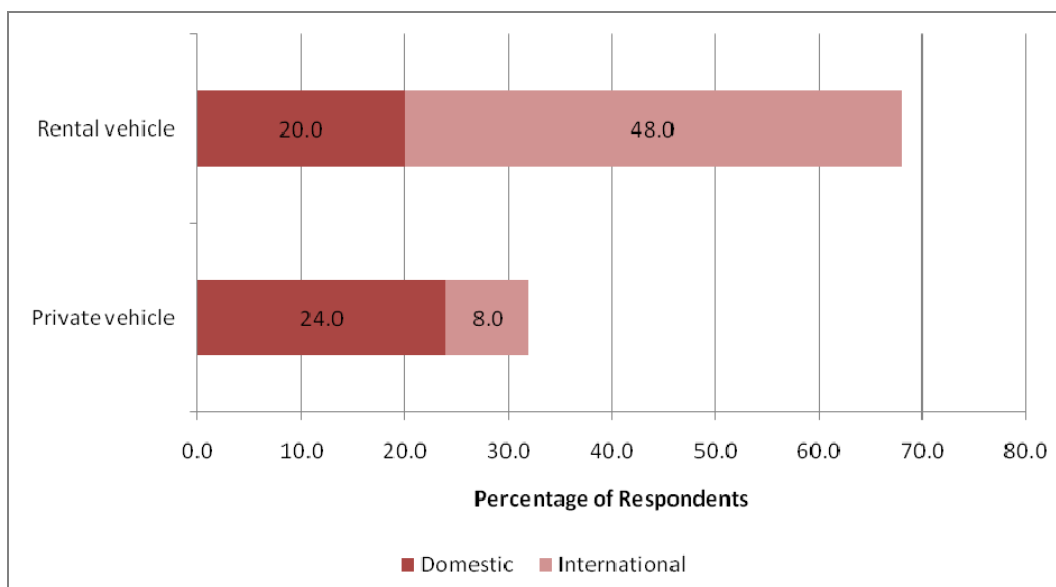


Figure 5: Modes of transport used by survey respondents to travel to Emmagen Creek (n = 35).

Table 6 reports on travel party composition. The largest group of respondents were adults travelling without children, followed by travel parties of two adults (n = 11), three adults (n = 9) and four adults (n = 6). Three respondents indicated they were in a travel party of four adults and one child.

Table 6: Composition of visitor travel parties to Emmagen Creek (n = 30).

| | 1 adult | 2 adults | 3 adults | 4 adults | 5 adults | 6 adults |
|---|---------|----------|----------|----------|----------|----------|
| 0 children | 1 | 11 | 9 | 6 | - | - |
| 1 child | - | - | - | 3 | - | - |
| Adults per vehicle 2.87 ± SD 0.90 (range 1-4) | | | | | | |
| Children per vehicle 0.10 ± SD 0.31 (range 0-1) | | | | | | |

Organised Tour Visitors

As noted in the section on Limitations (page 5), only a small number of responses were received from tourists travelling with an organised tour. As a result, the data outlined in Table 7 may not be a true reflection of the character or number of commercial tour operations stopping at Emmagen Creek. Five respondents travelling with Billy Tea Bush Tours completed the survey. Billy Tea Bush Tours regularly visits the site.

Table 7: Emmagen Creek survey respondents travelling with an organised tour operator (n = 5).

| Tour Operator | Number of guests on the tour | | | | Total |
|-----------------|------------------------------|-------------|--------------|------------|-------|
| | 6 or less | 7-14 guests | 15-30 guests | 30+ guests | |
| Billy Tea Tours | - | 5 | - | - | 5 |

Travel Flow

Respondents were asked about their travel patterns on the day of the survey, including where they had been and where they intended to go after leaving the site. Results are outlined in Tables 8 and 9. As indicated in Table 8, all of the respondents who completed this survey question (n = 35) had come from towns and attractions south of Emmagen Creek, including Mossman (20.0%), Cairns (14.3%) and Cape Tribulation (14.3%). The large number of respondents who indicated they had come from towns and attractions north of the Daintree River suggests that Emmagen Creek may be considered to be part of the Daintree/ Cape Tribulation experience.

Table 8: Visitors' reported previous stop before arriving at Emmagen Creek (n = 35).

| | Frequency (n) | Percent (%) |
|----------------------------|---------------|--------------|
| Towns | | |
| Mossman | 7 | 20.0 |
| Cairns | 5 | 14.2 |
| Cape Tribulation | 5 | 14.2 |
| Cow Bay | 5 | 14.2 |
| Daintree | 3 | 8.6 |
| Port Douglas | 1 | 2.9 |
| Kuranda | 1 | 2.9 |
| Mareeba | 1 | 2.9 |
| Tasmania | 1 | 2.9 |
| Natural Attractions | | |
| Kulki | 2 | 5.7 |
| Mossman Gorge | 2 | 5.7 |
| Dubuji | 1 | 2.9 |
| Other Attractions | | |
| PK's Jungle Village | 1 | 2.9 |
| Total | 35 | 100.0 |

After leaving Emmagen Creek, respondents reported they would be travelling to Cape Tribulation (17.1%), Port Douglas (14.3%), Cairns (11.4%) and other towns and attractions south of Emmagen Creek. Based on this data it appears that Emmagen Creek is the most northern site visited before returning south. On their return from the site, it is apparent that many respondents were intending to visit other sites in the Daintree and Cape Tribulation area (Table 9).

Table 9: Intention of survey respondents to visit other places within the region after Emmagen Creek (n = 33).

| | Frequency (n) | Percent (%) |
|----------------------------|---------------|--------------|
| Towns | | |
| Cape Tribulation | 6 | 17.1 |
| Port Douglas | 5 | 14.3 |
| Cairns | 4 | 11.4 |
| Cow Bay | 2 | 5.6 |
| Daintree | 1 | 2.9 |
| Whitsundays | 1 | 2.9 |
| Natural Attractions | | |
| Beach | 4 | 11.4 |
| Kulki | 1 | 2.9 |
| Other Attractions | | |
| Don't know | 4 | 11.4 |
| Pub | 2 | 5.6 |
| Daintree River Cruise | 1 | 2.9 |
| Daintree Ecolodge | 1 | 2.9 |
| PK's Jungle Village | 1 | 2.9 |
| The Cape Restaurant | 1 | 2.9 |
| Home | 1 | 2.9 |
| Total | 33 | 100.0 |

Visits to Protected Natural Areas

Respondents were asked about the frequency of their visits to protected natural areas. Figure 6 shows almost half of all respondents (48.5%) visit protected natural areas between two and five times per year. This level of visitation is particularly high for international respondents (36.4%). Domestic respondents were more likely to visit natural protected areas more than five times per year (21.2%). There were no significant differences between domestic and international respondents' frequency of visitation based on socio-demographic factors such as age, education or nationality.

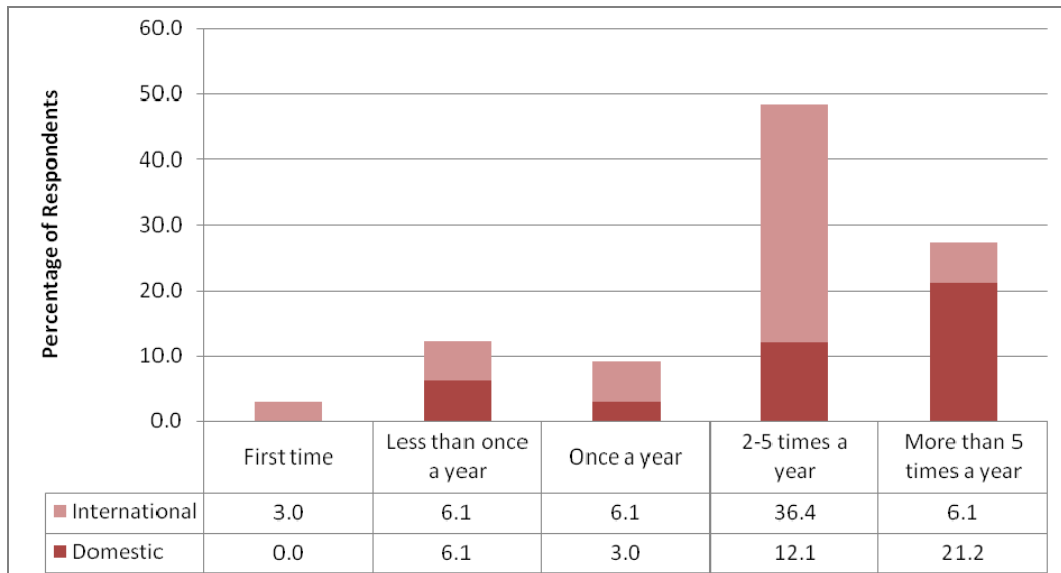


Figure 6: Survey respondents' frequency of visitation to protected natural areas (n = 33).



Reasons for Visiting Emmagen Creek

Respondents were asked to respond to a series of questions about their motivations for visiting Emmagen Creek. A six-point Likert scale of 1 (being 'not important') to 6 ('very important') was used. Results are reported in Table 10 as a mean to show the level of importance, while Table 11 reports on the percentage values for each response on the Likert scale. As shown in Table 10, the most significant reasons for visiting the site for both international and domestic respondents were to see the natural features and scenery (mean = 5.23) and to be close to/ experience nature (5.17). The importance of these motivations was higher for international respondents than domestic respondents. Compared to international visitors, domestic respondents gave a higher rating to experience tranquility (mean = 4.93), to rest and relax (4.40) and the opportunities for shorts walks (4.00). The opportunity for long walks was given a low rating (2.86).

Table 10: Comparative domestic and international visitors' motivations to visit Emmagen Creek.

| Reasons for visiting Emmagen Creek | n | Overall Mean | Domestic visitors (mean) | International visitors (mean) |
|---------------------------------------|----|--------------|--------------------------|-------------------------------|
| See natural features and scenery | 35 | 5.23 | 5.07 | 5.35 |
| Be close to/ experience nature | 35 | 5.17 | 4.93 | 5.35 |
| Experience tranquillity | 35 | 4.69 | 4.93 | 4.50 |
| Rest and relax | 35 | 4.20 | 4.40 | 4.05 |
| Because it is a National Park | 35 | 3.80 | 3.60 | 3.95 |
| Because it is a World Heritage Area | 34 | 3.71 | 3.57 | 3.80 |
| Learn about native animals and plants | 35 | 3.63 | 3.20 | 3.95 |
| Outdoor exercise | 35 | 3.60 | 3.73 | 3.50 |
| Opportunities for short walks | 35 | 3.57 | 4.00 | 3.25 |
| Socialise with family or friends | 35 | 3.57 | 3.67 | 3.50 |
| Learn about Aboriginal culture | 33 | 3.18 | 3.00 | 3.32 |
| Opportunities for long walks | 35 | 2.86 | 2.53 | 3.10 |

The results outlined in Table 11 show the level of importance ascribed to each motive on a scale from not important to very important. All respondents indicated seeing the natural features, being close to and experiencing nature, and experiencing tranquility as important. Opportunities for long walks and to learn about Aboriginal culture were seen as important.

Table 11: Survey respondents' most cited reasons for visiting Emmagen Creek.

| Reasons for visiting Emmagen Creek | Percentage of survey respondents | | | | | |
|---------------------------------------|----------------------------------|--------------------|----------------------|-----------|-----------------|----------------|
| | Not important | Slightly important | Moderately important | Important | Quite important | Very important |
| See natural features and scenery | - | - | 2.9 | 17.1 | 34.3 | 45.7 |
| Be close to/ experience nature | - | - | 5.7 | 17.1 | 31.4 | 45.7 |
| Experience tranquillity | - | - | 17.1 | 25.7 | 28.6 | 28.6 |
| Rest and relax | 8.6 | 8.6 | 14.3 | 8.6 | 42.9 | 17.1 |
| Because it is a National Park | 2.9 | 17.1 | 25.7 | 17.1 | 25.7 | 11.4 |
| Because it is a World Heritage Area | 5.9 | 23.5 | 14.7 | 20.6 | 20.6 | 14.7 |
| Learn about native animals and plants | 5.7 | 20.0 | 17.1 | 34.3 | 8.6 | 14.3 |
| Outdoor exercise | 2.9 | 14.3 | 37.1 | 20.0 | 17.1 | 8.6 |
| Opportunities for short walks | 5.7 | 22.9 | 17.1 | 25.7 | 20.0 | 8.6 |
| Socialise with family or friends | 14.3 | 11.4 | 14.3 | 28.6 | 25.7 | 5.7 |
| Learn about Aboriginal culture | 15.2 | 15.2 | 30.3 | 21.2 | 12.1 | 6.1 |
| Opportunities for long walks | 20.0 | 25.7 | 20.0 | 20.0 | 11.4 | 2.9 |

Other reasons given for visiting Emmagen Creek were the rainforest (two responses) and photography (one response).

Activities

Respondents were asked to indicate which activities they had undertaken at Emmagen Creek. Results are outlined in Figure 7. Observing the scenery (68.5%), taking a short walk (62.8%), observing wildlife (57.2%), photography (54.3%), swimming (54.3%) and relaxing (54.3%) were the main activities undertaken at the site. Similar responses were given by both international and domestic respondents.

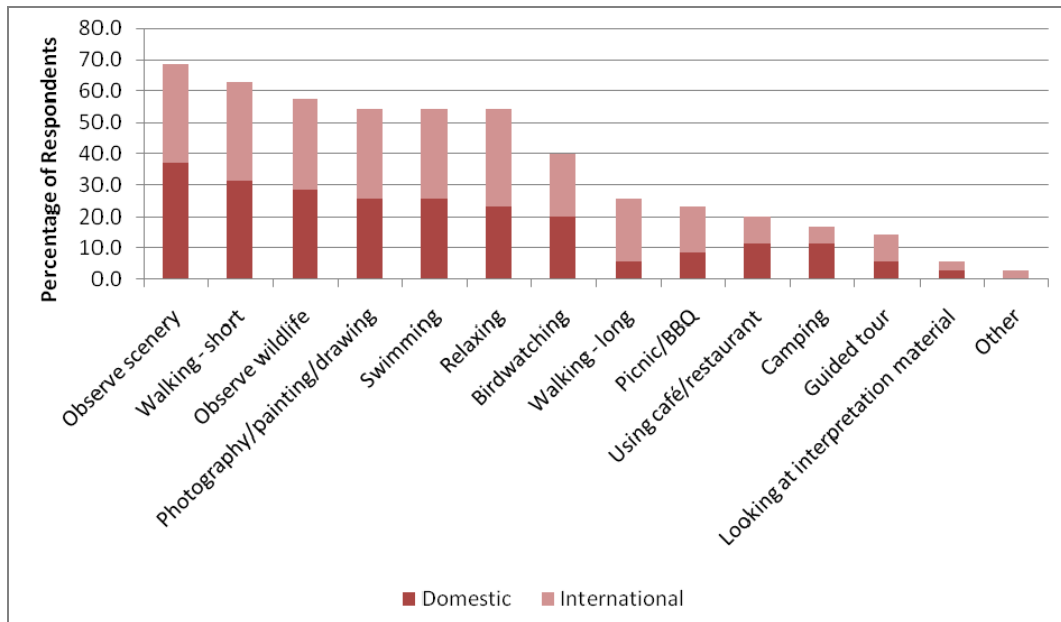


Figure 7: Activities undertaken at Emmagen Creek as cited by survey respondents (n = 36) in response to a multiple-response survey question.

Using an open-ended survey question, respondents were asked to indicate if there were activities that they would have liked to have participated in, but could not. The results from six respondents are outlined in Table 12. Two respondents indicated swimming while other respondents listed access to information about the site, enjoying nature and the rainforest, relaxing and using toilet facilities.

Table 12: Activities which survey respondents would like to have undertaken at Emmagen Creek, but could not (n = 6).

| Activity | Overall (n) |
|---------------------------------------|-------------|
| Access information about the site | 1 |
| Enjoy nature and the rainforest | 1 |
| Relax | 1 |
| Swimming (unable due to poor weather) | 1 |
| Swim in the ocean | 1 |
| Use toilet facilities | 1 |
| Total | 6 |



Walking track entrance to the swimming hole (Photo: Julie Carmody)

Figure 8 illustrates the length of time visitors spent at Emmagen Creek. One-third of respondents (33.3%) spent about one hour at the site, while 22.3% stayed for around two hours. International respondents were more likely to spend a greater period of time at the site compared to domestic visitors.

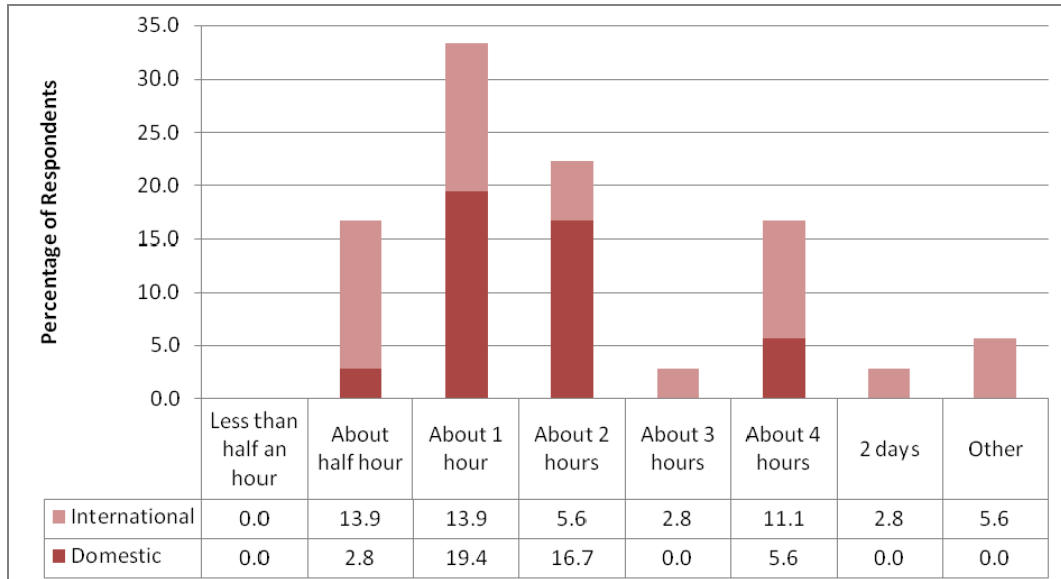


Figure 8: Approximate time spent at Emmagen Creek by both domestic and international visitors (n = 36).

Willingness to Pay

Currently, visitors to protected natural areas in Queensland are not charged an access/entry fee. Respondents were asked to indicate how much they would be prepared to pay if an entrance fee was introduced at the Emmagen Creek site.

The results outlined in Figure 9 show 32.3% of the respondents were not willing to pay to visit the site, 29.4% would be willing to pay between \$2 and \$5, and 20.6% would be prepared to pay between \$5 and \$10. Only two respondents, both of whom were international tourists, indicated that they would be prepared to pay between \$10 and \$20.

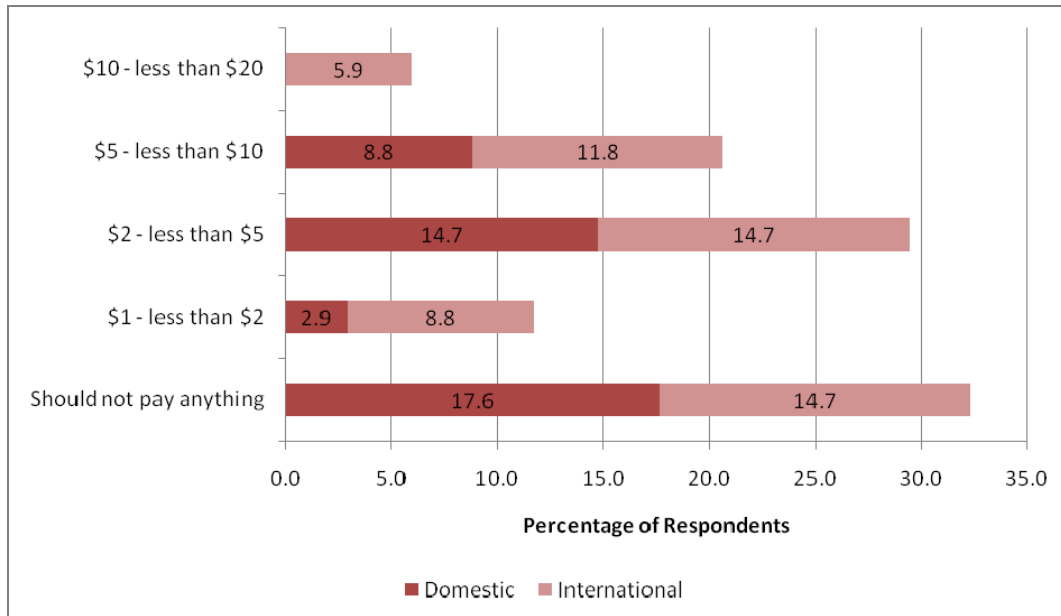


Figure 9: Survey respondents' willingness to pay an access/entrance fee to visit Emmagen Creek (n = 34).

3.2 Perceptions of the Natural Environment

A series of statements were used to gather respondents' views on the natural environment at Emmagen Creek. Respondents were asked to indicate their views using a Likert scale where 1 = 'strongly disagree' and 6 = 'strongly agree'. Table 13 summarises the results: the natural environment is interesting (mean = 5.44; the highest score), while in terms of natural attractions and scenic beauty, the site was appealing (5.44) and the condition of the natural environment was considered good (5.36). Emmagen Creek was not perceived to be disturbed or impacted (mean = 2.54), although there was concern for the impacts of human activity at the site (4.08).

Table 13: Domestic and international visitors' perceptions of the natural environment at Emmagen Creek.

| Perceptions of the natural environment at Emmagen Creek | n | Overall Mean | Domestic visitors (mean) | International visitors (mean) |
|---|----|--------------|--------------------------|-------------------------------|
| The natural environment at this site is interesting. | 36 | 5.44 | 5.50 | 5.40 |
| In terms of natural attractions and scenic beauty this site is appealing. | 36 | 5.44 | 5.50 | 5.40 |
| The condition of the natural environment at this site appears to be good. | 36 | 5.36 | 5.31 | 5.40 |
| The natural environment at this site is well managed. | 36 | 4.97 | 4.63 | 5.26 |
| I would like to spend more time exploring this natural environment. | 36 | 4.89 | 4.94 | 4.85 |
| I am concerned about the impacts of human activity on the natural environment at this site. | 36 | 4.08 | 3.75 | 4.35 |
| This site appears to be disturbed and impacted. | 35 | 2.54 | 2.75 | 2.37 |

Levels of agreement/disagreement with statements about the natural features of the site measured as a percentage are summarised in Table 14. One-third of respondents (34.3%) thought the site appeared to be disturbed and impacted. Most respondents thought that the natural environment at the site was interesting and well managed. Almost all respondents (91.6%) agreed they would like to spend more time at the site, and 88.9% considered the site to be in a good condition.

Table 14: Survey respondents' perceptions of the natural features at Emmagen Creek.

| Perceptions of the natural environment at Emmagen Creek | Percentage of survey respondents | | | | | |
|---|----------------------------------|-------------------|-----------------|--------------|----------------|----------------|
| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
| The natural environment at this site is interesting. | - | - | - | 13.9 | 27.8 | 58.3 |
| The natural environment at this site is well managed. | 2.9 | - | 8.6 | 11.4 | 40.0 | 37.1 |
| The condition of the natural environment at this site appears to be good. | - | - | 11.1 | - | 41.7 | 47.2 |
| In terms of natural attractions and scenic beauty this site is appealing. | - | - | 2.8 | 8.3 | 30.6 | 58.3 |
| I would like to spend more time exploring this natural environment. | - | 2.8 | 5.6 | 22.2 | 38.9 | 30.6 |
| I am concerned about the impacts of human activity on the natural environment at this site. | 11.1 | 8.3 | 11.1 | 25.0 | 19.4 | 25.0 |
| This site appears to be disturbed and impacted. | 40.0 | 17.1 | 8.6 | 20.0 | 11.4 | 2.9 |

3.3 Perceptions and Use of the Site Facilities

As with all Wet Tropics visitor sites sampled, the survey asked respondents to comment on site facilities using a Likert scale of 1 = 'strongly disagree' to 6 = 'strongly agree'. Given that there are no actual facilities provided at Emmagen Creek, the results may be interpreted as indicating that respondents were happy with the site in its current state, i.e. with no facilities. As shown in Table 15 respondents considered the facilities to be in good condition (mean = 4.06) and appealing (mean = 4.03). This is supported by perceptions that site facilities were adequate (mean = 3.68). There was limited support for a ranger to be stationed at the site (2.97).

Table 15: Domestic and international visitors' perceptions of the site facilities at Emmagen Creek.

| Perceptions of the site facilities at Emmagen Creek | n | Overall Mean | Domestic visitors (mean) | International visitors (mean) |
|--|----|--------------|--------------------------|-------------------------------|
| The overall condition of the facilities at this site appears to be good. | 34 | 4.06 | 4.31 | 3.83 |
| This site is appealing in terms of the character and attractiveness of the facilities. | 34 | 4.03 | 4.69 | 3.44 |
| The facilities at this site are adequate. | 34 | 3.68 | 4.06 | 3.33 |
| The facilities and infrastructure at this site are well managed. | 33 | 3.67 | 4.06 | 3.29 |
| The presence of a ranger at sites like this is important to me. | 34 | 2.97 | 3.13 | 2.83 |

The percentages for agreement/disagreement with each statement are shown in Table 16. These results indicate that most respondents are happy with the site in its current condition with only 23.5% disagreeing with the statement that the facilities at site are adequate and 27.3% disagreeing with the statement that the facilities and infrastructure are well managed.

Table 16: Survey respondents' perceptions of the site facilities at Emmagen Creek.

| Perceptions of the site facilities at Emmagen Creek | Percentage of survey respondents | | | | | |
|--|----------------------------------|-------------------|-----------------|--------------|----------------|----------------|
| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
| The overall condition of the facilities at this site appears to be good. | 11.8 | 2.9 | 14.7 | 26.5 | 26.5 | 17.6 |
| This site is appealing in terms of the character and attractiveness of the facilities. | 14.7 | 2.9 | 11.8 | 29.4 | 17.6 | 23.5 |
| The facilities at this site are adequate. | 23.5 | - | 17.6 | 20.6 | 20.6 | 17.6 |
| The facilities and infrastructure at this site are well managed. | 18.2 | 9.1 | 12.1 | 21.2 | 27.3 | 12.1 |
| The presence of a ranger at sites like this is important to me. | 26.5 | 11.8 | 26.5 | 17.6 | 8.8 | 8.8 |

Presence of a Ranger On-site

As shown in Figure 10, respondents thought a ranger at the site would be beneficial for safety and security (37.1%), to provide information and education (34.3%), to give directions (38.6%) and for site maintenance (28.5%). Only 17.2% thought a ranger would be helpful for lodging complaints about the behaviour of other visitors. These results were similar for both domestic and international respondents.



Figure 10: Survey respondents’ suggested uses of an on-site Park Ranger at Emmagen Creek in response to a multiple-response survey question (n = 34).

Use of Site Facilities

A multiple-response format was used to ensure respondents had the opportunity to indicate the facilities they had used at the Emmagen Creek site. Results outlined in Figure 11 show that the walking track was used by 69.5% of respondents. The reported level of toilet/shower use by 36.1% of respondents is of some concern given that the site does not have these facilities available. This response may be an example of social desirability bias, indicating that respondents relieved themselves in the forest or considered the site to be an extension of the facilities at other sites in the Cape Tribulation area.

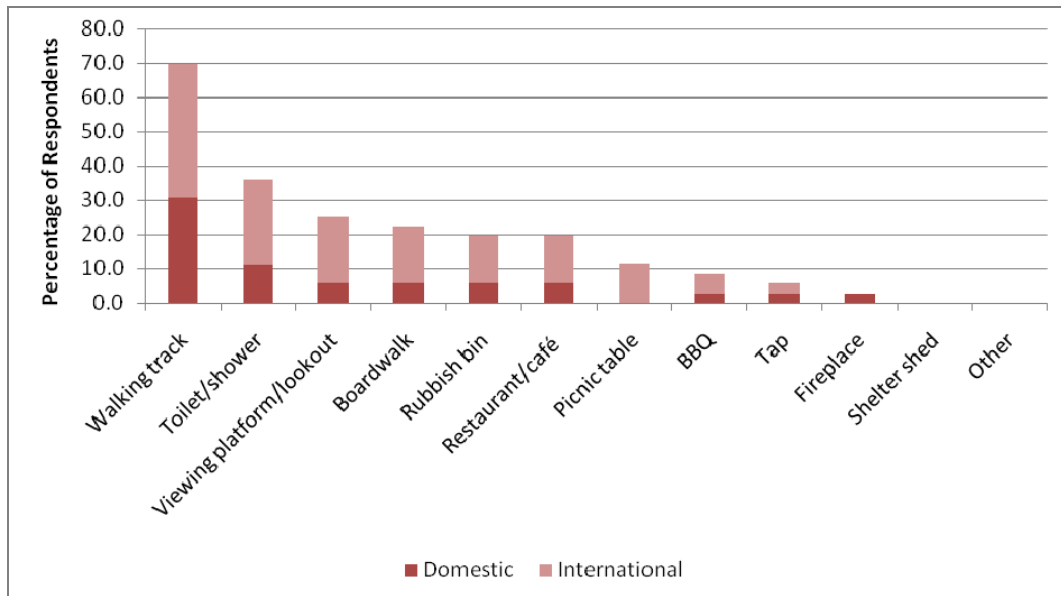


Figure 11: Most popular Emmagen Creek site facilities used by survey respondents, cited in response to a multiple-response survey question (n = 36).

Expected Site Facilities

Respondents were asked to indicate if there were facilities that they would have liked to have seen at the Emmagen Creek site. Four respondents (11.1% of the sample) provided seven expectations (Table 17). The highest level of response was for signage (two responses) and a toilet (two responses).

Table 17: Facilities expected to be available at Emmagen Creek by survey respondents (n = 4).

| Expectation | Total |
|---------------------------|-----------|
| Signage | 2 |
| Toilet | 2 |
| Parking | 1 |
| Picnic Area | 1 |
| Sign posted walking track | 1 |
| Total Responses | 7* |

* Note: Multiple responses were given by individual respondents.

Information about Emmagen Creek

Survey respondents were asked to indicate the sources they had used to gain information about the Emmagen Creek site prior to their visit. Figure 12 indicates the main information sources used were word-of-mouth (45.8%), a map which listed it was a tourist site (31.5%) and tourist information centres (22.8%). International respondents were more likely to use a map (22.9%) compared to their domestic counterparts (8.3%). Respondents (n = 5) who were members of an organised tour did not use any information sources other than their tour itinerary.

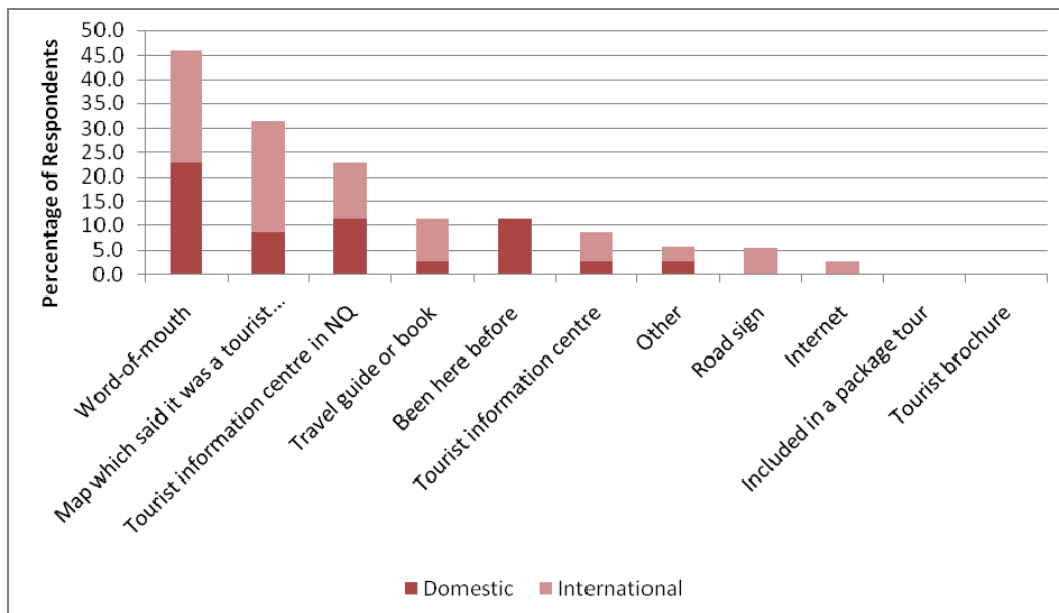


Figure 12: Sources of information consulted by survey respondents prior to visiting Emmagen Creek (n = 35).

Only one respondent indicated that the information they used prior to visiting Emmagen Creek was inaccurate, reporting that they were unable to locate the 'white gate' that led to the swimming hole. As indicated in Appendix 2, the white gate is in fact two white rotting posts.

On-site Signage

Interpretative and directional signs are important features of the infrastructure at any visitor site. Table 18 outlines respondents' levels of agreement with statements about the on-site signs and interpretation provided at Emmagen Creek based on a Likert scale of 1 = 'strongly disagree' to 6 = 'strongly agree'. Responses to questions about signs, maps and directions (mean = 4.28); safety information (4.32) and signs addressing visitors' needs and concerns (4.10) indicate there are some problems with signs. There was a lower level of agreement that signs provided useful information about the natural features and values (mean = 3.48) and helped their appreciation of the natural environment (3.31).

Table 18: Domestic and international survey respondents' perceptions of on-site signage at Emmagen Creek.

| Perceptions of on-site information at Emmagen Creek | n | Overall Mean | Domestic visitors (mean) | International visitors (mean) |
|--|----|--------------|--------------------------|-------------------------------|
| Signs, maps and directions | | | | |
| Were easy to find | 32 | 4.28 | 3.87 | 4.65 |
| Helped me to find my way around | 31 | 3.77 | 3.50 | 4.00 |
| The rules and safety information | | | | |
| Were easy to understand | 31 | 4.32 | 4.13 | 4.50 |
| Addressed my interests and concerns | 29 | 4.10 | 4.13 | 4.07 |
| The information about natural features and values | | | | |
| Was interesting and informative | 29 | 3.48 | 3.71 | 3.27 |
| Helped me to better appreciate the special natural features of the area. | 29 | 3.31 | 3.57 | 3.07 |
| The Aboriginal cultural information | | | | |
| Was interesting and informative | 24 | 2.79 | 3.55 | 2.15 |
| Helped me to understand the significance of this area for rainforest Aboriginal people | 24 | 2.71 | 3.55 | 2.00 |

Table 19 outlines the percentage of responses for each level of agreement/disagreement to statements about on-site information at Emmagen Creek. Seventy percent of respondents disagreed with the statement that Aboriginal cultural information was interesting and that it helped them to appreciate the cultural values of the site. This was not surprising given that there are no signs about Aboriginal culture at the site.

Table 19: Survey respondents' perceptions of on-site tourism information provided at Emmagen Creek.

| Perceptions of on-site information at Emmagen Creek | Percentage of survey respondents | | | | | |
|--|----------------------------------|-------------------|-----------------|--------------|----------------|----------------|
| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
| Signs, maps and directions | | | | | | |
| Were easy to find | 15.6 | 3.1 | 12.5 | 12.5 | 18.8 | 37.5 |
| Helped me to find my way around | 19.4 | 9.6 | 6.5 | 9.6 | 48.4 | 6.5 |
| The rules and safety information | | | | | | |
| Were easy to understand | 12.9 | 3.2 | 12.9 | 12.9 | 25.8 | 32.3 |
| Addressed my interests and concerns | 10.3 | 10.3 | 13.8 | 13.8 | 27.6 | 24.1 |
| The information about natural features and values | | | | | | |
| Was interesting and informative | 17.2 | 6.9 | 27.6 | 13.8 | 27.6 | 6.9 |
| Helped me to better appreciate the special natural features of the area. | 20.7 | 6.9 | 34.5 | 3.4 | 27.6 | 6.9 |
| The Aboriginal cultural information | | | | | | |
| Was interesting and informative | 33.3 | 12.5 | 25.0 | 8.3 | 12.5 | 8.3 |
| Helped me to understand the significance of this area for rainforest Aboriginal people | 37.5 | 12.5 | 20.8 | 8.3 | 12.5 | 8.3 |

Using an open-ended question, survey respondents were asked for suggestions on additional interpretative information they would like to see at the site. Eleven respondents (30.5% of the sample) provided suggestions about on-site interpretative signage including walking track signage (three responses) and Aboriginal information (two responses).

Table 20: Survey respondents' suggested additional visitor information that could be made available at the Emmagen Creek site (n = 11).

| | Overall (n) |
|--|-------------|
| Cultural Information | |
| Aboriginal information | 2 |
| Flora and Fauna | |
| Forestry / wildlife information | 1 |
| More information about natural features and wildlife | 1 |
| Wildlife identification charts | 1 |
| Walk Information | |
| Walking track signage | 3 |
| Directions on maps | 1 |
| Other | |
| Anything | 2 |
| Total Responses | 11 |



3.4 Visitor Experience

Visitors were asked to comment on aspects of their visit that enhanced or increased their enjoyment of the site. An open-ended question was used and 12 responses were received from 12 respondents (30.0% of the sample). Results were grouped into three categories: natural, psycho-social and others (Table 21). Water (16.7%) and the few other tourists at the site (16.7%) enhanced respondents' enjoyment overall. These, and the other responses to this question, indicate that the site's major values are its natural environment and undeveloped state.

Table 21: Aspects that visitors considered enhanced or increased their enjoyment of Emmagen Creek (n = 12).

| | Frequency (n) | Percentage (%) |
|------------------------------|---------------|----------------|
| Natural | | |
| Water | 2 | 16.8 |
| Beautiful place | 1 | 8.3 |
| Great weather | 1 | 8.3 |
| Not a commercial area – yet? | 1 | 8.3 |
| Unspoilt nature of the site | 1 | 8.3 |
| Psycho-social | | |
| Few other tourists | 2 | 16.8 |
| Peace and tranquility | 1 | 8.3 |
| Other | | |
| Guide providing information | 1 | 8.3 |
| Walking tour guide | 1 | 8.3 |
| Tour operator very good | 1 | 8.3 |
| Total Responses | 12 | 100.0 |

Respondents were also asked for their views on aspects of the site that detracted from their enjoyment. Only three respondents indicated detractions at the site including crocodiles, cars and some litter (Table 22).

Table 22: Aspects visitors considered took away or detracted from their enjoyment of Emmagen Creek (n = 3).

| | Frequency (n) | Percentage (%) |
|----------------------------|---------------|----------------|
| Natural | | |
| Crocodiles | 1 | 33.3 |
| Other | | |
| Cars | 1 | 33.3 |
| Toilet paper / some litter | 1 | 33.3 |
| Total Responses | 3 | 100.0 |

The conclusions that may be drawn from the results reported in Tables 21 and 22 are that the undeveloped state and lack of other visitors are major factors in the site's appeal to visitors, and contribute to visitor enjoyment.

Other Visitors

The behaviour of other visitors at a site can affect the level of enjoyment an individual derives from visiting that site. In circumstances where overcrowding occurs the overall level of enjoyment could be expected to fall. However, the link between perceived crowding and satisfaction is weak and is dependent on personal norms, situational variables and site infrastructure (West, 1981; Stankey and McCool, 1984; Kalisch and Klaphake, 2007). A series of statements were presented in the survey and respondents were asked to comment using a Likert scale of 1 = 'strongly disagree' to 6 = 'strongly agree'. Table 23 shows there was relatively little concern about the number of people at the site (mean = 1.69), the behaviour of others (1.67) and the presence of other people preventing respondents from doing what they wanted (1.61).

Table 23: Domestic and international visitors' perceptions of other site visitors.

| Perceptions of other site visitors at Emmagen Creek | n | Overall Mean | Domestic visitors (mean) | International visitors (mean) |
|---|----|--------------|--------------------------|-------------------------------|
| The behaviour of other visitors at this site has been on the whole environmentally responsible. | 35 | 3.66 | 4.00 | 3.37 |
| There were too many people at this site today. | 36 | 1.69 | 1.69 | 1.70 |
| The presence of other people at this site prevented me from doing what I wanted to. | 36 | 1.61 | 1.56 | 1.65 |
| The behaviour of some visitors at this site detracted from my enjoyment of this site. | 36 | 1.67 | 1.69 | 1.65 |

Table 24 provides respondents' levels of agreement/disagreement with statements relating to perceptions of other visitors at the site. Just over half of all respondents (57.2%) agreed that the behaviour of other visitors at the site was environmentally responsible. The remaining percentage of respondents may be expressing concern at the way some drivers traverse the creek crossing.

Table 24: Perceptions of other visitors at Emmagen Creek.

| Perceptions of other site visitors at Emmagen Creek | Percentage of survey respondents | | | | | |
|---|----------------------------------|-------------------|-----------------|--------------|----------------|----------------|
| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
| The behaviour of other visitors at this site has been on the whole environmentally responsible. | 20.0 | 14.3 | 8.6 | 14.3 | 22.9 | 20.0 |
| There were too many people at this site today. | 55.6 | 25.0 | 13.9 | 5.6 | - | - |
| The presence of other people at this site prevented me from doing what I wanted to. | 55.6 | 30.6 | 11.1 | 2.8 | - | - |
| The behaviour of some visitors at this site detracted from my enjoyment of this site. | 63.9 | 19.4 | 5.6 | 8.3 | 2.8 | - |

3.5 Additional Comments

The survey instrument provided respondents with the opportunity to record comments on any aspect of their visit. Four responses were received – each positive comments regarding the low number of other visitors at the site and the natural beauty of the environment at Emmagen Creek.

| Date | Comment |
|-----------------|---|
| 29 October 2008 | 'Keep up the good work. Lovely natural site. Watering hole is fantastic.' <i>Victorian visitor, male, 33 years</i> |
| 29 October 2008 | 'Happy with people coming and going. Don't want bins, etc.' <i>Far North Queensland visitor, male, 38 years</i> |
| 31 July 2009 | 'It was a very nice day.' <i>Netherlands visitor, male, 47 years</i> |
| 26 April 2010 | 'Great place to visit when you come from South Australia, where there are no running streams.' <i>South Australian visitor, male, 63 years</i> |

4. Management Considerations

The findings of this survey suggest management consideration is given to the following matters:

- Emmagen Creek is an undeveloped site that does not attract a large number of visitors. It is seen by visitors as a place to escape from the crowds and enjoy the rainforest in its natural state. During the surveying periods, a number of respondents walked to the site from Cape Tribulation. This is not evident in the results outlined in Figure 5. This finding may indicate that there is some demand for a more extensive set of walking tracks in the Cape Tribulation area.
- The site is relatively remote and accessed only by gravel road; these factors influence the level of visitation. If the road is sealed in the future it is reasonable to assume that visitor numbers will increase.
- The lack of vehicle parking space particularly for vehicles larger than a car or 4WD may lead to damage of the site's natural area. If demand grows a designated parking area will be required.
- Identification of the entrance to the walking track and maintenance of the track to the swimming hole will result in less damage to the environment. During the collection period, it was evident that a number of visitors were deviating from the original path to the waterhole and damaging the environment. Damage of this nature can only be avoided if the existing access to the waterhole is upgraded.
- There was limited support for further infrastructure development such as toilets or camping areas.
- There is support for the installation of additional interpretative signage at the site. There is also an obvious need for better signage to inform visitors about the site's walking track. Given that a rubbish bin has not been provided there is a case for installing signage requesting that visitors take their rubbish with them when they leave the site.

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Appendix 1: Site Survey Instrument



Visitor Site Survey in the Wet Tropics World Heritage Area

Interviewer:

Survey Location:

Survey Date: Time:

Weather: Sunny Overcast Raining Hot Warm Cool

Other Comments: (e.g. windy, smoky, mist)

.....

Dear Visitor,

We are researchers from James Cook University, School of Business – Tourism, and on behalf of the Wet Tropics Management Authority we are exploring visitors’ expectations and experiences of this Wet Tropics site. We would be very grateful if you would participate in the study by completing this questionnaire.

Your participation will help to improve visitor services and the continued management of sites by understanding visitors’ needs and views.

The questionnaire is **voluntary** and all **responses remain completely anonymous**.
The questionnaire will take approximately **15 minutes** to complete.
Thank you very much for your participation.

If you would like any more information about this project please contact the project manager. If you would like to discuss any ethical matters regarding this project please contact the Ethics Administrator. This project has Human Ethics approval H3100 from James Cook University.

**PLEASE DETACH AND RETAIN THIS INFORMATION
PAGE ONLY FOR YOUR FUTURE REFERENCE**

Project Manager:

Dr Julie Carmody
School of Business – Tourism
James Cook University
Cairns, QLD 4870

T: (07) 4042 1535
E: Julie.Carmody@jcu.edu.au

Ethics Administrator:

Ms Tina Langford
Research Office
James Cook University
Townsville, QLD 4810

T: (07) 4781 4342
E: Tina.Langford@jcu.edu.au

9. In your travels today, where did you **previously visit** before coming to this site?
(e.g. township, visitor site)

.....

10. In your travels today, where do you plan to go **after leaving this site**?

.....

11. How often do you **visit natural areas** like this (e.g. National Parks)?

- This is my first time
- Less than once a year
- Once a year
- Between 2 and 5 times a year
- More than 5 times a year

SECTION C: REASONS FOR VISITING

12. Please indicate how important the following **reasons** were for you **visiting this site** today.

| | Not important | Slightly important | Moderately important | Important | Quite important | Very important |
|---------------------------------------|---------------|--------------------|----------------------|-----------|-----------------|----------------|
| See natural features and scenery | 1 | 2 | 3 | 4 | 5 | 6 |
| Be close to / experience nature | 1 | 2 | 3 | 4 | 5 | 6 |
| Social with family or friends | 1 | 2 | 3 | 4 | 5 | 6 |
| Rest and relax | 1 | 2 | 3 | 4 | 5 | 6 |
| Experience tranquility | 1 | 2 | 3 | 4 | 5 | 6 |
| Outdoor exercise | 1 | 2 | 3 | 4 | 5 | 6 |
| Opportunities for short walks | 1 | 2 | 3 | 4 | 5 | 6 |
| Opportunities for long walks | 1 | 2 | 3 | 4 | 5 | 6 |
| Because it is a World Heritage Area | 1 | 2 | 3 | 4 | 5 | 6 |
| Because it is a National Park | 1 | 2 | 3 | 4 | 5 | 6 |
| Learn about native animals and plants | 1 | 2 | 3 | 4 | 5 | 6 |
| Learn about Aboriginal culture | 1 | 2 | 3 | 4 | 5 | 6 |
| Other (please specify) | 1 | 2 | 3 | 4 | 5 | 6 |

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

- | | |
|---|---|
| <input type="checkbox"/> Observing scenery | <input type="checkbox"/> Walking – short (1 hour or less) |
| <input type="checkbox"/> Bird watching | <input type="checkbox"/> Walking – long (1-6 hours) |
| <input type="checkbox"/> Observe wildlife | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Photography / painting / drawing | <input type="checkbox"/> Guided tour |
| <input type="checkbox"/> Picnic / barbeque (BBQ) | <input type="checkbox"/> Looking at interpretation material |
| <input type="checkbox"/> Using café / restaurant | <input type="checkbox"/> Relaxing |
| <input type="checkbox"/> Camping | <input type="checkbox"/> Other (please specify): |

.....

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

- Yes
 No

If you answered 'Yes', please specify:

.....

15. How **long** have you spent at this site today?

- | | |
|--|--|
| <input type="checkbox"/> Less than half an hour | <input type="checkbox"/> About 3 hours |
| <input type="checkbox"/> About half an hour | <input type="checkbox"/> About 4 hours |
| <input type="checkbox"/> About 1 hour | <input type="checkbox"/> More than 4 hours |
| <input type="checkbox"/> About 2 hours | <input type="checkbox"/> Overnight |
| <input type="checkbox"/> Days (please specify) | |

16. If an **entrance fee** were introduced to access this site today, how much would you be willing to pay?

- \$1 – less than \$2 (AUD)
 \$2 – less than \$5 (AUD)
 \$5 – less than \$10 (AUD)
 \$10 – less than \$20 (AUD)
 I do not think I should pay anything to access this site as a day visitor.

SECTION D: NATURAL ENVIRONMENT

17. The following statements are about the **natural features** of this site. Please rate the extent to which you agree or disagree with each statement.

| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
|---|-------------------|-------------------|-----------------|--------------|----------------|----------------|
| The natural environment at this site is interesting. | 1 | 2 | 3 | 4 | 5 | 6 |
| I would like to spend more time exploring this natural environment. | 1 | 2 | 3 | 4 | 5 | 6 |
| In terms of natural attractions and scenic beauty this site is appealing. | 1 | 2 | 3 | 4 | 5 | 6 |
| The condition of the natural environment at this site appears to be good. | 1 | 2 | 3 | 4 | 5 | 6 |
| The natural environment at this site is well managed. | 1 | 2 | 3 | 4 | 5 | 6 |
| I am concerned about the impacts of human activity on the natural environment at this site. | 1 | 2 | 3 | 4 | 5 | 6 |
| This site appears to be disturbed and impacted. | 1 | 2 | 3 | 4 | 5 | 6 |

SECTION E: SITE FACILITIES

18. What facilities have you used at this site today? (Tick as many as applicable)

- | | |
|---|---|
| <input type="checkbox"/> Picnic table | <input type="checkbox"/> Walking track |
| <input type="checkbox"/> Shelter shed | <input type="checkbox"/> Boardwalk |
| <input type="checkbox"/> Restaurant / café | <input type="checkbox"/> Viewing platform / lookout |
| <input type="checkbox"/> Rubbish bin | <input type="checkbox"/> Fire place |
| <input type="checkbox"/> Toilet / showers | <input type="checkbox"/> Barbeque |
| <input type="checkbox"/> Tap | |
| <input type="checkbox"/> Other (please specify) | |
| | |

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

- Yes
- No

If you answered 'Yes', please specify:

.....

.....

20. Please rate the extent to which you agree or disagree with each of the following statements about the **facilities and management** at this site.

| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
|---|-------------------|-------------------|-----------------|--------------|----------------|----------------|
| The site is appealing in terms of the character and attractiveness of the facilities. | 1 | 2 | 3 | 4 | 5 | 6 |
| The facilities at this site are adequate. | 1 | 2 | 3 | 4 | 5 | 6 |
| The overall condition of the facilities at this site appears to be good. | 1 | 2 | 3 | 4 | 5 | 6 |
| The facilities and infrastructure at this site are well managed. | 1 | 2 | 3 | 4 | 5 | 6 |
| The presence of a ranger at sites like this is important to me. | 1 | 2 | 3 | 4 | 5 | 6 |

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

- To provide information / education
- To give directions
- To answer questions
- For lodging complaints about others' behavior
- To take us on guided walks
- For site maintenance
- For safety / security
- Other (please specify)

.....

SECTION F: INFORMATION

22. How did you **find out about this site**?

- | | |
|---|---|
| <input type="checkbox"/> Have been here before | <input type="checkbox"/> Travel guide or book |
| <input type="checkbox"/> Road sign | <input type="checkbox"/> From the web |
| <input type="checkbox"/> Word of mouth | <input type="checkbox"/> The trip here was included in a package tour |
| <input type="checkbox"/> Map which said it was a tourist site | <input type="checkbox"/> Tourist brochure (which one?) |
| | |
| <input type="checkbox"/> Tourist information centre in North Queensland | <input type="checkbox"/> Tourist information centre (other) |
| | |
| <input type="checkbox"/> Other (please specify): | |

23. If you obtained **prior information** about this site, was the information accurate?

- Yes
 No

If you answered 'No', please specify:

.....

24. Did you refer to any of the information available at this site today? Yes
 No

25. Please rate the extent to which you agree or disagree with the following statements about **information available** at this site.

| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
|--|-------------------|-------------------|-----------------|--------------|----------------|----------------|
| Signs, maps and directions... | | | | | | |
| were easy to find | 1 | 2 | 3 | 4 | 5 | 6 |
| helped me to find my way around | 1 | 2 | 3 | 4 | 5 | 6 |
| The rules and safety information... | | | | | | |
| were easy to understand | 1 | 2 | 3 | 4 | 5 | 6 |
| addressed my interests and concerns | 1 | 2 | 3 | 4 | 5 | 6 |
| The information about natural features and values... | | | | | | |
| was interesting and informative | 1 | 2 | 3 | 4 | 5 | 6 |
| helped me to better appreciate the special natural values of the area | 1 | 2 | 3 | 4 | 5 | 6 |
| The Aboriginal cultural information... | | | | | | |
| was interesting and informative | 1 | 2 | 3 | 4 | 5 | 6 |
| helped me to understand the significance of this area for Rainforest Aboriginal people | 1 | 2 | 3 | 4 | 5 | 6 |

26. If you were to visit this site again, is there any **additional information** you would like?

Yes

No

If you answered 'Yes', please specify:

.....

SECTION G: VISITOR EXPERIENCE

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

Yes

No

If you answered 'Yes', please specify:

.....

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

Yes

No

If you answered 'Yes', please specify:

.....

29. Please rate how strongly you agree or disagree with the following statements about **other visitors at this site** today.

| | Strongly disagree | Somewhat disagree | Mildly disagree | Mildly agree | Somewhat agree | Strongly agree |
|--|-------------------|-------------------|-----------------|--------------|----------------|----------------|
| There were too many people at this site today. | 1 | 2 | 3 | 4 | 5 | 6 |
| The presence of other people at this site prevented me from doing what I wanted to do. | 1 | 2 | 3 | 4 | 5 | 6 |
| The behavior of other visitors at this site has been on the whole environmentally responsible. | 1 | 2 | 3 | 4 | 5 | 6 |
| The behavior of some visitors at this site detracted from my enjoyment of this site. | 1 | 2 | 3 | 4 | 5 | 6 |

ADDITIONAL COMMENTS:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Appendix 2: Site Photographs

Emmagen Creek site signage and facilities



Parking space



Entrance to walking track (to swimming hole)



Photographs by Fay Falco-Mammone and Julie Carmody