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Visitor Perceptions and Preferences Regarding Cape Range National Park

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Background and Research Focus

- Honours project (9 months) funded by CALM
- Knowledge of visitor activities, perceptions and preferences essential for effective management of natural areas
- Management plan for Cape Range National Park currently under review
- Analysis of visitors' perceptions of conditions & acceptable standards, and preferences for management actions will provide information for management plan revision



Research Objectives

- To describe the recreational and tourism activities in CRNP and identify perceived environmental and social impacts;
- To ascertain the desired environmental and social conditions, and associated indicators and standards (targets); and
- To explore visitors' preferences for a range of management techniques

Research Design and Methods

- Questionnaire addressed visitor and visit characteristics, perceptions of conditions and acceptable standards, and management preferences
- Questionnaire personally distributed from June 15th to July 13th (peak season)
- A circuit of the coastal campsites within the Park was completed once a day - lack of visitors and distance from coast prevented distribution at eastern sites

Data Analysis

- Descriptive statistics (percentages) derived for visitor characteristics, site conditions & management actions
- Standards derived for indicators of site condition - 50 and 75% standards using cumulative percentages
- Analysis of variance and t-tests used to determine if differences in standards between sites were statistically different
- Analysis of variance also used to determine if there was a significant correlation between visitors' place of origin & management preferences

Results

- 507 questionnaires were completed and collected
- Response rate – 81%

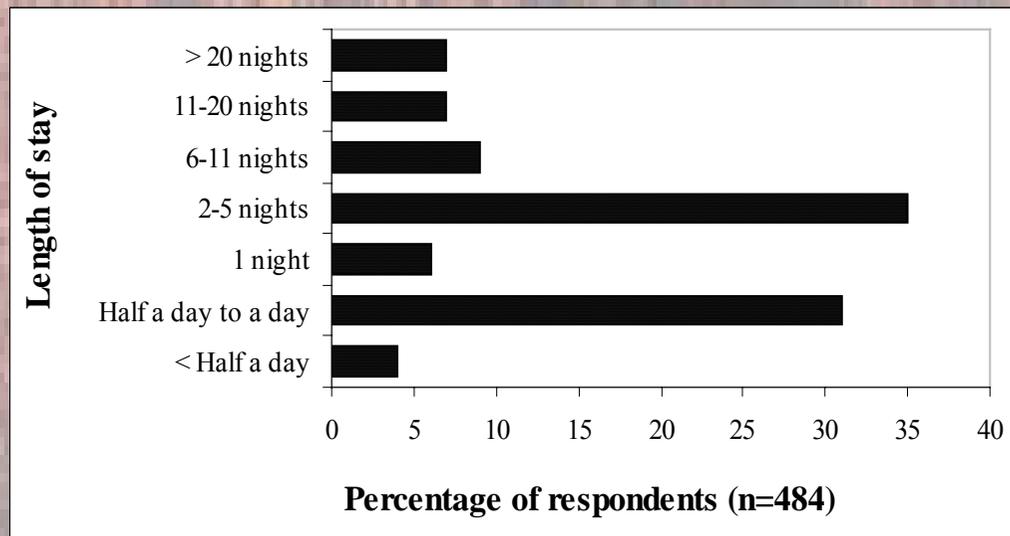


Figure 1. Length of stay

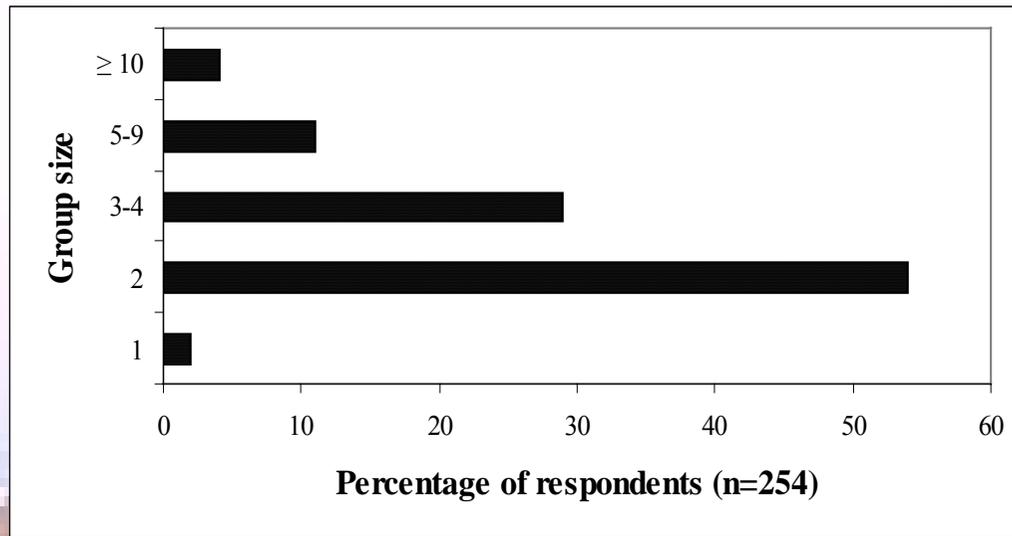


Figure 2. Group size at day-use sites

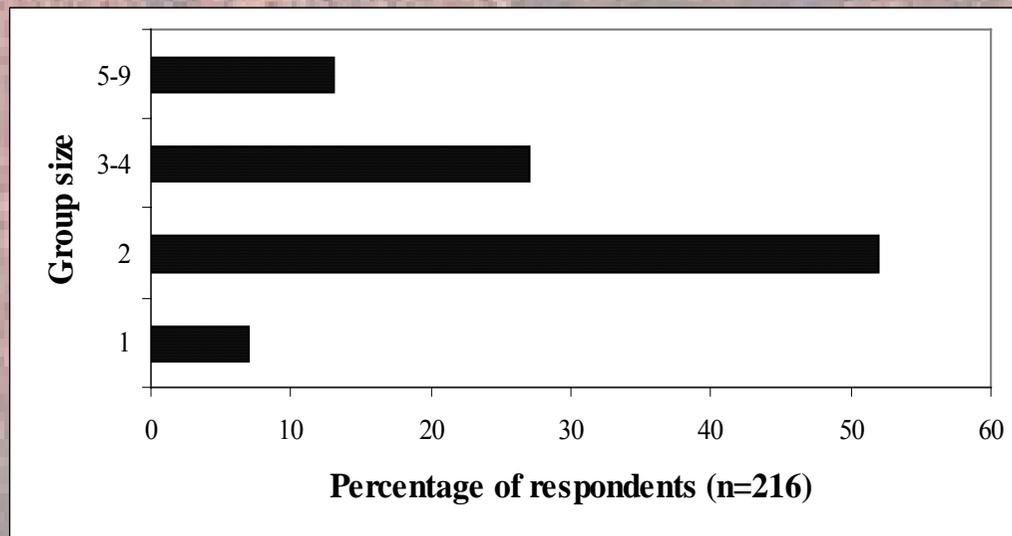


Figure 3. Group size at campsites

Visitor Characteristics

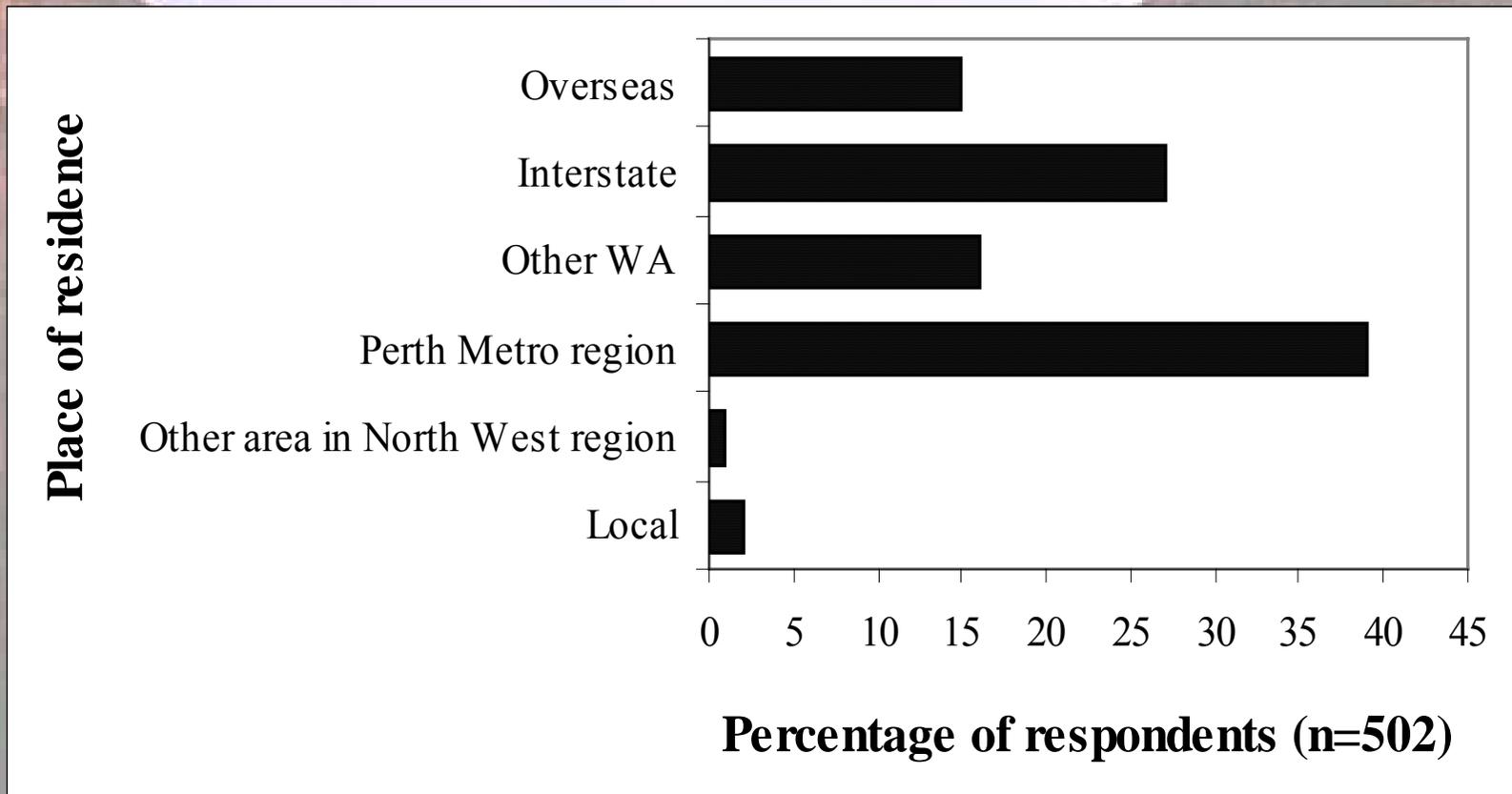
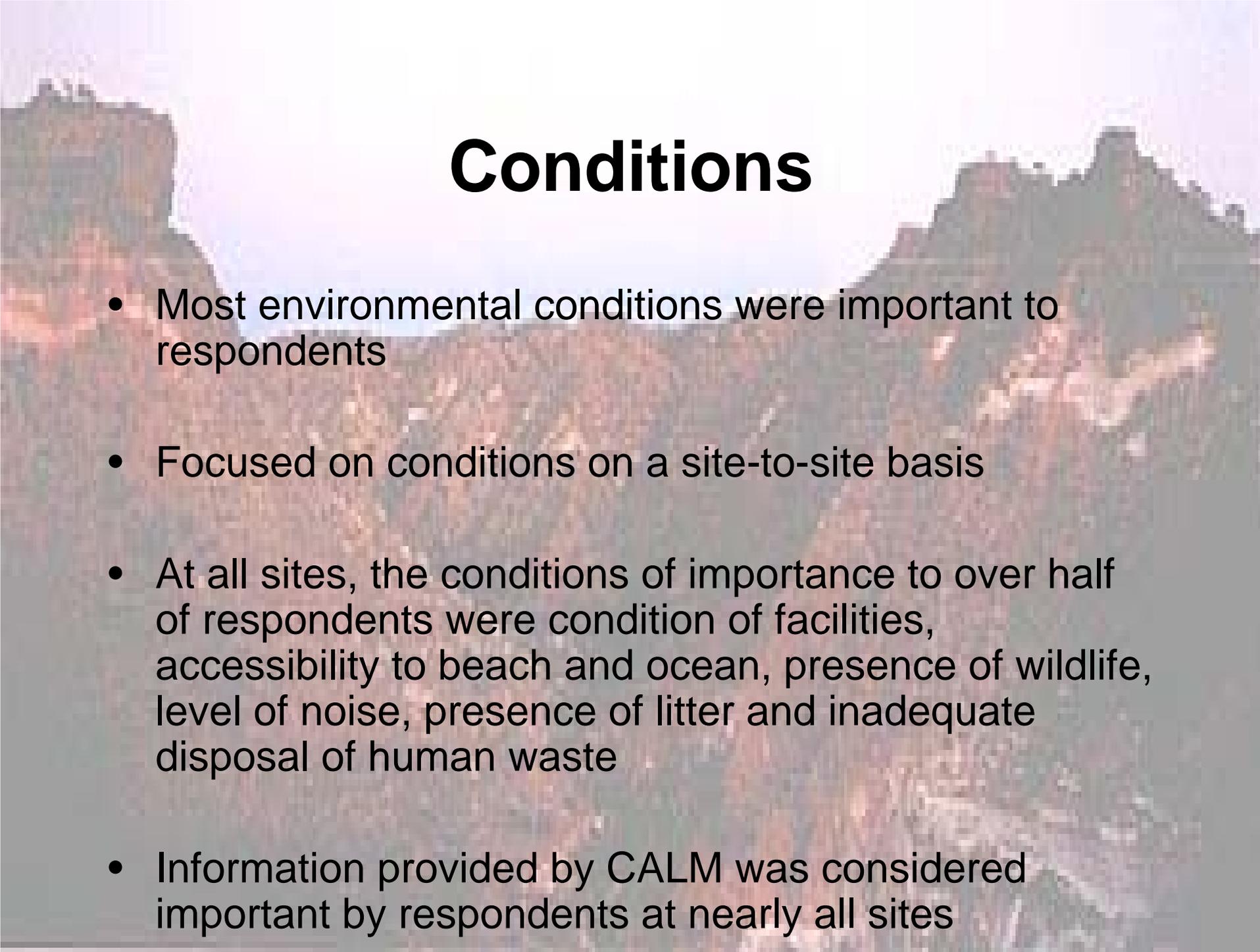


Figure 4. Place of residence of visitors

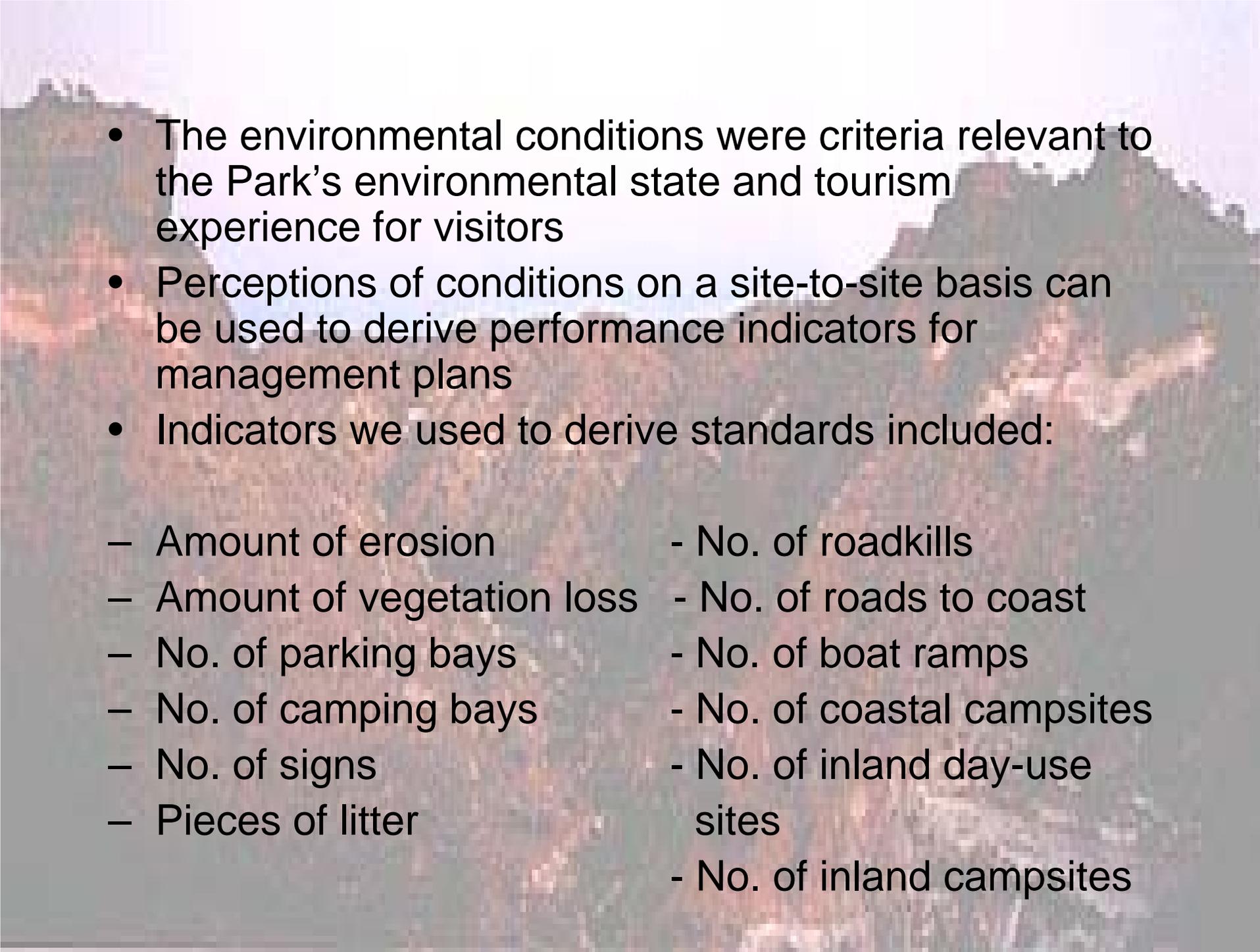
Table 1. Activities participated in

| Activities | Percentage of respondents |
|---------------------------------|---------------------------|
| Appreciating nature and scenery | 85 |
| Relaxing | 82 |
| Swimming | 71 |
| Snorkelling | 68 |
| Viewing marine-based wildlife | 66 |
| Viewing land-based wildlife | 65 |
| Walking/hiking | 62 |
| Photography | 61 |
| Camping | 50 |

A scenic view of a coastline with mountains and a bay. The image shows a wide bay with a small boat in the distance, surrounded by steep, forested mountains. The sky is clear and blue.

Conditions

- Most environmental conditions were important to respondents
- Focused on conditions on a site-to-site basis
- At all sites, the conditions of importance to over half of respondents were condition of facilities, accessibility to beach and ocean, presence of wildlife, level of noise, presence of litter and inadequate disposal of human waste
- Information provided by CALM was considered important by respondents at nearly all sites

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- The environmental conditions were criteria relevant to the Park's environmental state and tourism experience for visitors
 - Perceptions of conditions on a site-to-site basis can be used to derive performance indicators for management plans
 - Indicators we used to derive standards included:
 - Amount of erosion
 - Amount of vegetation loss
 - No. of parking bays
 - No. of camping bays
 - No. of signs
 - Pieces of litter
 - No. of roadkills
 - No. of roads to coast
 - No. of boat ramps
 - No. of coastal campsites
 - No. of inland day-use sites
 - No. of inland campsites

Standards

- Few significant differences in standards between sites (either when day sites were compared, campsites or all sites)
- Only significant differences were:
 - For day use sites: number of parking bays & number of signs
 - For campsites: area of erosion, number of parking bays & number of camping bays
 - For camping & day use sites: number of parking bays & number of signs
- Standards very similar to existing conditions at survey sites

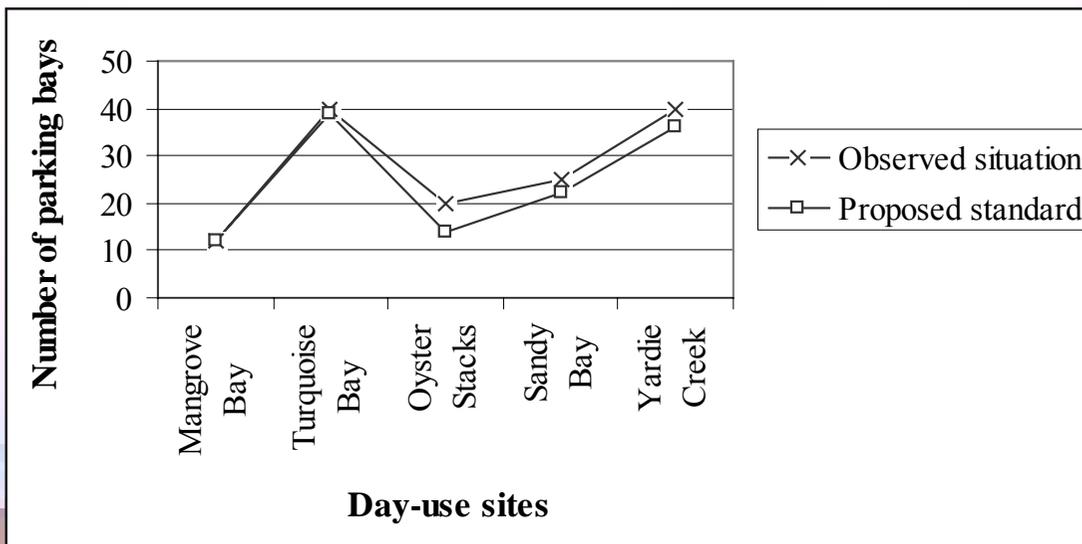


Figure 5. Observed situation vs proposed 50% standards at day-use sites for number of parking bays

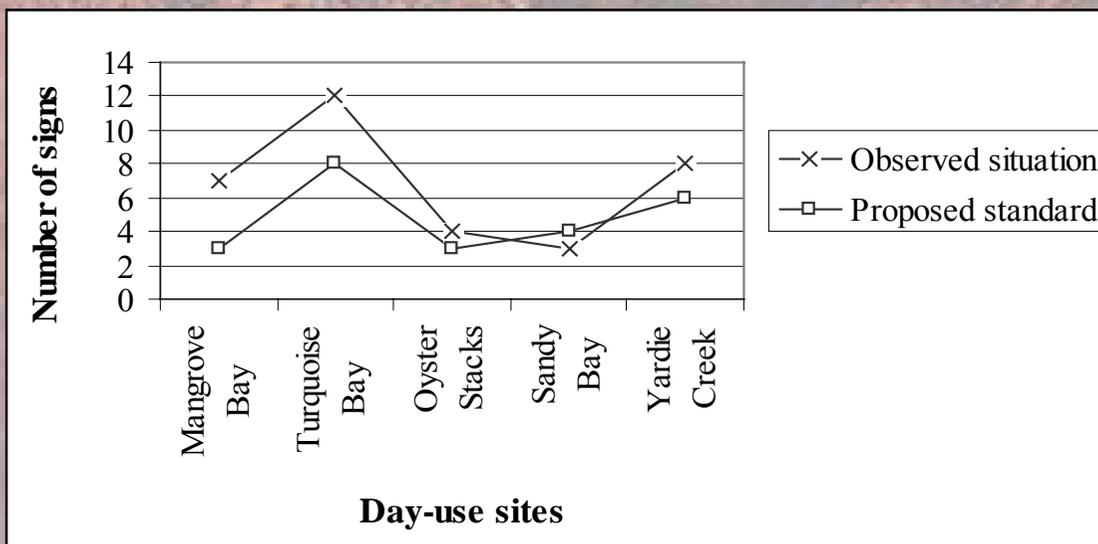


Figure 6. Observed situation vs proposed 50% standards at day-use sites for number of signs

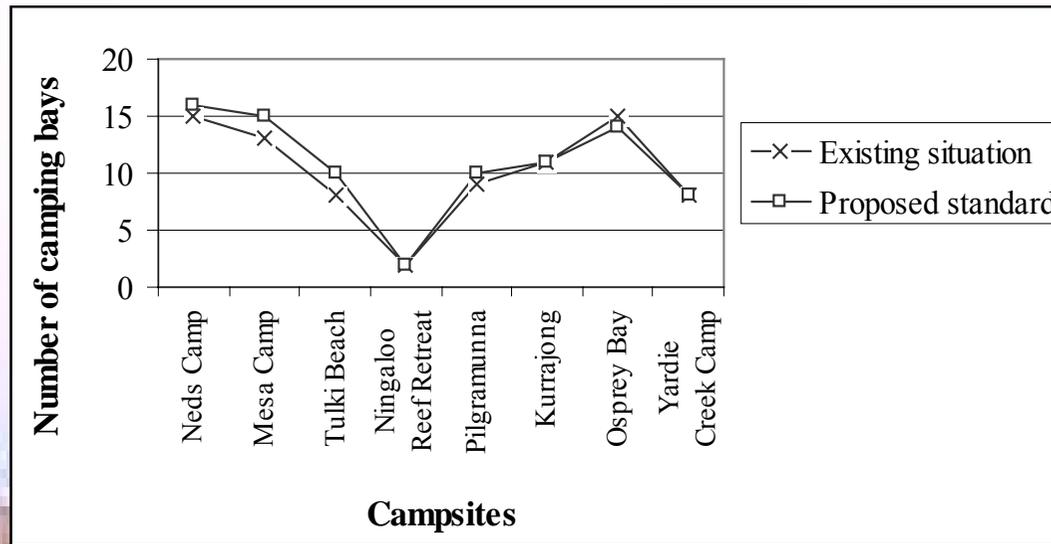


Figure 7. Existing situation vs proposed 50% standards at campsites for number of camping bays

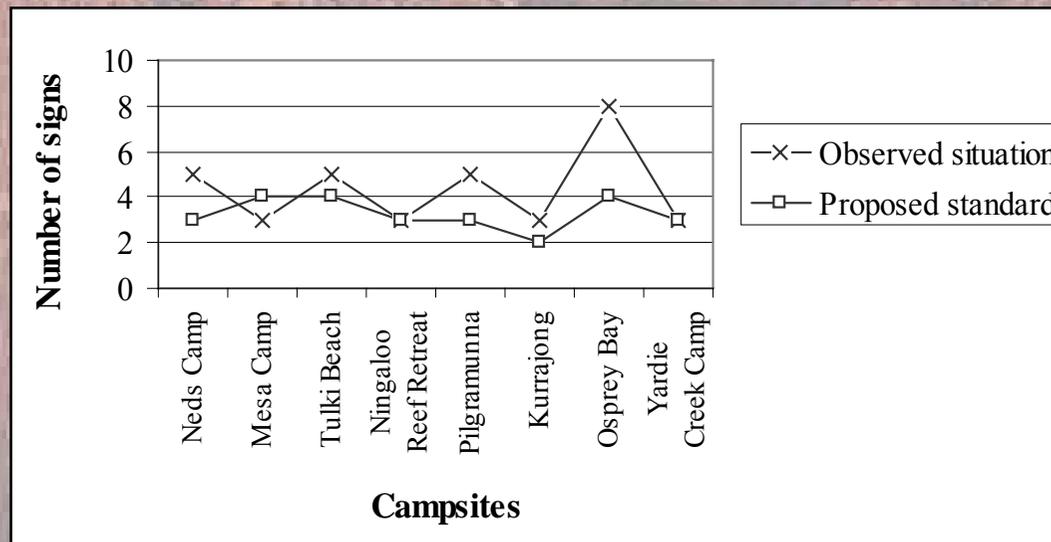


Figure 8. Observed situation vs proposed 50% standards at campsites for number of signs

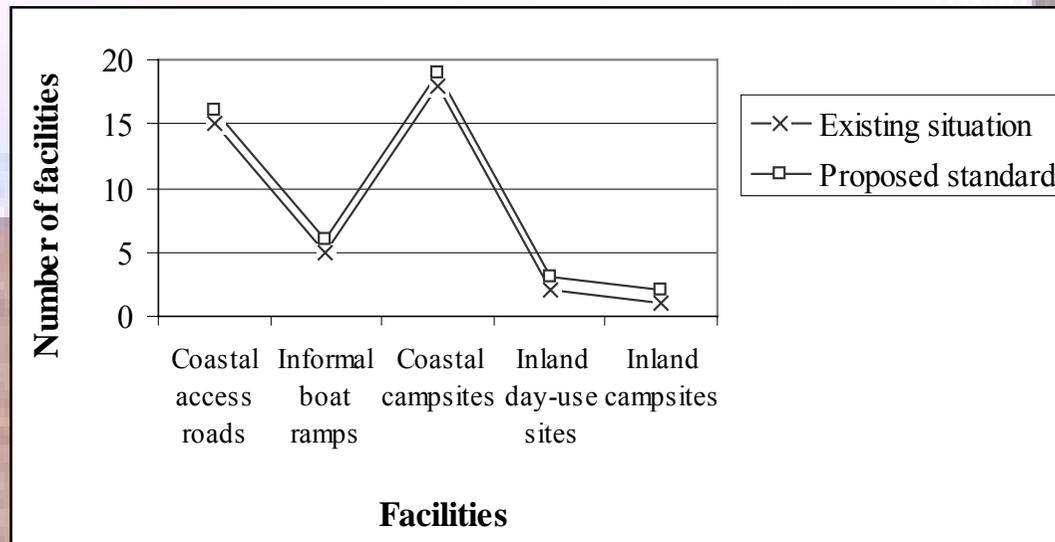
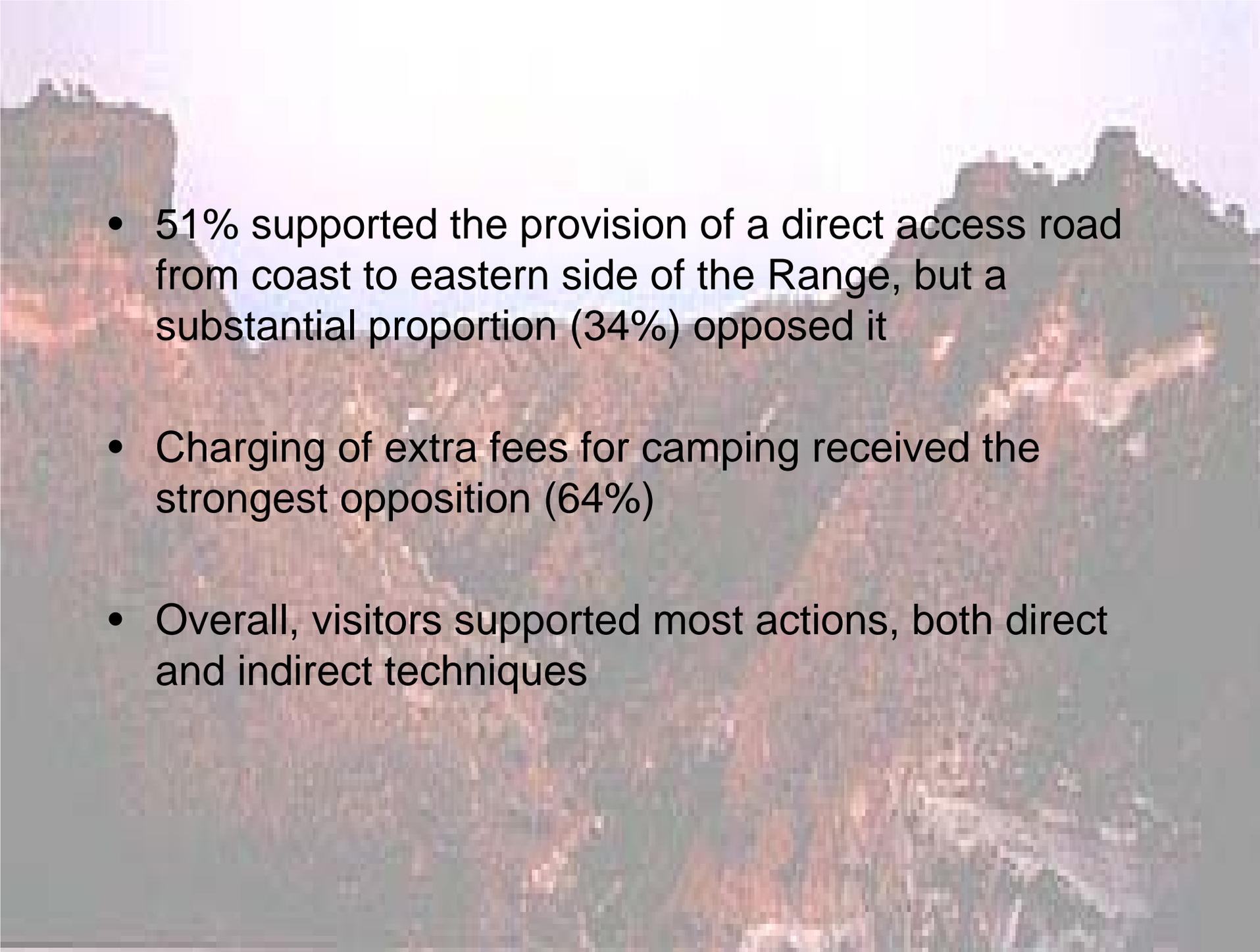


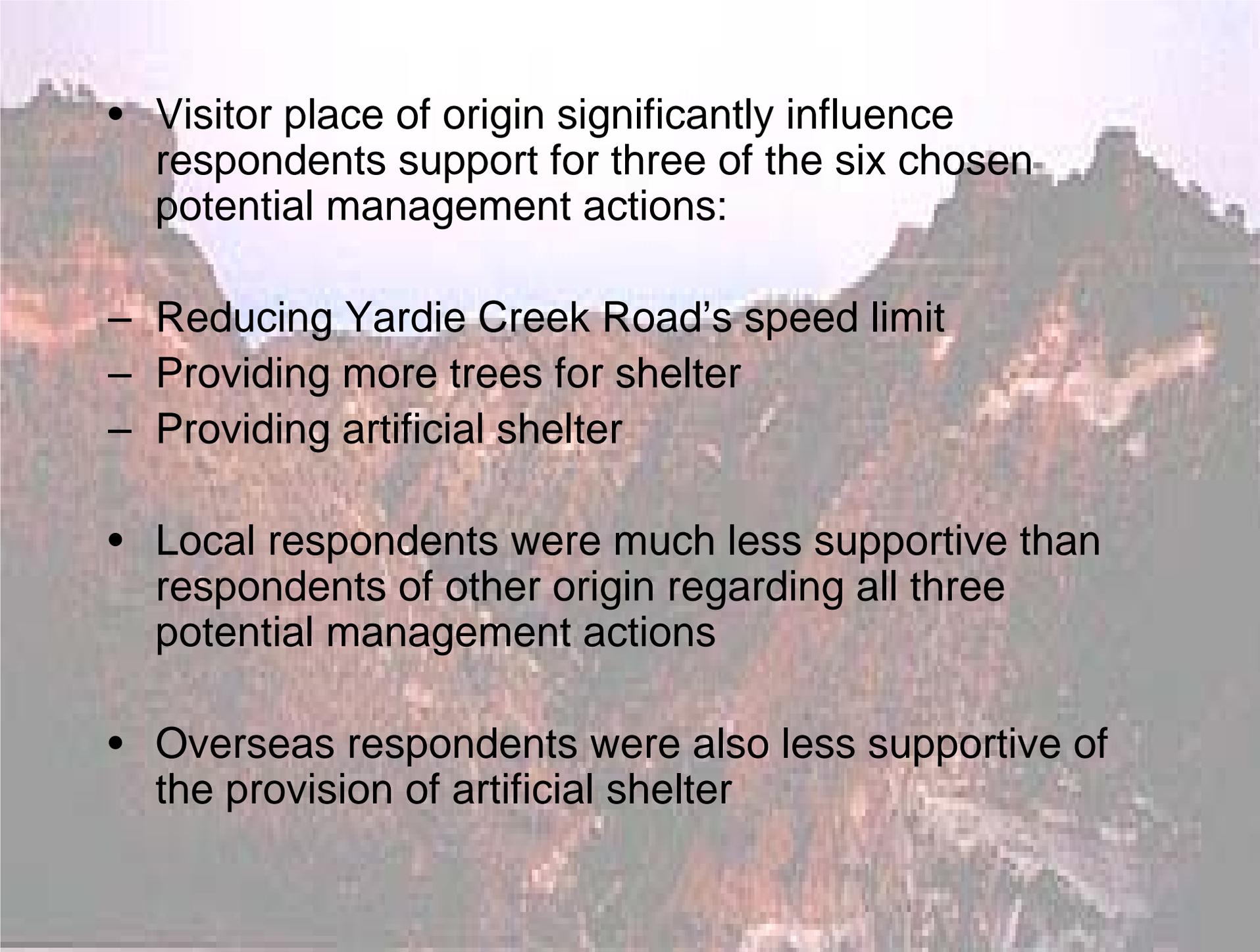
Figure 9. Existing situation vs proposed 50% standards regarding facilities in Cape Range National Park

Potential Management Actions

Table 2. Visitor preferences for management actions

| Management actions | Percentage of respondents |
|---------------------------------|---------------------------|
| Education | 82 |
| Provide trees for shelter | 79 |
| Walk trail across C.R. | 74 |
| Retain 4WD access across Y.C. | 63 |
| Reduce speed limit on Y.C. Road | 61 |
| Increase ranger visits | 61 |
| More toilets at day-use sites | 60 |
| Provide artificial shelters | 59 |
| Improve walk trail conditions | 53 |

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- 51% supported the provision of a direct access road from coast to eastern side of the Range, but a substantial proportion (34%) opposed it
 - Charging of extra fees for camping received the strongest opposition (64%)
 - Overall, visitors supported most actions, both direct and indirect techniques

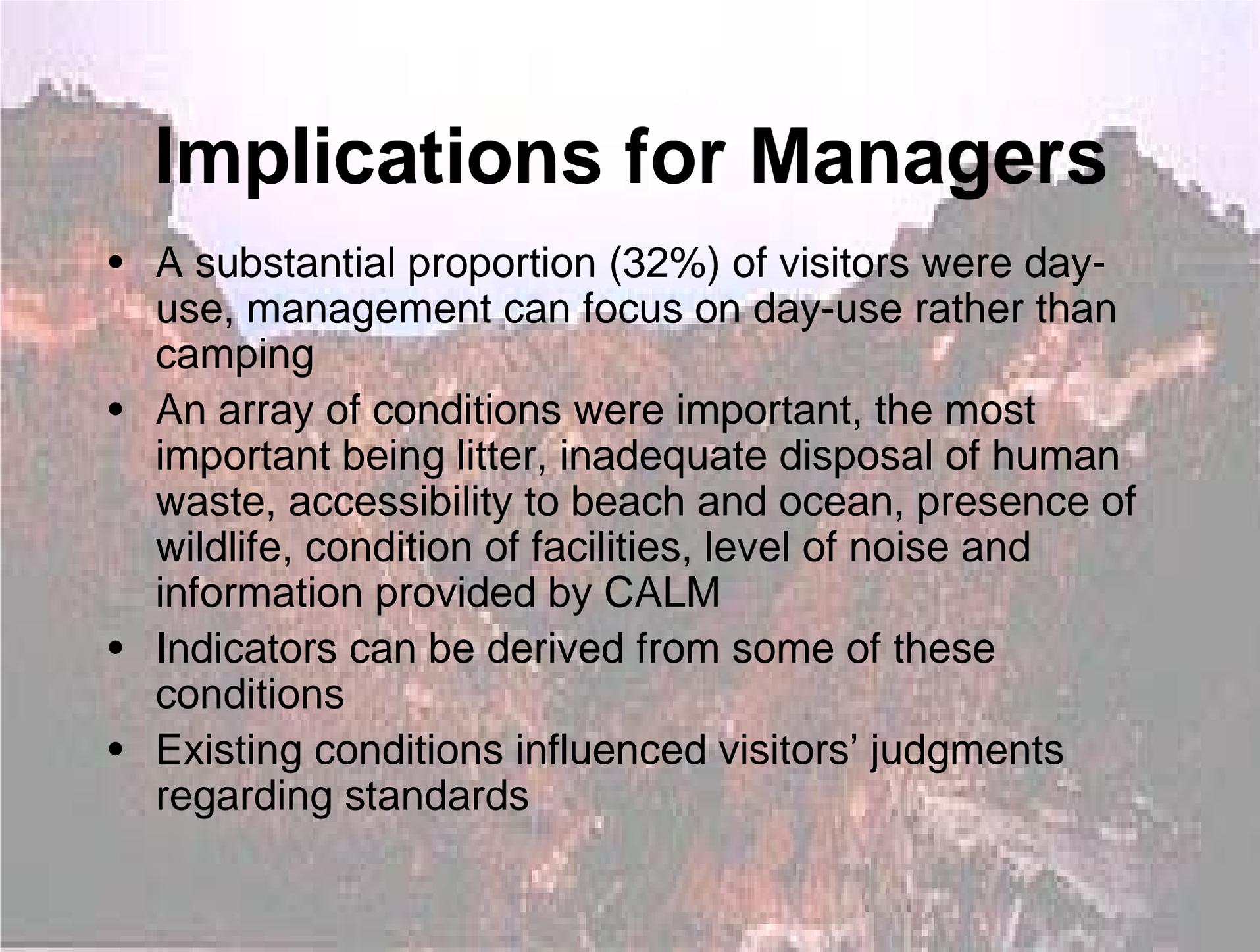
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- Visitor place of origin significantly influence respondents support for three of the six chosen potential management actions:
 - Reducing Yardie Creek Road's speed limit
 - Providing more trees for shelter
 - Providing artificial shelter
 - Local respondents were much less supportive than respondents of other origin regarding all three potential management actions
 - Overseas respondents were also less supportive of the provision of artificial shelter

Encountering Other Groups

- This section targeted visitor perceptions of contact with other visitors at the site within which they were located at the time of completing the survey
- The intention was to obtain information for standards

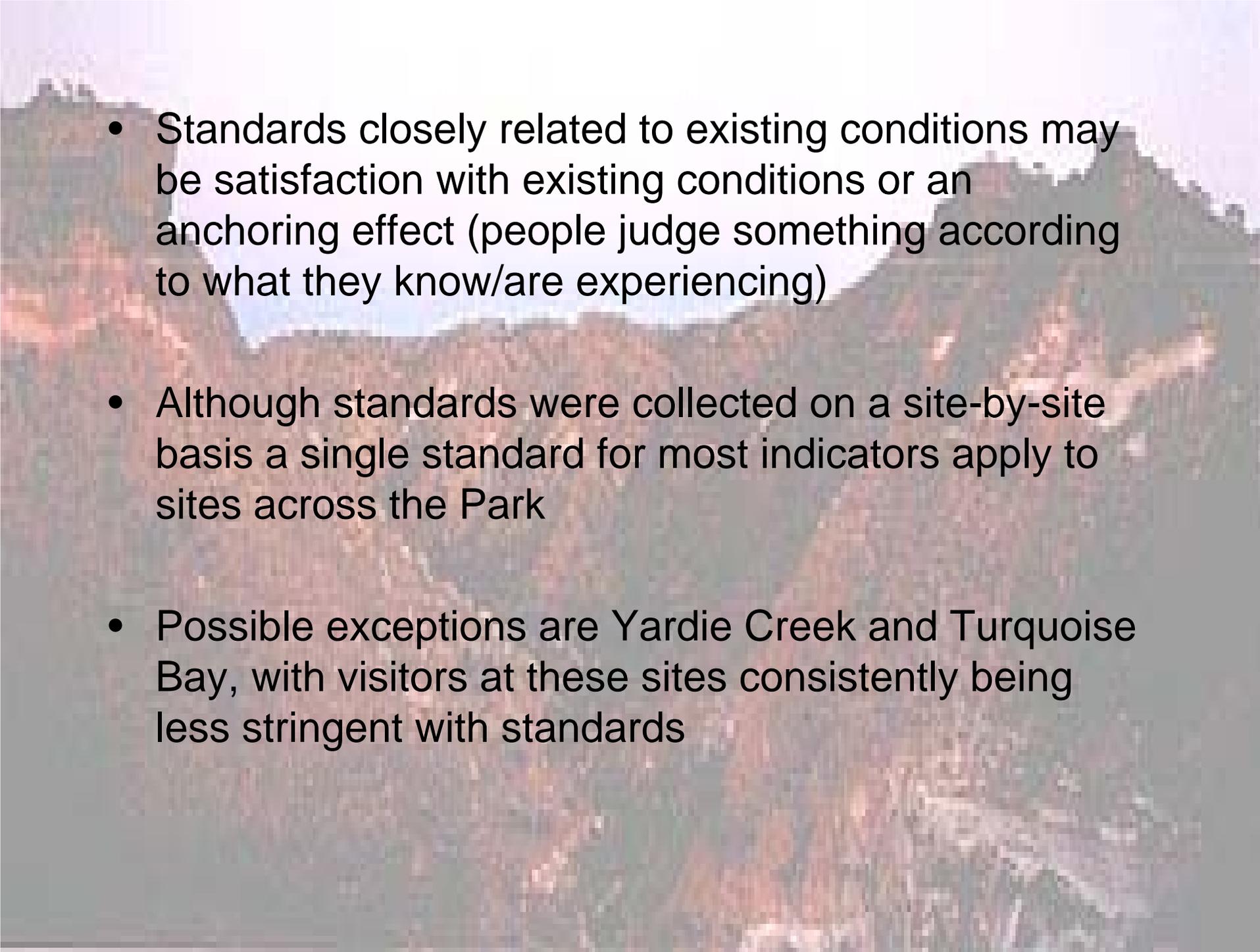
Table 2. Maximum acceptable number of people seen at specific sites

| POTENTIAL INDICATOR STANDARDS | Number of people | | POTENTIAL INDICATOR STANDARDS | Number of people | |
|----------------------------------|------------------|-----|-------------------------------|------------------|-----|
| | 50% | 75% | | 50% | 75% |
| SITE | | | SITE | | |
| <i>Mangrove Bay (d)</i> | 15 | 10 | <i>Kurrajong (c)</i> | 20 | 15 |
| <i>Neds Camp (c)</i> | > 20 | 20 | <i>Pilgramunna (c)</i> | > 20 | 20 |
| <i>Mesa Camp (c)</i> | > 20 | 20 | <i>Sandy Bay (d)</i> | 20 | 15 |
| <i>Tulki Beach (c)</i> | 20 | 15 | <i>Osprey Bay (c)</i> | > 20 | 20 |
| <i>Turquoise Bay (d)</i> | > 20 | 20 | <i>Yardie Creek (d)</i> | > 20 | 20 |
| <i>Oyster Stacks (d)</i> | 15 | 10 | <i>Yardie Creek Camp (c)</i> | 20 | 15 |
| <i>Ningaloo Reef Retreat (c)</i> | 20 | 15 | | | |



Implications for Managers

- A substantial proportion (32%) of visitors were day-use, management can focus on day-use rather than camping
- An array of conditions were important, the most important being litter, inadequate disposal of human waste, accessibility to beach and ocean, presence of wildlife, condition of facilities, level of noise and information provided by CALM
- Indicators can be derived from some of these conditions
- Existing conditions influenced visitors' judgments regarding standards

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- Standards closely related to existing conditions may be satisfaction with existing conditions or an anchoring effect (people judge something according to what they know/are experiencing)
 - Although standards were collected on a site-by-site basis a single standard for most indicators apply to sites across the Park
 - Possible exceptions are Yardie Creek and Turquoise Bay, with visitors at these sites consistently being less stringent with standards