

~ Chapter 1 ~

Establishing the context of the study

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1.0 Introduction

Degradation of protected areas takes many forms from the illegal taking of wildlife and other natural resources to the overuse by tourists (Dudley, Hockings & Stolton 1999). However, it is the negative environmental impacts caused by increasing numbers of visitors to national parks and other protected areas that is causing one of the most pressing management problems protected area managers are facing (Leung & Marion 2000; Sowman & Pearce 2000; Worboys, Lockwood & De Lacy 2001). In an effort to manage visitor-related resource and social impacts protected area managers nationally and internationally commonly use site management actions, regulations and visitor education¹ (Hammit & Cole 1998; Manning 1999; Marion & Reid [in press]).

Site management actions (e.g. site hardening and facilities development) are costly, and permanently alter the natural setting (Stankey & Schreyer 1987; Hendee & Dawson 2002); while regulations, including use limitation mechanisms such as permitting, directly curtail visitor freedoms and promote negative experiences due to their emphasis on the potential for enforcement with punitive actions (Cameron-Smith 1977; Peterson & Lime 1979). Site management actions and regulation may also lead to recreation succession – a phenomenon by which the quality or condition of recreation settings deteriorate and/or change as a consequence of the impacts of recreational use and/or the actions of management (Batt 1998). In contrast, visitor education programmes recognise that most impacts are not from malicious acts, but result from a lack of knowledge regarding appropriate low-impact behaviours or from the uninformed, unavoidable or careless consequences of one's actions (Bradley 1979; Hendee & Dawson 2002; Marion & Reid [in press]).

In general, visitor education programmes encourage people to learn about and consider the environment and the social consequences of their actions. They are a light-handed and indirect management response to improve visitor experiences and reduce resource impacts (Roggenbuck 1992; McArthur & Hall 1996; Manning 1999).

1 In a protected area management context, interpretation and a range of educational methods are used to explain natural phenomena, inform visitors of management issues, provide advice about natural hazards and the safety precautions one can take, and promote the adoption of a minimal impact ethic. These approaches are collectively called 'visitor education' in this thesis.

They are also used to promote the agency and explain the agency's role in the protection and management of a protected area (Sharpe 1976; Hooper & Weiss 1990; Beckmann 1991 & 1999; Worboys, Lockwood & De Lacy 2001). The objective is not to 'control' visitor behaviour, but rather to seek to provide a cognitive basis to raise awareness and encourage appropriate visitor behaviour towards protected areas and the environment (Peterson & Lime 1979; Bramwell & Lane 1993; Moscardo 1999; Bauchop & Parkin 2000). Visitor education programmes have different names (e.g. interpretation and education, conservation education, minimal impact education, community outreach, public contact and extension), but share common objectives to explain natural phenomena, inform visitors of management issues, provide advice about natural hazards and the safety precautions one can take, and promote the adoption of a minimal impact ethic. The overall aim is to sustain natural resource conditions while providing quality visitor experiences (Bright 1994; DoC 1996; Tonge, Moore, Hockings, Worboys & Bridle 2005).

Yet many protected areas are showing signs of resource degradation and loss of recreational amenity, and if left unmanaged will deteriorate further (Manning 1999; Worboys, Lockwood & De Lacy 2001), despite the fact that visitor education is considered one of the most important techniques for helping solve management problems (Hooper & Weiss 1990; Alcock 1995; Beckmann 1999). In many instances management techniques such as site regeneration, site hardening, use limitation and regulation are used in preference to visitor education. The reasons why visitor education is often overlooked are varied, but include reduced funding, limited resourcing, lack of expertise and a lack of conviction of the benefits of a healthy, robust visitor education programme (Roggenbuck 1987; Hooper & Weiss 1990; DNRE 1999).

In Queensland, Australia, the Queensland Government aimed to address this trend, in part, by revitalising the visitor education capacity of its Parks and Wildlife Service as a function of a whole of organisation process to:

- assert the Environmental Protection Agency's (EPA's) place in Government as a leader in environmental protection,
- deliver a real service to the community, and
- secure sustainable environmental and social outcomes for Queensland (EPA 1999, p2).

However, the Queensland Parks and Wildlife Service² (QPWS), like many Australian protected area agencies, did not have a process in place to benchmark or measure its achievements in visitor education delivery or effectiveness (DNRE 1999). The ability to revitalise its visitor education capacity and therefore its management effectiveness in this area of operation required a thorough understanding of why existing QPWS approaches to, and delivery of visitor education activities were considered ineffective. Systematic information on management effectiveness is essential to maintaining protected areas and the processes to support management actions (Hockings 2000 & 2003). It is also a 'critical step for achieving the goal for which protected areas are established: the conservation of biological diversity' (Ervin 2003, p833).

Accountability of performance is increasingly being demanded of government, and conservation management is no exception (Dudley, Hockings & Stolton 1999). As a result, performance reporting has emerged as a response to this trend in accountability, whereby objectives for management are developed and progress documented and reported (Hockings, Stolton & Dudley 2000; Hockings 2002; Tonge et al 2005). Consequently, this study analyses the frameworks and processes influencing the role and value of visitor education activities in Queensland protected areas. It explores the relationship between departmental policy and organisational culture within the QPWS to determine why, in some instances, visitor education was **failing** to be a valued aspect of protected area management in Queensland, in particular, and in Australia more generally. The overall aim is to provide the basis on which the proposed revitalisation of the QPWS's visitor education capacity can be drawn and to identify strategies that contribute to, and enhance the support for visitor education as a park management tool in agencies with responsibility for protected area management nationally and internationally.

This chapter establishes the context of the thesis. It briefly traces the evolution of the protected area concept and the significance of protected areas, and their legislative basis of management in Australia. It includes a synopsis of the rise of visitor education as a park management tool to provide the historical context on which this study is based. This synopsis also raises the suggestion that the value and use of visitor education as a park management tool among protected area managers is often overlooked in favour of park management techniques that provide more tangible

2 The Queensland Parks and Wildlife Service has previously been known by a variety of names including Queensland Department of Environment and Heritage, Queensland Department of Environment, and the Queensland National Parks and Wildlife Service.

outcomes creating contention among some interpreters³ – an issue that would need to be resolved if a ‘revitalised’ QPWS visitor education capacity were to occur.

The organisational policies and structures that underpin the planning and delivery of visitor education at an operational level are also examined. This critique presents the management framework in which visitor education in Queensland protected areas³ operate. To provide the contemporary nature of the study, the role and value of visitor education in the QPWS immediately prior to and during the life of the Queensland Government’s 1999–2001 Corporate Plan for the Environmental Protection Agency and Queensland Parks and Wildlife Service was investigated. This period was significant as it marked the first two years of the Queensland Government’s initiative to amalgamate its environmental protection obligations under one central agency and the Government’s proposal to revitalise the visitor education capacity of its QPWS. The research design employed and an overview of the organisation of the study concludes this Chapter.

1.1 Protected Areas: their origin, importance and management

1.1.1 What are protected areas?

Protected areas are very much a product of the 20th Century (MacKinnon & MacKinnon 1986), the evolution of which “owes much to the American park movement and the efforts of conservationists such as Olmstead and Muir” (Pigram & Jenkins 2006, p250). However, the concept of ‘protected landscapes’ can be traced back through many generations. Protected landscapes for religious, social or cultural reasons are evident in most human societies (Witt 1993; Worboys, Lockwood & De Lacy 2001). They were determined by societal priorities, including those of royalty, resource usage, and hunting (for example, the sacred groves of Africa and Asia) (Margules & Pressey 2000; Eagles, McCool & Haynes 2002).

In Australia, the notion of ‘protected areas’ can be traced back to the first humans on this continent. Australian Aboriginal people had, and retain today, a reverence for the land they call, ‘country’ (Worboys, Lockwood & De Lacy 2001). This affiliation with ‘country’ appears in their Dreamtime belief systems. The resulting religious and social

3 For the purpose of this thesis, ‘interpreter(s)’ is the common name given to protected area staff employed primarily to plan and deliver interpretation and education services. Refer Appendix 10 for a brief synopsis of QPWS interpreter work programmes.

order created through Dreamtime stories restricted the way Aborigines used the environment in many ways (Whitelock 1985; Bayet 1994). For example, the identification of 'sacred sites', 'totems' and 'taboos' set down the laws concerning the access and use of resources from the environment. Activities such as hunting, fishing and gathering in 'sacred areas', even today, are often forbidden or permitted only within designated areas (Rose 1988).

In contrast, colonial attitudes to protected landscapes were characterised by two points of view. One saw abundant resources requiring human endeavour to realise their full economic potential, while the other held these new landscapes in awe (Hall 1992). This latter group's ideas established the framework for a relatively new type of protected area – the national park. The corresponding motives for national parks included the efficiency of resource use, and the maintenance and improvement of amenity, including opportunities for recreation (Mosley, 1972). The first national park in Australia – Port Hacking (later renamed Royal) – was established in 1879. This was the second national park in the world after Yellowstone National Park in the United States of America in 1872 (Hall 1992; Wright & Mattson 1996).

In general, national parks were initially established as places for people to enjoy views, restore body and soul, or take part in recreational activities within a natural setting (Hall 1992). Typically, areas of scenic beauty were given protected status, and visitation to such areas was encouraged. Their purpose was to reinforce the positive aspects of a people/nature relationship and to avoid negative influences that may damage the harmony between people and their environment (Lucas 1992).

During the 1950s and 1960s the underlying rationale of national parks as areas containing special objects worthy of preservation to be used as recreational resources by the public was changing. The notion that national parks were the bastion of nature conservation and islands in a 'sea of change' was becoming the dominant view (Hockings 2002). However, it was not until the 1980s that the concept of protected areas as representative systems of natural diversity took hold. This concept was considered critical for the conservation of ecosystems and the components of those systems and the maintenance of life support systems in general (McNeely & Miller 1984; Margules, Nicholls & Pressey 1994; Pressey, Bedward & Keith 1994) and has since been broadened to include the established role of protected areas as sources of landscape conservation, recreation, tourism, education and scientific research (Hockings 2002).

1.1.2 Protected area values

Protected areas contribute to society in many ways. Historically, societies have recognised the value of protecting some areas, whether for their intrinsic worth or to contribute to the sustainable use of the resource they protect (Lucas 1992). In an increasingly urbanised society, protected areas are needed for a variety of reasons: as a source of cultural, historical and spiritual identity; the provision of scientific research; recreation and tourism opportunities; and the protection of representative samples of the natural environment (Qld Govt 2001). They are a source of cultural identity and historical importance because they contain vital links to understanding our past (Robertson, Vang & Brown 1992). Many protected areas also contain sites of sacred or religious significance to past inhabitants. Protection of such artefacts helps protected area agencies to ensure they remain intact for future generations to appreciate (Qld Govt 2001).

To scientific researchers, protected areas hold high value as places for the study and understanding of species and ecological processes as a whole. They provide illustrative examples of natural landscape and natural processes (Lucas 1992). They also provide scientists with important environmental benchmarks for long term monitoring of ecosystem processes, along with a wealth of information pertaining to evolution, genetics and the relationship of humanity to the environment (Australian Heritage Commission 1990).

The spiritual value of protected areas is also well recognised. For example, the Victorian Land Conservation Council describes national parks as “one of the few environmental settings that allow people to receive direct feedback about their inner self, and as such can lead to psychological benefits” (VLCC 1990). Similarly, the Tasmanian Wilderness World Heritage Area Management Plan identifies the Tasmanian wilderness as “a temple, a place for reflection and a source of inspiration” (DPWH 1991). The inherent spiritual value of protected areas also provides qualities and symbolic values that people cannot find elsewhere in everyday life: inspiration, beauty, pleasure (Lucas 1992; Cole 2005).

More tangibly, the economic benefits of protected areas can also be enormous, and provide local communities with a source of income (Robertson, Vang & Brown 1992). In some developing nations, the foreign exchange earnings from tourism attributable to a world-class system of national parks can rival or exceed those of agriculture (Eagles 1999). Additional economic values of protected areas, including water production,

biological diversity and maintenance of natural processes also make significant fiscal contributions to society.

Yet one of the most commonly recognised values of protected areas is recreation. Many protected areas offer significant opportunities for outdoor recreation (Batt 1990; Manning 1999). National parks, state forests and other protected areas often contain the most diverse, interesting and challenging landscapes in any region. Consequently they are prime venues for outdoor activities (Batt 1990). The need for individuals throughout their lives to experience recreational activities in an outdoors environment is also recognised (Gilpin 1990), and while needs may differ, between people of all ages and cultures, natural areas are an important recreational necessity (McLennan 1996). The benefits of recreational activities in protected areas include relaxation, personal development, improved physical and mental health and enjoyment (Howat, Crilley, Rogers, Earle, Methven & Suter 1992; Maller, Townsend, Brown & St Leger 2002; Ewert, Hollenhorst, McAvoy & Russell 2003).

1.1.3 Management basis of protected areas in Australia

Australia has one of the oldest protected area management systems in the world, second only to the United States (Frawley 1989). However, protected area management in Australia is dispersed and largely a matter for State, territory and/or local governments (Baird 1986). Each State and territory has its own conservation-focused legislation for the creation and management of protected areas and/or other natural resource legislation for the protection of flora and fauna. This arrangement has resulted in ten different systems (and agencies containing different organisational structures) that designate and manage protected areas in Australia (Worboys, Lockwood & De Lacy 2001) (Table 1.1). As a result, the management of protected areas in Australia is inconsistent.

Protected area management aims to balance the needs of society for access to areas of naturalness for recreation, education, scientific study and resource utilisation with resource protection (Baird 1986; Frawley 1989). This is generally achieved through a complex legislative process that seeks public input into the development of individual protected area management plans. In Queensland, the management planning process for protected areas, like many other states and territories in Australia, is based on classification (NCAct 1992, s14) and prescribed management principles (NCAct 1992,

s15-27). Concerns for cultural and natural resources, values, proposed management intent, and proposed use of the protected area must also be taken into consideration. This includes the use of public forums and public consultation processes where the public can participate in the management planning process (NCAct 1992: s113–116). The aim is to produce a management plan that reflects the obligations of the land management agency while balancing the aspirations of stakeholders.

Table 1.1: Principal Protected Area Management Agencies in Australia
(Source: adapted from Worboys, Lockwood & De Lacy 2001, p71)

<p>Commonwealth</p> <ul style="list-style-type: none"> ▪ <i>Environment Australia</i>, including: <ul style="list-style-type: none"> - Parks Australia - Great Barrier Reef Marine Park Authority - Wet Tropics Management Authority
<p>Australian Capital Territory</p> <ul style="list-style-type: none"> ▪ <i>Australian Capital Territory Parks and Conservation Service</i>
<p>Northern Territory</p> <ul style="list-style-type: none"> ▪ <i>Parks and Wildlife Commission</i>
<p>Queensland</p> <ul style="list-style-type: none"> ▪ <i>Environmental Protection Authority's</i> division of: <ul style="list-style-type: none"> - Queensland Parks and Wildlife Service ▪ <i>Department of Natural Resources and Mines</i>
<p>New South Wales</p> <ul style="list-style-type: none"> ▪ <i>Department of Environment and Conservation's</i> division of: <ul style="list-style-type: none"> - Parks and Wildlife ▪ <i>State Forests</i>
<p>Victoria</p> <ul style="list-style-type: none"> ▪ <i>Department of Natural Resources and Environment</i> ▪ <i>Parks Victoria</i>
<p>Tasmania</p> <ul style="list-style-type: none"> ▪ <i>Tasmanian Parks and Wildlife Service</i>
<p>South Australia</p> <ul style="list-style-type: none"> ▪ <i>Department for Environment and Heritage</i>
<p>Western Australia</p> <ul style="list-style-type: none"> ▪ <i>Department of Conservation and Land Management</i>
<p>Local Government*</p> <ul style="list-style-type: none"> ▪ Local Governments around Australia manage protected areas such as bushland reserves, wetlands and river corridors. Management may be undertaken directly or delegated to local trusts.

* Australian Local Governments are also involved in protected area management, but in general are guided by relevant State or territory legislation and/or council local laws

Protected area management planning, based on statutory requirements, is seen by Frawley (1989) as the main method for achieving nature conservation goals. However, as he points out, the biocentric focus on management planning contrasts with the anthropocentric view that "*parks are for people*". The importance of recreation is now secondary to conserving areas for their ecological significance. The use of a protected area must be ecologically sustainable and comply with prescribed management principles (NCAct 1992). This shift in emphasis reflects Frawley's (1989) observation, that the establishment and management of Australia's protected areas reflect socially- and culturally-derived valuations of the environment.

While each Australian State and territory has evolved different institutions, legislation, policy, strategies and nomenclature to manage their protected areas, they share many common traits including the use of visitor education. In most cases, visitor education is used to meld the biocentric focus of protected area management with the public's notion of "*parks are for people*" to achieve the conservation of nature. This is to create awareness and understanding through the conveyance of meanings and relationships based on factual information (Tilden 1977; Ham 1992; Worboys, Lockwood & De Lacy 2001).

1.1.4 The Queensland Parks and Wildlife Service

The Queensland Parks and Wildlife Service (QPWS), a division of the Queensland Government's Environmental Protection Agency, is the State government agency responsible for the administration and management of protected areas under the *Nature Conservation Act (1992)*, *Marine Parks Act (1984)*, *Recreation Areas Management Act (1988)*, *Brisbane Forest Park Act (1970)* and *Forestry Act (1959)*⁴.

The QPWS's primary purpose is to implement the Government's environmental objectives to ensure the protection, conservation and proper management of Queensland's natural and cultural values (Qld Govt 2001). This is to be achieved through the establishment of a representative system of protected areas, managed in partnership with Indigenous people and the involvement of an informed and participating community (Qld Govt 2001). At 30 June 2001, the Queensland park system comprised 505 protected areas totalling 7,121,528 ha, or about 4.0% of the State (Qld Govt 2001), the location of which are shown in Figure 1.1.

4 A full list of the legislation administered by the EPA/QPWS is provided in Chapter 2.

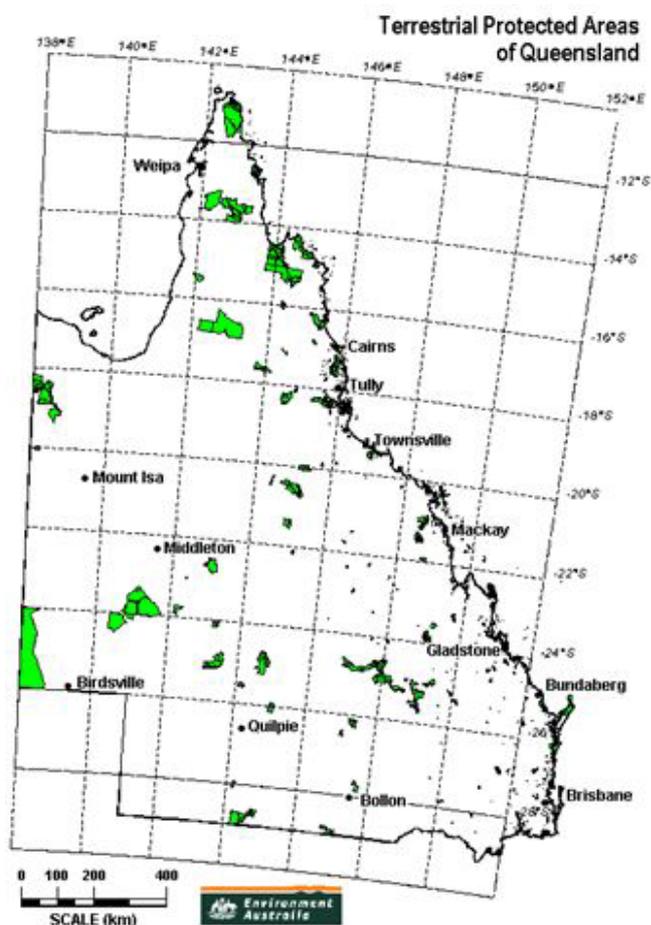


Figure 1.1: Queensland terrestrial protected areas

(Source: <http://www.deh.gov.au/parks/nrs/capad/2002/qld/qldpa02.html>, accessed 15/03/2005)

While the conservation of natural and cultural values remains the primary aim of the QPWS, the community's need to visit, learn about, and enjoy the State's protected areas is also recognised (Qld Govt 2001). Consequently, the recreational use of QPWS managed protected areas is determined by statute, land tenure (e.g. national park or conservation park), administrative and/or management intent (e.g. Wilderness area or Recreation area) and by particular outdoor recreation activity or issue (e.g. picnicking, fishing, visitor safety, vehicle or vessel registration, driver/rider licensing, search and rescue, etc.) (Batt 2004). Thus, a protected area's recreational opportunities may range from total exclusion to freely available.

In general, the QPWS encourages *nature-based* and *ecologically sustainable*⁵ outdoor recreation on its national parks and reserves, provided it does not conflict with or degrade the other values (e.g. conservation of nature, preservation of cultural heritage, water catchment protection) of the particular protected area (Batt 2004). To ensure people recreate in a sustainable manner, the QPWS encourages appropriate behaviour and the minimising of recreational impacts through the use of visitor education (Bauchop & Parkin 2000). This is in preference to regulation and policing (Sharpe 1982; Roggenbuck 1987; McArthur & Hall 1996; Worboys, Lockwood & De Lacy 2001) and is a practice that is accepted unconditionally, worldwide (Beckmann 1991; Marion & Reid [in press]).

The planning and delivery of QPWS visitor education services is the responsibility of the organisation's Visitor Services Unit. The Visitor Services Unit, located in the organisation's head office in Brisbane, is also responsible, amongst other things, for the role and strategic direction of visitor education across each of the three regions (Northern, Central and Southern). The framework to achieve this is provided by the organisation's interpretation and education strategy (*I & E Strategy*) (QPWS 2000). The purpose of the strategy is to direct the visitor education activities performed by the QPWS, its interpreters and park rangers on the State's national parks and reserves. A range of ancillary policies and documents support the QPWS's *I & E Strategy* (refer section 4.4).

The QPWS, like many land management agencies in Australia, has examples of visitor education best practice in products such as *Coastal Connections* (TQ 2000), but does not demonstrate mastery in this area of protected area management. It does not have systems that ensure that what is delivered on the ground actually contributes to the objectives of the organisation (DNRE 1999, pv).

1.2 The role of visitor education in protected area management

1.2.1 Visitor education origins and application

Visitor education has its origins in the United States of America National Park Service (Beckmann 1991; Watson 1992; Worboys, Lockwood & De Lacy 2001). Mackintosh

5 The concepts *nature-based* and *ecologically sustainable* are defined in the *Nature Conservation Act 1992* (s7 and s11). Both concepts are also further defined in the QPWS Parks Master Plan.

(1986) notes that ranger-naturalists, employed by outside organisations (principally nearby hotels) were being used by the US National Parks Service to provide education and/or interpretive services in 1917. By 1922, the US National Parks Service were employing ranger-naturalists to provide interpretive lectures, guided hikes, publications, and exhibits in many parks including Crater Lake, Glacier, Grand Canyon, Mesa Verde, Mount Rainier, Rocky Mountain, Sequoia, Yellowstone, Yosemite, and Zion National Parks (Mackintosh 1986). By 1925, to support and encourage visitor education activities in the US National Park Service, an Education Division was created as one of three equal units in the Service organisation (Brockman 1978). The functions of the Education Division included overseeing and setting standards for the hiring of park naturalists. The Yosemite School of Field Natural History was also founded in 1925 to better train naturalists for interpretive positions in and outside the parks. Sixty percent of the seven-week summer course was devoted to field observation and identification, distinguishing it from typical academic courses in the natural sciences. The school operated each summer (except for the war years) until 1953 (Mackintosh 1986). Watson (1992) notes that the Nature Study movement imported from Europe influenced most visitor education programmes during these early years.

In Australia, visitor education did not develop as a discipline until the late 1970s (Beckmann 1988 & 1991; McArthur 1996; Hockings, Carter & Leverington 1998). At this time it was strongly goal-orientated, and in Queensland at least was defined as “communicating nature conservation ideals and practices” (QNPWS 1983, p7). By 1981, a combination of extension and interpretive approaches were being employed to present an area’s natural resources, management issues and agency messages (Hockings, Carter & Leverington 1998). The aim was to encourage conservation philosophy and practices among park visitors, rural and urban landowners.

From the Queensland philosophy and practice of visitor education, an integrated planning model for public contact activities that considered the needs of stakeholders and resource conservation was developed (Hockings, Carter & Leverington 1998) (Figure 1.2). The application of this model facilitated a direct interaction between stakeholders and nature (or culture) while enunciating conservation goals. This was to allow the message to be discovered rather than taught (Hockings, Carter & Leverington 1998).

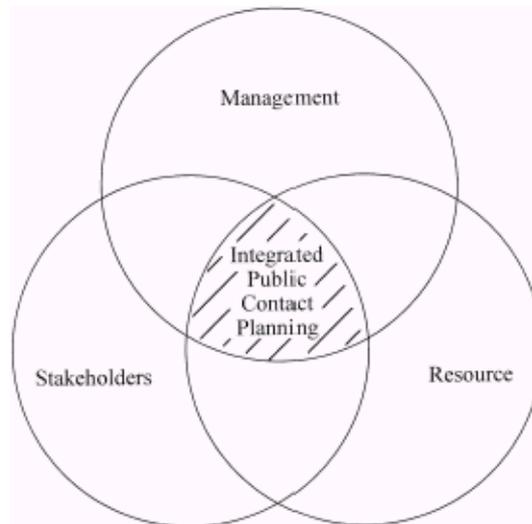


Figure 1.2: The public contact triangle
(source: Hockings, Carter & Leverington 1998, p644)

To achieve successful outcomes, the QPWS, like many protected area agencies worldwide, uses the interpretation principles developed by Tilden (1977) and Ham (1992) to deliver effective communication services to its audiences. That is, visitor education products should relate to the audience, reveal new insights about what is special, and provoke thought and be presented in a manner that is thematic, organised, relevant and enjoyable (Colquhoun 2005).

1.2.2 The park management context: changing attitudes and behaviour

The role of visitor education in a protected area management environment is to bring about attitudinal and behavioural change in people to the way they relate to the environment, management initiatives, themselves and others (Bauchop & Parkin 2000; Parkin & Morris 2005). The reconnection with nature and the reconciling of human lifestyles with the natural environment are important concepts for establishing the links between protected areas and their communities (Worboys, Lockwood & De Lacy 2001). This is necessary if people are to act constructively for the environment and work cooperatively with agencies that have a legislative obligation to manage protected areas for future generations.

In general, education techniques such as interpretation, minimal impact education and hazard awareness/visitor safety education are the main vehicles by which protected area agencies nationally and internationally educate their visitors about on-site attractions and issues. These techniques are collectively referred to as 'visitor education' (for the purpose of this study) and to provide a distinction between environmental education *per se* and the techniques used in a protected area management environment to promote environmental awareness, visitor safety and responsible action. In a broad sense, visitor education aims to:

- enrich a visitor's experience through the provision of positive, meaningful experiences
- promote a conservation ethic that enables people to become responsible stewards of natural resources
- increase public knowledge and skills, thereby fostering support for the development of appropriate natural resource management and conservation policies and actions (adapted from Beckmann 1991 & 1999; Jackson 1997; Worboys, Lockwood & De Lacy 2001)(Table 1.2).

Table 1.2: Role of visitor education in a protected area management environment
(source: adapted from Worboys, Lockwood & De Lacy 2001:315-316)

<p>Promotion</p> <ul style="list-style-type: none">▪ promote public understanding of agency goals and objectives▪ disseminate information about the protected area and available activities <p>Experience</p> <ul style="list-style-type: none">▪ help orientate visitors to find the recreation they prefer▪ inform visitors of the hazards and how to manage their safety▪ develop a keener awareness, appreciation and understanding of the area visited <p>Management</p> <ul style="list-style-type: none">▪ provide explanation to management initiatives▪ direct visitors to less sensitive/fragile areas▪ persuade visitors to act appropriately without need for regulations and policing <p>Conservation</p> <ul style="list-style-type: none">▪ promote awareness and understanding of conservation values
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1.2.3 Organisational acceptance of visitor education as a park management tool

The role and value of visitor education are well documented (Sharpe & Gensler 1978; Dustin & McEvoy 1985; Roggenbuck 1987; Beckmann 1991; Beaumont 1999; DNRE 1999). It can be used to present the natural features of an area (Sharpe 1976; Tilden 1977; Ham 1992), advise visitors of current and future management actions (Sharpe 1976; Hockings, Leverington & Carter 1995) and to identify preferred behaviour to limit environmental impact or the consequences of having to 'harden' or protect natural areas (McArthur & Hall 1996; Orams 1996b; Hammit & Cole 1998; Beckmann 1999; Moscardo 1999; Bauchop & Parkin 2000). It is considered by many protected area agencies to be a core function of their business, the importance of which is often reflected in organisational mission and vision statements (DNRE 1999). However, the translation of policy into action is frequently not systematic or integrated. No Australian protected area agency exhibits a clear and complete system that aligns visitor education activities with organisation objectives, develops programmes methodically or evaluates the factors critical to their successful fulfilment (DNRE 1999, pv).

Although the interpretive literature is replete with stories of visitor education's contribution to protected area management, the percentage of budget that Australian protected area agencies allocate to this activity is small (Turner 1993; DNRE 1999). In addition, visitor education is not always integrated with other communication and visitor management functions (DNRE 1999). Consequently, it is often overlooked in favour of other park management techniques (Hooper & Weiss 1990; QPWS 2001b) causing contention and controversy over the status of visitor education and its practitioners among interpreters, protected area managers and others within a protected area agency (Parkin 2003a). This is despite the fact that the management of protected areas is essentially a social process that requires techniques such as resource rationing, education and regulation to manage human behaviour (Grandage & Rodd 1981; Anderson, Lime & Wang 1998; Hammit & Cole 1998; McCool 2001; Worboys, Lockwood & De Lacy 2001).

1.3 The influence of policy and culture on visitor education outcomes

1.3.1 Organisational policy and the provision of visitor education services

In government organisations, policies establish a framework for making decisions where discretion is to be exercised under legislation (Edwards 2000). They ensure

similar issues are addressed and managed consistently across the organisation (QLD GOVT 2001). Thus, they make a given set of circumstances predictable. The role of a government department is to implement the expressed intentions of the government of the day to a particular area of government business. It is a fundamental aspect of a Westminster system of government (Edwards 2000) enacted in Australia and other Commonwealth countries.

Queensland's Environmental Protection Agency (EPA) and its Queensland Parks and Wildlife Service (QPWS) division were established by Government policy in 1998 (EPA 1999). The Queensland government's expressed intention for the EPA and the QPWS was to build on the strong foundation that was the Department of Environment and Heritage, to secure Queensland's role as a leader in environmental protection and conservation management. This included improved environmental management and biodiversity protection service delivery in a deliberate move to harness the growing level of community energy for modern environmental and conservation protection (EPA 1999).

The platform upon which the EPA and QPWS aim to develop their cooperative partnerships with all sectors of the community for ecologically sustainable development and environmental protection is the EPA's Corporate Plan (EPA 1999). It is also the platform that establishes the business of the organisation and the strategies to achieve its stated goals (EPA 1999). The identification of visitor education as an important strategy in the protection and wise use of Queensland's environment in the EPA's Corporate Plan demonstrates the value of visitor education in the protection and wise use of Queensland's environment. For example:

The EPA and QPWS, in accord with the Government's priorities, have identified several areas and activities on which we wish to focus our efforts over the next twelve months, including the provision of:

... Enhanced environmental education and interpretive services, highlighting the values of our parks and other conservation areas, and the environment as a whole (EPA 1999, p9 & 13).

The QPWS's 'Master Plan' (developed as an outcome of the Queensland Government's creation of the EPA) outlines the strategic management direction of Queensland's protected areas over the next 20 years. The 'Master Plan' details principles and actions to achieve the conservation and protection of Queensland's natural and cultural heritage values and enhanced community appreciation of these values (Qld Govt 2001). It identifies the role of visitor education to enhance visitor

awareness, appreciation and protection of natural and cultural heritage by setting out to:

build better communication and encourage people to value and protect parks through park interpretation and community involvement (p32).

The 'Master Plan' also states that visitor education is to be used as a management tool providing consistent, relevant information that promotes visitor safety, awareness and understanding of park rules and the adoption of a 'minimal impact' philosophy and practices (Qld Govt 2001, p32). This is to assist visitors, local communities and other interested people to better understand, explore, experience and care for the natural and cultural values of parks and in their everyday lives.

1.3.2 Organisational culture and the delivery of visitor education services

Australia's protected area agencies are structured in a variety of ways to achieve their primary goals towards the conservation of nature (Worboys, Lockwood & De Lacy 2001, p88). The complexity and extent and of these structures help shape the identity of the organisation. These structures also help create the social systems and culture⁶ of the organisation in which people belong (Hatch 1993). This includes aspects and practices of everyday life (e.g. story telling, jokes, symbolising of all sorts) of a group of people, that define and help sustain what they consider normal to support those things (e.g. production objects, knowledge, activities) that they believe are a valuable or necessary aspect of their work. It is, as Passfield (1989, p2) states, "how we do things around here".

The QPWS is a managerially and culturally diverse government agency (Ross 2001). It is responsible for two types of protected area: terrestrial and marine. It is also part of a larger government organisation. Each structure has its own set of relationships that add to the complexity of the organisation. The QPWS also has more than 1375 employees spread across a head office, three regional and 32 local offices, and more than 400 protected areas (Walsh, pers com, 12 October 2002). Additionally, while the object of the organisation is the management of protected areas and the conservation

6 The distinction between 'organisational' and 'corporate' culture in the literature is not clear. In most instances reference to either one is interchangeable with the other. However, Linstead and Grafton-Small (1992), Anthony (1994) and Parker (2000) suggest that 'corporate culture' refers to management-engineered programs of change while 'organisational culture' refers to culture which grows/emerges within the organisation.

of nature in Queensland, it employs scientists, ecologists, park managers, interpreters, field staff, graphic artists, human resource managers, public affairs officers, marketers and a range of administrative and clerical staff. Consequently, each group interprets its organisational responsibility to the environmental management obligations of the QPWS differently (Ross 2001).

The culture of the QPWS is further influenced by the fact that many of the groups are made up of people of different origins: as a result of mergers with previous organisations; from training received; whether they have a field-based position or office job; and whether their employment is permanent or contract, resulting in different expectations and approaches to their tasks (Ross 2001). Thus a number of sub-cultures also exist to produce a dynamic mix of understandings and identities that circulate within the QPWS structure.

Geographically, the spread of employees across the State provides head office, located in Brisbane, a range of challenges in the coordination and delivery of its environmental protection obligations. While a state-wide approach to the conservation of nature and park management is the preferred model, the regions tend to address local issues in the first instance. This sometimes causes a scattergun approach to the resolution of issues that are common across the State (QPWS 2001).

The mandate of the organisation, the various groups within the organisation and the characteristics of individuals interact to provide a mixture of opinions, actions and approaches to park management. Many staff do not understand the role of visitor education and the work that interpreters do (QPWS 2001). Some staff see it as a powerful tool for engaging community support for nature conservation, while others believe it is a lower priority than other park management activities. Hence, the support for visitor education as a park management tool within QPWS is varied (QPWS 2001; Parkin 2003a). This poor understanding of visitor education as a park management tool and the job role of an interpreter has caused antagonism between interpreters and other QPWS staff in some instances (QPWS 2001). It has also caused interpreters to feel under-valued in the work they do on occasions (Parkin 2003a).

1.4 The research design

1.4.1 Research problem

Past research, employment activity and personal experience has led to the realisation that many activities designed to inform and/or educate protected area visitors were inconsistent in their approach, provided mixed messages, or failed to adequately address non-compliant, depreciative and/or risk-taking behaviour (Parkin 1997; Bauchop & Parkin 2000; Parkin & Bauchop 2001; Parkin & Morris 2005), the cumulative result being that many protected areas were experiencing environmental degradation and loss of recreational quality even though visitor education was the primary mechanism for informing people about the natural environment, management intent and how to minimise their recreational impacts or ensure their personal safety while visiting a protected area.

In some instances, the lack of educational materials and/or opportunities for a more enriching experience had contributed to the environmental degradation and loss of recreational quality of a protected area (O'Loughlin 1989; Wearing & Neil 1999). However, institutional problems (in particular, poor policy communication and implementation), a lack of resourcing, high work loads and a negative organisational culture (including a sense of under-valuing) appeared to be the main reasons why visitor education was failing to achieve the desired level of success in Queensland (QPWS 2001; Parkin 2003a). Consequently, the contribution that visitor education can make in support of a protected area agency such as the QPWS in meeting its environmental protection obligations was diminished. This was despite the fact that most QPWS park managers supported the use of visitor education as a park management tool (Parkin 2003b).

These observations and the discontent among QPWS interpreters as to the role, value, acceptance and use of visitor education noted in various internal documents (QPWS 1999, 2001a & 2001b) established the research problem being investigated here: What were the underlying issues resulting in the Queensland Government to state in the EPA's inaugural Corporate Plan they were going to revitalise the visitor education capacity of the QPWS? Resolving this conundrum was necessary for understanding why the Queensland Government wanted to revitalise the visitor education aspect of the QPWS in particular as part of a whole-of-organisation process to establish the EPA's place in Government as a leader in environmental protection. The identification of strategies that would enhance the acceptance and use of visitor education as a park

management tool within the QPWS, and in other protected area agencies more generally was a complimentary outcome to answering the research problem.

1.4.2 Research objectives and questions

There is increasing pressure on those responsible for protected areas to monitor and assess management effectiveness (Hockings 2000 & 2003). The Queensland Government is committed to securing sustainable environmental and social outcomes for Queensland through the focused delivery of key Government priorities (EPA 1999). Those priorities and associated outcomes to which the EPA/QPWS play a part include environmental protection and parks and wildlife management services. The QPWS's role in the delivery of the Government's parks and wildlife management services is to enhance, manage and promote the wildlife and protected areas of Queensland (EPA 1999). In particular, the Queensland Government aims to improve community awareness, appreciation and understanding of the environment through the revitalisation of its QPWS's visitor education capacity.

The Queensland Government's commitment to a revitalised QPWS visitor education capacity suggested that the existing capability of the organisation to meet public needs for information and education was lacking. It also suggested that existing QPWS visitor education policy and procedures were inadequate in terms of assisting the government in meeting its nature conservation and public accountability obligations. The QPWS (and its predecessor, the Queensland National Parks and Wildlife Service), like many Australian and international protected area agencies, did not have a process in place to assess the implementation or effectiveness of key government priorities for the conservation of nature (DNRE 1999). In addition, there were no structures or processes in place to assess the long-term effectiveness of its visitor education services. The greatest gap was confirming whether the visitor education services delivered on the ground actually contributed to organisational objectives (DNRE 1999) and/or visitor enjoyment (QPWS 2001b). As a result, there were no benchmarks by which QPWS staff could measure management effectiveness or the contribution that visitor education had in the achievement of key nature conservation outcomes.

The Queensland Government's priority to enhance the visitor education capacity of the QPWS provided the basis for the first major research objective:

To identify the ways in which existing organisational policies and processes established the role and value of visitor education as an integral aspect of protected area management in Queensland.

This objective gave rise to the following three research questions:

- What were the policies and processes that underpinned protected area management in Queensland (between 1998 and 2001)?
- What was the organisational context in which visitor education operated in Queensland (leading up to the release of the 1999–2001 EPA Corporate Plan)?
- What were the organisational policies and processes that guided the planning and delivery of visitor education activities across the State (leading up to and during the life of the 1999–2001 EPA Corporate Plan)?

The recreational use of protected areas is a management challenge. Human-induced recreational impacts continue to degrade natural areas, threatening the natural beauty of a protected area and the quality of the visitor experience (Martin, McCool & Lucas 1989; Manning 1999). Visitor proximity can also affect wildlife and the experiences of other users. Often visitors are unaware of the effects that their presence and actions have on the biological and cultural integrity and quality of such environments (Thompson 1991). Consequently, overuse and inappropriate use of natural areas has led to the ecological degradation of many sites (Batt 1990; Liddle 1997; Hammit & Cole 1998; Anderson, Lime & Wang 1998; Tonge et al 2005).

Yet, the protected landscape has a strong educational role in demonstrating people/nature relationships and understanding of natural and cultural values among visitors (Lucas 1992). Our values of fulfilment, morality, and self-responsibility are also best provided through knowledge, experience and meaningful activity outdoors in a natural environment because the 'out-of-doors' is an unpolluted source of values that is free of human needs and desires (Yaffey 1993).

The human/nature dimension of protected area management, how to conserve and protect the natural resource while at the same time promoting available educational and recreational opportunities provided the foundation of the second major research objective:

To assess the extent that existing visitor education policies and processes were meeting the objectives of protected area management in Queensland.

This objective gave rise to the following three research questions:

- What was the level of awareness and support for the organisation's (2000–2002) visitor education strategy among interpreters and park management staff?
- To what extent did the organisation's (2000–2002) visitor education strategy provide the framework for the planning and delivery of visitor education activities across the State?
- What was the level of agreement between interpreters and park managers as to the success of the organisation's (2000–2002) visitor education strategy to achieve key government outcomes?

The day-to-day management of a protected area often requires the successful integration of park management techniques such as resource rationing, site hardening, closures, signage and regulation with visitor education activities to lessen the likelihood of negative environmental impacts caused through visitation (Grandage & Rodd 1981; Anderson, Lime & Wang 1998; Hammit & Cole 1998; McCool 2001). However, without the support of key groups and individuals within the organisation and adequate resourcing, the acceptance and use of visitor education to support and/or achieve key nature conservation outcomes is unlikely to succeed. This assumption provided the focus of the third major research objective:

To identify organisational barriers to the acceptance and use of visitor education as a park management tool.

This objective gave rise to the following three research questions:

- What opinions did interpreters (and park managers) hold about the role and value of visitor education in the QPWS?
- What emphasis did QPWS park managers (District Managers, Senior Rangers and Rangers-in-Charge) place on visitor education as a park management tool?
- What effect did the culture of the organisation (to accept and/or implement change) have on the planning and delivery of visitor education activities?

In meeting the Government's legislated environmental protection obligations, the importance of visitor education in combination with other park management techniques must take precedence. The role and value of visitor education must be clearly enunciated in operational policy documents and communicated to all park staff

(especially managers and operational staff). It must also be appropriately resourced (DNRE 1999). Failure to do so will cause the visitor education activities performed by regional and operational staff to be insufficient to maintain the quality and integrity of the natural setting preferred and/or sought by some people for recreation. This realisation, provided the basis of the fourth and final major research objective:

To identify ways in which the acceptance and use of visitor education can be enhanced in agencies with a responsibility for protected area management

This objective gave rise to the final two research questions:

- What initiatives/strategies will improve the link between Government intent and operational objectives for ensuring visitor knowledge, awareness and safety?
- What initiatives/strategies can be implemented to enhance the role, value, acceptance and use visitor education as a park management tool in an organisation such as the QPWS?

Combined, these research objectives aim to determine whether, at the time of this study, existing frameworks and support for visitor education in the QPWS were appropriate to maintain the ecological wellbeing of Queensland's natural areas and contribute to the Queensland Government's nature conservation agenda. If not, what actions need to be implemented to enhance the role, value, acceptance and use of visitor education to ensure management effectiveness and the achievement of the Queensland's Government's stated goals for nature conservation on its protected area estate.

1.4.3 Research approach

The research objectives and questions formed the basis for the design of this study. A multi-method approach to investigation based on case study was chosen. The case study approach involved three distinct research activities (policy/document and content/text analyses, questionnaire survey and focus groups/interviews) that were brought together by another research activity: meta-analysis and synthesis. This approach to the study reflected a grounded theory methodology due to its emphasis on using "a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon" (Strauss & Corbin 1990, p24).

The policy/document and content/text analysis approach allowed written documents, such as the EPA Corporate Plan (1999), the QPWS Master Plan (2001), the QPWS 2000–2002 Education and Interpretation Policy (2000) and various QPWS internal documents to be objectively analysed to determine specific inferences. Inductive and deductive strategies were used to identify specific themes reflected in policy documents. These themes were used to construct the two surveys discussed in Chapter 3. This research approach allowed data collected to be corroborated, ensuring validity and reliability of results (Berg 1998).

The views of QPWS interpreters and park managers formed the basis of the case study component that evaluated the acceptance and use of visitor education as a park management tool in a public protected area agency. Interpreters included Public Contact Rangers, Interpretive Rangers, Conservation Officers (Interpretation), and Team Leaders (Public Contact), while park managers included Rangers-in-Charge, Senior Rangers and District Managers (Figure 1.3). The use of case study also contributed to my understanding of how policy and organisational culture affect the role, value, acceptance and use of visitor education as a park management tool in a protected area agency such as the QPWS. Questionnaire surveys and one-on-one interviews formed the basis of data collection for the case study component of this thesis. Data triangulation was used to establish validation and reliability of data collected. Overall, the use of case study provided a methodological approach to the systematic gathering of information about a particular process to understand how it functioned (Berg 1998).

The meta-analysis and synthesis stage of the study allowed data collected and reported during the three stages of the research study to be merged to present observations made throughout the study. This part of the study also allowed conclusions to be drawn and areas requiring further research to be identified. This process is a recognised research procedure that contributes to theory building (Lewis & Grimes 1999).

1.5 Outline and organisation of the thesis

The remaining eight chapters provide a review of relevant literature, the design of the study, research findings and subsequent discussion and conclusions. Chapter 2 is designed to provide the theoretical background to the study. The literature as it applies

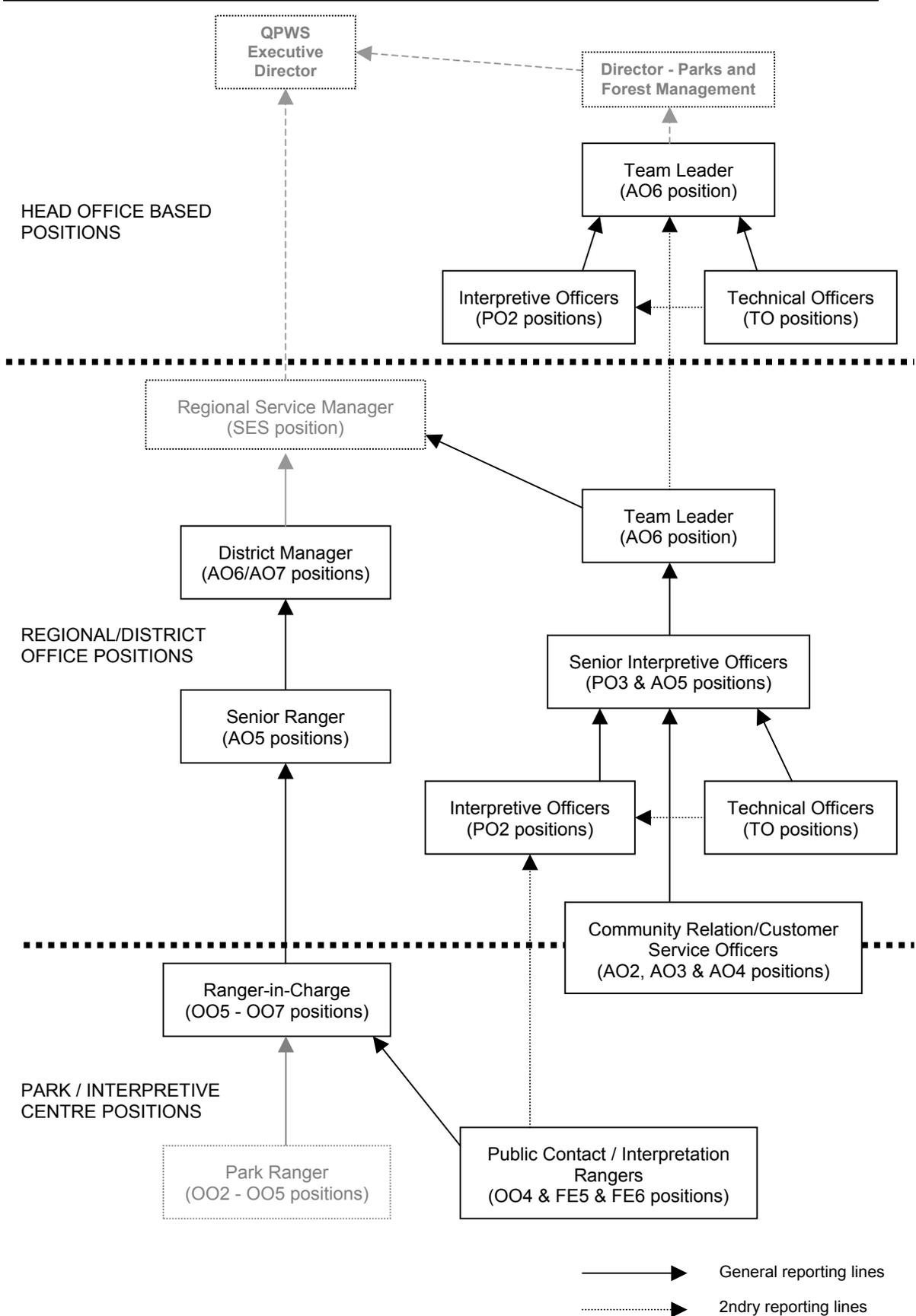


Figure 1.3: Diagrammatic representation of QPWS park management and interpreter positions surveyed as part of this research study

to policy development and implementation, and the phenomenon known as 'organisational culture' is reviewed in the context of this study. The literature applying to the role and value of visitor education as a park management tool is also examined. This is to identify its strengths as a park management tool and known barriers to its implementation in protected area organisations. Literature applying to observations in the data is referred to in the relevant data chapters.

Chapter 3 presents a detailed discussion of the research approach adopted. This chapter is important as it describes the overall conceptual process underpinning the research study and the research methods used in the data collection process. The chapter also provides a synopsis of how data are presented in the following chapters.

Chapter 4 provides a critique of the policy framework establishing the role of visitor education as integral aspect of QPWS's business during the period that this study investigates. It includes an analysis of internal visitor education documents to identify perceived barriers to the acceptance and use of visitor education as a park management tool at the time.

Chapter 5 presents the results of the survey of QPWS interpreters and a survey of QPWS park managers to determine their knowledge and use of their organisation's Interpretation and Education Strategy – a document that provided the framework for the development and delivery of conservation activities state-wide during the period this study investigates. It provides an overview of the relevance of this document as perceived by those who should have been using this document to plan and implement the Queensland government's conservation agenda at the time.

Chapter 6 presents the results of the survey of QPWS interpreters and a survey of QPWS park managers to determine the role and value of visitor education in an organisation such as the QPWS. It provides a synopsis of interpreters' and park managers' views as to the relative success of visitor education as a park management tool.

Chapter 7 draws together the issues identified in Chapters 4, 5 and 6 to pinpoint and discuss factors affecting the acceptance and use of visitor education as a park management tool. This chapter is important, as it links issues relating to policy, organisational culture and visitor education to determine the issues that needed to be

addressed for the revitalisation of the QPWS's visitor education capacity to be achieved.

Chapter 8 details suggested actions required to address the issues affecting the acceptance and use of visitor education as a park management tool in the QPWS. It also outlines the strategies that interpreters most support in an effort to better engage park managers and other staff as a means of enhancing the role and value of visitor education in the QPWS.

Chapter 9 provides the conclusion to this research study. It summarises the main findings of this study and suggests further avenues of inquiry to identify approaches that will further enhance the support for visitor education as a park management tool in agencies with responsibility for protected area management in Australia and around the world.