

Chapter 2

Theoretical background to the study

2.0 Introduction

Visits to protected areas are the most tangible way people come into contact with an area's natural and cultural heritage and the work of a protected area management agency. In its function as custodian, a protected area agency has a two-fold role as both protector and educator (DoC 1996). Both roles are interwoven, reinforcing each other. The protector role safeguards species and ecosystems for future generations, while the educator role promotes awareness and understanding in support of the protector role. A protected area's education role ensures that the intrinsic natural and cultural values managed by the organisation are not compromised by the actions and impacts of visitors (DoC 1996; Marion & Reid [in press]). It is important to the long-term conservation of a protected area (Worboys, Lockwood & De Lacy 2001).

The best protection for publicly owned and managed resources is a public that understands environmental interrelationships and is motivated to participate in activities to improve the quality of the total environment (Carroll 1977; Wearing & Neil 1999). This is best achieved through education. Education is one of the most important social processes by which awareness and understanding is communicated (Worboys, Lockwood & De Lacy 2001), and is perhaps the single most powerful tool available to protected area managers (Grandage & Rodd 1981; Roggenbuck 1992). Visitor education, in particular, has enormous potential to promote understanding and appreciation of the natural environment, natural hazards and environmental issues. Understanding cultural issues, and the effect that outdoor experiences have on one's relationships with the environment and with others are, in addition, important components of education in a protected area management environment (Bauchop & Parkin 2000). For many people, the information they encounter while visiting a protected area may offer the only opportunity to learn about nature, how they can help minimise their impact, stay safe, and understand the role of the protected area agency in the management of the area they are visiting. For them, education is either an important component of the experience of visiting a protected area or is the experience (Moscardo 1999).

The ability to share knowledge about our natural and cultural heritage with visitors, and deepen their understanding and develop an awareness of the need for its conservation,

is very much to do with the personal efforts of motivated staff (Sharpe 1976; Leal Filho 1988). It is also very much guided by the object of the organisation established through legislation and expressed through organisational policies such as a Corporate Plan and Master Plans, and strategic documents such as visitor interpretation and education strategies. The resources available, and the level of support offered to interpreters by non-interpretive staff are, in addition, important components that contribute to the success of the organisation's ability to educate visitors about the natural and cultural environment, natural hazards and environmental issues. In many respects it is the culture of the organisation, the ability of the organisation's members to determine, define, resource and implement the conservation message to be delivered that influences the acceptance and use of visitor education as a park management tool by its members. This is because organisational culture defines the limits of a group's capabilities and achievements (Anderson 2005).

This Chapter provides the theoretical background to the study. It explores the three areas of literature central to this study: policy, organisational culture and visitor education. To provide the overarching framework to the study, the literature on policy formation and implementation is reviewed first. Understanding (Government) policy is central in explaining governmental outcomes (Jenkins 1978; Weimer & Vining 1989), and for clarifying issues, alternatives, and consequences of organisational policy problems with the intent of improving the basis of policy (Lynn 1980). Nakamura and Smallwood (1980) claim that in analysing policy, we are able to anticipate the actual performance of government in adopting and implementing the proposed policy. This critique is followed by a review of the literature on organisational culture as it relates to the interaction of people and groups within an organisational setting. This analysis is also central to the context of the study as it allows the limits of a group's capabilities, and whether an organisation is capable of achieving what its leaders say it should achieve, to be identified. This understanding is also important, as it is the forerunner to cultural change management (Anderson 2005). A concept that facilitates strategies that delivers improved performance to be accepted by the organisation's members.

This literature review also presents a critique of the efficacy of visitor education in a protected area management environment. This critique is valuable as it provides the context in which policy and organisational culture have been reviewed. It identifies the benefits of visitor education and the factors that act as barriers to the role and value of visitor education as a park management tool. The social importance of visitor education is an imperative that many protected area management agencies cannot

overlook, as overuse and inappropriate use of our natural areas have caused environmental degradation and loss of recreational amenity. Knowledge derived from visitor research, scientific studies, programme evaluations and expert opinion provides objectivity to the development of policy and programmes for visitor education. A brief overview of two models for ensuring management effectiveness and visitor education 'best practice' concludes this Chapter. These models are the products of commissioned studies aimed at assisting protected area agencies to achieve management effectiveness and visitor education 'best practice'.

2.1 Policy, policy implementation and the management of protected areas

2.1.1 'Policy' in the context of this study

Edwards (2000, p110) states that (government) policy is the framework of ideas that an elected government articulates after gaining office. The framework may be explicit in terms of formal instructions such as white papers, cabinet decisions and official directions or implicit such as political speeches, ministerial expressions of opinion and press releases. Those statements that are approved by the minister, or by the department head as being consistent with the minister's views are considered policy as well. However, Edwards also suggests that a more generalised interpretation of (government) policy would embrace codified statements such as the Constitution, statutes and subordinate legislation down through codes of ethics and work place procedures. Consequently, a department's corporate plan, divisional strategic plans and various statutory instruments are considered expressions of policy, to be used by staff for guidance in decision-making where more explicit statements are lacking (Edwards 2000). The general public may also view these documents as extensions of (government) policy. Thus, a generalised interpretation of 'policy' has been applied to this study.

2.1.2 Government policy-making

In general, a policy can be thought of as a set of instructions that spell out goals and means for achieving those goals. Or, more specifically, a set of actions that will by design or otherwise, produce a particular class of effects (Lynn 1980; Bridgman & Davis 2004). The crafting of which typically entails a long process of analysis of problems and options (May 2002). Lynn (1980) also suggests that the development of

government policy is characterised by a reciprocal series of interrelationships between different groups of actors. It is increasingly complex with no clear beginning or end points to define its parameters (Nakamura & Smallwood 1987). This is because interest groups can play a significant role in the policy-making process (Curtin & Symes 2001). However, as Nakamura and Smallwood (1980) suggest, there is a clear division between policy makers, who set goals, and policy implementers, who carry out activities to achieve these goals. Thus, policy-making is characterised by:

- a) Actors (e.g. individuals, groups or committees with the power to influence policy both internal and external to the organisation), the sources of their power and their interests, and
- b) The rules and practices (e.g. legislation, policy and procedures) governing the formal and informal relationships among actors (adapted from Lynn 1980, p10; Curtin & Symes 2001).

Thus, policy documents are products of political and organisational systems (Lyn 1980) and/or political agendas (Stewart & Ayres 2001). And as Lynn (1980) notes, in an organisation that is typically characterised by hierarchy, division of labour and specialisation, individuals and groups function based upon the context of their influence. Consequently, “policy documents can range from precise ‘blueprints’ to rather vague exhortations” (Nakamura & Smallwood 1980, p31).

The degree of specificity in policy instructions defines the amount of discretion enjoyed by policy developers. Policy words such as ‘well-being’, ‘public interest’, ‘common good’ provide a feel-good aspect, but give little direction on how particular aspects of the policy should be implemented. In addition, mission and goal statements, which form an integral part of the Corporate Management process are an attempt to make public the values and beliefs that should be shared, or held in common, by members of an organisation. Rarely do they make explicit the assumptions that underlie those values and beliefs (Passfield 1989, p2). Many policy implementers also face problems in translating ‘policy intentions’ into ‘policy outcomes’. While policy implementers may possess the technical capability to carry out the policies specified by policy makers, they may not have the resources or commitment to policy outcomes to do so (Nakamura & Smallwood 1980; Bridgman & Davis 2004). Thus, the actual performance of government and the achievement of policy outcomes will involve the motivated behaviour of individuals within and outside the political system (Jenkins 1978; May 2002).

2.1.3 Evolution of protected area policy-making in Australia

In Australia, the development of protected area policies has arisen from:

- i. The diffusion of policies and practices from the USA to Australia and from one State to another
- ii. A shift in emphasis from a primary purpose of purely recreational to one which is given to conservation and the protection of biological diversity
- iii. A situation where control was in the hands of trustees or statutory boards to one of control in the hands of a government minister and department, and
- iv. A situation where protected areas were relatively insecure against revocation and antithetical uses to one in which they are more secure in these respects (although absolute security is far from complete) (after Black & Breckwoldt 1977, p190).

To understand these changes in policy and practice it is necessary to briefly review the establishment of the first national parks in Australia, their mode of management and the principal government policy (legislation) that outlined the purpose and/or management of these areas. As Table 2.1 shows, the first national parks were primarily managed by Boards or trustees to provide places for the benefit and pleasure of local inhabitants and visitors. They were not protected in such a way that their permanence and sanctity as nature reserves were assured, nor treated in a way that reflected a more contemporary notion of a national park's being an area that was permanently dedicated for public enjoyment, education and inspiration and protected from all interference other than essential management practices so that its natural attributes were preserved (Black & Breckwoldt 1977). The early attitudes of European Australians towards the environment developed in the context of their strong links to Britain and the national park ideals promoted in the USA by John Muir and others (Worboys, Lockwood & De Lacy 2001).

Nonetheless, there has been a gradual shift in stated policy over time from a general recreational emphasis to one in which greater recognition is given to the conservation function of protected areas (Worboys, Lockwood & De Lacy 2001). For example, the Queensland *Forestry Act of 1959* stated that the cardinal principle to be observed in the management of national parks must be 'the permanent preservation, to the greatest possible extent, of their natural condition'. And remains the core principal of national park management in Queensland under the *Nature Conservation Act 1992*. For example:

Table 2.1: First areas⁷ to be declared national parks in each Australian State and their management intent
(source: after Black & Breckwoldt 1977, p190; Worboys, Lockwood & De Lacy 2001, p34)

State	Location (Park name)	When dedicated	Area (ha)	Initial mode of management	Act of Parliament	Management intent/Purpose
New South Wales	Port Hacking (Royal NP)	1879	7,300	Eleven trustees	<i>Public Parks Act of 1854</i>	This Act provided for 'the regulation and protection of parks and other places of public recreation, convenience, health, and enjoyment'
South Australia	Belair (Belair NP)	1891	800	Twelve commissioners	<i>National Park Act of 1891</i>	This Act was designed to 'establish a national recreation and pleasure ground as a place for amusement, recreation and convenience of the inhabitants of the Province of South Australia'
Victoria	Tower Hill (Tower Hill NP)	1892	600	Municipality of Koroit (trustees)	<i>Tower Hill National Park Act of 1892</i>	This Act placed the management of the park in the trust of the municipality of Koroit, on the condition that it be, 'maintained and used for no other purpose'. However, the Crown reserved its right to prospect or mine in the park or occupy any part of the park which may be needed for roads, railways, watercourses, reservoirs, drains, sewers, etc.
Western Australia	Greenmount (John Forrest NP)	1900	1,300	Greenmount Roads Board (from 1915)	<i>Western Australian Parks and Reserves Act of 1895</i>	This Act established and gave the Board power <i>inter alia</i> to clear, level, plant, make roads, dams or reservoirs, establish zoological gardens, and to grant grazing, quarrying or mineral licences within reserves under their control for the benefit of the public.
Queensland	Mt Tamborine (Witches Falls NP)	1908	131	Minister for Public Lands	<i>The State Forests and National Parks Act of 1906</i>	While the purpose of the Qld's national parks where not laid down in the Act, the Minister for Public Lands while introducing the Bill to the Legislative Assembly said that, 'national parks would be placed where people could go on holiday and know that they would find pure air, good scenery and country life'.
Tasmania	Mount Field (Mt Field NP)	1915	11,000	Twelve man National Park Board	<i>Scenery Preservation Act of 1915</i>	This Act allowed for lands of 'scenic or historic interest' to be permanently reserved 'for the benefit and pleasure of the people and tourists'

7. It should be noted that in some States, reserves for public purposes preceded the declaration of that State's first national park. For example, the Jenolan Caves Reserve (NSW) and Tower Hill Public Park (Vic) in 1866 and Mt Eliza Public Park and Recreation Ground (WA) in 1872 (renamed King Park in 1901).

17.(1) *A National Park is to be managed to –*

(a) provide, to the greatest possible extent, for the permanent preservation of the area's natural condition and the protection of the area's cultural resources and values; and

(b) present the area's cultural and natural resources and their values; and

(c) ensure that the only use of the area is nature-based and ecologically sustainable.

(2) The management principle mentioned in subsection (1)(a) is the cardinal principle for the management of National Parks. (p26)

The tendency for policies and practices to diffuse from the USA to Australia is largely attributed to the quantity of predominantly American literature on national park planning and management available (Black & Breckwoldt 1977; Beckmann 1988). The migration of ideas was particularly marked in the 1970s and early 1980s, partly because of a deliberate modelling of Australian protected area management approaches on their USA counterparts (Beckmann 1988). It also arose from study tours and attendance at American ranger schools by various Australian representatives (Black & Breckwoldt 1977) including specific visitor education-orientated visits to the USA by a succession of Churchill Fellows (Beckmann 1988).

2.1.4 Policy implementation and the management of protected areas in Australia

The Commonwealth of Australia is a federation of six states and two territories. The *Australian Constitution Act 1901* (Cwlth) defines the decision-making powers of the states, territories and the federal government (Worboys, Lockwood & De Lacy 2001). Consequently the Commonwealth, states and territories each have their own government systems and infrastructure. While the Commonwealth government retains exclusive powers in areas such as monetary policy, taxation and defence, matters concerning the environment are largely a State affair (Australian Constitution 1901). All states and territories have passed legislation that provides for the establishment, administration and management of protected areas within their jurisdictions. Hence the large number of protected area management agencies in Australia (refer Table 1.1).

A government's obligation to manage protected areas for the benefit of its citizens and others is thus enshrined in legislation and government policy. Departmental memoranda, guidelines, procedures and directives of all kinds also guide the

government's obligation in regards to protected area management (Bates 1995). However, while policy goals and objectives may be clear, the means to carry them out may seem inadequate or inappropriate, especially if the resources required to implement them are not available (Lynn 1980). Consequently, the process of management and the implementation of policy may be constrained by the ability of government to resource and carry out its obligations (Nakamura & Smallwood 1980), especially in the area of protected area management as most governments do not fund protected areas fully (Eagles, McCool & Haynes 2002).

In addition, very few government organisations have effective evaluation programmes in place to determine the merit of particular policies. A policy cannot be analysed in isolation without exploring the related stages of the policy process. This is because the policy process is a system of interconnected elements each directly or indirectly related to the other. For example, Nakamura and Smallwood (1980, p2) note that the implementation of many policies is dependent on economic factors such as the availability of money and other resources, on geographic considerations such as regional jurisdiction, and on sociological factors such as interpersonal work relationships.

Despite these limitations, Gomis and Hesselink (1995) note that communication should not be overlooked as an instrument to achieve policy outcomes. While external communication – communication with the world outside the organisation – is important, internal communication creates support for the organisation's mission and policies, and provides staff with knowledge and purpose. Communication, they claim, is the umbrella that encompasses the intent of policy and the activities that are implemented at an operational level (Gomis & Hesselink 1995). Well-managed communications enables staff to make the connection between the intent of policy and the implementation of appropriate visitor education activities.

2.2 Organisational culture: the shaping of an identity

2.2.1 'Organisational culture' in the context of this study

A review of the literature points to the belief that there is no single 'culturalist' perspective (Passfield 1998; Parker 2000). Scott and Harper (2002, p3) see organisational culture as "a product of the way that people relate to each other, the norms that prevail, rituals and artefacts". They believe it is "the manifestation of the

shared values, underlying beliefs and assumptions of the individuals within the organisation" (ibid). In contrast, Parker (2000) views organisations as 'fragmented unities' in which contests over meaning are central. Therefore, as he argues, the understanding of organisational culture involves recognising multiple lines of fracture within a unity and that the patterns of fractures recognised or reproduced by one member will be different from that of another. Parker concludes that it is unlikely that a concept like 'culture' could be pinned down as a measurable property or entity, because organisations shape the identity of their members, which in turn shapes the culture of the organisation.

Consequently, both 'organisation' and 'culture' are concepts that can be and have been understood in a wide variety of different ways depending on the epistemological and political inclinations of the writer concerned. Parker (2000) sees it as a process that is locally produced by people, and that has particular effects on people, whereas Maund (1999, p426) views organisational culture as a 'pattern of basic assumptions held by members of the workforce that are considered to be valid and reliable and which are taught to newcomers to the organisation through artefacts, stories, myths, legends and rites'. As a result, an organisation's culture serves as an interpretive scheme that is historically developed (Geertz 1973), although not necessarily shared, that individuals use both to make sense of and to structure their own and others actions (Golden 1992).

2.2.2 The basis of organisational culture: individuals, groups and organisational structure

The very concept of organisational culture and its affect on organisational identity and productivity cannot be understood without an understanding of organisational behaviour as it concerns the interaction of people and groups within an organisational setting (Maund 1999). While the organisation itself may be seen as an artificial construct (a structure in which individuals and groups operate), the organisation provides the framework and structure within which people's interactions and behaviour are directed towards certain ends.

When people come together in an organisation, they bring their own needs, aspirations and skills, and they interact in often unexpected and unplanned ways (Maund 1999; Scott & Harker 2002). The relationships are complex, because organisations often consist of individuals with a diverse mix of characteristics, needs and goals that will

influence the group(s) they belong to and in the way that the group(s) act(s). The various relationships, combined with the integrating function of organisational history and contingency factors such as management, technology, economics and regulations, interact to create the culture of the organisation (Maund 1999) (Figure 2.1).

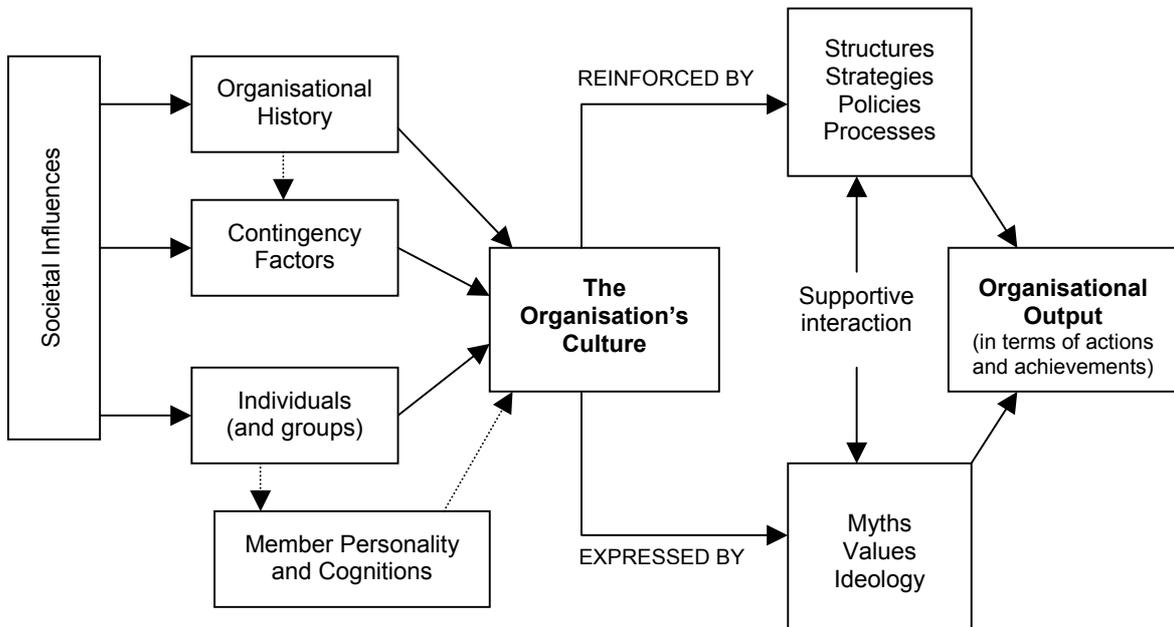


Figure 2.1: Organisational culture framework
(source: after Maund 1999, p351)

These groups and the culture that has emerged, in turn, determine the outputs of organisation. The outputs either being a function of the culture and the organisational structures, strategies, policies and processes in place or a function of the collective myths, values and ideology of the people and groups in the organisation. And in the process, the identity of the organisation is shaped.

Scott and Harker (2002) note that workplaces are ideally co-operative groups of people working towards a common purpose. Consequently, groups are fundamental to all organisations. They can be formal, as defined by the organisation's structure and thus purposely created to help accomplish the organisation's goals, or informal as a result of mutual interests, shared beliefs or identities (Maund 1999). The operation of both formal and informal groups within the organisation will depend on the design of the organisation, as it is the organisation that provides these groups with their nature and identity. And while organisations may not deliberately create territories, the context of the organisation will affect the nature of all groups in the organisation, allowing some

groups to establish strong group identities (Maund 1999). However, Maund (1999, p179) notes that a strong group identity has the potential to interfere with inter-group co-operation, while Scott and Harker (2002) make a point of saying that when groups are dysfunctional so are organisations.

The organisation itself also influences the identity of individuals and groups within the organisation. Organisations are frequently structured in ways that are divisive, rather than collaborative (Maund 1999). Members are often arranged in hierarchies where one level is distinguished from another in terms of function, power and control. Departments and work units are formed and tasked to undertake specific functions that may not be given equal recognition with others in the organisation. People are grouped according to their skills and abilities, and are rewarded in line with the value that others place on those skills (Maund 1999). As a result, some organisational structures have the potential to disrupt the harmony of the organisation through the introduction of conflict. Conflict may also arise through the inability of an individual or group to satisfy his or her own objectives or self-worth (Maund 1999; Scott & Harper 2002). Members strongly identify with those who share a common mission or value, and when the actions of others are seen as a threat to their mission or functioning as a group, conflict will arise.

2.2.3 Organisational culture, public administration and the Queensland Public Service

Bradley and Parker (2005) claim that the traditional model of public administration is well conceptualised in the literature. Characteristics such as the presence of systems, rational rules and procedures, structured hierarchies, formalised decision-making processes and advancement based on administrative expertise are described, the central features of which are stability and predictability (Perry & Rainey 1988). However, many public organisations also display a culture based on the competing demands of the internal (bureaucratic) and external (free enterprise) environments in which they operate, and between organisational control and the need for flexibility in its systems and approaches, the dimensions of which indicate the four major types of organisational culture present in an organisation at any one time: Group Culture, Developmental Culture, Hierarchical Culture and Rational Culture (Zammuto & Krakower 1991) (Figure 2.2).

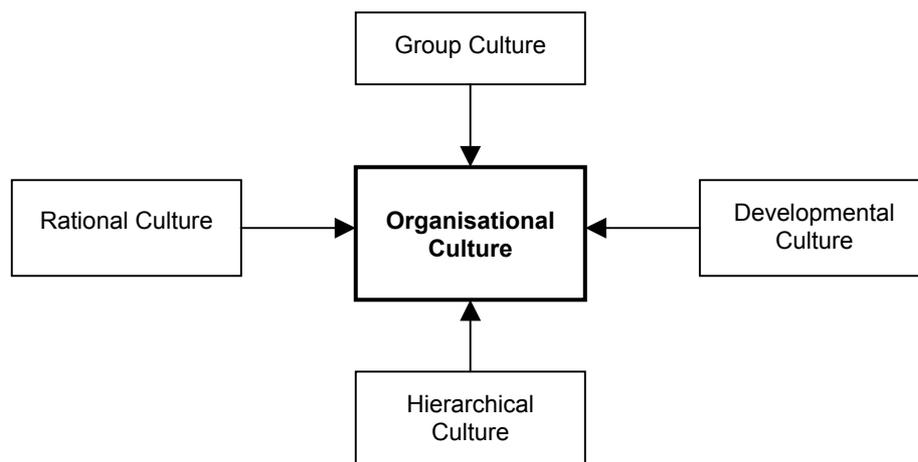


Figure 2.2: The four dimensions of organisational culture
(source: after Zammuto & Krakower 1991)

Zammuto and Krakower (1991) identify organisations that predominately display a group culture as those that emphasise internal relationships of cohesion, loyalty and equity between individuals and groups, whereas organisations that give emphasis to adaptability, change and risk-taking exhibit a developmental culture (Figure 2.3). In contrast, organisations that exhibit a rational culture use control mechanisms to achieve productivity and efficiency while organisations that are hierarchical in nature emphasise enforcement of rules, conformity and attention to technical matters. They use information management and communication to achieve stability and control (Zammuto & Krakower 1991). Combined, these cultures map out the competing values within an organisation. Denison and Spreitzer (1991) refer to this process as the Competing Values Framework.

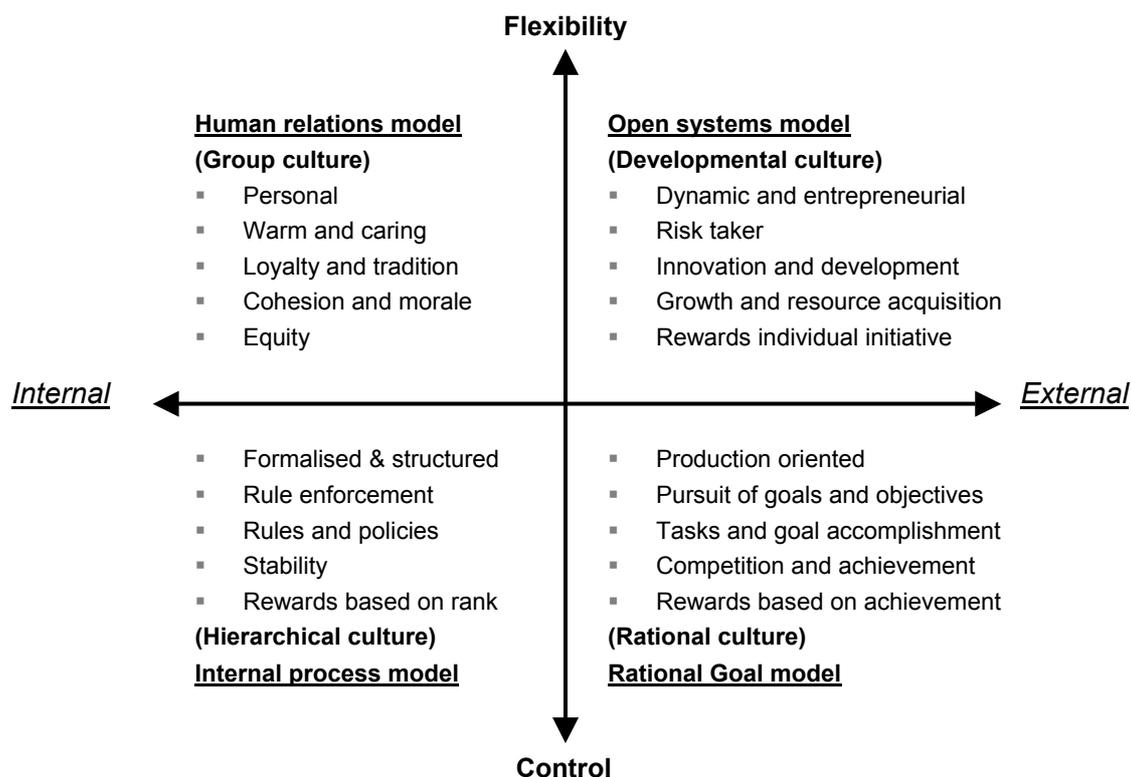


Figure 2.3: The Competing Values Framework of organisational culture
(Source: after Bradley & Parker 2005, p2)

Bradley and Parker (2005) note that while these four culture types appear to be incompatible, Howard (1998) suggests that the different models of culture can and do coexist in the same organisation. Nonetheless, Bradley and Parker found that the typical organisational unit in the Queensland public sector was primarily hierarchical in nature as it emphasised the enforcement of rules, conformity, and attention to technical matters (Table 2.2). Information management and communication were utilised to achieve stability and control. As a result, 'Queensland public sector organisations are characterised by cultures that appear to be aligned with the traditional theoretical model of bureaucracy and public administration which relies on formal rules and procedures as control mechanisms' (Bradley & Parker 2005, p4-5). Sinclair (1989) refers to this as the 'bureaucratic culture' because of the predetermined structural features of public administration and accountability. Rafferty and Griffin (2001, p15) consider the EPA/QPWS to be highly bureaucratic with multiple layers of management. They also noted that decision-making in the EPA/QPWS was relatively centralised with policy and direction originating from the Head Office, situated in Brisbane.

Table 2.2: Queensland Public Service organisational culture mean scores
(Source: adapted from Bradley & Parker 2005, p5)

Culture Type	Mean Score^ (%)
Hierarchical culture	44.65
Rational culture	27.68
Group culture	15.60
Developmental culture	12.07
Total	100.00

^ Mean score derived from a survey on culture and values to over 900 employees across 15 Queensland public sector organisational units (p4).

While a balance between the four culture types is regarded as desirable, Bradley and Parker (2005) note that research on public organisations has revealed a common set of characteristics including the presence of a system of rational rules and procedures, structured hierarchies, formalised decision-making processes and advancement based on administrative expertise. In addition, Sinclair (1989) claims that public sector culture is largely predetermined and resistant to change because of the centralism of control and values of neutrality in providing a public service. While private organisations have recognisable performance criteria, such as market share and profitability, public organisations must rely on more nebulous criteria, such as the attainment of key outcomes and good citizenship (Sinclair 1989). But as Parker and Bradley (2005) point out, public sector activities form part of a broader government strategy of economic management and social development. They are therefore affected by prevailing political ideologies and community expectations (Considine 1990; Pollitt 1990).

2.2.4 Organisational culture: accomplishment or constraint?

The literature tends to infer that an organisation's culture is the amalgamation of attitudes, beliefs and behaviours of its people (Passfield 1998; Maund 1999; Parker 2000; Anderson 2005). But as Anderson (2005) also notes, the culture of an organisation similarly defines the limits of that organisation's capabilities. This is because an organisation is incapable of achieving what its people cannot envisage or encompass. Hence the expression "it's the way we do things around here" (Passfield 1989, p2; Anderson 2005, p1).

Anderson (2005) suggests that an organisation's culture exists on three levels (Figure 2.4). On the surface are the manifestations of culture like systems, hierarchy, status symbols, written and unwritten laws of behaviour, quirks of language and rituals. Below the surface lies the second level of culture: the level of values, beliefs and attitudes. Here, the opinions and habits that underlie the surface behaviours and the preferences expressed in the form of what is valued by the culture are found (Anderson 2005). At the third level, the true source of a culture's history, presuppositions and assumptions are experienced and passed on by members of the culture as self-evident truths on which they base their values and beliefs.

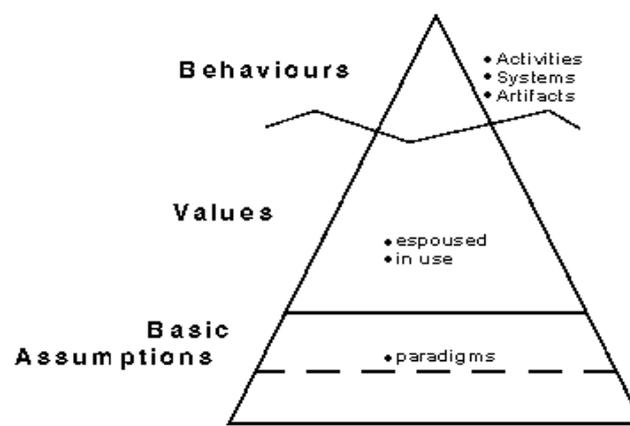


Figure 2.4: Organisational culture levels
(Source: Anderson 2005, p1)

Once established, the organisation's culture is embodied in and enabled by its structures, strategies, policies and processes (refer Figure 2.1). This culture is also expressed in its people and groups through the ideology, values and myths held at each level, the result being a 'socio-structural system' that not only governs the operations of the organisation but a system that, under normal circumstances, provides the organisation with stability and consistency to produce a particular class of outputs (Maund 1999, p352).

Both Passfield (1989) and Parker (2000) conclude that organisational culture is both an accomplishment and a constraint. It is an accomplishment as it shapes the identity of the organisation's members thus influencing the way they make sense of and structure their own and others actions in the way that the organisation does business. But a constraint if individuals and groups within the organisation display resistance towards organisational change and development, if such actions challenge established norms

and processes. Thus, an understanding of an organisation's culture is necessary in determining whether the organisation is capable of achieving what its leaders say it should achieve (Anderson 2005).

2.3 The role and value of visitor education as a park management tool

2.3.1 The efficacy of visitor education as a park management tool

Most visitors have a fundamental need for information about the places they visit, and while most visitors do not visit to learn about conservation *per se*, it is clear that many seek to improve their knowledge about the natural and cultural values of an area (Sharpe 1982; DoC 1996; Beaumont 1999). Yet, 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, is among the greatest challenges faced by many protected area agencies. Park management techniques such as regulation (e.g. zoning, permits, controlling access), hardening of sites, the provision of infrastructure and facilities, and the use of enforcement have achieved a high level of credibility among protected area managers for their ability to solve site problems (Carter 1982). In many instances visitor education is used alongside techniques such as site hardening, closures, signage and regulation as park management techniques to lessen the likelihood of negative environmental impacts caused by visitation to the protected area estate (Beckmann 1991; Hammit & Cole 1998). At the same time, the traditional role of visitor education has been to provide information to increase public awareness and appreciation of natural resources (Carter 1982; Sharpe 1982; Anderson, Lime & Wang 1998).

An informed visitor is one who is more likely to have satisfying experiences during the visit, to be at less risk of injury, and more likely to modify their behaviour positively (DoC 1996; Wearing & Neil 1999; Eagles, McCool & Haynes 2002). Consequently, visitor education can play an important role in providing experiences that contribute towards the development of active and informed members of society who are capable of managing the interactions between themselves and their social and physical environments (Fien 1986; Blades & McKenna 1998). Used effectively, it can enhance the quality of the visitor experience and address management issues such as:

- protecting fragile resources (by directing visitors to other areas)
- reducing intentional and unintentional vandalism

- reducing accidents by explaining unusual dangers
- increasing understanding of, and compliance with management activities; and
- increasing knowledge of land management objectives (reservation, conservation)
(adapted from Beckmann 1991, p41 and Moscardo 1999, p8-14).

Visitor education materials generally range from simple pamphlets/brochures to vast accumulations of scientific data, and often made freely available at information centres and park offices, or sent to the public through the mail (Leal Filho 1988). Field officers also provide a valuable educational service through the conduct of interpretive activities and the provision of factual information in less formal situations. However, changing the way people think and act towards nature and their own safety is not an easy task. This is because attitudinal change is a slow process involving education, re-education (QPWS 2000) and a willingness on behalf of the recipient to accept the content of the messages presented (Roggenbuck 1992). This is because people make behavioural decisions generally consistent with three kinds of beliefs. These are *behavioural* beliefs, *normative* beliefs and *control* beliefs (Fishbein & Ajzen 1975). [Refer to Fishbein and Ajzen (1975), Ajzen (1992); Fishbein and Manfredo (1992), and Ham and Krumpke (1996) for comprehensive reviews of these beliefs].

Nonetheless, some attitudes are well entrenched and even the most enthusiastic educator will hardly dent the views of some visitors (QPWS 2000). When education is unlikely to work, regulation and enforcement is needed to deter the actions of people that threaten the integrity and sustainability of nature (Worboys, Lockwood & De Lacy 2001). But regulation and enforcement do not necessarily change people's activities or attitude towards our environment (Cameron-Smith 1997; Wearing & Neil 1999). To produce an attitude change involves the alteration of people's beliefs, knowledge and perceptions, and the best approach may be to utilise the most effective communication strategies available when presenting education programmes (Bauchop 1997; Bauchop & Parkin 2000). This includes the use of persuasive communication to target undesirable actions by describing the nature and significance of ensuing impacts and persuading visitors of the need to learn and practice behaviour that avoids or minimises the impacts (Roggenbuck 1992; Ham & Krumpke 1996; Ham & Weiler 2005; Marion & Reid [in press]).

As a process, visitor education should be well-timed and targeted (Roggenbuck 1992; Ham & Krumpke 1996) to influence all aspects of a person's visit to a protected area

and the recreational experience they seek: their preparation, travel to, on-site conduct of their chosen activity(s), travel home and reflection of their visit (Clawson & Knetsch 1966; Jubenville 1976; Walker, Hull & Roggenbuck 1998). It should also contribute to the person's development as an active, informed advocate for nature conservation (Fien 1986). The conservation of a nation's natural heritage depends as much on having a population aware of the values of nature conservation and the motivation to conserve natural resources on all lands, not just the direct action of setting aside protected areas (Carter 1982).

Documented examples of the ability of visitor education to address particular park management problems are considerable, and provide clear evidence of the value of visitor education as a park management tool (Beckmann 1991, p42-45; Moscardo 1999, p17; Beaumont 1999; Littlefair 2003). Visitor education also aims to solve resource-based problems through changes in behaviour and attitude (Roggenbuck 1992; Ham & Weiler 2005). In Australia, the most notable was the Minimal Impact Bushwalking (MIB) campaign developed by the Tasmanian Department of Parks, Wildlife and Heritage (now Parks and Wildlife Service, Department of Primary Industries, Water and Environment) in 1986 to combat recreational impacts caused by both increasing numbers and poor minimal impact practices of walkers venturing into the South-West Tasmanian World Heritage Area (O'Loughlin 1989).

The success of the MIB campaign in Tasmania led to the adoption of varying aspects of this campaign by each State and Territory nature conservation agency to deal with recreation-induced environmental impacts in their parks, forests and reserves (Parkin 1997). It allows visitors to retain freedom of choice, but their behavioural decisions are guided by information that is designed to promote a self-directed modification of their personal behaviour. More recently, persuasive communication has been used to address depreciative behaviours such as littering, track shortcutting and noise (Littlefair 2004a; 2004b) and the supplementary feeding of wildlife (Orams 1996a; Beckmann & Savage 2003; Mallick & Driessen 2003; Ballantyne & Hughes [in press]) to increase behavioural compliance. Like the MIB campaign, persuasive communication uses specific interventions designed to change beliefs and attitudes to enhance visitors' understanding and appreciation of the environment and encourage attitudes favourable to the natural environment and its conservation (Roggenbuck 1992; Beaumont 1999; Ham & Weiler 2005).

The adoption of appropriate outdoor behaviour is looked upon favourably by protected area managers as safety and reduced impact saves valuable resources in time and money (Parkin 1997). This in turn, decreases the constraints and restrictions placed on people wishing to use natural areas for recreation and/or nature study (Marion & Reid [in press]). Nonetheless, there will be visitors who persistently disregard park rules and regulations and will continue to present a problem to managers. For these individuals, education in association with other approaches (such as enforcement/economic incentives) it can be a potent force for achieving improved environmental outcomes (Alder 1996; Anderson, Lime & Wang 1998; Worboys, Lockwood & De Lacy 2001).

2.3.2 Barriers affecting visitor education as a park management tool

Research has shown that resource degradation is an inevitable consequence of recreational use of protected areas even at low visitation levels (Martin, McCool, & Lucas 1989; Roggenbuck 1992; Liddle 1997; Hammitt & Cole 1998; Leung & Marion 2000). Any visitation will inevitably leave an imprint on a protected area, from resource and cultural heritage degradation to visitor crowding and recreation conflict. A principal challenge for protected area managers is to eliminate avoidable impacts, such as littering, tree damage or unsociable behaviour, and minimise unavoidable impacts, such as vegetation trampling vegetation on trails or around campsites (Hammitt & Cole 1998; Manning 1999).

Park management and enforcement activities are expensive, but their impacts are immediate and easily measured, while the benefits of education are often only realised long after implementation (Marion & Reid [in press]). Hence the reluctance by some protected area managers to use visitor education when a quicker solution may be achieved through some park management or enforcement action. Consequently, visitor education is often perceived as a luxury, irrelevant or a lower priority than other park management activities (Hockings, Carter & Leverington 1998; QPWS 1999b).

Most protected area agencies attempt to manage recreational impacts through the use of brochures, signs, displays and site hardening techniques. Very little face-to-face education occurs (Beckmann 1991; QPWS 2001b). However, contact between the manager and the public is a vital element in the management of protected areas. Effective communication between managers and the public is required to create a sympathetic and environmentally aware public and to meet specific management-

related objectives (Hockings, Carter & Leverington 1998), but in most cases there are not enough staff with the skills to provide visitors with educational or interpretive services (Leal Filho 1988).

Well designed and presented visitor education materials and activities can reduce the cost of park maintenance activities and expenditure on enforcement (Beckmann 1991). However, education is often given less importance than research, habitat management and enforcement for conserving natural resources (Blanchard 1995). Hooper and Weiss (1990) in a survey of American interpreters identify limited time and/or staff resources as the principal factor that restricts the adoption of visitor education as a management tool (Table 2.3). Limited budgets, a lack of management/staff support and a range of organisational constraints were other factors that affected the adoption of visitor education as a park management tool.

Table 2.3: Factors limiting the adoption of visitor education as a park management tool
(source: adapted from Hooper & Weiss 1990, p355)

Limiting Factor	Percent	Number
Limited time and/or staff resources	28.6	44
Limited budget	16.9	26
Limited management / staff support	15.6	24
Political climate / restrictive organisational policy / low organisational priority	14.3	22
Lack of expertise / creativity / training among staff	9.7	15
Lack of visitor interest	6.5	10
Other factors	8.4	13
Totals	100	154

Conserving natural and cultural resources and providing for visitor recreation are often the largest and most conspicuous management tasks (DNRE 1999). While many protected area managers commonly use visitor education programmes to promote the agency and to address visitation-related impairment of natural and cultural resources, social conditions and neighbouring communities (Marion & Reid [in press]), there is also reluctance by some protected area managers to accept visitor education as a park management tool (Hooper & Weiss 1990; QPWS 2001b). Leal Filho (1988) suggests five reasons for this lack of enthusiasm:

1. The variety of environmental themes available – the complexity and amount of detail required is sometimes a stumbling block to the interpretation of a site's most interesting feature from an educational and conservation perspective.
2. The lack of training opportunities available for staff with visitor education responsibilities – poor training provisions reflects on the quality of the educational and advisory services provided by protected area staff.
3. The lack of infrastructure to facilitate communication between protected area staff and visitors and/or local communities – appropriate infrastructure is required to allow staff to interact with visitors and local communities face-to-face or through the various forms of media available.
4. The lack of budgetary provision for visitor education – specific provision for visitor education must compete with other protected area programmes such as capital works and estate management in a climate of limited financial resources.
5. The complex relationship between environmental issues and economic, social and legislative matters – the competing and often conflicting interests of resource utilisation, conservation and legislative '*quick fixes*' conflict with the notion that '*parks are for the people*'. (p11-13).

The cumulative effect being that visitor education is regarded less as a core agency activity than those park management techniques that provide more tangible outcomes for managing visitors and providing resource protection. In agencies where there is a lack of budgetary provision for visitor education activities, this means programme delivery is usually up to the personal efforts of motivated staff on an ad hoc basis (Leal Fiho 1998), even though visitor education is considered the primary and most cost-effective means of achieving certain aspects of management (Roggenbuck 1992; Beckmann 1999; Moscardo 1999; Marion & Reid [in press]).

2.3.3 *Visitor education at a crisis*

The notion that visitor education is in crisis needs to be considered. Why does the Queensland Government want to revitalise and enhance the visitor education capacity of its Queensland Parks and Wildlife Service? A review of internal QPWS documents provides a perspective from the interpreter's point of view that a number of issues exist. These include: lack of funding, inadequate resourcing, excessive workloads, a poor understanding of the role and value of visitor education and a negative organisational

culture towards the acceptance and use of visitor education as a park management tool (QPWS 1999b; QPWS 2000; QPWS 2001a; QPWS 2001b). (Refer Chapter 4.5 for a fuller discussion of these factors).

Criticism of the visitor education capacity of the QPWS by interpreters suggests that visitor education within the QPWS is at a crisis; however, from an historical perspective, one is less sure. A 1990 report by a visiting US interpretive ranger provides evidence that the issues raised by interpreters have existed for some time (Rosen 1990). Rosen (1990) noted that the greatest limitation to the Queensland National Parks and Wildlife Service (QNPWS)'s providing visitor education services was funding and staff. Funding, in Rosen's view, was insufficient to achieve meaningful visitor education outcomes while interpretive staff workloads were enormous and mostly reactive, responding to regional and park demands for assistance on all levels of communication and interpretation. Emphasis also seemed to be placed on non-personal interpretive mediums such as brochures and signs in preference to face-to-face interpretation. This suggested a low priority for visitor education in the QNPWS.

Rosen's comments about visitor education in the QNPWS were based on her experience as an interpretive ranger working for the US National Parks Service. At the time of her visit, the QNPWS as an entity in its own right was only 15 years old. The US National Parks Service was created in the early 1900s, with interpretation becoming firmly established by the early 1920's (Mackintosh 1986). In some respects, Rosen's comments reflected issues surrounding visitor education and its acceptance and use as a park management tool for a long period of time. For example, Mackintosh (1986) in his review of the history of interpretation in the US National Parks Service cites an observation made by Freeman Tilden to US National Parks Director Wirth in 1952 to illustrate an historical standpoint regarding the acceptance and use of visitor education:

Since 1942 I have travelled many thousands of miles, visiting a great number of areas, and my conviction that the Park Service flounders in the Interpretation field has steadily grown. By this, I do not mean that it is bad; on the contrary, considering the lack of a basic philosophy, perhaps it is amazingly good; but I think the entire personnel of the National Park Service would agree with me that it is far from good enough (Letter, Tilden to Wirth, Sept. 23, 1952 cited in Mackintosh 1986, Ch.5).

Mackintosh (1986) notes that Tilden made this observation during a period in which there were significant cutbacks in interpretive staffing and programmes across the US

National Parks Service. It was on top of a failure to appropriately staff and maintain visitor centres and other interpretive facilities and media. However, Mackintosh adds that Tilden's opinion was confirmed in a 1973 study of personal interpretation in the Pacific Northwest Region of the US National Parks Service. Poor communications skills, poor morale, lack of employee understanding of Service goals, insufficient training, recruitment and the rehiring of incompetent seasonal interpreters, and inexperienced supervisors were identified as barriers to the effective delivery of visitor education services (Mackintosh 1986). Mackintosh adds that the decline in the importance and professionalism of visitor education during the 1970's was attributed to several factors including organisational changes that lumped interpretation with resources management in many parks, often removing people with interpretive backgrounds from leadership, the de-professionalising of interpreters, increased park visitation, an expansion of the US National Park System without commensurate funding and personnel increases for interpretation, and an increased emphasis on law enforcement at the expense of interpretive positions and training.

Mackintosh's (1986) overall summary of the interpretation capacity of the US National Park Service was that:

there is a shortage of good interpreters, well grounded in their park's subject matter and able to communicate skillfully to visitors. Personalized interpretation has declined in favour of canned presentations. Interpreters are out of the organizational mainstream, often overlooked for advancement. Managers consider interpretation nice but nonessential, cutting it first when funds are tight. (Ch. 5)

It is worth noting though, that visitor education's greatest critics have been its practitioners. Mackintosh (1986) suggests good interpreters tend to be idealistic and articulate – qualities conducive to vocal self-analysis. Visitor education is also, by its nature, a very public activity, and one in which any shortcomings are clearly apparent. Criticism may also be influenced by the stiffer competition that visitor education faces. There are now popular television shows like *Totally Wild* and documentaries on nature, scientific subjects and historical events, all done with a professional polish not easily matched by the park interpreter. As Mackintosh (1986) suggests, today's more sophisticated audience is less likely to be impressed with a merely competent performance, and those looking critically at interpretation tend to apply a higher standard of judgement. Even if park interpretation is no worse than it used to be, its position has probably fallen somewhat relative to other interpretive opportunities available to the public (Mackintosh 1986).

2.4 Achievement of a revitalised visitor education capacity

The literature review, so far, has investigated policy and organisational culture and the efficacy of visitor education as a park management tool, including barriers to its acceptance and use, to provide the theoretical foundation on which this study is based. To contribute to the achievement of a revitalised visitor education capacity it is also necessary to firstly conceptualise the institutional problems arising from the mixing of policy, organisational culture and the use of visitor education to address park management and then secondly, to briefly overview the preferred models for achieving management effectiveness and visitor education best practice.

2.4.1 Institutional barriers to a revitalised visitor education capacity

Managers of protected areas have challenging responsibilities. They have the dual obligation of protecting and sustaining natural resource conditions while providing high-quality recreational experiences (Tonge et al 2005). However, there is increasing public scrutiny and pressure on those responsible for protected areas to ensure management effectiveness as a means of maximising the potential of protected areas (Hockings 2003).

Achieving management effectiveness may include improved management strategies, better planning and priority setting and increased accountability, the primary aim of which is to elucidate threats, management weaknesses and pervasive management problems (Hockings 2002 & 2003). Hockings (2003, p825) claims that three of the five most commonly reported threats 'involve administrative practices, management and policy deficiencies, and shortages of funding and staff, rather than external impacts on protected areas'.

Typically, public sector land management agencies are spread across wide areas. It is therefore very easy for isolated work units to function at variance with the primary goals of the organisation (Worboys, Lockwood & De Lacy 2001). Outcomes may still be in line with the object of the organisation, but the processes and strategies employed may not be those dictated by the organisation. Worboys, Lockwood & De Lacy (2001) also note that strong-minded managers and/or poor systems of co-ordination may lead to problems such as units or individuals 'doing their own thing' or concentrating on lower priority tasks. As a result, protected area agencies may require systems that ensure effective coordination of work effort up, down and across an organisation. This is best

achieved through sound policies and procedures, effective delegations, and clear operational policies in relation to accountabilities and responsibilities (Worboys, Lockwood & De Lacy 2001). These 'controls' allow managers and staff to cope with uncertainty, detect irregularities and handle complex situations.

Most agencies have mechanisms to ensure that all staff are aware of how they are contributing to their organisation's primary goals. However, these mechanisms sometime fail as a result of the flow of information (across the organisation and between different managerial levels) and the communication process adopted (formal/informal) (Maund 1999). Staff may not always appreciate the roles their colleagues play in other parts of the organisation as well. For example, grumbling that 'head office staff have it easy' or that rangers 'have a wonderful life working in paradise' reflects such ignorance (Worboys, Lockwood & De Lacy 2001, p86), while comments such as 'the only real work for conservation is here at the coal face' reflect at best a misguided view of how organisations work, and at worst, a dangerously divisive attitude that could jeopardise the work of an organisation (ibid p86). It may also give the wrong message to external stakeholders. Effective communication of individuals' and work units' job roles and how each contributes to the goals of the organisation is necessary for cohesion within a protected area agency.

It is generally accepted that many protected area management organisations are under-funded and have too few staff for the work that they need to do (Worboys, Lockwood & De Lacy 2001). Consequently, every staff position is vital; every resource is needed by an organisation critical to achieving its goals. This is why, as Worboys, Lockwood and De Lacy (2001, p86) claim, there is 'regular change within most organisations because of a need to position available staff, funding and resources in the best way to achieve organisational goals'. However, amalgamations, restructures and the prioritising of resources in times of economic austerity will create apprehension and disillusionment among staff especially if it is their work area that is being rationalised (Schweiger & Denisi 1991). How a protected area agency's resources are best organised is fundamental to its success.

2.4.2 Ensuring management effectiveness and visitor education best practice

Management effectiveness is a critical aspect of ensuring protected areas worldwide achieve the goal for which they are established: the conservation of biological diversity

(Ervin 2003). Yet, to achieve management effectiveness, protected area agencies need to address three broad areas of concern:

1. Threats acting on the natural and cultural resources of a protected area;
2. Inadequate resourcing for management; and
3. Institutional and capacity problems, including inappropriate policies, poorly functioning management systems or processes, and inadequately trained staff (Hockings 2003, p823).

While threats to the natural and cultural resources of a protected area are generally the subject of visitor education effort, they are outside the scope of this thesis. However, inadequate resourcing and institutional and capacity problems are issues, as they can directly affect the role, value, acceptance and use of visitor education as a park management tool. Consequently, systematic information on the appropriateness of existing management systems and the delivery of protected area objectives (Hockings, Stolton & Dudley 2000) is required for the role, value, acceptance and use of visitor education as a park management tool to be enhanced.

One way of assessing management effectiveness is to look at the outputs derived from management activity (Dudley, Hockings & Stolton 1999, p252). Hockings (2000) in his work on management effectiveness for the IUCN, presents a seven-step process for evaluating management to confirm current practice or suggest where change is necessary (Figure 2.5). It is applicable to assessing the effectiveness of a protected area agency's visitor education capacity. For example, it can be used to assess visitor education strategies or objectives (Vision/Planning), the levels of available resources (Inputs), implementation (Management processes/Outputs), and achievements (Outcomes). The core of this is monitoring and evaluation for determining the appropriateness, efficiency or effectiveness of any component or the system as a whole (Hockings 2000).

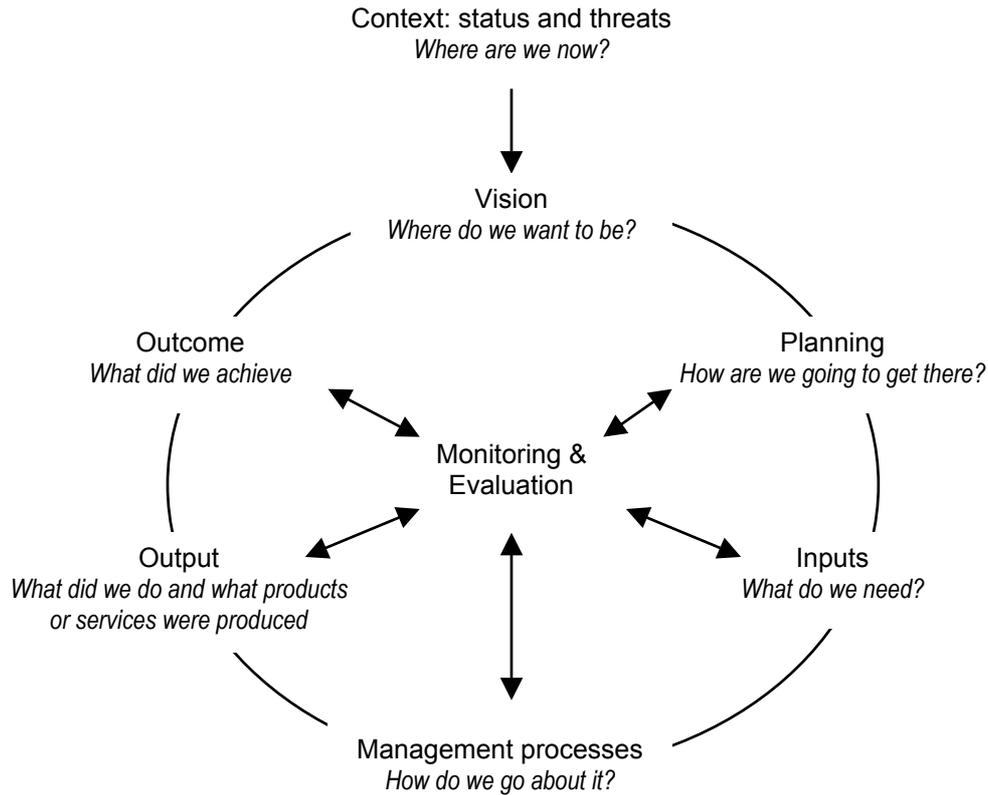


Figure 2.5: Evaluation and the management cycle
(source: after Hockings 2000, p10)

There is also a growing interest among Australian and New Zealand Environment and Conservation Council (ANZECC) agencies to place visitor education services into a modern business context (DNRE 1999). However, while some excellent examples of integrated management and planning approaches for interpretation services have been developed (refer Parks Canada 1997; Hall & McArthur 1996, 1998 and Capelle 1998), no Australian protected area agency has yet developed a systematic and comprehensive business systems approach to the management and provision of their visitor education services (DNRE 1999). In most cases only partial systems for managing visitor education services within a business cycle are in place. Consequently, to achieve the Queensland Government's objective of a revitalised visitor education capacity, the QPWS will need to further work towards the successful integration of visitor education with the range of business systems currently operating within the organisation. The visitor education – business systems integration process and model for best practice visitor education outlined in the *Best Practice in Park Interpretation* (DNRE 1999) report is recommended (Figure 2.6).

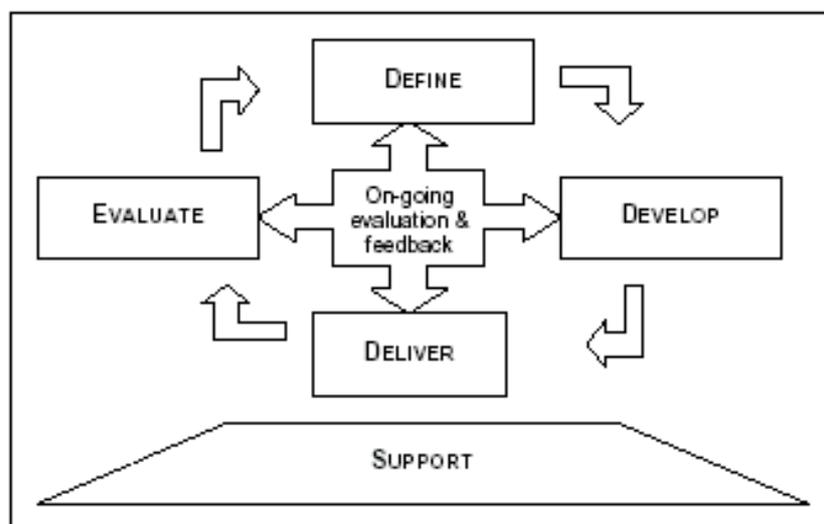


Figure 2.6: The visitor education best practice model
(Source: DNRE 1999:12)

While each of the five stages in the above two-dimensional model are depicted as discrete elements in the delivery of services, there is considerable overlap in the functions of each stage (DNRE 1999). In addition, in most instances the application of the process (stages) will not occur in the order depicted in the model. Another way of visualising the stages is to see each of them as concentrated points of similar activity rather than categories with highly defined boundaries (DNRE 1999).

Systematic monitoring and evaluation and the implementation of best practice procedures (DNRE 1999), combined with the other creative disciplines such as adaptive management (Hockings 2003) are essential to ensuring the effective and efficient delivery of visitor education services in an organisation such as the QPWS.

2.5 Summary

This chapter has provided the theoretical background to the study. It has explored the literature surrounding the three main themes underpinning the assumptions on which this study is based: policy, organisational culture and the efficacy of visitor education as a park management tool. Firstly, policy was identified and defined in the context of this study. Policy includes the intentions of government expressed as legislation, corporate and master plans, strategic plans and organisational documents. The development of

policy and the evolution of protected area policy-making in Australia were also discussed. This chapter also outlined some of the issues affecting the implementation of policy in a protected area management environment. Resourcing and the communication of policy were two factors identified as limiting the effective implementation of policy. The literature also suggests that very few Government agencies have effective evaluation programmes in place to measure the success or otherwise of their policies. The review of policy, policy development and policy implementation in the context of a protected area management environment, while brief, provided the underpinning knowledge to critique the range of public and internal documents described in Chapter 4. It also provided the basis for the review and analysis of the Queensland Parks and Wildlife Services' interpretation and education strategy presented in Chapter 5.

Secondly, the literature on organisational culture was explored to provide context to the way individuals and groups act and interact in large organisations. This chapter established that organisational culture is the manifestation of shared values, underlying beliefs and assumptions of individuals and groups within an organisation. It is also a product of the organisation: its structure, rules and purpose. More simply, organisational culture can be best described as, "the way we do things around here". This chapter also established that organisational culture is both an accomplishment and a constraint. Organisational effectiveness and the achievement of specific goals are largely dependent on the norms of the dominant groups within the organisation and the goals they collectively pursue within the confines of the bureaucratic structure in which they and the organisation operate. The review of organisation culture was important for conceptualising the differing levels of acceptance and use of the QPWS's *I & E Strategy* detailed in Chapter 5 and for identifying the barriers to the role, value acceptance and use of visitor education as a park management tool among interpreters and park managers in Chapter 6.

Thirdly, the efficacy of visitor education as a park management tool was also evaluated. This critique was important as it provided the thread that bound policy, organisational culture and the achievement of visitor education outcomes together to identify the issues affecting the role, value, acceptance and use of visitor education as a park management tool. Used effectively, visitor education can modify visitor behaviour, enhance experiences and contribute to the management of a protected area in a cost-effective manner. However, the literature also suggests that a number of barriers exist. These include, limited time and/or staff resources, limited funds and

management support. In some instances, park management techniques such as site hardening, site rationing and enforcement are used in preference to visitor education because the outcomes are more immediate and visible. The benefits of visitor education are not often observed or only realised long after implementation. The notion that visitor education is at a crisis point was also explored. However, the literature revealed that the acceptance and use of visitor education as a park management tool has been an issue since the inception of visitor education in both the USA and Australian park services. The issues raised in Chapter 5 and Chapter 6 provide a contemporary nature to the issues identified here and provide the substance to the issues discussed in Chapter 7.

Finally, this chapter investigated the institutional problems stemming from the collective mix of policy, organisational culture and the use of visitor education to address park management issues to conceptualise the institutional barriers to the Queensland government's desire to revitalise the visitor education capacity of its Queensland Parks and Wildlife Service. It brought together issues raised earlier in the chapter concerning the development and implementation of policy, organisational culture and barriers to the acceptance and use of visitor education as a park management tool, to present models for improving management effectiveness and for delivering visitor education best practice. This synopsis provides the basis for the discussion in Chapter 8 promoting a range of options identified by interpreters for resolving the issues that have effectively formed barriers to the role and value of visitor education as a park management tool. This synopsis also provides the basis for the recommendations and areas of further study outlined in the final chapter to this thesis – Chapter 9.