

Outdoor Recreation in Tasmania's State Forests: Challenges and Opportunities



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Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any tertiary institution, and to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

A handwritten signature in black ink, appearing to read 'Simon Branigan', with a stylized, cursive script.

Simon Branigan

Abstract

Forestry Tasmania has a mandate enshrined in the *Forestry Act 1920* to manage State forest areas for multiple use purposes. This research critically assesses the governance of States forests in the Huon Forest District and the provision of outdoor recreational opportunities. A qualitative research approach was employed utilising a multiple method approach. These methods included a literature review, semi-structured key stakeholder interviews and a Recreational Opportunity Spectrum (ROS) planning framework. Results generated from these analyses were synthesised using a data triangulation process to identify the emergent themes.

The conflicts that arise in multiple use management of forests were most strongly evident in stakeholders' perceptions and highlighted that wood production imperatives dominate planning decisions. Forest management is regulated through the forest practices system, however, there are no provisions encompassed in the forest practices code to guide the on-ground identification of recreational values alongside natural, cultural and timber assessments. Public consultation procedures were perceived as being conducted in a top-down authoritative manner with a collective sense of disempowerment portrayed by the respondents. Semi-remote forested landscapes appear to be a diminishing recreational setting in State forests with future demand for outdoor activities proposed to be orientated towards these areas. Stakeholders advocated a comprehensive inventory of recreational values to be undertaken for all Forest Districts. The ROS framework proved to be a useful means of assessment which could assist in further fulfilling Forest Tasmania's multiple use mandate.

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Key Acronyms

ANZECC	Australian and New Zealand Environment and Conservation Council
ANFWDC	Australian National Four Wheel Drive Council
CFA	Community Forest Agreement
DA	Development Application
DIER	Department of Infrastructure, Energy and Resources
EMS	Environmental Management System
FBT	Forest based Tourism
FMP	Forest Management Plan
FPA	Forest Practices Authority
FPC	Forest Practices Code
FPP	Forest Practices Plan
FSC	Forestry Stewardship Council
FT	Forestry Tasmania
GBE	Government Business Enterprise
GG21	Green Globe 21
HREC	Human Research Ethics Committee
IUCN	International Union for the Conservation of Nature and Natural Resources
UNESCO	United Nations Educational, Scientific and Cultural Organisation
LTER	Long Term Ecological Research
MCFFA	Ministerial Council on Forestry, Fisheries and Aquaculture
NBT	Nature based tourism
NHMRC	National Health and Medical Research Council
NGO	Non Government Organisation
NRM	Natural Resource Management
PWS	Parks and Wildlife Service

R&D	Research and Development
RFA	Regional Forest Agreement
RMPS	Resource Management and Planning System
ROS	Recreational Opportunity Spectrum
RMPS	Resource Management and Planning System
RPDC	Resource Planning and Development Commission
SOP	Standard Operating Procedure
SFM	Sustainable Forest Management
STMU	Specialty Timber Management Units
SWOT	Strengths, Weaknesses, Opportunities and Threats
TWWHA	Tasmanian World Heritage Area
UTAS	University of Tasmania
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WTO	World Tourism Organisation
2WD	Two Wheel Driving
4WD	Four Wheel Driving

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Chapter 1 Introduction

1.1 Background

The cool temperate forests of Tasmania cover approximately half of the island (3.3 million hectares), with the tenure comprising privately owned land, World Heritage Areas, national parks or other reserves; and multiple-use State forests (Forestry Tasmania 2007a). Forestry Tasmania (FT) has responsibility for managing Tasmania's State forests and was established as a Government Business Enterprise (GBE) under the State's *Forestry Act 1920*. Its core business is described as the sustainable production and delivery of forest products and services for optimum community benefit (DIER 2007). State forests constitute approximately 1.5 million hectares, which is around 30% of the island's forests (Tasmanian Government 1997). FT (1994) describe State forests as being managed predominantly for timber, but includes the protection of natural and cultural heritage, view fields and water quality, as well as tourism, recreation and education as management priorities.

Wood production has traditionally been the primary business focus of FT, with wood extraction quotas set each year through the Regional Forest Agreement (RFA) and more recently the Community Forest Agreement (CFA). These agreements are statutory arrangements negotiated between the Commonwealth and State governments, with input from a variety of stakeholders. Wood resources are principally sourced from regrowth and old growth eucalyptus forests using a range of silvicultural systems, which are a set of production techniques used to cut and regenerate forest (Kirkpatrick 1999).

Regeneration occurs with native species or hybrid plantation species. Silvicultural systems are traditionally based on clearfelling and cable logging of forested areas, whereby the mass proportion of trees are removed from the forestry coupe, followed by ripping of the soil, then burning and sowing with seeds. Alternatives known as variable retention (e.g. Aggregate retention) or single group selection have been integrated into harvesting techniques, leaving patches of native vegetation or individual trees within the forestry coupe (Forestry Tasmania 2004a).

The basic concept employed in silvicultural systems concerns sustainable use of the forests. It derives from the management perspective of increasing flow of wood from the forest in perpetuity (Kirkpatrick 1999). Eucalyptus forests are managed for sawlogs on a 80-90 year rotation and pulp wood on a 30-40 year rotational basis (Turnbull 1996). These forest practices are underpinned by the assumption that silvicultural systems mimic a natural wildfire disturbance event and forests in which wood extraction is conducted are naturally even-aged (Green *et al.* 2004). However, forests in which clearfelling or variable retention and burning are applied are often not naturally even-aged, with many scientists and community members arguing that these forests do not require such drastic treatment to facilitate eucalyptus regeneration (Kirkpatrick 1999).

Conflict over such practices and other possible uses of these State forests have historically polarised the Tasmanian community, as well as communities in other regions of Australia and beyond (Flanagan 2007). The continued logging of native forests, especially old growth, has become one of the dominant issues of election campaigns in recent times. Both the current State Government and Federal Government have been accused of a 'jobs at any cost' paradigm, whereas conservationists are viewed as wanting to 'lock-up' all the remaining unprotected forests to the detriment of logging industry workers. Often missing from this debate is the importance of other forest uses, such as existing and potential outdoor recreational offerings.

Tasmania has a tourist industry worth an estimated \$1 billion (Reed *et al.* 1999), with forest based recreation being an integral part of the State's natural value attractiveness. Much of the future opportunity for outdoor experiences and adventure travel is located in remote, wilderness areas which have not been planned or developed for tourism or other resource based uses (Butler & Waldbrook 2003). There is currently an array of wilderness type offerings that are available in Tasmania's Wilderness World Heritage Areas (TWWHA), National Parks and reserves, however various remnant forest communities remain unprotected under State forest tenure.

The Huon District has been chosen as the case study area for this research primarily

because this region is representative of State forests managed for multiple use purposes. FT’s flagship offering the Tahune Airwalk is located within this District, with an array of other outdoor opportunities incorporated with wood production forests.

1.2 Study Area

The Huon Forest District lies south of Hobart and encompasses an area of some 762,800 hectares of which 123,000 hectares is State forest (Figure 1) (Forestry Tasmania 2000). This research will focus upon the FT-managed State forests between Wellington Park in the north to Recherche Bay State Recreation Area in the south. East of the State forest boundary is predominately private land while the western boundary adjoins the TWWHA (Table 1). State forest areas on Bruny Island are excluded from the scope of this research, with an explanation of the reasons for this omission is presented in the limits of the study (1.6).

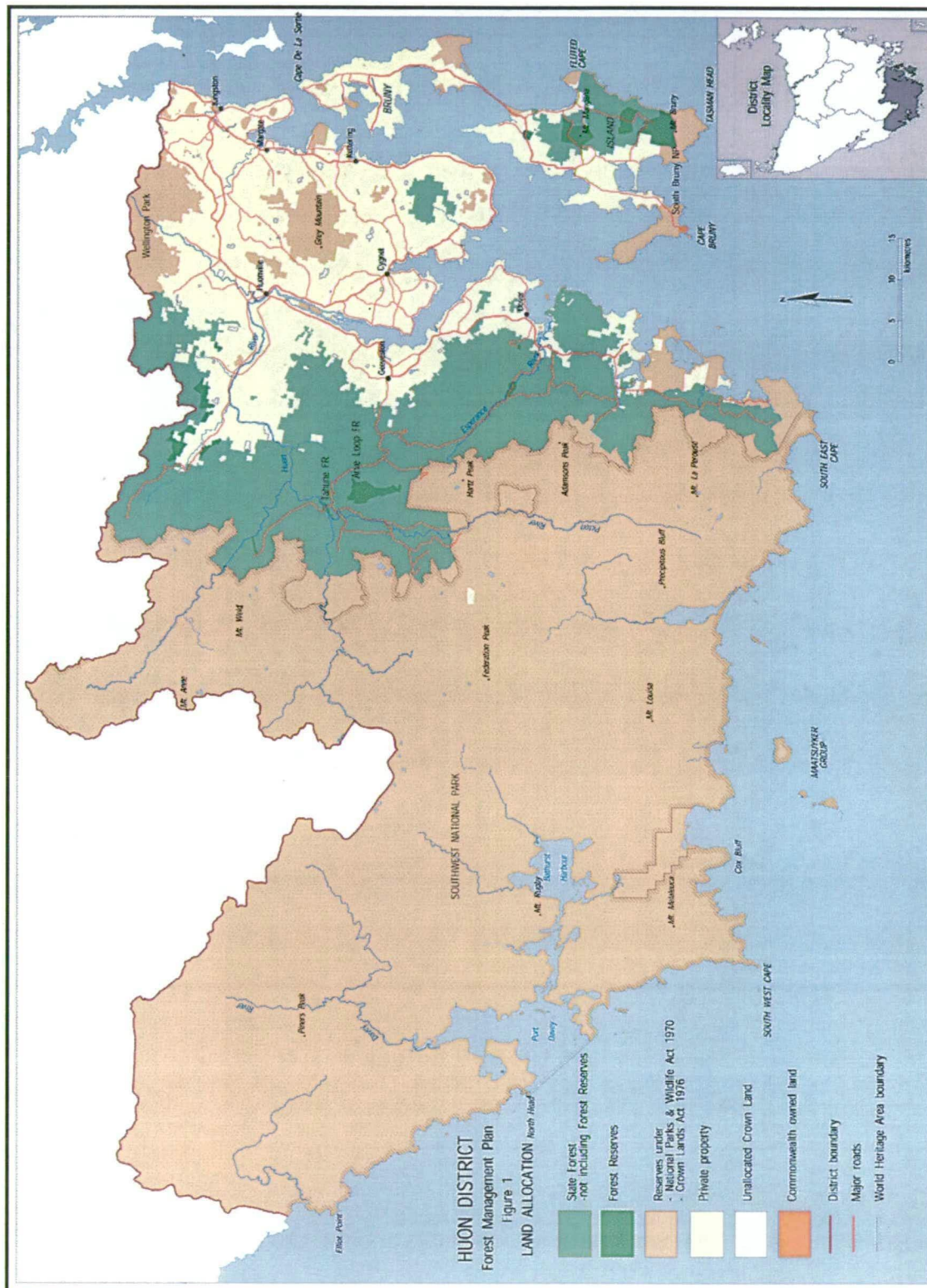
Table 1 Land allocation in the Huon Forest District

<i>Tenure</i>	<i>Area (hectares)</i>	<i>Percentage of Huon Forest District</i>
Private Land	125,500	17
Reserves under the <i>National Nature Conservation Act 1970</i>	503,600	66
State forest	123,000	16
Non-allocated Crown Land	10,700	1
Total	762,800	100

(Source: Forestry Tasmania 2000)

The majority of the Huon Forest District is situated within the Huon Valley Municipality, which is the second largest local government area in Tasmania and covers much of the southern part of the State. The region is characterised by settlements in a range of different settings, with some communities bordering the Huon Estuary and D’Entrecasteaux Channel and others scattered amongst rolling hills and forested blocks. The major communities include Huonville, Cygnet, Franklin, Geeveston and Dover, with a variety of other smaller settlements throughout the region.

Figure 1 Huon Forestry District Land Allocation



(Source: Forestry Tasmania 2000)

The population of Huon Valley is approximately 14,200, excluding the numerous holiday residences and seasonal visitations by tourists (ABS 2007). Over the past few decades, the population has grown steadily at a rate of about 0.5 – 1%, with further positive growth expected (Jackson 2007). However, according to Population Tasmania, this growth will be characterised by negative growth in the population aged under 40-54, and a significant increase in people in older age brackets (Jackson 2007).

Traditionally, economic activity within the region has been driven by agricultural production for food, as well as timber-based industries (De Rose 2000). These industries continue to operate, although they are experiencing downturns in prosperity (GHD 2007). Agricultural activities have drifted away from the monoculture of fruit and transitioned into more diverse, niche markets, such as viticulture and aquaculture. In a proposed *Huon Valley Land Use and Development Strategy* (GHD 2007) it was suggested the establishment of National Parks & the TWWHA reduced the importance of timber industry activities to the region's economy. The natural values of these protected areas, along with other land tenures such as private and State forest, play an integral role in attracting tourism to the region, along with providing an alternative economic input to the region's economy.

The climatic conditions of the region are maritime in nature, with temperature and rainfall gradients across the region from the wetter west to the drier east and from the cooler higher altitude to warmer lower altitude (De Rose 2000). This climate is dominated by zonal westerly winds, which tends to produce often changeable, cool temperate conditions (De Rose 2000; Nunez 1978). During summer months average temperatures are between 12°C to 16°C and rainfall between 50 and 75 mm (De Rose 2000).

The geology and geomorphology of the municipality encompasses a diverse distribution of soils and landforms (De Rose 2000). These distributions, as listed by De Rose (2000) in the Land Capability Survey of Tasmania D'Entrecasteaux Report, include:

- dolerite landforms dominating the eastern areas of the region forming most of

the higher mountain peaks and plateaus;

- Permo-Triassic rocks typically underlying the dolerite cap rocks and tending to crop out on lower slopes and valley margins;
- alluvial deposits of Tertiary and Quaternary age generally being confined to valley systems and coastal areas;
- the Huon Estuary and bays of the region appear to be the result of rising sea levels following the last glaciation; and
- the dominant soils are either grey-brown podzolic soils or yellow podzolic soils.

The region contains an array of geomorphological features, that are considered environmentally significant on a domestic and international scale (IUCN 1987). The *Tasmanian Geoconservation Database* (2007b) includes sixty registered sites within the Huon Valley. These registered sites include extensive karst systems in areas such as Mt Weld, Lower Weld, Hastings and Ida Bay, as well as geoheritage sites at Langdons Point near Cygnet, Southport Lagoon and Egg Island.

The Huon Valley has an extensive system of rivers and streams encompassed within a variety of catchments. The Huon River catchment covers an area of 3440 km² and includes the headwaters of a number of rivers including the Picton, Cracroft and Weld which originate from the TWWHA (GHD 2007). The region also contains extensive groundwater that supports diverse ecosystems both above and below the ground (NRM South 2005). The current condition, status and quantifiable water needs of groundwater-dependent ecosystems in the region are poorly understood (DPIW n.d.).

The region also has a range of wetlands including buttongrass plains, peatland, brackish to saline lagoons, permanent shallow waters and permanent freshwater lakes (NRM South 2005). These wetlands provide valuable habitat (often for rare and endangered species) and work as an important filtration system (DPIW n.d.). A variety of wetlands are listed in the *Tasmanian Wetland Strategy* and are of National

and State significance for nature conservation (DPIW n.d.).

The main forest types occurring in the district are mixed and wet sclerophyll forests (Forestry Tasmania 2000). Mixed forests are dominated by eucalypts over a rainforest understorey. Similarly, wet sclerophyll forest comprise eucalypt forest overstorey, but with an understorey shrub layer (Kirkpatrick & Backhouse 2004). The dominant eucalypt species are *Eucalyptus obliqua* (stingy bark), *Eucalyptus regnans* (swamp gum) and *Eucalyptus globulus* (blue gum), with *Eucalyptus delegatensis* and *Eucalyptus nitida* occurring on higher elevations (Forestry Tasmania 2000). *E. regnans* is known as the world's tallest flowering plant (80 metres plus) with *E. obliqua* having the capacity to attain heights of over 70 metres (Kirkpatrick & Backhouse 2004). *E. obliqua*, *E. regnans* and *E. globulus* are all utilised for wood production purposes.

Other vegetation communities also occur in the area and include: button grass moorlands; lowland heath and sedgeland; dry sclerophyll forest; rainforest; alpine heath and alpine rainforest (Mooney 2007a). Edwards (1978) argues that if it were not for bush fires, plant communities in the South-West would consist almost exclusively of rainforest, with the exception of high altitude moorlands and sedgelands too water logged to support tree growth. The existing complex mosaic of vegetation is thought to be due to 15 to 35,000 years of burning by Tasmanian aboriginals and occasional lightning strikes (Bowman 1998; Edwards 1978; Kirkpatrick 1978; Marsden-Smedley & Kirkpatrick 2000; Turnbull 1996).

Aboriginals are known to have burnt the landscape for hunting, warfare and ease of travel (Bowman 1998; Kirkpatrick *et al.* 1978). According to Jackson (1968), these fires have resulted in complex interactions between vegetation type, fire frequency and intensity, soil structure and fertility, aspect and parent rock. Following the displacement of indigenous people from the South-West of Tasmania, the fire regime changed in frequency and intensity, with periods of fewer fires burning in regional-scale landscapes (Kirkpatrick 1999). Since European settlement major fires on a regional-scale have occurred in 1881, 1914, 1927, 1934 and 1967 (Kirkpatrick *et al.* 1978), burning a large proportion of the South-West region.

The Huon Forest District provides habitat for a range of fauna species, including many that are listed under Tasmania’s *Threatened Species Protection Act 1995* (DPIW 2007a) (Table 2).

Table 2 Examples of Species listed under *Threatened Species Act 1995* found in the case study area

Common Name	Scientific Name	Status
Wedge-tailed Eagle	<i>Aquila audax fleayi</i>	Endangered
Tasmanian Devil Common	<i>Sarcophilus harrisii</i>	Vulnerable
Eastern-barred Bandicoot	<i>Perameles gunii gunii</i>	Threatened
Spotted-tailed quoll	<i>Dasyurus maculatus maculatus</i>	Rare

(Source: DPIW 2007)

Other examples include the Platypus (*Ornithorhynchus anatinus*), White Goshawk (*Accipiter novaehollandiae*), Tasmanian Bettong (*Bettongia gaimadi*) and Short-Beaked Echidna (*Tachyglossus aculeatus*) (DPIW 2007a).

The varied topography, vegetation and climatic patterns prevalent in the region provide multiple habitat niches for diverse range of faunal species (Mooney 2007a). Although a proportion of the Huon Valley is under protected land tenure, the State forest areas are managed by FT for multiple uses whilst also providing important refuges for fauna.

1.3 Significance of the Research

The significance of this research is the opportunity to provide input into FT’s governance of State Forests, specifically in terms of the provision of outdoor recreational activities. This research is particularly timely and relevant as the District Forestry Management Plans for 2008 to 2017 are currently in the draft process and open to stakeholder participation.

1.4 Research Aim and Objectives

Research Aim

The aim of this research is to critically assess the governance of State forests in the Huon Forest District and the provision of outdoor recreation opportunities within them.

Research Objectives

In order to achieve the aim of the research there are a number of specific research objectives:

- provide an overview and assessment of Forestry Tasmania's governance of State forests, with particular reference to the provision of outdoor recreational opportunities;
- assess and describe the range of outdoor recreational opportunities in Huon District State Forests;
- conduct a preliminary Recreational Opportunity Spectrum (ROS) assessment of recreational settings within the Huon District State forests;
- explore the potential for adaptations in Forestry Tasmania's governance policies regarding the provision of outdoor recreational opportunities in the State forests; and
- identify opportunities for the increased provision of outdoor recreational activities within the case study area.

1.5 Ethical Considerations

In order to commence social science research involving human subjects in postgraduate studies, ethics approval is necessary. For postgraduate students at the University of Tasmania, ethics approval is assessed by the Human Research Ethics Committee (HREC) Network. This network is a cooperative arrangement between

the University of Tasmania (UTAS) and the Department of Health and Human Services (UTAS 2005). The HREC is constituted and operates in accordance with the guidelines outlined by the National Health and Medical Research Council (NHMRC 1999).

Human research ethics is concerned with governing the conduct of researchers, along with their responsibilities and obligations to the participants involved in the research (O'Donnell & Layder 1994). The research undertaken in this project involved interviewing key informants in a semi-formal format. The interview questions related to issues regarding the provision of outdoor recreation in State forests and were designed to be non-personal in nature. To gain approval to begin interviewing informants, a minimal risk application was submitted to the HREC for assessment. The minimal risk application included the following documentation: thesis information sheet (Appendix A); interview schedule (Appendix B); and consent form (Appendix C).

In reviewing the minimal risk application, the HREC assess ethical concerns revolving around topics of *informed consent* (receiving consent by the respondent after carefully and truthfully informing him or her about the research), *privacy and confidentiality* (protecting the identity of the respondent, unless written permission is given), and *harm* (not exposing yourself or your informants to physical or emotional harm) (Dowling 2000; Fontana & Frey 2005). The minimal risk application satisfied the ethical requirements of the HREC, with written approval being given to proceed with the research on 12 June 2007.

1.6 Overview of Chapters

The purpose of Chapter 2 is to outline the qualitative research approach undertaken. The researcher's philosophical stance is discussed first, along with an explanation of the position of neutrality in qualitative research. The reasons for choosing a case study approach are then discussed, with particular emphasis on the process of triangulation. The multiple methods used to generate qualitative data and information is then described, including an outline of how the results are generated and analysed. Finally a discussion regarding the limitations of the study is outlined.

In Chapter 3, the notion of forest based tourism (FBT) is introduced. A brief examination of current and future recreational market demand is outlined, with New Zealand presented as a specific case study. Furthermore, the conflicts that emerge in multiple use management are outlined, predominantly based on the findings from previous Recreational Opportunity Spectrum (ROS) research findings. The ROS is a conceptual framework for planning and managing outdoor recreation activities and has been applied both within Australia and internationally. Finally, tourist preferences for types of recreational settings are explored as well as the economic viability of existing FBT ventures.

The purpose of Chapter 4 is to provide a broad outline of FT's governance of State forests, including a description of the legislative mandate to manage for multiple use purposes. A statutory description of State forest land tenure is presented, as well as brief description of the two regulatory systems which govern forest management.

An overview of the main outdoor recreational opportunities found in the case study area is provided in Chapter 5. As well as describing the opportunities, some issues uncovered regarding the provision of these recreational activities are discussed.

Chapter 6 illustrates the key themes which emerged from the semi-structured interviews conducted with stakeholders. The dominant themes relate to FT's governance policies and Sustainable Forest Management (SFM) objectives, as well as stakeholder visions for the provision of outdoor recreational opportunities.

This Chapter 7 outlines the results from the ROS assessment of areas within the Huon District State forests, including a photographic display of key features.

Chapter 8 discusses themes that have emerged throughout the research in regards to the literature review, stakeholder interviews and ROS assessments. These themes are then compared and contrasted in order to illustrate the key implications of the study. This analysis is followed by a discussion that highlights potential alternatives and adaptations to FT's governance of State forests, with particular reference to the provision of outdoor recreational opportunities.

Chapter 2 Research Approach

The purpose of this chapter is to outline the research approach undertaken, with an initial discussion of the researcher's methodology, followed by a description of the multiple methods used to collect the qualitative data. The chapter describes the analysis techniques used to generate results and concludes by outlining some of the major challenges and limitations of the study. However, additional challenges and limitations are also highlighted in other sections of the thesis.

2.1 Qualitative Research

Qualitative research is concerned with elucidating human experiences, observations and perceptions within a variety of conceptual frameworks (Winchester 2005). The researcher is bound within a net of ontological and epistemological premises. These premises underlie the researcher's interpretive perspectives regarding the social world and consequently, the way in which the study is shaped (Denzin & Lincoln 2005). The combination of these premises can be described as the researcher's methodology and can indicate their general philosophical stance (Denzin & Lincoln 2005; Evans & Gruba 2002).

An ontological position, as Mason (2002) describes it, relates to what the researcher sees as the very nature and essence of things in the social world, it determines which social reality is going to be investigated. For the purposes of this study, the ontological position taken here is that individual perspectives, along with the beliefs of people embedded within the cultures of social structures (i.e. organisations, institutions), are meaningful components of the social world.

Mason (2002) describes an epistemological position as the researcher's theory of knowledge and concerns the principles and rules by which the ontological standpoint can be known and how it is demonstrated in social reality. In relation to this study, the epistemological position of the researcher can be described as the belief that the direct input of an individual's perspectives into shaping decision-making processes and planning for outdoor recreational offerings in State forests are integral to achieving holistic outcomes. These individuals are generally described as key stakeholders in consultation processes. The philosophical position of the

researcher will be illuminated further in the description of the methods undertaken, particularly in terms of validity and reliability of the research approach.

To further clarify the reasons for choosing this research approach, some of the attributes of both qualitative and quantitative studies are compared. Qualitative research tends to differ from quantitative in that the information obtained is generally multi-dimensional and unstructured in content (Robinson 1998). As Patton (2002) describes, qualitative research permits the researcher to study selected issues in greater depth and detail. Quantitative research, on the other hand, requires the use of standardised measures, generally restricting the various perspectives of people into a number of predetermined response categories for the purpose of statistical analysis (Patton 2002). Both research approaches have their place in scientific social discovery, however qualitative methods allows for more flexibility – though justifying the researcher's personal placement within the process requires careful consideration.

During this study, the researcher has endeavoured to take a position of neutrality, with the aim of taking a non-judgemental stance towards whatever content may emerge. (Patton 2002). However, qualitative research does not occur in a social vacuum, so as Dowling (2005) explains, there is some level of interactive relationship between personal values and the process of data collection and interpretation. The researcher acknowledges that he has a background in conservation, both professional work experience (e.g. environmental consultancy) and advocacy (e.g. volunteering for NGO's). Therefore in an attempt to maintain the continuing legitimacy of the research an approach of reflexivity has been incorporated into each stage of the research process (Dowling 2005; England 1994; Mansvelt & Berg 2005; Mason 2002; Winchester 2005). Reflexivity is the constant, self-conscious, scrutiny of personal standpoints and the consequent role of this perspective in the partiality of the generation and interpretation of data (England 1994; Mansvelt & Berg 2005; Mason 2002).

2.2 Multiple Methods

The research component of the thesis was conducted over a four month period and utilised a multiple method approach, including:

- case studies;
- a review of relevant literature;
- semi-structured interviews; and
- observational - Recreational Opportunity Spectrum.

Following the descriptions of these multiple methods, a discussion will follow outlining the techniques utilised to generate and analyse the results (data) that emerged.

2.2.1 Case Study Approach

The use of the case study reflects, as Yin (2003) expresses, the deliberate desire to cover contextual conditions by investigating a contemporary phenomenon within a real-life setting. In this study, the phenomenon relates to issues regarding the provision of outdoor recreational opportunities in multiple use forests and the setting is the Huon District State forests. Case studies are also suitable for the development of multiple sources of evidence to determine whether the data collected converges in a triangulating fashion (Evans & Gruba 2002; Yin 2003).

Triangulation is another term to describe the use of multiple methods and is an effective solution to relying on one data source or method in the attempt to secure an in-depth understanding of the phenomenon in question (Denzin & Lincoln 2005; Patton 1990; Woods 2006). This approach seeks to corroborate one data source and method with another to enhance the validity and credibility of the findings (Mason 2002; Patton 1990). As Evans & Gruba (2002) suggest, the use of triangulation within a case study is a way to build theory and is intended to develop generalised findings, as well as ideas for new areas of investigation. Therefore, within this

research the recommendations are predominantly drawn from a specific assessment of the governance of State forests in the Huon District and the provision of outdoor recreation opportunities within them.

As Mason (2002) explains, the concept of triangulation coupled with use of a case study approach enables a researcher more scope to approach their aim and objectives from different angles and to explore intellectual puzzles in a rounded and multifaceted way. In this study the intellectual puzzle is predominantly a mechanical one, that is, seeking to find out how something works or is constituted (Mason 2002). This approach does not start with a hypothesis that is to be tested (proved or disproved), rather the mechanical puzzle is assessed through the perspectives of key stakeholders along with a review of relevant literature (Mason 2002; Woods 2006).

2.2.2 Literature Review

A literature review was undertaken to review current theory and practices. This review had three major functions (Evans & Gruba 2002):

1. to establish background information (section 1.1) to contextualise the extent and significance of your research problem;
2. identify and discuss attempts by others to solve similar problems; and
3. provide examples of methods that others have employed in attempts to solve these problems.

The literature review initially focussed on articles relating to forest based tourism (FBT) primarily within Australia and internationally. Moreover this review also involved examining the application of the Recreational Opportunity Spectrum (ROS) framework within multiple use public forests (or State forests as known in Tasmania). The purpose of this analysis was to gain understanding of an alternative planning approach as well as identifying potential issues and difficulties that arise from managing forests for various purposes. Other literature reviews entailed assessing publications regarding FT's governance policies and frameworks, including a desk top study of current outdoor recreational opportunities available in

the Huon District State forests.

2.2.3 Semi-structured Interviews

Qualitative interviewing is a way of finding out and understanding what key stakeholders feel and think about a particular component of the world (Fontana & Frey 2005; Patton 2002; Rubin & Rubin 1995). Interviews can be described as face-to-face verbal exchanges in which one person, the interviewer (or researcher), endeavours to draw out information or expressions of opinion or beliefs from another person or persons (Dunn 2005; Maccoby & Maccoby 1954; Patton 2002). In a semi-structured format the interviewer introduces the topic and then guides the discussion by asking specific questions (Rubin & Rubin 1995). As Smith & Lipscombe (1999) describe, this style of interview allows the respondents to describe freely their own experiences and concerns whilst still responding to the questions that are necessary to address the aim and objectives of the research. So, the semi-structured format has to some degree a predetermined order of questioning as opposed to a structured interview, but still ensures flexibility in the way in which an informant can address issues (Dunn 2005).

The semi-structured interview process used here required the design of an interview schedule (Appendix B), with fully worded questions. However, the researcher was not restricted to deploying those questions in a rigid format, but as Dunn (2005) explains an interventionist role was necessary if the conversation strayed too far from the topic. The questions were designed to address the research aim and objectives and involved two styles of questioning. These styles include (Dunn 2005):

- primary questions: opening questions used to initiate discussion on a new theme or topic; and
- secondary questions: prompts that encourage the interviewee to follow up on or expand on an issue already discussed.

The time-frames for the interviews varied between forty-five minutes and an hour and they were generally conducted at the stakeholder's workplace or a location of their choice. All interviewees remained anonymous, as part of the fulfilment of ethics

approval (section 1.5) and outlined in documentation sent to the informants prior to the interview process (Appendix A).

The selection of key informants, otherwise referred to as stakeholders (or interchangeably respondents), was conducted by identifying the range of organisations, institutions and private operators that are involved (or interested) in State forest management decisions. As part of this process the snowballing technique was also utilised (Bradshaw & Stratford 2005; Patton 1990). Patton (1990) describes this technique as a way of purposeful sampling, by identifying cases of interest from people who know other people with relevant cases. The stakeholders interviewed included individuals from bodies such as government, non-government organisations and private tourism operators. The purpose of this sampling method was an attempt to capture a spectrum of perspectives and to gain in-depth insights through focussing on a particular case study (Yin 2003).

Thirteen key stakeholders were interviewed, including dialogue with a variety of academics and industry experts for guidance in the research design process. Patton (1990) suggests that there are no rules for sample size in qualitative inquiry with the size dependant upon what you want to know, the purpose of the inquiry, what will have credibility and what can be achieved with available time and resources. Robinson (1998) goes further by stating that the sample is not intended to be representative since the emphasis is on the analysis of perspectives in a specific context. Therefore, this research undertook an intensive research approach (Bradshaw & Stratford 2005) with the researcher working through the elements of structure and process that arose from analysing the responses rather than relying on data that makes statistical analysis possible.

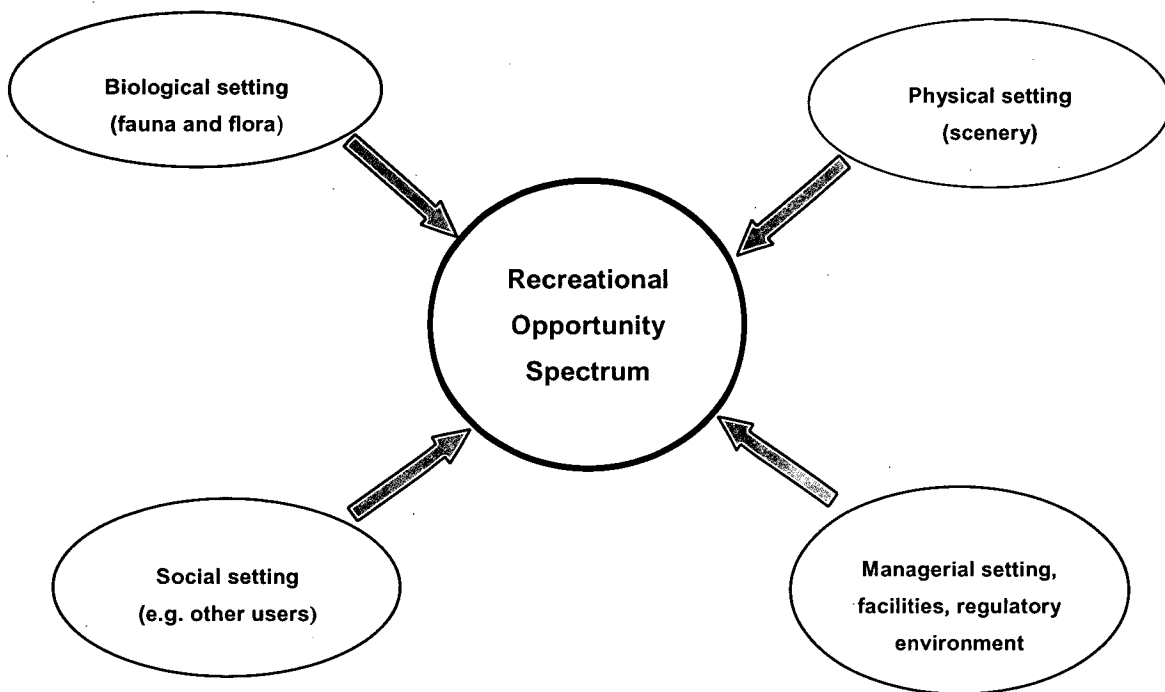
2.2.4 Observational – Recreational Opportunity Spectrum

Another qualitative research method that is commonly used is based on the use of observations (Denzin & Lincoln 2005; Patton 2002; Smith & Lipscombe 1999; Yin 2003). The observational method used in this study diverges from the common styles described in the literature, however, involved the assessment of physical environment settings rather than people. The framework used to assess these natural setting was a modified version of the ROS. The ROS was developed in the late

1970s by the United States Forest Service researchers (Clark & Stankey 1979; Leonard & Holmes 1991). This approach is described as a conceptual framework for planning and managing outdoor recreation activities and resources (Parkin *et al.* 2000; Worboys *et al.* 2005).

The ROS framework is used to assess recreation sites according to a range of attributes (Mackay & Virtanen 2001). These attributes are described by Clark and Stankey (1979) as recreational opportunity settings which are defined as the combination of physical, biological, social and managerial (Worboys & Pickering 2004) (Figure 2).

Figure 2 Recreational Opportunity Spectrum Description



The assumption underlying the ROS approach as described by Leonard & Holmes (1991) and Orland (1988) is that quality recreational experiences can be assured by providing through planning, a diversity of recreational opportunities. A recreation opportunity is defined as “a chance for a person to participate in a specific recreational activity in a specific setting in order to realise a predictable recreational

experience”¹ (Leonard & Holmes 1991, p. 317). The ROS, is therefore, a management tool that assesses current recreation activities offered, as well as considering how the other uses of the natural resource can impact upon future provision of opportunities (Butler & Waldbrook 2003; Clark & Stankey 1979).

The application of ROS usually involves adapting the framework (Smith & Lipscombe 1999). Therefore, as with many other planning processes within Australia and internationally (Leonard & Holmes 1991; Orland 1988; Pierskalla *et al.* 2007; Shafer & Inglis 2000; Worboys & Pickering 2004), the setting descriptions and classification criteria have been modified to suit the aim and objectives of this research. The classification criteria was a hybrid of ROS style planning processes applied in Australia (Leonard & Holmes 1991; Mackay & Virtanen 2001; Worboys *et al.* 2005) and internationally (Clark & Stankey 1979; Orland 1988; Pierskalla *et al.* 2007) (Table 3). The social interaction criterion that is commonly used in the ROS planning framework was omitted due to incompatibility with the research aim and objectives as well as time-frame constraints and problems with access to the necessary information.

Field trips were conducted during the same period as the stakeholder interviews, with the selection of areas influenced by the dominant recreational setting themes (to be discussed furtheron) that emerged in the interview data. However, settings were primarily chosen on the basis of attempting to achieve a representative sample of the spectrum of classes that occur within the case study boundaries.

¹ The terms recreational opportunity and recreational offerings (including the addition of the term ‘outdoor’ to both) are used interchangeably throughout this thesis.

Table 3 Description of ROS Classes applied in this study

<i>ROS Criteria</i>	<i>Class 1 Remote</i>	<i>Class 2 Semi-Remote Non-Motorised</i>	<i>Class 3 Semi-Remote Motorised</i>	<i>Class 4 Roaded Natural</i>	<i>Class 5 Developed</i>
General Description	Essentially unmodified environment of large size (2000 ha) - topographically shielded or more than 3km from most noise or visual impacts	Predominately unmodified environment of moderate to large size (1000 ha) – topographically shielded or at least 1km from most noise or visual impacts	Predominately natural environment - topographically shielded or at least 1km from most noise or visual impacts	Partly to substantially modified but natural areas	Highly modified areas within a semi-natural setting
Access	No roads and few or nor formed walking tracks	No roads and formed walking tracks may be present	Dirt roads and walking tracks	2WD roads (dirt and sealed), and walking tracks	Sealed roads and walking tracks
Range of Facilities	No public facilities and or structures	Basic to no public facilities or structures (e.g. shelters, camping areas, pit toilets and barbeques)	Basic public facilities and or structures	Public facilities and structures (e.g. huts, tent and caravan camping areas, pit toilets lookouts and barbeques)	Large-scale public facilities, structures (e.g. tourist development)
Visitor Regulation	No on-site regulation – off-site control through information, permits and exclusion zones may apply	Some subtle on-site regulation such as directional signs and formed tracks (as well as exclusion zones)	Controls noticeable but harmonised (such information boards, parking bays) (as well as exclusion zones)	On-site regulation clearly apparent (such as signs, fences, barriers) but should blend with natural backdrop (as well as exclusion zones)	Numerous and obvious signs of regulation – forestry workers or contractors likely to be present (as well as exclusion zones)

(Source: Clark & Stankey 1979; Pierskalla *et al.* 2007; Worboys *et al.* 2005)

There are many advantages of applying an observational method for assessing the case study area. Patton (2002) and Yin (2003) outlined the numerous benefits with a selection of these including:

- firsthand experience with a setting allows the inquirer open, discovery orientated research, eliminating any prior conceptualizations of the setting;
- the opportunity to move beyond the perceptions of others;
- the chance to discover information that stakeholders may be unwilling to talk about;
- environmental conditions serve as yet another source of evidence in a case study; and
- by the researcher integrating their observations (based on the ROS criteria), a more comprehensive view of the setting can be established through the triangulation of methods (interviews, observations and literature review).

2.2.5 Results

The data from the semi-structured interview process were collected through a combination of audio recording and note-taking. As Dunn (2005) suggests, these procedures provide the most complete record of the interview with the least threat to the interview relationship. The researcher was able to establish a level of rapport and understanding with the respondent by listening attentively whilst still capturing the necessary information (Fontana & Frey 2005). Post interview, the audio recordings were used to fill any gaps in the notes taken and to ensure the data reflected the stakeholders' responses. Complete written transcripts (all dialogue) of the interviews were not recorded. However, if requested, respondents were sent copies of the notes to verify and double check their responses to ensure the transparency and reliability of the process used.

Once all written notes from the interviewees were completed, the next stage was to code the data (Cope 2005; Patton 1990; Rubin & Rubin 1995). Coding was applied within an excel spreadsheet application, for the purposes of data reduction, assessing

the content and grouping interviewees' responses into categories that bring together the similar ideas, concepts, or themes that have emerged in the process (Cope 2005; Patton 1990; Rubin & Rubin 1995; Smith & Lipscombe 1999; Woods 2006). This coding process helped organise and reduce the overwhelming amount of data collected, so that the analysis could proceed.

The analysis of the categorised data, or what Mason (2002) terms, cross-sectional analysis indexing, is a way of making comparisons across the whole data set. These comparisons aid in familiarising the researcher with the data so that key themes and patterns can be presented in the written results. This process also applies to analysis of ROS data, although for the purposes of the results chapter the field trip information will be presented in the form in which it was collected. The ROS data was presented in a structured format (Table 3) and consistent with the classification criteria.

2.2.6 Analysis of results

One of the major goals of qualitative research, as suggested by Ragin (1994), is to identify general patterns and relationships in the data collected. The use of a multiple method approach allowed the researcher to compare the different data sets (categories) and emergent themes, alongside the information arising from the literature review. This triangulation approach was facilitated through merging the processes of inductive reasoning (Mason 2002) and creative synthesis (Patton 2002). Inductive reasoning is where the researcher develops theoretical propositions or explanations out of the data collected, in a process which commonly moves from the particular to the general (Mason 2002). The synthesis of the emergent themes is guided through analytical principles (qualitative) rather than rules (quantitative) (Patton 2002), with the resulting discussion providing specific and generalised recommendations beyond the boundaries of the case study area.

2.3 Challenges and Limitations

The foremost challenging factor was the time-frame allocated (one academic semester) to complete each stage of the research process. In order to minimise this time restriction, the initial stage of the research process (i.e. topic formulation,

background reading, methodology and guidance from academics) was commenced during the previous semester, whilst enrolled in the course work component of the Masters degree.

Despite the preliminary research work undertaken, the other main difficulty encountered was the period of time taken to receive feedback from FT, specifically for meeting arrangements and interviews with staff. This preliminary contact was essential in terms of receiving comment on the significance of the research approach and the relevance of the subsequent findings. Another constraint was access to current information regarding recreational policies and planning frameworks, which in combination with the time delays necessitated for adaptations to the scope and direction of the research. However, in spite of these limiting factors, the FT Geveston office was cooperative in terms of field trip access to State forest areas and guidance regarding the range of recreational opportunities that were available.

Generally during any research process challenges are encountered. In order to overcome these hurdles and ensure rigour in qualitative research outcomes, there is a requirement to establish trustworthiness in your work (Bradshaw & Stratford 2005). Mason (2002) describes research rigor in terms of the following components:

- validity - means that you are observing, identifying and recording what you say you are;
- generalizability - involves the extent to which you can make some form of wider claim beyond the basis of the case study research and analysis; and
- reliability - involves the accuracy of your research methods and techniques.

To ensure the rigour and trustworthiness of the results, the following steps were undertaken:

- the research approach was guided and assessed by the researchers supervisors as well as industry professionals;
- triangulation of data through a multiple method approach was undertaken to overcome the limitation of a single research focus and broaden the depth of

data collected;

- all stages of the research were documented to ensure research transparency;
- fieldwork was managed solely by the researcher to ensure consistency; and
- interview notes were open to verification by respondents if requested;

The results and conclusions that are drawn from the literature review, stakeholder interviews and ROS surveys illuminate the dominant themes that emerged. The researcher acknowledges that the findings from this research may be limited in scope, however, it may provide the basis to undertake further studies. The following chapter provides an overview of some of the literature that covers the topics of FBT and the application of the ROS framework. Both FBT and the ROS could constitute independent research areas, but it was deemed necessary to explore these topics in broad terms in order to adequately fulfil the aim and objectives of this study.

Chapter 3 Forest Based Tourism and ROS

The purpose of the following chapter is to provide a broad assessment of FBT from a variety of perspectives as well as examining the validity of ROS framework in this research. The FBT analysis involved a brief examination of current and future market demand, with New Zealand presented as a specific case study. Furthermore, the conflicts that emerge in multiple use management are outlined, predominantly based on the findings from previous ROS studies. Tourist preferences for types of recreational settings are explored as well as the economic viability of existing FBT ventures. Finally, the merits, challenges, and limitations of utilising the ROS for recreational planning is discussed.

3.1 Forest Based Tourism Opportunities

Tourism is a diverse and fragmented industry that provides a range of different economic opportunities for many different sectors (Spenceley 2003). Nature based tourism (NBT) is a segment of this industry (Goodwin 1996; Kajala nd), with tourist facilities and outdoor recreational offerings generally located in predominately undeveloped or wilderness areas (Diamantis 1999; Spenceley 2003). These natural locations also include visitation to forested landscapes with various authors describing this as forest based tourism (FBT) (Bartl *et al.* 2002; Buultjens *et al.* 1988; Buultjens *et al.* 2003; Kajala nd).

NBT, including FBT is one of the fastest growing segments of the international tourism market, (Font & Tribe 2000; Giles & Bougias 2006; Kajala nd), with maintenance of natural values (i.e. attractiveness of landscape scenery) crucial for continued visitation (Font & Tribe 2000; Spenceley 2003). New Zealand provides a case study of country whereby the long term preservation of forested areas resulted in a incremental boom in NBT (Burton 2002; Higham & Carr 2003).

In 1999 the New Zealand government decided that over a two year period it would phase out logging of native forest on public land. This resulted in the protection of an old growth lowland rainforest area (130 000 ha) for ecological purposes as well as

the creation of forest parks (formerly Public forests) for recreational uses (Burton 2002). At the time of the logging debate, NBT began to emerge, with tourist visitation trebling to 1.9 million between 1985 and 2002.

Burton (2002) describes how the decision to end logging on public forests was motivated by a ground-swell of community environmental activism (over a thirty year period) and revelations that the government-owned forestry company (Timberlands) was involved in deceitful public relations campaigns. As a gesture of goodwill, the New Zealand government invested 120 million (NZ) dollars to assist West Coast communities' transition from a reliance on forestry based industries, leading to a boom in the local economy (Burton 2002). This initiative aided in the healing of community divisions over the validity of logging native forests and acceptance of tourism as an economic alternative to forestry (Burton 2002).

Helen Clark, the New Zealand Prime Minister, heralded the activists who had often endured attacks, but had never flagged in their advocacy. She stated "I want to pay tribute to the dedicated conservationists who campaigned many years for the protection of these forests" (Burton 2002, p. 1). This acknowledgement is also reflective of a decision in northern New South Wales (NSW) to name a visitor attraction in a forested area – Protestors Falls; in honour of environmental campaigners (The Age 2004). This rainforest site in Nightcap National Park (near Lismore) entered the headlines in 1979 when activists conducted a campaign of non-violent direct action against the further destruction of the subtropical forest, eventually leading to World Heritage listing and subsequent use for recreational purposes (The Age 2004).

Conflict over forested landscapes is a widespread phenomenon, with Crook & Clapp (1988) suggesting that activities that deplete biodiversity appear economically rational because many of the values of intact ecosystems are not recognised in land-use decisions. Leonard & Holmes (1991) state that forest planners in the Mt Cole State forests of Victoria were faced with a variety of challenges including incremental development, recreational conflict concerns, resource allocation conflicts, and recreation management along with the additional costs of extra

staffing.

A ROS which was conducted within this State forest area found that a variety of resource uses (e.g. logging and grazing) could potentially conflict with opportunities for remote recreational experiences (Leonard & Holmes 1991). However, in other cases it has been recognised that a variety of resource management activities contribute to recreational enjoyment. Examples noted include fire trails and logging tracks providing access to opportunities (Leonard & Holmes 1991).

3.2 Forest Based Tourism Challenges

ROSs can be used to identify key issues regarding the provision of recreational opportunities and multiple use forest management. In 1996, a ROS was conducted of the Midland Forest area near the Great Dividing Range in Victoria. The area comprises 1.7million ha of which 114 300 ha is State forest that provides 8% of Victoria's annual saw logs (Department of Natural Resources and Environment 1996). The study aimed to complement and coordinate State forest recreational activities and facilities with those provided by the parks and reserves system (Department of Natural Resources and Environment 1996).

The findings of the study indicated that remote settings were absent; semi-remote settings very limited; and the majority of State forest area falls into the roaded natural setting classification (Department of Natural Resources and Environment 1996). Recreational planners concluded that the continuing adhoc development of access, facilities and wood harvesting has a negative impact on the availability of semi remote settings. The maintenance of these areas in a semi-remote condition is therefore important for offering a true diversity of recreation settings (Department of Natural Resources and Environment 1996).

Research comparing public preferences for specific recreational activities in forest landscapes has shown a clear difference between areas set aside for recreation as opposed to timber production (Font & Tribe 2000). The public prefer activities to be located in remote settings (Butler & Waldbrook 2003), or otherwise harvesting techniques amended in order to soften visual impacts (Font & Tribe 2000). Font &

Tribe (2000) concluded that forested landscapes that were subject to clearfell harvesting did not score high on aesthetic and functional qualities, whereas activities such as selective felling proved more acceptable.

Clark & Stankey (1979) suggested that recreational users in semi remote areas with roads often find logging acceptable in State forests; yet these users express concern about large clearcuts. Thus the scale at which the activity is conducted, as well as wood production, influences perceived compatibility. Forestry planners and managers need to consider the lasting effects of resource use (e.g. wood harvesting methods), as well as short-term effects (e.g. log truck traffic) to determine the impact on the future provision of recreational opportunities (Clark & Stankey 1979).

This potential conflict in resource use was highlighted by FT through the acknowledgment that “the delivery of wood products as the core business means that there are a myriad of roads and visible signs of harvesting which substantially reduce the opportunities for those seeking isolation in a more pristine environments” (Forestry Tasmania 1994, p. 3). In an analysis of the tourism potential of the Styx Valley in the Southern Tasmanian forests, Graham (2001) also suggested that one of the weaknesses of particular areas was evidence of environmental degradation and the industrial appearance of landscapes due to quarrying and logging.

It is proposed that FBT and recreation activities need to be put in the context of other uses of the forest in order to assess whether they are complementary or conflicting (Font & Tribe 2000). Font & Tribe (2000) further suggest that woodland recreation and amenity will rarely be a viable commercial venture. Buultjens *et al.* (1988) undertook a research project in the forests of NSW, with the project aim of determining the contribution made by FBT and recreation to the regional economies. The study examined 41 FBT enterprises to assess their ability to contribute to the region’s economy (Buultjens *et al.* 2003).

The overall results indicated that the majority of FBT operators in northeast NSW, did not enjoy a financial position that would enable them to substantially contribute to local economic development (Buultjens *et al.* 2003). However, Diamantis (1999) and Felmingham (2005) highlight that there can be other direct benefits from FBT

beyond the individual profits of particular enterprises. The creation of alternative revenue sources and direct employment opportunities are examples. Further benefits cited include strong potential for linkages with other sectors of the local economy and stimulation of peripheral rural communities. Furthermore, the indirect benefits of FBT include the multiplier effect from tourists patronising surrounding cultural and heritage attractions as add-ons (Diamantis 1999; Felmingham 2005).

3.3 Application of the Recreational Opportunity Spectrum

There are numerous case studies of the application of the ROS framework as a recreational planning tool. Butler & Waldbrooks (2003, p. 25) opinion is that the ROS was developed to aid “resource managers who had responsibility for wilderness or remote areas, where the emphasis is on protection of the natural environment while allowing some recreational use of the area”. However, within Australia there are numerous cases, in which modified versions of ROS are applied in both protected areas (i.e. national parks) and multiple use forests (State forests) (Leonard & Holmes 1991; Mackay & Virtanen 2001; Parkin *et al.* 2000).

The other main criticism of applying the ROS to recreational planning (in the literature) is that the results produce static representations of environmental settings that are categorised into distinct classes (remote to developed) and assessed against fixed criteria (Parkin *et al.* 2000; Pierskalla *et al.* 2007). This assessment process, if applied in a regimented way, does not allow for the possibility of recreational activities occurring across more than one class description (Pierskalla *et al.* 2007). This is unrealistic, for example, if considering guided horse riding tours, which may cross through areas varying from developed to remote in classification. Therefore, this reality in recreational setting boundaries was incorporated into the ROS framework applied in this research to ensure an accurate reflection of the areas characteristics.

The main challenge in applying the ROS framework in this research was the immense size of the case study area, which, when combined with the time-frame constraints, did not allow for comprehensive on-ground surveys. Therefore, Bruny Island was excluded from the study area to further refine the research focus. Sites

were chosen to reflect the different ROS classes (Table 3) as well as dominant environmental setting themes that emerged from the stakeholder interviews.

Chapter 4 Governance of State Forests

This chapter provides a broad outline of FT's governance of State forests. The legislative developments of multiple use management are presented, as well as a statutory description of State forest land tenure. The two regulatory systems which govern forest management in Tasmania are also outlined to illustrate the basis by which planning for wood harvesting and recreational facilities occurs.

4.1 Regulation of Forestry in Tasmania

The enactment of the *Forestry Act 1920* signalled the management of State forests for the long-term benefit of Tasmanians (Wilson & Christensen 2001). During the 1960s growing community pressure Australia-wide forced a shift in the resource management of forests from wood extraction to integrated management for wood production and conservation (Turnbull 1996). This attitude, according to Turnbull (1996), reflected an emerging public awareness of the ecological values of natural areas and their potential for alternative uses such as outdoor recreation and tourism.

In the course of the 1970s public relations experts were called upon to conjure up a name for this shift in natural area governance and delivered the term multiple use management of forests (Felmingham 2005). Multiple use forests are publicly owned lands where management is vested in a particular body for specified purposes (Australian Forestry Standard Technical Reference Committee 2007). These publicly owned lands are generally referred to in Tasmania as State forests. They are defined under the *Forestry Act 1920 (Part 1 4B)* as lands which are dedicated as State forest under this or any other act, or purchased on or behalf of the corporation for forestry purposes, or entered in the Register of Multiple Use Forest Land (Tasmanian Government 2007). FT manage these State forest lands, with the amended (1994) *Forestry Act 1920* encouraging further integration of recreation, tourism and education into wood production areas (Forestry Tasmania 1994).

State forests are segmented into a variety of land classifications. These include for example:

- Forestry Coupes: those areas subject to a range of silvicultural practices for wood production practices;
- Formal Reserves: dedicated reserves under the *National Park Wildlife Act 1970* and other formal reserves that may be subject to mineral exploration and mining under the *Mineral Resources Development Act 1995*;
- Informal Reserves: are protected zones (although tourism and recreational facilities are permitted) managed to maintain values identified in the Comprehensive Adequate and Representative (CAR) Reserve System on public lands. The CAR Reserve System was part of RFA process and based on the Janis criteria (Janis 1988) for conservation requirements; and
- Forest communities managed by prescription: these are forest communities that exist outside of Formal and Informal reserves and will be protected whenever prudent and feasible, to protect those values at a regional level (Tasmanian Government 1997).

During the 1990s a series of surveys were conducted to gauge community and visitor perceptions of FT's forest management practices and the provision of recreational opportunities in State forests (Hamilton-Smith 1988; McArthur 1994; McArthur & Gardner 1992; Ross 1997; Tourism Tasmania *et al.* 1997). There were a number of supportive comments provided by respondents. Themes that emerged regarding suggestions and concerns include:

- concern regarding forestry logging practices, particularly in old growth forests (Hamilton-Smith 1988; McArthur 1994; Ross 1997; Tourism Tasmania *et al.* 1997);
- the need for more mountain bike trails (Hamilton-Smith 1988) and increased provision of camping sites (Hamilton-Smith 1988; McArthur & Gardner 1992);

- confusion regarding land tenure status when traveling between State forests and protected areas (i.e. National Parks) (Hamilton-Smith 1988; Ross 1997); and
- some constructive criticisms regarding the level of provision of facilities and maintenance of tracks (Ross 1997).

4.1.1 The Forest Practices System

Forestry management in Tasmania's State forests is regulated through two systems, at the State government level by the forest practices system; and at the local government level through individual council planning schemes (Local Government Forestry Consultative Committee 2007). The forest practices system is legislated under the *Forest Practices Act 1985* which forms a part of the broader legislative and policy framework that provides the basis for forestry management in Tasmania (Forest Practices Board 2000). The forest practices system provides the standards for the reasonable protection of natural and cultural values of forests subject to wood production operations (Local Government Forestry Consultative Committee 2007).

These standards are encapsulated in the Forest Practices Code (FPC), which is administered by the Forest Practices Authority (FPA). The FPA is an independent statutory body, with the legislative responsibility of appointing Forest Practices Officers (FPO) (Forest Practices Board 2000). These officers are charged with enforcing the principles of the FPC and are either employed directly by FT or within private consultancies (Local Government Forestry Consultative Committee 2007). This legislative arrangement is formulated to allow the forestry industry to be self-regulating in terms of adherence to the FPC (Tasmanian Government 2007).

FPOs are therefore, accountable for the day-to-day regulation of the forest practices system, through the planning, monitoring and preparation of Forest Practices Plans (FPP) for forestry operations (Forest Practices Board 2000). The FPOs have delegated authority by the FPA to certify the FPPs if in compliance to FPC (Forest Practices Board 2000). Under the FPC guidelines, the FPO is required to identify the significant natural and cultural values (i.e. biodiversity, geodiversity, visual amenity and aboriginal heritage) of the area before logging commences and must seek

relevant specialist advice to ensure these values are protected (IRIS Tasmania 2007; Local Government Forestry Consultative Committee 2007).

This evaluation method may result in logging prescriptions that restrict certain activities, such as harvesting being modified (e.g. increased riparian buffer zones) or areas being reserved (e.g. if threatened species are located in the area). Forestry operations in Tasmania are exempt from the Australian Government's *Environmental Protection and Biodiversity Conservation Act* (EPBC Act). However, clause 68 in the RFA states that management prescriptions will be set up to protect rare and threatened fauna and flora species and forest communities (Tasmanian Government 1997). If any of the forest operations (e.g. road construction) result in a non-compliance to any of the set prescriptions, the FPA is responsible for imposing penalties (IRIS Tasmania 2007).

FPC does not specifically include the identification of potential recreational values of an area as part of FPO's assessment process before wood production commences. FPC provisions that appear to relate to recreational values, involve assessing the impacts of logging operations on view fields, through visual analysis procedures (Forest Practices Authority n.d.; Forest Practices Board 2000). The purpose of this visual analysis, according to FPA (n.d.), is to firstly ensure forestry operations where visible, are well integrated into the landscape; secondly to guarantee that the degree of visual change is appropriate to the character of the scenery and the public viewing circumstances; and thirdly to try and limit exposure and visual impact of forest operations.

Visual modelling is undertaken using 3D graphic analysis techniques that are assessed against photos taken from the same viewpoints (Forest Practices Authority n.d.). This comparison is then used to create a predictive montage of how the view field would appear post-logging (Forest Practices Authority n.d.). Another form of view protection practiced is the setting aside of treed buffer zones along roads that are adjacent to logging coupes. According to the Tourism & Forestry Protocol Agreement (section 3 - Logging and Visuals) one of the purposes of this landscape planning procedure is to address the issue of tourist exposure to logged forestry coupes and the impact of this on their perception of Tasmania's wilderness area

branding.

4.1.2 Forestry Tasmania's Tourism Policy Frameworks

There are no specific provisions in the FPC that relate to the identification of recreational values in State forests. However, FT has a legislative responsibility to provide opportunities through their multiple use mandate as well as the SFM principles. The Montreal Process was the first endeavour by the international community (including Australia) to create a framework for the sustainable management of the world's temperate and boreal forests (Montreal Process Working Group 2005). The aim of this process was to outline criteria and indicators to provide a common understanding of what is meant by SFM (MCFFA & ANZECC 1988). These sustainable components (i.e. criteria and indicators) describe the broad forest values that society seeks to maintain, while indicators provide measures of change in these criteria over time (Montreal Process Working Group 2005).

The criteria agreed by the Montreal Process cover biological diversity, productive capacity, ecosystem health and vitality, soil and water resources, global carbon cycles, socio-economic benefits and an effective legal, institutional and economic framework (MCFFA & ANZECC 1988). The institutional framework that guides SFM in Tasmania is the RFA (MCFFA & ANZECC 1988) and more recently the CFA (Tasmanian Government 2004). As part of the RFA framework a provision is included stating that FT shall “assist with the development of FBT and recreational opportunities based on Tasmania's environmental advantages” (Tasmanian Government 1997). In addition, the CFA agreement states that timber and tourism can co-exist to create a secure future for country towns (Tasmanian Government 2004).

These RFA and CFA related statements cover the socio-economic benefit criteria of the Montreal-derived SFM concept. However, the RFA is also acknowledged to be not a surrogate for SFM, with the Montreal Process criteria and indicators providing the internationally recognized basis for the ongoing assessment of the state of Tasmania's forests and their contribution to society over time (MCFFA & ANZECC 1988). The Australian framework for SFM, which is developed from the Montreal principles, provides the basis for the RFA, including a list of specific criteria and

indicators as well as research and development (R&D) requirements relating to recreation and tourism (Table 4) (MCFFA & ANZECC 1988). The Tasmanian RFA contains provisions regarding the development of forest based tourism and recreational opportunities. However, there are no specific criteria or indicators within the framework to measure FT's performance on this goal.

Table 4 Recreation and Tourism Criterion 6 – Australian SFM framework

Criteria 6.2a	<i>Area and per cent of forest land available for general recreation and tourism</i>
Indicator	Area and per cent of forest land available for general recreation and tourism, in relation to the total area of forest land
R & D needs	Development of regional recreation and tourism strategies across tenures
Criteria 6.2b	<i>Number, range and use of recreation /tourism activities available in a given region</i>
Indicator	Number and type of facilities available for general recreation and tourism in relation to the population and the forest area
R&D needs	Developing nationally agreed and consistent list of outdoor recreational activities, systems for identifying and classifying recreation setting and system for defining 'sites' (or planning or management units)
Criteria 6.2c	<i>Number of visits per annum</i>
Indicator	Number of visitor days attributed to tourism and recreation, in relation to the population and the forest area
R&D needs	Implement visitation monitoring across all main visitor regions
Criteria 6.2d	<i>Proportion of forest sites available for recreation and tourism which are impacted unacceptably by visitors</i>
Indicator	This indicator provides a broad measure of the amount of forest sites being used for recreation that are experiencing extreme visitor impact
R&D needs	Nationally agreed and consistent methods for measuring visitor impacts

(Source MCFFA & ANZECC 1988)

FT does not appear to have one specific strategy document that encapsulates its tourism focus. However, there are a number of policy frameworks and procedures that guide the integration of recreational activities into forest management. According to the management prescriptions listed in the *Huon Forest District Management Plan* (March 2000), FT's provision of recreational activities involves:

1. Liaising with recognised stakeholders, including local government and the regional tourism sector, to assist further development of nature based tourism

and recreation in the plan area;

2. Further establishment of commercial facilities and commercial tourism opportunities as is consistent with the multiple use value concept;
3. When planning forest operations FT will consult with registered tourist operators where necessary;
4. Perusing options, including CFA's, for fostering communication with key groups representing those who use State forests for recreational and traditional purposes;
5. Managing Tall Tree Management Zones on a notional rotation of 300 years (usually rotation is approximately 60 to 90 years) or until the area is burnt by wildfire or the other values are lost. These areas are generally opened to the public for viewing (i.e. track construction and viewing platform) and become a part of the State forests recreational opportunities. When no longer deemed suitable as Tall Tree Management Zones the area may be harvested;
6. Use of the Tasmanian Walking Strategy and Marketing Plan as the basis for existing walking track management and the consideration of proposals for new tracks; and
7. Liaison with the Department of Primary Industries, Water on the use and management of walking tracks that access TWWHAs and other areas of Formal Reserve adjacent to State forest (Forestry Tasmania 2006b).

Liaison with local government and the regional tourism sector involves representation on steering committees, direct stakeholder input and cooperative partnerships (Table 5). These arrangements facilitate a level of FT input into the formation of tourism or recreational based strategies that involve a range of land tenures and regions.

The *Tasmanian Walking Strategy and Marketing Plan* (Tourism Tasmania *et al.* 1997) provides the basis for FT's trail planning, in conjunction with the *Tasmania Trails Strategy* (Discussion Paper) which is focused on multiple uses (e.g. walking,

mountain biking and horse riding) (Inspiring Place 2007). Some of the visitor expectations in the *Tasmanian Walking Strategy and Marketing Plan* (for the provision of walks) concern the desire for areas that had wilderness values such as beautiful scenery and unspoilt landscape as well as more challenging walks (Tourism Tasmania *et al.* 1997). The Australian Bicycle Council (2004) commented in the *Tasmanian Trails Strategy* (Discussion Paper) that there were increased tourism opportunities through the provision of high quality mountain bike trails (Inspiring Place 2007). Both strategies provide a framework for trail planning, for either a multiple use focus or individual activity access.

Table 5 Examples of FT's involvement in tourism and recreational based strategies

<i>Strategy</i>	<i>FT's Role</i>	<i>Year</i>
Tasmanian Walking Strategy and Marketing Plan	Cooperative partnership	1997
Tasmania Together 2020	Cooperative partnership through Forest Industries Council	2001
Information Note Sheet and Code of Practice for Recreational Vehicle Users	Cooperative partnership	2003
Tasmanian Fishing Sport Tourism Development and Marketing Plan	Stakeholder	2007
Tasmania Trails Strategy: Discussion Paper	Member of steering group	2007
Far South Tourism Development Strategy: Draft	Stakeholder	2007

Tasmania Together outlines a vision for Tasmania in 2020 and provides a set of goals and benchmarks to measure the progress (Tasmanian Government 2006). This process involved community input towards attempting to achieve a common view towards what a sustainable future constitutes (Tasmanian Government 2006). Goal 20 stipulates the continued promotion of Tasmania's natural value advantages including the clean green branding (Tasmanian Government 2006). The vision also provides future targets for tourist visitation and expenditure as well as a goal to limit old growth forest harvesting (via clearfelling) each year on State forests to no more

than 20% by 2010 (Tasmanian Government 2006).

FT's consultation with the tourism industry in relation to forestry operations is formalised through the *Tourism and Forestry Protocol Agreement* (Tourism Council Tasmania *et al.* 2003). It enshrines the following principles:

- planning – e.g. managing the coexistence of tourism and forestry as well existing tourism infrastructure and new infrastructure opportunities;
- regeneration burning and smoke – e.g. reducing the impact on tourism operations and special events along with an undertaking to notify effected parties 24 hours before burn offs; and
- logging and visuals – e.g. commitment to adhere to the FPC's landscape planning provisions;
- transport – e.g. the formulation of protocols to improve warnings and courtesies to visitors on designated tourists routes that coexist with log truck traffic; and
- consultation – e.g. a stipulation that FT's Community Liaison Officers (per district) will be the first point of contact for local tourism operators to discuss issues pertaining to the protocol agreement.

The *Tourism and Forestry Protocol Agreement* contains strategies that are formulated to address the issues arising from the coexistence of wood production and tourism (Tourism Council Tasmania *et al.* 2003). According to Fraser *et al.* (2006), multi-stakeholder consultation processes must formally feed into decision-making forums or they risk being viewed as irrelevant by policy-makers and stakeholders. This style of consultation process is described by McDonald & Lane (2005) as community-based environmental planning, whereby decision-making is derived from a bottom-up approach, rather than top-down. Top-down approaches can still involve a form of participative (Margerum 1997) or collaborative (Allmendinger & Tewer-Jones 2002) stakeholder input into planning processes, however, there is no transfer of power and decisions remain rationally centered.

As part of FT's SFM policy, forest management is described as being based on sound scientific principles, ongoing research and taking into account community expectations (Forestry Tasmania 2003). This objective is achieved by communicating with the Tasmanian community their sustainability performance (Forestry Tasmania 2003) and on a district level having a Community Liaison Officer as the public contact (Tourism Council Tasmania *et al.* 2003). There are specific avenues for public input into the planning process, with the current formation of *Forest Management Plans* (FMP) (Forestry Tasmania 2007b) an example of an opportunity.

The FMP provides a framework for FT's forest management objectives for the next ten years (Forestry Tasmania 2007b). The public consultation process involves:

- interested parties submitting views in writing before the plan is prepared;
- preparation of a draft FMP;
- FT advertising the preparation of the draft FMP and seeking public comment (60 days to comment);
- the collation of submissions with relevant amendments made to the FMP;
- the Minister holding a 30 day comment period; and
- the publication of the FMP which includes any necessary amendments required by the Minister (Forestry Tasmania 2007b) .

This consultation process is similar to the model used by local government (or commonly referred to as councils) in the development approval process.

4.1.3 Local Government Regulations

Local councils, as statutory planning authorities, control the use and development of land in their municipality through a planning scheme (Local Government Forestry Consultative Committee 2007). Planning schemes are legally binding regulatory instruments that must be consistent with the Resource Management and Planning System (RMPS) objectives. The Resource Planning and Development Commission

(RPDC) is an independent statutory body that oversees this planning system, established by the *Resource Planning and Development Commission Act 1997*.

Local councils have statutory responsibility to assess draft development applications (DA) for a range of different types of proposals (i.e. small to large scale residential and commercial developments). Wood production activities on State forest land tenure are regulated through the forest practices system, however, developments such as the Tahune Airwalk required a DA to be lodged to the Huon Valley Council, alongside a Standard Operating Procedure (SOP) within the forestry practices system.

The Tahune Airwalk development is a situation whereby both the forest practices system and local planning scheme operated in conjunction.

The scope of the local council planning schemes is generally limited to non wood production activities on State forest tenure (although this may not always be case, especially in terms of new roads), yet the *Natural Resource Management (NRM) Strategy* for southern Tasmania (for all land tenures other than State forests) frequently identifies planning schemes as being a critical factor in effectively managing and protecting natural resources (GHD 2007).

The integration of recreation opportunities into multiple use forests is predominantly guided by the forest practices system, SFM objectives and a selection of regionally based strategies. The *Tourism and Forestry Protocol Agreement* has been constituted to minimize the potential impacts of activities associated with wood production on tourist's recreational experiences and perception of Tasmania's wilderness branding. There are a variety of outdoor experiences available in the case study area, including soft adventure activities and self guided forest walks.

Chapter 5 Outdoor Recreational Opportunities

This purpose of this chapter is to provide an overview and description of outdoor recreational opportunities available in the case study area. Furthermore, some of the current and historical issues that emerged in the literature regarding the provision of these recreational activities are integrated into the descriptions.

5.1 Outdoor Recreational Opportunities in the Huon District State forests

The tourism attributes of the southern region of Tasmania are marketed predominately under the Huon trail touring route banner (Figure 3) which is a joint initiative between the Huon Valley and Kingsborough councils (Tourism Tasmania 2007). Recent additional support for the project has provided by the Australian Tourism Development Fund (Tourism Tasmania 2007). This promotional tool also encompasses the case study area. However, FT also independently markets the recreational activities within the tenure of State forests, with particular emphasis placed on publicising their flag ship offering, the Tahune Airwalk.

5.1.1 Tahune Airwalk

The Tahune Airwalk is located approximately 94 km south of Hobart and is situated within the Tahune Forest Reserve, adjacent to the confluence of the Huon and Picton rivers. According to Bingham (2002), the Airwalk was an idea that was originally developed by Greg Norris (the former mayor of Huon Valley Council) and Evan Rolley (the former FT chief executive). The concept was modelled on an established tree top walk facility in the karri forests of southern Western Australia (Pepper 2007). The venture opened in 2002 under the management of FT and was designed to meet recreation and tourism demand (Felmingham 2005). The Tahune Reserve is also surrounded by large areas of wood production forests.

Figure 3 Northern and Mid-Southern sections of the Huon trail touring routes



(Source: Huon Valley Council 2007)

There is a range of recreational activities offered at the forest reserve such as Eagle Hang Gliding, Swing Bridge over the Huon River, guided and self guided interpretative walks and the major drawcard – the Airwalk. This tree-top walk is over 600m in length, consisting of a level structure with a steel walkway, 20m above the ground and set amongst a tall *E. Obliqua* forest (Figure 4) (Forestry Tasmania 2002). Adjacent wood production areas (e.g. Weld Valley specialty timber area) as well as experimental logging coupes in the Warra Long Term Ecological Research (LTER) Site are not visible from the Airwalk.

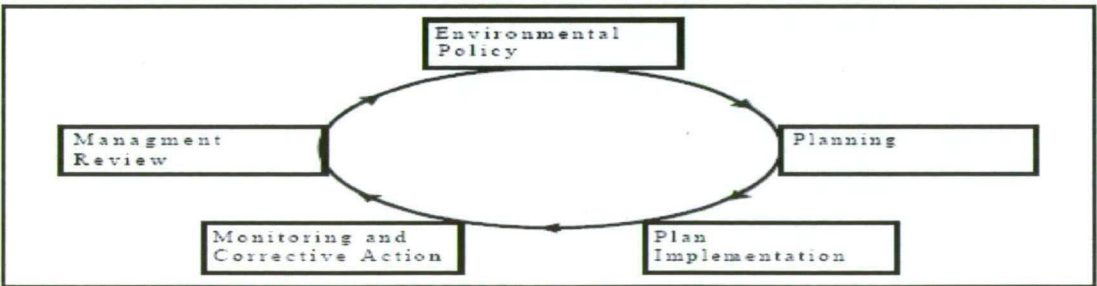
Figure 4 View from the Tahune Airwalk



(Source: Green Globe 21 2004)

In November 2002, the Tahune Airwalk received benchmarked status in the Green Globe 21 (GG21) Ecotourism accreditation program (Green Globe 21 2004). GG21 is an international organisation that facilitates the development of in-house Environmental Management Systems (EMS), with ongoing certification based on the premise of continuous environmental improvement (Green Globe 21 2003). An EMS is a management structure in which organisations can assess, catalogue and quantify their environmental impacts (Gallagher *et al.* 1999). This is achieved through the creation of a looping systematic structure (Figure 5), beginning with the adoption of a written environmental policy, which sets priorities, goals, objectives and targets for continuous improvement in environmental performance during each stage of the cycle (Darnall *et al.* 2000).

Figure 5 Example of an EMS

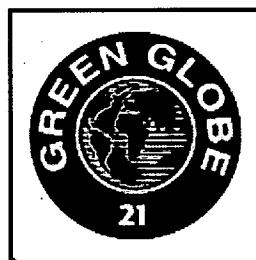


(Source: Gallagher *et al.* 1999)

Certification of a tourism venture is a form of a ecolabelling (Buckley 2002) (Figure 6) with the accreditation body auditing the facility (and product, service or processes) and giving written assurance that specific sustainability standards are achieved (Forest Stewardship Council 2006). The GG21 certification is based on achieving benchmarks that cover all aspects of the triple bottom line concept (economic, environmental and social sustainability) with operators determining their initial level of sustainability outcomes (Green Globe 21 2003). The minimum level of sustainability outcomes is compliance with relevant government regulations (Green Globe 21 2003). According to GG21 (2004), the Tahune Airwalk venture received certification due to:

- FT's Environmental and Social Policies;
- minimal environmental disturbance during the construction phase;
- energy reduction practices;
- responsible water usage;
- solid and liquid disposal procedures and facilities;
- air quality and noise control; and
- resource conservation.

Figure 6 GG21 Ecolabel



(Source: Green Globe 21 2004)

The GG21 certification of the Tahune Airwalk was based on a specific audit of that tourism venture and not an inclusive assessment of the surrounding wood production practices. However, GG21 (2004) State in their written assurance that FT's

business is the sustainable production of forest goods along with multiple use management. The Forest Stewardship Council (FSC) (2006) describe accreditation schemes as complex, with several inherent challenges which include implementation, conflict over industry standards as well as consumer confusion due to the multitude of international certification programs. Font *et al.* (2001) identified 73 accreditation programs worldwide, whilst the World Tourism Organisation (WTO) (Yunis 2002) established that there were 100 schemes in operation with around 7000 member companies internationally. Another concern that FSC highlighted was that the process of certification may be too expensive for small operators that may not have the backing of a larger business entity to cover the costs of implementation and monitoring (Forest Stewardship Council 2007).

The Tahune Airwalk venture had a successful beginning according to Felmingham (2005), with visitor numbers exceeding expectations, and Geeveston along with the rest of State receiving an economic boost. The visitor numbers have dropped by about ten per cent over the subsequent years (Table 6) (Forestry Tasmania 2006b).

Table 6 Visitor Numbers and Ranking as a Preferred Tourism Site

Year	2001/02	2002/03	2003/04	2004/05	2005/06
Number	155,269	150,135	142,902	122,400	108,334

(Source: Felmingham 2005; Forestry Tasmania 2004b; Forestry Tasmania 2006b)

To counteract the decline in tourism demand FT have completed enhancements to the Airwalk site, such as the construction of a swinging bridge across the Huon and Picton Rivers and are planning for accommodation facilities (Forestry Tasmania 2006b). Furthermore, Bartl *et al.* (2002) suggested that expanding the Airwalk experience into the adjacent Weld Valley Catchment is vital to maintaining continued tourist visitation to the area, with the FT Tourism General Manager, Jane Foley (2006) in a media release stating that a Weld touring route would enhance the activities already on offer at Tahune. Historically, McArthur (1994) also suggested that the need for additional recreational experiences past Tahune, including waterfall based activities is proven in market research.

5.1.2 Weld Valley Touring Route

The Weld Valley is located on the eastern fringe of the TWWHA, approximately 60 km west-south-west of Hobart (Bartl *et al.* 2002) and adjacent to the Tahune Forest Reserve. Approximately 82 per cent of the Upper Weld is within the TWWHA boundaries, with the remaining Lower Weld area managed by FT (Forestry Tasmania 2006a). The area offers a variety of outdoor recreational opportunities, with FT officially launching the Weld Valley forest touring route in November 2006 (Foley 2006). Foley (2006) announced that the “attractions will include spectacular views over the World Heritage Area from Glovers Bluff, a new walking track into Reuben Falls, and upgraded access into the excellent trout fishing area at the Weld Eddy.”

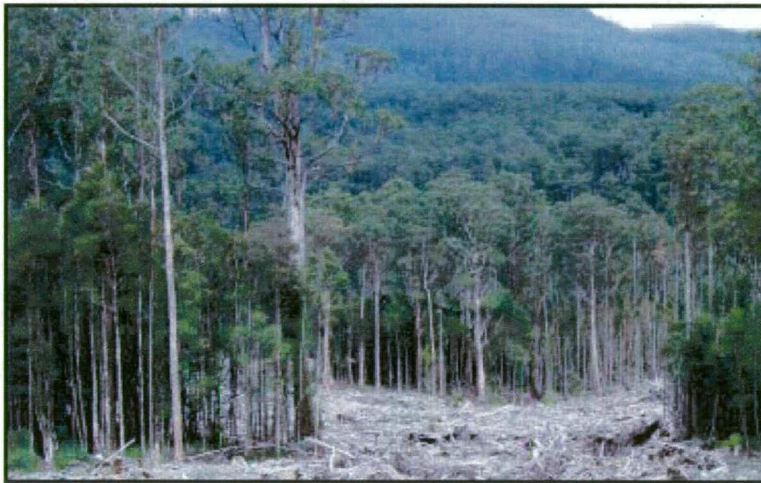
The Weld Valley has had a long history of being admired for its natural values with many early explorers and prospectors documenting their perceptions of the area (Judd 1881; King 1966; Littlejohn nd). Judd (1881), while on a prospecting expedition, detailed the splendours of the Weld River and the beauty and intensity of a waterfall surrounded by tree ferns. Littlejohn (nd) described the array of old growth plant communities and King (1966) commented on the magnificence of the bush scenery whilst providing evidence of the existence of Tasmanian Tigers.

A forestry reconnaissance team in 1925 (Wilson & Christensen 2001) inspected areas of the Weld Catchment for its timber values, encompassing an area about seven miles upstream from the junction of the Weld and Huon Rivers and approximately three km either side. Colonel Lane (the leader of the group) described in detail the splendour of the forests they encountered and provided photos of a variety of vista points, including the outlook from Glovers Bluff in his diary entries (Wilson & Christensen 2001). According to Lane the only area found to be suitable for timber potential was the west slopes of Barn Back, which was described as being largely burnt out, but showing signs of natural regeneration (Wilson & Christensen 2001).

FT have promoted the Lower Weld Valley as an area where wood production and tourism can coexist (Forestry Tasmania 2006a, 2006c), where “visitors can see first hand how conservation is managed alongside sustainable timber production,

leatherwood access and active recreation” (Foley 2006). Wood production in the Weld is described as being managed in small production areas for sourcing high quality sawlogs, veneers and other specialty timbers as well as in Special Timber Management Units (STMU) (Forestry Tasmania 2006c). STMUs are set aside for selective harvesting of specialty timbers (e.g. *Nothofagus cunninghamii* and *Phyllocladus aspleniifolius*) (Forestry Tasmania 2006a). Half of the wet eucalyptus forests in the Weld Valley are contained in the Warra LTER site (Forestry Tasmania 2006c), an area where ecological and silvicultural experiments are conducted (Figure 7) (Brown 2001; Forestry Tasmania 2004a)

Figure 7 Aggregate Retention coupe in the Warra LTER site



(Forestry Tasmania 2004a)

The ecological sustainability of FT’s wood production practices has been challenged by various scientists, organisations and individuals (Green *et al.* 2004; Kirkpatrick 1999; Weber 2007a). There have likewise been comments made about its compatibility with tourism (Bartl *et al.* 2002; Graham 2001; Mooney 2007a). The Lower Weld has been recommended for inclusion in the adjacent TWWHA and to be permanently reserved (e.g. National Park) due its various natural and cultural values (IUCN 1990, 1994). Local conservationists have also led a long-term campaign in the Weld Valley to highlight their concerns, with Weber (2007a), in a media release, describing the experimental logging of old growth forests as “Tasmanian’s version of scientific whaling; it allows ecologically destructive practices to continue under the guise of scientific research”. NGO concerns with the potential impacts of logging,

roading and escaped regeneration burns on the integrity of the TWWHA boundaries will be investigated by a delegation of scientists representing the World Heritage Centre in a mission to the Weld before February 2008 (UNESCO 2007).

Although the Weld Valley touring route was officially launched in November 2006 the forest drive has not been actively marketed or patronised despite promotional materials in circulation (Evans 2007). The Managing Director of FT, in a verbal submission to a Parliamentary GBE Committee Hearings (Gordon 2007), suggested that FT's tourism ventures had not performed well due to a downturn in the tourism industry and disruptions caused by protesters.

The Weld Valley has been subject to community protests (Mooney 2007b; Rainforest Action Network 2007; Weber 2007b), however, issues and constraints relating to access have been raised previously (Bartl *et al.* 2002; McArthur 1994). McArthur (1994) stated that the promotion of the South Weld Reserve (i.e. Reuben Falls) should be kept low key and tightly controlled due to the rough state of walking tracks that tend to restrict visitor safety and comfort as well causing damage to the forest. However, FT have committed to resolving access issues at Rueban Falls by relocating the track and viewing area (2007f). Bartl *et al.* (2002) also commented that Glovers Bluff and Rueban Falls are relatively inaccessible to the public as a result of locked gates at Tahune Airwalk and along South Weld Road. Though a key is obtainable from FT to open the gates (as is the situation in 2007), a \$100 deposit is required, restricting access for all those visitors unless preplanning has been initiated (Bartl *et al.* 2002). FT do, however, publish in some of their promotional pamphlets that areas of the Southern Forests may have boom gates across the roads due to public safety and/ or security purposes (Forestry Tasmania 2002).

5.1.3 Arve Forest Drive

Encompassed with the Huon trail touring route (Figure 3) are a number of other forest drives. The Arve Forest Drive is one of FT's major tourist routes and provides access to the Tahune Airwalk as well as a range of other recreational opportunities such as the Big Tree Lookout, Zig Zag track and areas beyond the Airwalk within the Weld Valley Catchment (Forestry Tasmania 2000). McArthur (1994, p. 41) in an *Arve Visitor Management Strategy* (Working Draft) suggested that "the Big Tree

will be the Big Carrot, further enticing people to utilise the drive and providing a final contrast to production forestry which confirms that all is not logged”. As part of this forestry interpretation theme, the Warra LTER site is also accessed via the Arve Road, with educational tours of the facility offered on an intermittent basis (Forestry Tasmania 2007c).

5.1.4 Other Forest Drives

The Denison forest drive in the northern region of Huon Forestry District has also been under limited access restrictions (exclusion zone) in recent times, with a key available from FT with a payment of a deposit. This area is predominately utilised for wood production purposes as well as providing habitat for an endemic burrowing crayfish (*Ambrastacoides denisoni*) (Richardson *et al.* nd). According to Richardson (2007) it is highly probable that this species will be recommended for threatened species listing under the State’s *Threatened Species Act 1995*, primarily due to its known distribution (less than five square kilometres) which is limited to the Little Denison Catchment.

Another marketed touring route is the Hastings forest drive, which provides access to a number of other areas, including for example Esperance picnic area, Duckhole lake (and associated walk), Hastings Caves and thermal springs (operated by the Parks and Wildlife Service), and Adamson Falls (Forestry Tasmania 2007e).

5.1.5 Other Outdoor Recreational Activities

There are a range of outdoor recreational values and facilities within the case study area, with a selection of activities and attractions mentioned above and a further list catalogued below² (Tables 7 & 8).

² This list of outdoor recreational offerings and facilities may not be a comprehensive representation of all existing opportunities in the case study area, however, the information characterises the available information from published materials and a desk top study.

Walking Trails

Recreational trails are described by as “clearly marked, non-motorised, land or water based routes used for recreational purposes” (Inspiring Place 2007, p. 1). There are a variety of primary walking trails, which include Arve River Nature Walk, Big Tree Lookout, Keoghs Creek Walk, Lookin Lookout, Swinging Bridges Loop, West Creek Lookout and the Zig Zag Track (Table 7 & 8) (Forestry Tasmania 2004b, 2006b). These tracks are maintained solely by FT and are easily accessible to recreationists (Appendix D, Table 17).

There are numerous secondary visitor walks with many in need of re-development (e.g. Adamsons Falls, Creekton Falls, Huon/Picton Rivers and Reuben Falls) (Appendix D, Table 18) (Forestry Tasmania 2004b, 2006b). Some of proposed works on these trails such as Adamsons Falls³ and Reuben Falls have been actioned or are in negotiation for future completion. However, upgrades necessary for areas such as Reuben Falls were documented by McArthur (1994), with concern being expressed with the level of visitation this area could sustain. The Adamsons Falls walk has also been described as a deteriorating track (Newell & Newell 2006). This area is also documented for its important European heritage values (Woolley 2006).

Other tracks listed as secondary visitor walks are jointly managed by FT and PWS include the Nevada Peak Track, Hartz Track and Adamsons Peak and/or managed under an Adopt-A-Track Program (Appendix D, Table 18). This adoption scheme is a volunteer program which provides the community with an opportunity to become actively involved in maintaining walking tracks (Wildcare 1988).

³ Adamson Falls is assessed in the ROS results section.

Table 7 Summary of Recreational Activities and Facilities in the Case Study Area

Site	Tahune Airwalk and Reserve	Arve River Picnic Area	Esperance Park Camping Area	Big Tree Arve Road	Keoghs Creek Walk	Zig Zag Track	West Creek Lookout	Stringy Bark Track Tahune	Hartz Track	Duckhole Track Walk	Stump Walk Hartz	Kermandie Falls Walk	Reuben Falls Walk
Activity													
Source Guided Walk	Y												
Short Walk	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y
Day Walk			Y						Y		Y		
Overnight Walk													
Forestry Interpretation	Y	Y		Y	Y	Y		Y	Y		Y		
Cultural Heritage	Y		Y							Y			
Mountain Biking	Y		Y		Y	Y				Y			
Trail Bike Riding													
Horse Riding	Y		Y										
Canoeing	Y	Y											
Fishing	Y	Y	Y							Y			
Rafting													
4WD													
Bird Watching	Y		Y						Y	Y		Y	
Lookout	Y			Y			Y		Y	Y			
Special Events	Y		Y										
Facilities													
Disabled Access	Y		Y	Y	Y								
Info/Visitor Centre	Y						Y						
Toilets	Y	Y	Y										
Gas BBQ	Y		Y										
Wood BBQ	Y	Y											
Picnic Shelter	Y	Y	Y										
Picnic Area	Y	Y	Y				Y						
Fireplace	Y	Y	Y										
Camp Sites	Y		Y										
Caravan Sites	Y		Y										
Boat Ramp													
Walking Tracks	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

(Adapted from: Forestry Tasmania 2000; Forestry Tasmania 2006b)

Table 8 Summary of Recreational Activities and Facilities in the Case Study Area

Site												
Activity	Glovers Bluff	Blakes Opening Track	Lake Skinner Walk	Nevada Peak Track	Creekton Falls Track	Lookin Lookout	Swing Bridges Loop	Adamson Falls	Weld Eddy Track	Picton River	Huon River	Weld River
Guided Walk												
Short Walk	Y	Y				Y		Y				
Day Walk		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Overnight Walk		Y										
Forestry Interpretation	Y					Y	Y					
Cultural Heritage						Y						
Mountain Biking		Y							Y			
Trail Bike Riding		Y							Y			
Horse Riding									Y			
Canoeing												Y
Fishing		Y								Y	Y	Y
Rafting										Y	Y	Y
4WD									Y			
Bird Watching									Y			
Lookout	Y					Y			Y			
Special Events												
Facilities												
Disabled Access	Y											
Info/Visitor Centre						Y						
Toilets												
Gas BBQ												
Wood BBQ												
Picnic Shelter	Y											
Picnic Area												
Fireplace												
Camp Sites												
Caravan Sites												
Boat Ramp												
Walking Tracks	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

(Adapted from: Forestry Tasmania 2000; Forestry Tasmania 2006b)

The Tasmanian Trail also passes through the case study area and forms a part of the bicentennial trail that runs the length of the State (Ryan 2005). This trail is utilised for multiple use purposes (e.g. walkers, mountain bikers and horse riders) and extends from Devonport in the north to Dover in the south of the State (480 km) (Parks Wildlife Service 2007). As part of this flexible multiple use theme, dog walking is also permitted in State forests areas (Forestry Tasmania 2007d), with owners required to keep their pets under effective control at all times to ensure surrounding wildlife are not impacted upon.

Cultural Heritage

The Huon Valley area is a region of immense cultural heritage. The area was formerly occupied by two different groups of aborigines, generally known as the South East and South West tribes (Woolley & Smith 2004). These tribes were from the language group known as the Nuenonne people (Ryan 1996). Each tribe consisted of a loose association of several bands that intermarried, usually by the exchange of women as well as gaining coastal and inland access to each other's territory by mutual agreement (Gee 1978; Ryan 1981; Woolley & Smith 2004).

Band territories that occupied the southeast area of Tasmania included the Mouheneenner (Hobart tribe), Mellukerdee (Huon River tribe) and Nuenonne (Bruny Island tribe) (Ryan 1981). Although it is thought the south east bands generally had peaceful interactions with early European explorers, this conduct did not guarantee the same treatment in return (Woolley 2006). As was the case throughout Tasmania, the south east bands were not able to withstand the aggressive habits of the European settlers and the disease which marked their arrival (Gee 1978). However, little is known about the level of interaction, but by 1830 their population had declined from an estimated 200 to 300 individuals, to about 60, with many reported to have died from influenza and chest complaints (Ryan 1981).

European interest in the Huon as a prospective site for settlement began to grow by the late 1820s, partly due to the area's timber resources as well as relatively close proximity to Hobart (Woolley & Smith 2004). The forests drew men to the area prior to the beginning of local settlement, with production of timber by pitsawing recorded

as early as 1822 (Frampton *et al.* 1978; Woolley & Smith 2004). The first known settler was William Nicholas, who established a farm near Port Cygnet in 1833.

Evidence of European heritage now dominate the settled landscapes of Huon Valley and is largely based on the historical development of the forest, agricultural, and maritime industries. These industries provided much of the economic and social life of the district since European settlement. Places of cultural heritage that stemmed from this period include built heritage as well as landscapes, patterns of subdivision and historic transport routes (GHD 2007). However, there is also evidence of aboriginal occupation, with artefacts and faunal remains found in the Weld River area suggesting that the site was in use perhaps as early as 13 000 years ago (Woolley 2006). Cave art and stone tools of uncertain age have been found near Mt Riveaux, confirming the widespread nature of aboriginal presence (Woolley 2006).

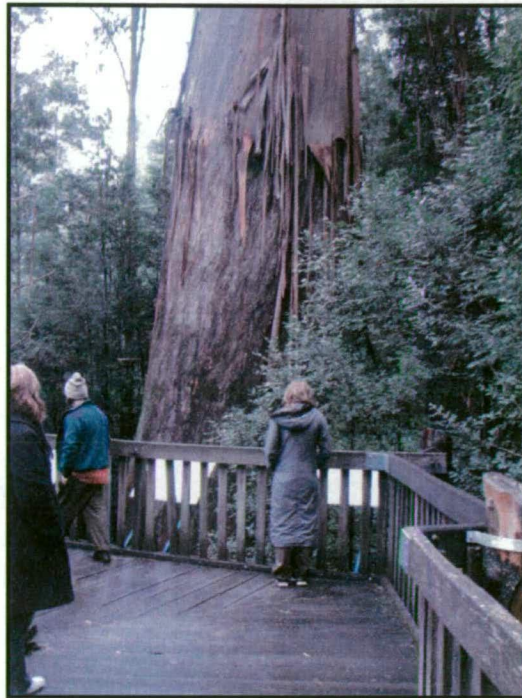
Education

FT provides a series of public and school educational opportunities, such as forest tours by FT staff at Tahune Airwalk and Reserve as well as Stringy Bark Track Tahune (Forestry Tasmania 2006b). School groups are also offered tours by FT staff, along with work experience placements (Forestry Tasmania 2006b). There is a number of tracks and lookouts that include forestry interpretative signage (e.g. Hartz track, Lookin Lookout, Zig Zag Track, Big Tree Lookout and Glovers Bluff Lookout) (Figure 8) (Forestry Tasmania 2006b).

Mountain Bike Riding

Mountain biking is a relatively new recreational activity that emerged during the late 1970s and early 1980s (Chui & Kriwoken 2003). Tasmania has been described as possessing some of the best mountain bike tracks anywhere (Trekking.net 2007), with the State's international reputation as a biking destination growing (Ryan 2005). The Tasmanian Trail is also utilised by bikers and is seen as one of the best tracks for long distance riders (Forestry Tasmania 2007g).

Figure 8 Arve Big Tree Lookout Arve Road



There are a variety of walking tracks that are utilised for multiple use purposes with FT listing the Tahune Reserve, Zig Zag Track and Blakes Opening Track as locations for mountain biking (Table 7 & 8) (2006b). FT (2007g) state that there are no dedicated mountain bike trails in State forests, yet 1,000s km of gravel roads and fire trails are available for enthusiasts. However, researchers have highlighted concerns regarding potential conflicts with multiple use trails, especially in terms of safety and ecological impacts (Mason & Leberman 2000; Moore 1994). In addition, recommendations in the *Far South Tourism Development Strategy* (Draft) state that the construction of dedicated mountain bike circuits and tracks provide future opportunities to attract more tourists to the area (SEMF Consultants 2007).

As Ryan (2005) explains, the economic benefits of mountain biking visitation are hard to quantify, however, overseas experiences, in countries such as Wales, Scotland, Canada, and the USA demonstrate that there is a growing market for mountain biking based tourism. Therefore, there is an opportunity for land managers (e.g. FT, PWS and Councils) both separately and collectively, to develop a planned, strategic and coordinated response to satisfy mountain biking demand across the State and over various land tenures (Ryan 2005).

Horse Riding

FT list Tahune Reserve and Esperance Park Camping as areas where horse riding is permitted (Table 7) (Forestry Tasmania 2002). There are also private operators offering guided horse riding tours in the Huon Valley that cross over a variety of land tenures and range from short to overnight trips (Table 7 & 8) (Tourism Tasmania 2006).

Rafting

There are a limited number of rivers suitable for rafting in the case study area, including the Picton, Huon and Weld Rivers (McArthur 1994). These rivers represent some of the most accessible short duration opportunities in the State, with trips mainly confined to commercial operators, rafting clubs and secondary and tertiary schools (McArthur 1994). The Tahune Forest Reserve is a popular finishing point after a day of running the rapids (Forestry Tasmania 2002).

The Picton River drains from a relatively small catchment and for most of the year its flow is gentle and shallow, giving the river a rating of one, which is the easiest and safest grade in terms of difficulty to raft (McArthur 1994). Most of the river consists of a series of short rapids, interspersed with deep pools, although in a spot where the river is temporarily compressed, within a deep gorge, the grade rating climbs towards a two or three (McArthur 1994).

In the early 1990s there were a series of informal meetings between FT and rafting operators concerning the Picton and Huon Rivers (particularly between IXL Bridge and Tahune). The following issues arose:

- operators share deep concerns relating to logging in forest neighbouring the Picton and Huon Rivers especially the potential visual impact on clients;
- operators also concerned that the change to production forests in the upper catchment of the Picton may be making the variation in river levels more pronounced, and thus their product less reliable;
- it is suspected that runoff from the Picton Road is not being trapped by some of the road culverts, contributing to the siltation of the Picton River;

- access into and out of rivers is difficult and the activity has caused a loss of riverside vegetation and erosion of the banks; and
- the use of attractive marketing terms such as ‘wilderness’ are not always placed in context with the reality of the setting, further increasing the likelihood that visitors will shape inaccurate expectations which cannot be met by the experience being provided (McArthur 1994).

As part of this negotiation for access improvements (e.g. steps) were constructed adjacent to IXL Bridge on the Picton River.

Four Wheel Driving

There are two forms of four wheel driving (4WD) which include individual and organised groups (ANFWDC 2003; McArthur 1994). The only area that's listed as a 4WD location is the Weld Eddy Track, although no areas are officially listed in FT promotional materials (Forestry Tasmania 2002, 2006a) or District Management Plans (Forestry Tasmania 2004b, 2006b). However, the Weld Eddy Track is listed as being adopted by a 4WD club (Appendix D). The *Cruisin Without Bruisin* publication mentions the Arve Road to Hartz Mountains National Park and Tahune Forest Reserve as recreational driving locations, although both are rated as easy and accessible to two wheel drives (ANFWDC 2003).

Fishing

Tasmanian's have a culture of recreational fishing since trout were introduced into the rivers and streams in 1864 (Farrell 2007). FT list a range of areas that are available for fishing (e.g. Arve River Picnic Area and Esperance Park), however the potential is dependant upon ease of access (2006b). During 2005/06, the number of anglers participating in recreational fishing was 28,000 local, interstate and international visitors, which is below the peak involvement of over 31,000 in the mid-1990s (Farrell 2007). There may be a number of reasons for this decline with McArthur (1994) suggesting that fishing in the Huon region is not widely promoted. The *Tasmanian Fishing Sport Tourism Development and Marketing Plan* states the fall in visitation is due to the following factors:

- a overall lack of strategic planning by all stakeholders;
- tension between the needs of local and visiting anglers;
- under investment by Government in fishery management and supporting infrastructure; and
- a lack of cohesive and long-term marketing plans (Farrell 2007).

The *Tasmanian Fishing Sport Tourism Development and Marketing Plan*'s primary focus is to address issues regarding access and signage as well as the governance of fresh water fisheries (Farrell 2007). FT was a stakeholder in the formulation of the plan.

Due to time constraints only a selection of the vast array of possible activities was examined, with recreational pursuits such bird watching only mentioned but not outlined in any further detail. Another omission was the potential for caving in the district. PWS operate the Hasting Caves tourist attraction in the south of the region which is adjacent to State forest areas. Cave ecosystems are described by Spate & Hamilton-Smith (1991) as fragile environments that may be at risk of permanent damage if visitation is not managed properly. Any recreational activity has the potential to cause ecological harm, with careful consideration necessary before introducing new activities in forested landscapes. Further research is necessary to identify further opportunities within State forests. The following chapter outlines the results from the stakeholder interview process, which includes recommendations for adaptations in the governance of State forests as well as suggestions for the provision of additional recreational opportunities.

Chapter 6 Stakeholder Interview Results

This chapter illustrates the dominant themes which emerged from the semi-structured interview process conducted with key stakeholders. These themes relate to the provision of outdoor recreational opportunities in State forests, with particular reference to FT's governance policies, market demand and stakeholder visions. Thirteen informants were interviewed representing a range stakeholder including private tourism operators, NGO's, government departments, Parliamentarian, tourism association representatives and FT. A coding system (S1 through to S13 to represent each stakeholder) has been utilised to ensure stakeholder anonymity with only direct quotations attributed to a particular code.

6.1 Results

6.1.1 Governance of State Forests

The dominant theme that emerged in regard to stakeholders' interpretation of FT's mandate was the requirement to manage State forests for multiple use purposes. However, how FT integrates the provision of recreational opportunities with other uses instigated a range of responses. Most respondents questioned FT's multiple use credentials which is illustrated by S3's statement that the "theoretical mandate seems to be somewhat different to the mandate in practice"; with wood production considered FT's primary concern and often in conflict with other uses such as recreation. Some stakeholders perceived FT as acting as land owners rather than land managers and "displaying a distinct disregard of awareness in regards to their multiple use mandate" (S13).

A proportion of stakeholders recognised, as S5 surmises, that wood production quotas for each district "constrains the degree to which FT can provide adequate opportunities for recreation; or properly protect those opportunities; or to protect the natural opportunities that exist". However, a minority of respondents believed that the assessment of recreational values is a consideration in the planning of coupes and that FT is involved in serious planning for other uses, "which is balanced off with their mandate for forestry" (S6). In addition, some of these respondents questioned the researcher's use of the term 'mandate', alternatively perceiving multiple use

management as a part of FT's governance, which includes the sincere desire to project a good public image.

The incorporation of recreational uses into FT's management of State forests was perceived by a major proportion of stakeholders as a public relations exercise motivated by community backlash towards old growth logging and geared towards making as much profit from other uses as possible. S7 considered that there was "more focus in recent years on tourism opportunities as an alternative source of income"; with S9 (along with others) highlighting that if FT's "core business is the timber industry, then perhaps they don't have enough knowledge to deliver that high quality experience".

Stakeholder perceptions regarding FT planning frameworks varied from specific explanations of processes to broader level critiques. The Tourism & Forestry Protocol Agreement was identified as a key framework by some respondents as well as mandatory licensing regulations for private tourism operators. Other specific descriptions of procedures concerned the statutory regulation of forest management in Tasmania, including both the forest practices system and local government planning schemes.

The issue of whether the forest practices system has enough in-built flexibility to facilitate for the multiple uses of forests was also a discussion point highlighted by respondents. Some stakeholders expressed concern about the complicated nature of planning for recreation provision. This was primarily due to the perceived priority given to harvesting regimes beyond State forest reserve boundaries. It was suggested that most infrastructure-based recreation is situated within these reserves. On the other hand, a minority of respondents had confidence with the mechanisms inbuilt in the FPC to allow for the integration of uses in all areas.

Stakeholders were critical of FT's planning frameworks with S13 stating that "there is very little coordination regarding recreational planning especially in the Huon with the under-utilisation of forest resources for recreational purposes being a damning indictment on FT's mandate to manage for values other than timber". Other respondents suggested that there was a lack of any set frameworks and therefore no inherent obligation to provide for recreational uses. Conversely, S11 suggested

that there is no need for an “overarching recreational strategy” as site-specific planning coupled with years of planning experience, will create better recreational outcomes than the employment of a planned strategy.

A small proportion of respondents perceived FT as being supportive of recreational provision, particularly in terms of the flexibility of those uses permitted on State forest land tenure (e.g. mountain biking, 4WDing and dog walking) as opposed to the restrictions on uses in TWWHAs. Another stakeholder outlined a scenario whereby a logging road in the Hasting Caves area was diverted in order to allow for the establishment of a new tourist drive along the existing route.

However, the general perception was that recreational planning is always secondary to FT’s primary focus of wood production. Respondents highlighted examples of tracks being truncated as well as being redirected to make way for logging coupes, particularly emphasising walks that crossover between TWWHAs and State forests (i.e. Huon track, Nevada Peak and Lake Skinner walks). S4 stated that FT “have done an atrocious job” of managing recreational tracks and “give the impression of not caring”.

Stakeholders identified the Tahune Airwalk as a specific example of the provision of opportunities in the case study area with suggestions that FT was staggered by the public’s uptake of tourism into the Airwalk in the early years and reports that Evan Rolley (the previous FT Managing Director) stated “if it’s this good, I’ll have one of something like this in every district” (S3). Tahune was perceived as FT’s primary recreational planning focus with divergent opinions emerging regarding the motivations for establishing this tourism venture.

In general, respondents were sceptical of FT’s motivations for developing the Airwalk venture. Specific comments included that the attraction was built for solely profit driven reasons, that there is too much concentration on one node and that the facility illustrates window dressing of multiple use practices whilst being surrounded by major logging zones. A proportion of respondents acknowledged the economic benefits of the Airwalk to the nearby Geeveston community and surrounds, but were also critical of the narrow planning approach. S13 suggested that FT’s Airwalk strategy is to “appeal to the daytripper market and ignores large sections of the

market that look for other values such as wilderness experiences as opposed to manufactured soft adventure experiences”.

S3 also highlighted that there was a “heavy amount of activism involved to force FT to reserve a 100m buffer” along the Huon River where Tahune Airwalk is located and now FT “utilises that area to display their wonderful forest management, whereas, the history of the story of how we had to have protest actions in order to get them not to log that bit” is not acknowledged.

6.1.2 Sustainable Forest Management

The dominant themes that transpired regarding stakeholder understandings of SFM objectives were the need to provide for multiple uses and triple bottom line principles. S8’s perception was that the FPC “attempts to put existing objectives into prescriptive terms” with FT considering “wood production and other resource uses” as being able to produce sustainable outcomes. FT’s on-ground performance in regards to SFM elicited a variety of responses covering all areas of sustainability including economic, environmental and social factors.

Stakeholder responses relating to FT’s fulfilment of SFM objectives varied from “we’re doing all of them, but there’s always opportunities for improvement” (S11) through to the perception that “under current practices, SFM is not viable in my lifetime” (S1). Many respondents drew attention to the issue of commercial viability, with economic imperatives perceived as the dominant force in recreational decision-making. The provision of recreation opportunities was viewed as a “trade-off” with harvesting regimes, in terms of achieving economic balance (S6). S10 stated that “within their commercial boundaries FT have tried pretty hard and increasingly so to satisfy the needs of all parties”. However, other respondents, including S5, suggested that FT “don’t make a profit using tax payers’ money for roading into areas such as the Weld ...with no economic return to Tasmanians”. S9 also suggested that “tourism management, I’d suspect, is more about commercial sustainability than anything else”.

Stakeholder views regarding FT’s environmental sustainable performance drew a range of predominately critical answers with S8 encapsulating the sentiment with the

comment that “on paper it looks good, they do have management plans ... but it falls down in enforcement”. Respondents raised concerns about environmental issues and how these can effect tourism operations with S1 stating that there are “no water management plans necessary for tree removal in head waters” and as a result “water flows are too erratic” which is impacting upon operating rafting tours. S8 also raised concerns regarding the management of view fields remarking that “lots of walks can see forestry scars on the hillsides”. Overall, the general stakeholder perception was that there is a considerable lack of awareness and integration of recreational values within forest management planning decisions.

6.1.3 Public Consultation

In this section, stakeholders were initially asked to describe their perception of what an appropriate public consultation process constitutes. The foremost theme arising from the responses was the necessity for a bottom-up approach, with S6 suggesting that “people need to be part of the development of the strategies, rather than being presented with a proposal” which would “avoid future conflict and problems if the community are involved in the planning process throughout”. Respondents also highlighted the need for a database, which is reflective of all sections of the community so that direct contact can be made with all relevant stakeholders in the preliminary stages of planning to offer some form of involvement.

Other key issues raised included the need for feedback from submission processes in order to ensure genuine engagement and not just the fulfilment of standard legal requirements. A proportion of stakeholders also stated that the scope of consultation processes depends on the scale and location of the proposal.

In reference to FT, most respondents acknowledged that there is some level of effort directed towards public consultation, although there was a divergent range of perceptions regarding the legitimacy of the process. Each Forest Districts’ Community Liaison Officer was perceived as the crucial link to the community by some stakeholders, with S7 suggesting that the success of this arrangement is dependant upon the district with “some having a real community development focus”. S13 described the Huon representative as being “openly hostile to conservationists” with S3 asserting that concerns of local environmental groups’

need to be taken more seriously because they are the “primary advocates for these areas’ protection and for future tourism”.

At the other end of the spectrum, a minority of stakeholders perceived the current public consultation efforts as outstanding, with FT going “to great lengths to ensure information is getting out there ... not that people necessarily agree with it”. S11 suggested that “most people end up trusting us” together with others who were supportive of the *Tourism & Forestry Protocol* arrangement, but indicated that 24 hour notification before burn-offs provides insufficient warning. A proportion of other respondents acknowledged that consultation on edge issues (e.g. arranging access to exclusion zones) has worked, but expressed concern about FT maintaining the ultimate power in decision-making processes.

Overall, a sense of disempowerment was articulated by the majority of stakeholders interviewed, with S2 stating that FT have a “bulldozer attitude” to consultation, with plans already being formulated in his opinion “no matter what feedback they received”. Others were of the opinion that submissions were totally ignored, with feedback non-existent, leading to people not even bothering to engage in any type of consultation. There was also the perception that key people were being excluded from planning processes with S13 implying that there’s a “lack of consideration of the value of local input, with only higher level stakeholders providing input”. Furthermore, S8 suggested that there needs to be a “broader understanding of who the interested stakeholders are ... beyond the tick box approach where one association is approached”.

6.1.4 Barriers and Constraints

The foremost barrier and constraint that was emphasised by the majority of stakeholders is exemplified by S12’s Statement that “there is an in-built conflict with multiple use management due to the commercial wood production imperatives”. Respondents considered that the imbalance towards wood production has led to an incremental loss in recreational opportunities. Stakeholders suggested that short-sighted forest management practices are resulting in the ongoing encroachment into wilderness areas without acknowledgement or identification of potential recreational

values.

There was an array of other concerns regarding the integration of recreational uses with wood harvesting. A proportion of respondents highlighted the issue of ‘timing’ of regeneration burns (usually in autumn) due to the activity coinciding with the one of the busiest tourist seasons. As a result, these burn-offs are impacting (reducing) on visitation levels due to tourists’ negative reaction to the occurrence of fires and associated health effects associated with smoke. Safety issues with log truck traffic were also raised and the decline in visitor experiences due to the visibility of logging coupes from a variety of view fields, with Glovers Bluff⁴ and Hartz Mountain range receiving particular mention.

Access restrictions were also viewed as the chief impediment to tourist movements with locked forestry gates and exclusion zones “discouraging spontaneous enjoyment” (S5), especially with keys (along with a \$100 deposit and the necessary permission) only available from FT’s Geeveston office which is closed on the weekends. Issues relating to access arrangements for the Weld Valley were highlighted by a proportion of respondents, with the area being promoted as a touring route, without the provision of necessary infrastructure and at the same time as an exclusion zone being enforced on entry to the valley. The continued promotion of the touring route was described as providing a “disingenuous image to Huon Valley visitors” (S13) and damaging to the Tasmanian and Huon Trail brands.

The branding of Tasmania as the clean green State and promotion as a wilderness destination was perceived as being in conflict with forest management practices by a proportion of the stakeholders interviewed. Feedback that respondents had received from tourists regarding wood production activities included the feelings of anger due to the depletion of recreational opportunities and confusion of “what is TWWHA and what are State forests ... when people are flying over and viewing the patch work” landscape (S6). Also a sense of disappointment was conveyed by tourists due to the expectation of visiting a nature destination and experiencing the visual impact of

⁴ Figure’s 17 & 18 demonstrate the transition in the landscape viewfield post logging (Section 7.5).

harvesting coupes along with the constant stream of logging trucks. On the other hand, a minority of stakeholders expressed the opinion that there are “no (tourist) perceptions of forests being raped and pillaged” and “generally, those (tourists) who are uninformed are sceptical; those who are informed are accepting” (S11).

Another issue highlighted by respondents was the limitations of having planners at a district level that predominately have experience in tree management empowered to make decisions regarding recreation provision. S9’s reflection on the current planning process as “you have tree people and tourism people with FT; and sometimes the wrong people are given the tourism planning tasks, no so much the wrong people, just hard to change your thinking from trees to tourism”. S12 described the FT organisational structure as the major barrier and constraint to effective recreational planning because of the “culture of aggressively holding onto power” that is resistant to “reforms that are pressured by tourism operators and the broader community” to change forest management practices.

6.1.5 Future Opportunities

There was an array of future opportunities proposed in stakeholder responses. The prevailing view that emerged was the perception that there is a huge market demand for areas with rivers, mountains and forests in conjunction. S8 expressed that “opportunities are there for Tasmania to become a key destination within Australia and even internationally on the basis of its outdoor recreation” based on the island’s globally unique forests. Moreover, to legitimise the “whole of Government idea that Tasmania is clean green State” (S8) there should be more promotion highlighting the recreational values of State forest areas.

State forests were perceived by some respondents as being more attractive to independent travellers (e.g. people with cars/vans carrying bikes and or dogs) as opposed to group tours due to the inherent flexibility of the multiple use mandate that allows for the potential provision of a range of activities (as compared to TWWHAs). S13 suggested that FT had “reached saturation point with large scale tourism infrastructure projects due to competing for a limited market”. Recommendations for prospective markets included:

- tapping into the higher end market;
- the need to focus on capturing the overnight stay travellers and shift away from the limited daytripper market;
- big potential for the provision of wilderness (more remote) based activities; and
- the development of more soft adventure nature based experiences to compete effectively with New Zealand.

Stakeholder descriptions of what constitutes an appropriate outdoor recreation venture focussed on the need for ecological and culturally sensitive experiences that involve a genuine public participation in decision-making processes. Specific proposals for supplementary opportunities included:

- expansion of activities into the Weld Valley beyond the Airwalk;
- heavy duty scientific interpretation tours with knowledgeable guides on small group tours;
- art in forests that encourages people to paint and draw;
- forest tours that allow tourists to record the sounds;
- adventure tree climbing;
- interpretative tours that demonstrate the high value production of speciality timbers, which includes visitors viewing the extraction of wood, followed by the sawmilling process and then craftsmen making furniture and or boats;
- more camping areas;
- bird watching;
- development of a whole range of mountain bike tracks for a variety of

styles (e.g. downhill and free riding) with design and implementation guided by local riders;

- further bush walking opportunities with varied access arrangements;
- decentralising the angling market from the central plateau lakes and providing adequate access to rivers (with Fletchers Eddy receiving a number of mentions); and
- the provision of accommodation in the forests.

There were a range of suggestions for adaptations in the governance of State forests in order to achieve enhanced balance in fulfilment of the multiple use mandate. These observations ranged from the requirement for a dramatic restructure through to maintaining the status quo. S2 recommended that forest management decisions should be “accountable to regional planning processes” to enhance the legitimacy of decision-making.

Some stakeholders advocated transitioning the regulation of forestry planning decisions from current arrangement of being primarily administered by the forest practices system to being under the control of Tasmania’s RMPS. The RPDC, the statutory body that oversees the planning system was perceived by S7 as being a “really good independent planning review body” (S7) as well as effective land managers. In addition, S3 also proposed that forest management be regulated through Local Government planning schemes, principally “so that the public have their normal rights of appeal”

Attaining genuine public participation that involves a cross section of the local community was perceived as the first critical step to ensure recreational opportunities are correctly catered for and to ease ongoing community conflict. S3 expressed the view that local conservationists “should be more actively engaged due the likelihood of creative ideas that could emerge”. S8 commented that FT needs to “adopt a policy beyond legal requirements to inform all stakeholders of any developments” along with S5’s reflection of “not just selective ones”. S4 highlighted the necessity of more consultation regarding log truck movements with the idea of negotiating for “two

days of no log trucks in certain areas – maybe weekends – to allow safe passage for trail riding”.

Another proposition advocated by respondents was the requirement for a comprehensive on-ground audit of recreational values per district, particularly in more remote areas that are earmarked for wood production purposes. This assessment needs to recognise “recreational values that are not based solely on economic imperatives” so that landscape settings are “ranked according to different needs and values, with prioritisation for the provision of facilities and activities given to areas that currently have existing access” (S13). Some respondents acknowledged that the provision of recreational opportunities may not generate any income for FT as well as creating ongoing costs associated with maintenance activities. However, these stakeholders drew attention to the indirect benefits such as the economic stimulus to surrounding communities and the enhancements in social wellbeing that flow back into the health system. Others perceived the provision of opportunities as integral part of good corporate citizenship.

Respondents suggested that wilderness areas were a “diminishing asset that needs to be preserved for the future, not just in national parks” with “the money being in conserving the forests” (S4). Similarly, other stakeholders recommended for the areas such as the Weld Valley and Middle Huon to be included in the TWWHA, including S7’s suggestion of protecting “open space for future opportunities”. Furthermore, S7 recommended that forward planning is required to “determine where you want trails” then place “regrowth areas into reserves so they become a permanent part of the trail” and not truncated at a future date. S9 suggested that the logging cycle should be extended to 100 years, thereby “increasing the potential for provision of outdoor recreation”. However, the prevailing theme that arose in the interview responses was the critical need for assessing recreational values on an equal basis to wood production in order to regain equilibrium in the multiple use management of State forests.

The assessment of recreational values in forested landscapes can be conducted through a variety of methods. One such planning framework is the ROS, which achieves similar outcomes to the on-ground audits advocated by respondents. The

following chapter outlines the results from a preliminary ROS that was conducted on recreational settings in the case study area.

Chapter 7 ROS results

The chapter provides a site-by-site description of the ROS results as well as a photographic display of key features.

7.1 Adamson Falls

Table 9 Adamson Falls ROS results

ROS Criteria	Class 4 Roaded Natural
General Description	<ul style="list-style-type: none">partly modified natural area;vegetation communities consisted of mixed forest of uneven age, with old growth <i>E. obliqua</i> intermixed with regrowth ranging from 30 to 100 years, transitioning into rainforest closer to the waterfall;regrowth forestry coupes visible from entrance of the track; andthe waterfall is two tiered, with a shallow pool at the bottom of the first (Figure 9).
Access	<ul style="list-style-type: none">2WD narrow dirt road with potholes;informal car park at the entrance that is muddy and boggy state;walking track in un-maintained condition with numerous fallen trees blocking the path as well as numerous boggy sections (Approx. 3 hrs return);evidence of soil erosion along the track (Figure 10), along with damage to the understorey vegetation at the base of the falls; andno formal viewing area at the falls.
Range of Facilities	<ul style="list-style-type: none">no public facilities.
Visitor Regulation	<ul style="list-style-type: none">broken sign at the beginning of the track (Figure 11); andanother sign warning of boggy conditions ahead.
Other Notes	<ul style="list-style-type: none">survey conducted on 02/09/07.

Figure 9 Adamson Falls



Figure 10 Eroded section of Adamson Falls track



Figure 11 Signage at Adamson Falls track entrance



7.2 Eddy Creek Catchment – Northeast side

Table 10 Eddy Creek Catchment – Northeast side ROS results

ROS Criteria	Class 2 Semi-Remote Non-Motorised: Northeast side of Eddy Creek Catchment	Class 3 Semi-Remote Motorised: End of Eddy Creek Rd
General Description	<ul style="list-style-type: none"> this area crosses over two ROS class classifications; predominately unmodified environment of large size; topographically shielded in sections and at least 1km from most noise or visual impacts, however wood harvesting at coupe WR12C was audible at times; vegetation community consisted of mixed forest with mixed age <i>E. obliqua</i> overstorey, integrated with areas of low heath and sedgeland swamp, along with a patch of rainforest; evidence of previous fires; <i>E. obliqua</i> appears to be the range of 100 to 300 years old, with some at the senescing stage of their life cycle; sparse understorey in sections providing opportunities for track placements; and network of tributaries throughout the area, including evidence of rare Burrowing Crayfish burrows (<i>Ambrastacoides denisoni</i> with possible crossover with <i>Ambrastacoides huonensis</i>) spread throughout (Figure 12). 	<ul style="list-style-type: none"> predominately natural environment; topographically shielded from most noise or visual impacts; vegetation community consists of mixed forest with mixed age <i>E. obliqua</i> overstorey, along with some <i>E. regnans</i>; and entrance to catchment adjacent to Eddy Creek.
Access	<ul style="list-style-type: none"> no roads or formed walking tracks 	<ul style="list-style-type: none"> 2WD gravelled logging road provides access to the Northeast side of the catchment with the road coming to a dead end near this location.
Range of Facilities	<ul style="list-style-type: none"> no public facilities or structures 	<ul style="list-style-type: none"> no public facilities and/ or structures.
Visitor Regulation	<ul style="list-style-type: none"> no signage; and exclusion zone (no signage displaying this information). 	<ul style="list-style-type: none"> locked gates at entrance to Eddy road; no signage; and exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none"> survey conducted on 28/09/07; new road proposed into area to access forestry coupes BB21C and BB21D; and photos' taken on the day of the field trip are of unpublishable quality due to rain and limited visibility. 	<ul style="list-style-type: none"> clearing has started at the beginning of the proposed logging road (Figure).

Figure 12 Burrowing Crayfish Burrow – Eddy Creek Catchment



Figure 13 Cleared beginning of proposed logging road



7.3 Eddy Creek Catchment - Southwest side

Table 11 Eddy Creek Catchment – Southwest side results

ROS Criteria	Class 2 Semi-Remote Non-Motorised: Southwest side of Eddy Creek Catchment	Class 3 Semi-Remote Motorised: End of Eddy Creek Rd
General Description	<ul style="list-style-type: none"> this area crosses over two ROS class classifications; predominately unmodified environment of large size; topographically shielded in sections and at least 1km from most noise or visual impacts, however wood harvesting at coupe WR12C was audible at times; vegetation communities consisted of wet to dry sclerophyll forest with a uneven aged <i>E. obliqua</i> overstorey and <i>Myrtaceae</i> dominated understorey; evidence of previous fires; and view field of the Lower Weld Valley, Barnback and Warra higher up into the catchment. evidence of rare Burrowing Crayfish burrows (<i>Ambrastacoides denisoni</i> with possible crossover with <i>Ambrastacoides huonensis</i>) spread throughout. 	<ul style="list-style-type: none"> predominately natural environment; topographically shielded from most noise or visual impacts,; and vegetation community consists of mixed forest with mixed age <i>E. obliqua</i> overstorey, along with some <i>E. regnans</i>; and entrance to catchment adjacent to Eddy Creek.
Access	<ul style="list-style-type: none"> no roads or formed walking tracks 	<ul style="list-style-type: none"> 2WD gravelled logging road providing access to southwest side of the catchment – with the road coming to a dead end near this location.
Range of Facilities	<ul style="list-style-type: none"> no public facilities or structures 	<ul style="list-style-type: none"> no public facilities and/ or structures.
Visitor Regulation	<ul style="list-style-type: none"> no signage; and exclusion zone (no signage displaying this information). 	<ul style="list-style-type: none"> locked gates at Tahune Reserve (South Weld Road) and entrance to Eddy Road; and no signage; and exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none"> survey conducted on the 23 rd of July over a period of one day; new road proposed into area to access forestry coupes BB18A and BB18B; the majority of photos taken on the day of the field trip are of unpublishable quality due to rain and limited visibility. 	<ul style="list-style-type: none"> clearing has started at the beginning of the proposed logging road.

7.4 Arve Reserve

Table 12 Arve Reserve ROS results

ROS Criteria	Class 2 Semi-Remote Non-Motorised: Arve Reserve	Class 3 Semi-Remote Motorised: Road into Arve Reserve	Class 4 Roaded Natural: Entrance to Arve Reserve
General Description	<ul style="list-style-type: none"> this area crosses over three ROS classes classifications; predominately unmodified environment of large size; topographically shielded in sections from most visual impacts; vegetation communities range from old growth mixed forest with <i>E. obliqua</i> overstorey and some <i>E. regnans</i>, transitioning into mainly rainforest at higher altitudes (Figure 14); view field of the Arve Valley, Hartz Mountain Range and Mt Weld (Figure 15); logging coupes Arve 41A and Arve 34C clearly visible from higher up in the reserve; and audible noise from wood harvesting in Arve 41A coupe. 	<ul style="list-style-type: none"> predominately natural environment topographically shielded in some sections from visual impacts; vegetation community consisted of old growth mixed forest with <i>E. obliqua</i> overstorey and some <i>E. regnans</i>. logging coupes Arve 41A and Arve 34C clearly visible along section of the road; and noise from wood harvesting in coupe Arve 41 A audible at times. 	<ul style="list-style-type: none"> substantially modified natural area; and a range of cleared and regrowth logging coupes as well as monoculture plantations clearly visible from entrance.
Access	<ul style="list-style-type: none"> no roads or formed walking tracks 	<ul style="list-style-type: none"> 2WD gravel logging road. 	<ul style="list-style-type: none"> network of 2WD gravel logging (spur) roads.
Range of Facilities	<ul style="list-style-type: none"> no public facilities or structures 	<ul style="list-style-type: none"> no public facilities and or structures. 	<ul style="list-style-type: none"> no public facilities and structures.
Visitor Regulation	<ul style="list-style-type: none"> no signage. 	<ul style="list-style-type: none"> no directional signage, but one forestry sign along the southern end of the road) (Figure 16). 	<ul style="list-style-type: none"> directional signage along Arve Road; locked gates at both entrances to the reserve.
Other Notes	<ul style="list-style-type: none"> this survey was conducted on 05/08/07 rock ledges towards the top of reserve providing opportunities for viewing platforms; and sparse understorey providing opportunities for track construction that could provide a link to the adjacent Hartz National Park. 		

Figure 14 Arve Reserve rainforest vegetation

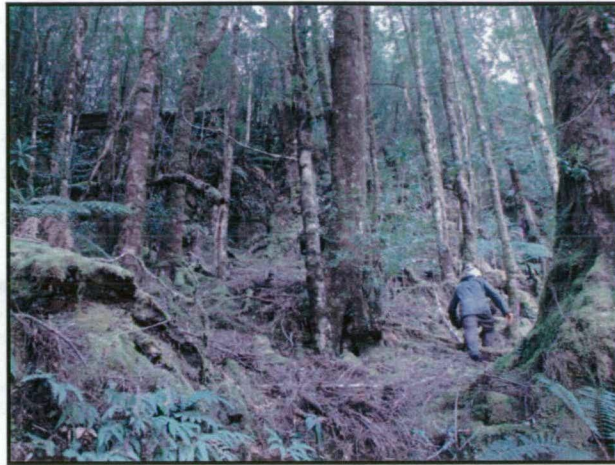
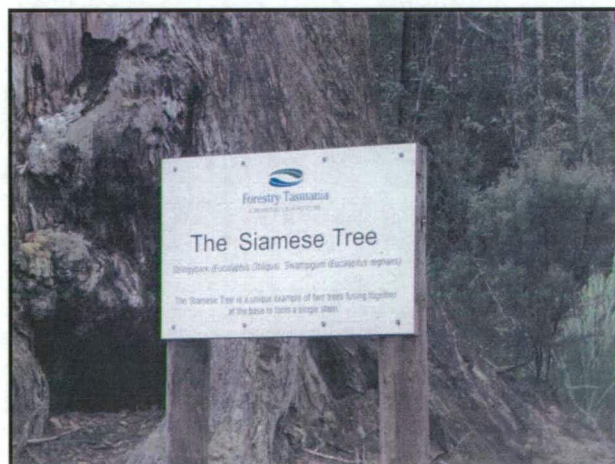


Figure 15 View from Arve Reserve



Figure 16 FT signage at Arve Reserve



7.5 Glovers Bluff

Table 13 Glovers Bluff ROS results

ROS Criteria	Class 4 Roaded Natural
General Description	<ul style="list-style-type: none"> partly modified natural area; vegetation communities consisted of a wet to dry sclerophyll forest on the approach road to the bluff, dominated by a mixed aged <i>E. obliqua</i> overstorey, transitioning into a <i>Myrtaceae</i> lowland heath; logged and regrowth forestry coupes as well as monoculture plantations visible from the bluff; and noise from active wood harvesting operations (coupe WR 12C) audible in the distance (Figure 19)
Access	<ul style="list-style-type: none"> 2wd gravelled logging road (South Weld Rd) from Tahune Reserve to Glovers Bluff turnoff (approx. 6 km); 2wd dirt road on the approach to the bluff (approx. 1.5 km), which is in an un-maintained condition; and formalised compacted gravel walking track to the lookout area, suitable for disabled access (Figure 20).
Range of Facilities	<ul style="list-style-type: none"> semi-formalised car parking area; picnic shelter (Figure 21); and lookout platform (Figure 22).
Visitor Regulation	<ul style="list-style-type: none"> two locked forestry gates between Tahune Reserve and Glovers Bluff turnoff; signage indicating Glovers Bluff attraction and turnoff; forestry interpretative signage on lookout platform; and exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none"> the viewfield is a mixture of - remnant old growth forest valley and button grass plains bordering the Weld River transitioning into mountain ranges in the background; viewscape interspersed with a number of visible logging coupes; coupe Barnback 21C (logged 2007) dominates the viewscape (Figure 17); view from Glovers before logging (Figure 18); and the signage at the lookout provides a FT explanation of land-use zoning in terms of wood production and describes the natural features as well as WHA boundary locations.

Figure 17 View from Glovers Bluff Lookout

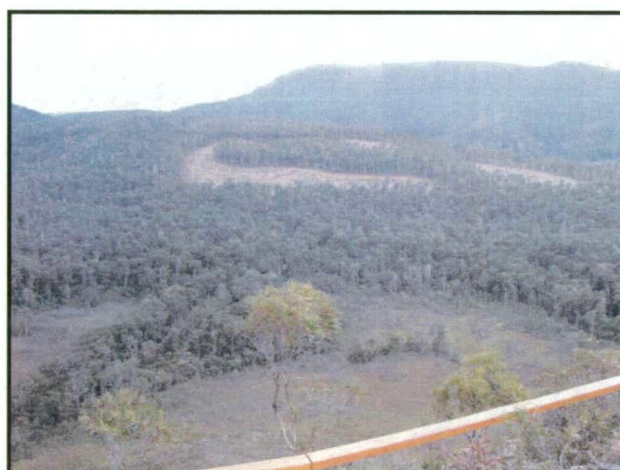


Figure 18 View from Glovers Bluff Lookout before logging



Figure 19 View from Glovers Bluff to coupe WR 12C



Figure 20 Formalised walking track at Glovers Bluff



Figure 21 Glovers Bluff shelter



Figure 22 View of the Upper Weld Valley - Glovers Bluff Lookout –

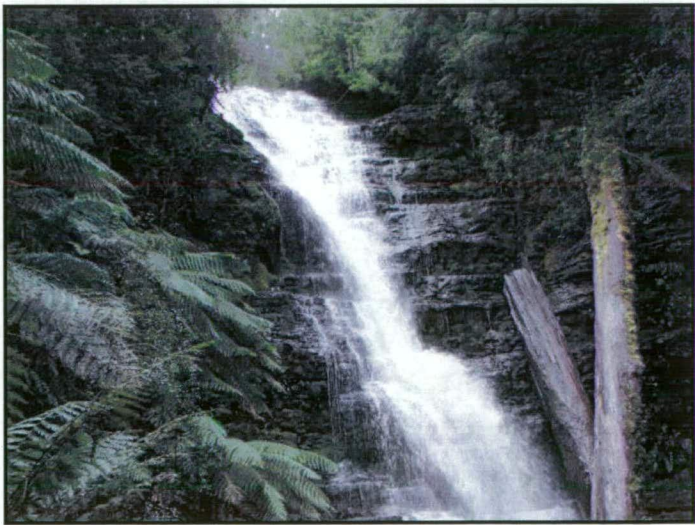


7.6 Reuben Falls

Table 14 Reuben Falls ROS results

ROS Criteria	Class 4 Roaded Natural
General Description	<ul style="list-style-type: none">• partly modified natural area;• vegetation communities consisted of a mixed forest, with a mixed aged <i>E. obliqua</i> overstorey, transitioning into rainforest closer to the falls;• logged and regrowth forestry coupes as well as monoculture plantations visible from track entrance and within 1 km of the falls; and• waterfall surrounded by large tree ferns.
Access	<ul style="list-style-type: none">• 2WD gravelled logging road (South Weld Rd) from Tahune Reserve to Reuben Falls (approx. 12 km);• informal small pull over area for car parking to the north of the track entrance;• primitive unmaintained walking track to falls, with a large fallen tree blocking access along the way (approx 70 min return walk) (Figure);• evidence of soil erosion along the track, particularly the steep downhill portion leading to the falls and also surrounding the informal viewing areas;• no formal viewing area at falls.
Range of Facilities	<ul style="list-style-type: none">• no facilities
Visitor Regulation	<ul style="list-style-type: none">• two locked forestry gates between Tahune Reserve and Ruben Falls track entrance;• signage to signify the Reuben Falls attraction and track entrance, which is partially obscured by shrubs;• unmaintained star picket posts with orange safety fencing to highlight steep drop and track direction; and• exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none">• survey conducted on 14/09/07;• low visibility and rain on survey day reduced publishable photos; and• FT is in the planning process of constructing an alternative access route (track) to the falls as well as a formalised viewing platform.

Figure 23 Reuben Falls



7.7 Weld River – North Weld Road

Table 15 Weld River – North Weld Road ROS results

ROS Criteria	Class 2 Semi-Remote Non-Motorised: North Weld	Class 3 Semi-Remote Motorised: End of North Weld Rd
General Description	<ul style="list-style-type: none"> predominately unmodified environment topographically shielded from most noise or visual impacts old growth rainforest vegetation community with a network of horizontal <i>Anodopetalum biglandulosum</i> along with Myrtles and Blackwoods; a network of tributaries flowing towards the river; and viewfield across Weld River towards Snowy Mountain South, and the tall forests of the Lower and Upper Weld Valley and Barnback (Figure 22). 	<ul style="list-style-type: none"> predominately natural environment - topographically shielded most noise or visual impacts; old growth mixed forest, transitioning into rainforest on lower slopes towards the river; and view field towards Snowy Mountain South and tall forests of Lower and Upper Weld Valley and Barnback.
Access	<ul style="list-style-type: none"> no roads and formed walking tracks leading down to Weld River. 	<ul style="list-style-type: none"> 2WD gravelled logging road from Tahune Reserve to (via South Weld Rd) end of North Weld Rd (approximately 14 km in length).
Range of Facilities	<ul style="list-style-type: none"> no public facilities and/ or structures at the Weld River 	<ul style="list-style-type: none"> no public facilities and/ or structures at end of North Weld Rd.
Visitor Regulation	<ul style="list-style-type: none"> no signage; exclusion zone (no signage displaying this information). 	<ul style="list-style-type: none"> two locked forestry gates along South Weld Rd; signage indicating North Weld Rd turnoff from South Weld Rd. exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none"> survey conducted on 14/09/07; the area crosses over two ROS class classifications; and proposed new bridge to cross over Weld River, along with new logging roads to access coupes into remnant forested areas. 	<ul style="list-style-type: none"> road comes to a end about 500 m from the Weld River (Figure 23)

Figure 24 North Weld viewfield



Figure 25 End of North Weld Road



7.8 Weld River Bridge to Huon River Junction

Table 16 Weld River Bridge to Huon River Junction ROS results

ROS Criteria	Class 3 <i>Semi Remote Motorised: To Huon River Junction</i>	Class 4 <i>Roaded Natural: Weld River Bridge</i>
General Description	<ul style="list-style-type: none"> predominately unmodified environment; topographically shielded from most noise or visual impacts, although logging coupes are visible on the western side of the river beyond the riparian buffer zone; and vegetation communities transition between mixed forest, rainforest and dry sclerophyll. 	<ul style="list-style-type: none"> partly modified natural area; surrounding vegetation community consists of a mixed forest, with a mixed aged <i>E. obliqua</i> overstorey; and logging coupes visible to the east.
Access	<ul style="list-style-type: none"> old fishing track/ 4WD road (blocked in sections) runs parallel to Weld River on eastern side. 	<ul style="list-style-type: none"> 2WD gravelled logging road; and informal walking tracks adjacent to bridge with evidence of erosion.
Range of Facilities	<ul style="list-style-type: none"> no public facilities and/ or structures. 	<ul style="list-style-type: none"> no public facilities and/ or structures.
Visitor Regulation	<ul style="list-style-type: none"> no signage; exclusion zone (no signage displaying this information). 	<ul style="list-style-type: none"> locked forestry gate at entrance to eddy road; and exclusion zone (no signage displaying this information).
Other Notes	<ul style="list-style-type: none"> survey conducted during rafting trip on 14/10/07; the area crosses over two ROS class classifications; and Weld River classified as class 2/3 in rafting difficulty (Figure 24). 	

Figure 26 Weld River rafting excursion



(Source: Olly Lawler)

Chapter 8 Discussion and Conclusions

8.1 Synthesis of Results

FT has a mandate enshrined in the *Forestry Act 1920* to manage State forest areas for multiple use purposes. This research has endeavoured to assess how the governance and provision of outdoor recreational opportunities is integrated within this mandate. The Huon District State forests were chosen as the case study area with the intention of investigating real-life contextual conditions. The findings from this research have in a number of circumstances been generalised to encompass the governance of all State forest districts, though it is acknowledged that it has limitations due to the probable differences in the regional situations and application of management practices.

FT's management of multiple use forests is based on the production and delivery of forest products along with other services. Wood production quotas are set each year through the RFA and more recently the CFA. These agreements are statutory arrangements negotiated between the Commonwealth and State governments, with input from a variety of stakeholders. This core element of FT's business is at times in conflict with the provision of current and future outdoor recreational opportunities. There has been past acknowledgement of this situation by FT as well as various reports in the literature describing the difficulties of managing forests for a range of purposes. The majority of stakeholder responses also highlighted this issue, whereas in recent history FT has continued to promote the achievement of balanced outcomes in the provision of multiple uses in SFM practices (Forestry Tasmania 2007h).

The conflicts that arise through the integration of multiple uses in forest management is to a certain extent dependent upon the interpretation of what constitutes a quality recreational experience. It was proposed by stakeholders that future market demand for outdoor recreation will be directed towards experience in wilderness areas (remote to semi-remote settings). Maintaining the natural value attractiveness of forested landscapes is described as crucial to facilitating continued visitation and essential to compete for market share against countries such as New Zealand.

The preliminary results from the ROS assessments illustrate that semi-remote unmotorised areas such as North Weld and Eddy Creek Catchment are earmarked for future roading and logging. Based on these preliminary ROS results, semi-remote (unroaded) locations appear to be a diminishing recreational setting in the case study area, with roaded natural settings far more dominant. Similar studies in State forest areas illustrated that wood production operations tend to reduce the opportunities for tourists seeking experiences in more pristine environments (Department of Natural Resources and Environment 1996; Leonard & Holmes 1991). However, it was also recognised that a variety of resource management activities can contribute to recreationists' enjoyment (e.g. logging roads providing access to fishing spots). Other evidence from the ROS highlighted that visible signs of forestry operations as well as noise from logging operations were evident in a selection of the settings surveyed.

Research conducted by Font & Tribe (2000) and Butler & Waldbrook (2003) found that tourist preferences in recreational settings highlighted perceptual differences in aesthetic and functional qualities between those areas set aside for recreation as opposed to timber production. These studies suggested that recreationists' tend to prefer activities in more remote locations (e.g. forests that have not been subject to roading), or otherwise settings that subject to silvicultural practices softened somehow (e.g. viewscape protection). The compatibility of different resource uses appeared to be dependant upon the scale at which the logging activity was conducted, with selective logging viewed as more appropriate than clear felling. However, these studies only provide a guide to tourist perceptions with further research necessary to gain a broader perspective. The emergent theme in stakeholder responses regarding tourist perceptions of wood production practices indicated a sense of disappointment with viewing logging coupes first-hand. Furthermore, current forest management practices were described as conflicting with Tasmania's clean green branding as a wilderness destination.

Clean green branding gives Tasmania a distinctive market advantage and as such the continued promotion of this image was recommended as part of the Tasmania Together process. The *Tourism & Forestry Protocol* was developed as an approach to maintain the validity of this marketing strategy. One of the objectives states the

necessity of utilising landscape planning to minimize tourist exposure to logged forestry coupes. The purpose of this measure is to limit the potential impact of wood production practices on tourists' perceptions of the States' wilderness destination values. Viewscape modeling is one of the prominent planning instruments undertaken in coupe design, with provisions in the FPC outlining specific procedures to be followed.

The standards encapsulated in the FPC are promoted as providing for the reasonable protection of natural and cultural values of forests subject to wood production operations. However, no provisions are contained within the forest practices system stipulating procedures for the assessment of recreational values in proposed logging coupes. The FPC contains prescriptions that restrict or modify harvesting operations to protect natural and cultural values, with respondents in this research suggesting that existing or potential outdoor activities are also a consideration in planning. The dominant theme that emerged in the interview process highlighted the perception that the provision of recreational activities is generally secondary to wood production imperatives, which leads to an incremental loss in both current and yet discovered opportunities.

The exclusion of recreational value provisions from within the FPC jeopardises the legitimacy of FT's multiple use mandate, which is also compounded by the absence of an overarching strategy outlining future recreational provision directions. There are a number of policy frameworks that guide the establishment of activities, but no internal strategic approach. One of the respondents in this research indicated that site-specific planning coupled with years of experience works better without a strategy, whilst evidence from previous research (and the prevailing reflection amongst stakeholders) indicates that an unstructured (informal) approach to development (of access, facilities and wood harvesting) further diminish the availability of a diversity of recreational settings.

To ensure the maintenance of a range of settings, stakeholders advocated a comprehensive audit of recreational values per district. Moreover, forest landscapes can then be ranked according to different needs and values, with prioritization for the provision of facilities given to areas that currently have existing access (e.g. roads

and tracks). This assessment process would aid in developing a database that identifies the current range of recreational settings and activities as well as providing a basis for informing decisions regarding future provisions.

Other potential conflicts that arise from forest management practices are issues relating to the ecological footprint of wood production and the subsequent impacts on recreational activities. This is another scenario that is open to interpretation, with the situation at Glovers Bluff illustrative of the divergence in opinions. The view from the lookout encompasses the Lower and Upper Weld Valleys, including areas of the Warra LTRS. Interpretative panels have been placed on the platform describing the multiple use of forested landscapes. An aggregate retention coupe is directly visible in the middle of the viewfield on Back Camels Ridge, intermixed with views of remnant forests, mountains, button grass plains, Weld River and other logging coupes. Some respondents expressed their concerns with the incremental erosion of this viewscape experience, whilst one other highlighted the merits of applying visual modelling techniques (at Glovers Bluff) to blend logging coupes into the landscape.

Further concerns with the conflicts arising from multiple use of resources related to the on-ground achievement of the SFM objectives. These principles are promoted as providing the means of accomplishing balance in economic, environmental and social factors. Another theme that emerged from interview responses was that stakeholders were critical of the environmental sustainability of forest management practices with economic imperatives viewed as the dominant force in decision-making. FT's commercial obligations (i.e. sawlog quotas per year) as well as wood production operations were perceived as causing considerable harm to the viability of rafting operations. The timing of regeneration burns (usually during autumn) is blamed for creating a downturn in tourist visitation as well as impacting upon the community's health and wellbeing.

Embedded in the *Huon Forest District Forest Management Plans* there are prescriptions that guide the integration of recreational activities into forested areas. However, there appears to be no sustainability based criteria that establish benchmarks (e.g. area and per cent of forest land available for recreation) for the

provision of outdoor recreational opportunities. As a result, there are no indicators (e.g. in relation to the total area of forest land) to measure and monitor the achievement of these management prescriptions. The Australian framework for SFM provides specific guidelines for the development and integration of recreational opportunities in multiple use forests (MCFFA & ANZECC 1988). These principles could allow on-ground results (of recreation provision) to be quantified, providing transparency and accountability in public reports of forest management outcomes.

Within the case study area the Tahune Airwalk is the major forest-based offering for the region. This attraction was reportedly designed to meet recreation and tourism demand as well as to provide an additional source of income for FT. The facility offers an array of activities, with the day traveller market the predominate target in terms of attracting tourist visitation. The initial level of patronage exceeded budget expectations, though visitation has incrementally declined since the Airwalk's inception. FT's explanation for this trend was a downturn in the global tourism market and disruptions caused by forest protestors. Feedback from various stakeholders indicated a contrary position, with the decline ascribed to saturation point reached with the approach of large scale tourism infrastructures and competition for a limited market segment. Respondents' recommendations encompassed the suggestion of further expanding the Airwalk experience into the adjacent Weld Valley Catchment. This initiative was described as crucial to maintaining continued visitation as well as attracting a more diverse range of traveller market. This is supported by the literature (Bartl *et al.* 2002; McArthur 1994).

The Weld comprises a variety of recreational settings with the intrinsic qualities of the natural features described in an assortment of publications (Green *et al.* 2004; King 1966; Mooney 2007a). The Weld Valley touring route was launched by FT in November 2006 as an initiative to demonstrate how wood production and tourism can coexist. During the same month an exclusion zone was enforced on the area restricting public access whilst promotion of the drive continued to be circulated.

There are number of other historical issues regarding the promotion of tourism in the Weld, including a recommendation by McArthur (1994) to keep visitation to the area

low key until the necessary infrastructure is upgraded to ensure visitor safety. The results from the ROS assessment verified that the track at Reuben Falls is still in an un-maintained state, with planned improvements still not completed (Pepper 2007). Other access issues identified and previously summarised by Bartl *et al.* (2002) were the presence of locked forestry gates along roads within the touring route which was described by a respondent as discouraging spontaneous enjoyment. These restrictions combined with the deterioration in existing tracks was not exclusive to this area, with similar issues noted in other ROS surveys (e.g. Adamson Falls, Arve Reserve and Weld River) and also encapsulated in various stakeholder responses.

Security and safety concerns were put forward as the reasons for implementing these visitor regulations, which highlights another example of how conflicts arise in multiple use management. This is exemplified by the tourism division of FT promoting the availability of recreational activities in the Weld, whilst the wood production side of the operation continued to harvest coupes. As a standard operating procedure, public entry is generally prohibited to areas under harvesting operations, with recreation access further restricted by the enforcement of a catchment wide exclusion zone. Furthermore, the promotion of the Valley's natural values without prior upgrades to existing infrastructure (e.g. Reuben Falls) or provision of basic facilities (e.g. shelters) demonstrates a potential lack of human resources and funding being directed towards recreational opportunity provision.

Some respondents suggested that forestry planners and managers as part of the multiple use mandate are responsible for considering the long-term effects of wood production activities (e.g. coupe setting selection), as well as short-term effects (e.g. log truck traffic and noise levels) to assess the compatibility or conflict with the provision of future recreational opportunities. In addition these stakeholders highlighted the requirement of evaluating recreational and natural values on an equal basis to timber as well as considering the concerns and advice of community members.

Another emergent theme in stakeholder responses was the perception that current consultation processes function in a top-down manner, with forest management decisions formulated without genuine consideration of community concerns. Beyond

the legal requirement to inform adjacent landholders of logging operations and the wider community of development proposals, respondents suggested that generally only representative bodies or associations are consulted on recreational matters. Consequently, it was suggested that community liaison officers' provide an integral role in facilitating wider local involvement in recreation provision. Furthermore, this arrangement was described as only being workable if these representatives are willing to consult with a broad cross section of the community.

FT's policy for public consultation, which is embedded in the SFM principles, states that community expectations will be taken into account in forest management decisions. For this objective to be adequately fulfilled, public participation needs to involve a broad cross section of society to facilitate open dialogue about all alternative recreational ideas. Respondents recommended that a comprehensive database of all stakeholders be developed so that direct offers of involvement can be forwarded in the preliminary stages of planning. Written or verbal feedback should also be provided for all submissions received to ensure transparency and relevancy in forest management decisions. Furthermore, ongoing conflicts in forest resource use may also be eased if the general community can contribute to a more bottom-up styled consultation approach (e.g. direct involvement in decision-making) and regain a sense of empowerment in the process.

Most stakeholders were in agreement that the Tahune initiative benefited the economies of surrounding rural communities (e.g. Geeveston), but were skeptical of FT's motivations. The facility was perceived as being solely profit-driven and developed to promote demonstrated adherence to SFM practices whilst being surrounded by major logging zones. The issue of economic imperatives and public relations were viewed as dominating decision-making in recreational planning. Stakeholders acknowledged the ongoing cost associated with developing and maintaining activities as well as the observation that some recreational opportunities (e.g. tracks) may not generate any direct income. However, respondents drew attention to additional indirect benefits that flow from outdoor recreation participation, such as enhancements in social wellbeing and fulfillment of good corporate citizenship.

Stakeholder recommendations for expanding the recreation market beyond the soft adventure and day traveler approach were focused on predominately social and environmental imperatives. The in-built flexibility of multiple use forests was perceived as a distinct market advantage over surrounding TWWHAs. There are a variety of uses that permitted on State forest land tenure as opposed to the restrictions on activities in protected areas (e.g. dog walking and mountain biking). This additional freedom in activity choices is appealing to the independent traveler as opposed to group tours. Capturing visitation from the higher end market was also proposed coupled with the provision of forest based accommodation to capture the overnight stay tourist. There were a range of other suggestions for supplementing current activities as well as new initiatives. However, the consensus theme for what constitutes an appropriate recreational venture or opportunity centered on the need to adhere to ecological and culturally sensitive designs.

Market potential for attracting mountain biking enthusiasts was highlighted by respondents and within regional strategies. Countries such as Wales, Scotland and the USA are experiencing recreation growth in this area. Currently there are no dedicated mountain bike trails in State forests so the development of a network of tracks for a variety of disciplines (e.g. downhill and free riding) would be necessary. It is suggested that design and implementation be guided by local riders to ensure suitability of trail features and to facilitate joint responsibility for ongoing maintenance needs. As suggested in the literature (and outlined by respondents) there is also an opportunity for land managers (e.g. FT, Councils and PWS) to coordinate implementation of trails to satisfy biking demand across various land tenures.

Trout anglers were also identified as a prospective target market (in the literature and by stakeholders), with current visitation levels described as unreflective of the immense potential they represent. The lack of strategic planning and cohesive marketing in this area was described as hampering visitation growth. Other issues underscored by respondents included tensions between local and visiting fisherman and inadequate investment from Governments in fishery management and infrastructure development. Public access to rivers was also considered a major constraint with the formation of a Tasmania-wide strategy as part of an overarching sports fishing plan aimed at addressing these issues (Farrell 2007). Decentralising the

angling market from the central plateau lakes and promoting the opportunities in the Huon and other regions (e.g. Derwent) to mainland fishermen were considered the foremost opportunities to stimulate extra visitation.

The provision of additional walks was also identified (both in the literature and by stakeholders) as another opportunity to meet recreational market demand. Specifically, more bush walking tracks in forested landscapes containing intact wilderness values were recommended. There are a range of steps that could be implemented to ensure the future availability of these recreational settings in State forests. For example semi-remote areas could be surveyed for recreational values (e.g. North Weld and Eddy Creek Catchment) alongside the other provisions in the FPC. These assessments could be based on a ROS styled approach with the framework modified to include other planning instruments and/ or ensure compatibility to any current recreational planning processes. Another issue that may require attention is the maintenance of existing track networks. The formation of an ongoing works strategy may assist in continued ease of access (e.g. removal of fallen trees), minimise environmental impacts (e.g. implement erosion measures) and further ensure tourist safety.

Maintenance issues relating to existing opportunities were identified in the preliminary ROS assessment. Waterfall based activities were viewed as having a proven recreation market (in the literature and by respondents), however, access provisions (i.e. trails) at locations such as Adamson and Reuben Falls have been deteriorating in condition for a number of years. Specific future opportunities identified in the ROS results included the construction of a track in the Arve Reserve that could be extended to provide a link to an area near to the boundary of Hartz National Park. The existence of rock ledges towards the top of the reserve could provide a suitable location for a viewing platform, with expansive vistas across the valley. The sparse understorey on the northeast side of Eddy Creek Catchment is also potentially suitable for track building, with the North Weld area ideal for more wilderness based activities. These activities could include bush walks to Snowy South or extended walks creating links to the Derwent Forestry District (e.g. Styx Valley), lookouts orientated towards the Upper Weld Valley (TWWHA), and infrastructure (e.g. tracks and basis shelters) for anglers and rafting operators.

Seasonal market demand for rafting tours on rivers within State forest areas was perceived as strong (by stakeholders), with ongoing enquires from tourists regarding bookings. As previously outlined, logging of the catchment headwaters is blamed for causing erratic water flows in the Picton River. As a result, most tours on this river are predominately planned on a stand-by basis, which is directly affecting patronage levels.

There are a range of other recreational activities that were recommended by stakeholders and also identified through the desk top analysis of the case study area. The suggestions put forward in the interview process range from creative type activities (e.g. art in the forests and recording of forest sounds tours) to ecologically orientated (e.g. guided scientific tours and adventure tree climbing) and multiple use interpretation (e.g. tours demonstrating specialty timber uses). This list is not exhaustive, with a more comprehensive stakeholder process necessary to encapsulate the perceptions of an even broader cross section of the community.

Market research to determine future recreation demand may also be required based on fulfilling the prescriptions in the *Huon Forest District Forest Management Plans* and FT's SFM principles. Social and environmental benefits could be assessed alongside economic factors to ensure further consistency with the multiple use mandate. The ROS that was undertaken was also only a preliminary assessment (as with the stakeholder interview process), although the survey covered a range of recreational settings. A comprehensive inventory could be implemented per district, to establish base-line information regarding the diversity of recreational settings, general descriptions, visitor regulations, access and any other relevant data. This assessment could be styled on a modified ROS type classification framework or in combination with other recreational planning systems. Previous research and the dominant theme emerging in stakeholder responses highlight the necessity for a strategic planning approach that is in coordination with other land management systems, and linked to regional planning processes.

8.2 Conclusion

The research undertaken in this study utilised a multiple method approach, with the Huon Forest District chosen as the case study area. The findings are based on an assessment of the governance of State forests and provision of recreational opportunities within them. A range of dominant themes emerged from the stakeholder interview process that consequently converged with the results from the modified ROS assessment and the background literature review.

FT's fulfilment of their statutory mandate to manage State forests for multiple use purposes was critically questioned across a broad range of subjects. The conflicts that arise in the multiple use of resources in forests are the predominate obstacles to achieving the adequate integration of recreational uses. These constraints are driven by wood production obligations and a GBE that is perceived as operating in a top-down authoritative manner and employing inadequate community consultation processes.

There is a range of key adaptations that could be integrated with current governance policies and frameworks. Firstly, FPOs' could be provided with documented guidelines encompassed in the FPC that provide provisions to assess recreational values alongside natural, cultural and timber considerations. Furthermore, to legitimise the reporting of SFM outcomes, there could be the integration of community agreed and Montreal principle based criteria that provide benchmarks for the provision of outdoor recreational opportunities. Indicators and monitoring procedures are all also necessary to quantify and measure the performance of outcomes. Another key requirement that could be initiated is for inventories of State forest districts, based on a modified version of the ROS or a similar recreational planning instrument. This could establish information regarding the range of recreational settings that are available as well as data about access, visitor regulations and other descriptions.

The suggested governance adaptations outlined could aid in formulating a strategic approach to recreational planning. Evidence from previous ROS studies (including stakeholder responses and other publications) demonstrate the potential impacts of

unstructured (informal) development on current and potential recreational opportunities. Future recreation demand is proposed to be directed towards experiences in remote to semi-remote settings, yet these types of forested landscapes appear to be a diminishing resource in State forest areas. Roaded natural locations can also be beneficial to recreationist's enjoyment, however these areas already tend to dominate. If forest planners and managers endeavour to further assess the compatibility of resource uses (e.g. access arrangements) then areas such as the Weld Valley may play an integral future role in offering quality recreational experiences beyond the Tahune Airwalk.

State forests are theoretically managed for the good of all Tasmanians', therefore consultative processes that involve a broad cross section of the community in forest management decisions is essential. Despite the range of criticisms that emerged in this research regarding governance procedures, there is also immense potential to ease community conflict and realign policies and frameworks to further fulfil the multiple use mandate.

There are a range of existing recreational opportunities, however a number of these require maintenance works to improve access, tourist safety and environmental conditions of the settings. If these opportunities are combined with the provision of new activities (e.g. mountain bike tracks, challenging walks and improved access for anglers) alongside a promotional campaign (i.e. that highlights the areas natural and cultural values), further economic, social and environmental benefits may follow. These benefits include possible flow on economic stimulus to rural economies (as with the Tahune Airwalk), further participation of community members in outdoor recreational activities (improving health and wellbeing) and the additional protection of forested landscapes.

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Appendix A Thesis Information Sheet



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INFORMATION SHEET

Outdoor Recreation in the Huon District's State Forests:

Challenges and Opportunities

My name is Simon Branigan, Masters candidate in the School of Geography and Environmental Studies, University of Tasmania and a Tasmanian Governor's Environmental Scholarship recipient for 2007. My supervisor, and Chief Investigator for this project, is Dr Lorne K. Kriwoken. We would like to invite you to participate in this research project, as part of the requirements for a Master of Environmental Management.

Background

Tasmania has a tourist industry worth an estimated \$1 billion, mostly based on the State's superb environment with unique natural features, great biodiversity and rich cultural landscape (DITR 2003). Approximately one third of Tasmania is protected in areas such as World Heritage and National Parks, with another one fifth in State forests. A proportion of these State forests are classified as '*multiple use*'.

The State Forests managed by Forestry Tasmania in the Huon District has been chosen as the study area for this research. The Huon District contains a mix of both protected areas and State forests, with Forestry Tasmania's flagship offering, the Tahune Forest Airwalk, located within the region. Outdoor recreational offering in the Huon District State Forests will be under continued pressure to be appropriately planned and managed, in order to maintain Tasmania's competitive edge in the global tourism market.

Significance

The significance of this study is to provide further input into Forestry Tasmania's governance and provision of outdoor recreational opportunities in State forests. This research is particularly relevant due to the District Forestry Management Plans for 2008 to 2017 being in the draft process and open to stakeholder participation.

Research Aim

The aim of this research is to critically assess the governance of State forests in the Huon Forest District and the provision of outdoor recreational opportunities within them.

Research Objectives

In order to achieve the aim of the study there are a number of specific research objectives:

1. Provide an overview and assessment of Forestry Tasmania's governance of State forests, with particular reference to the provision of outdoor recreational opportunities;
2. Assess and describe the range of outdoor recreational opportunities in Huon Districts State Forests;
3. Conduct preliminary Recreational Opportunity Spectrum (ROS) assessment of recreational settings within the Huon District State Forests;
4. Explore the potential for adaptations in Forestry Tasmania's governance and provision policies regarding the provision of outdoor recreational opportunities in the State forests; and
5. Identify opportunities for the increased provision of outdoor recreational activities within the case study area.

To help achieve these research aim and objectives, you have been invited to participate in the study as a key informant regarding outdoor recreation in the Huon District State Forests. Your participation involves a semi-structured, audiotape-recorded interview of approximately 45 minutes, in which I will ask you some questions about:

- the provision of outdoor recreational opportunities in the Huon District State Forests;
- the market demand;
- the barriers and constraints of current and future opportunity development; and
- future vision regarding outdoor recreation ventures.

The interview/s will be conducted at your workplace or another suitable location nominated by you.

The research team does not anticipate that there will be any foreseeable risks for persons participating in this research project.

Your anonymity and confidentiality will be assured at all times during the course of the study. No identifying characteristics such as name, age or position will be recorded on the audiotape and transcript. In the final presentation of the thesis, no names or other personal details will be used unless a specific participant has requested otherwise and given informed consent. If you choose to be identifiable you will be referenced accordingly in the final thesis.

To protect the confidentiality of the research data, it will be stored in a locked cabinet and on a password protected computer. Raw data must be kept by the School of Geography and Environmental Studies for at least 5 years and may then be destroyed.

Participation in the study is entirely voluntary. If you agree to take part you may decline to answer any question, withdraw at any time without effect or explanation, and withdraw any data you have supplied. You will be required to sign the attached consent form confirming

your willingness to participate and indicating that you understand what is involved. I will also sign the form adhering to the requirements of confidentiality and anonymity.

As a participant in the study you will also be given the opportunity to read a report of the significant findings at the conclusion of the research.

This project has received ethical approval from the Human Research Ethics Committee (Tasmania) Network which is constituted under the National Health & Medical Research Council. The Committees under the HREC (Tasmania) Network use the *National Statement on Ethical Conduct in Research Involving Humans* to inform their decisions.

If you have any concerns of an ethical nature or complaints about the manner in which the project is conducted, you may contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network. The Ethics Executive Officer can direct participants to the relevant Chair of the committee that reviewed the research. Ethics Executive Officer: Phone 03 6226 7479 or human.ethics@utas.edu.au

Thank you for taking the time to read the information sheet, and we hope that you are willing to participate in the study. More information on this project may be obtained by contacting either:

Dr Lorne K. Kriwoken, (03) 6226 2458, L.K.Kriwoken@utas.edu.au

Or Simon Branigan, 0409 087 278, simonb2@utas.edu.au

Dr Lorne K. Kriwoken

Simon Branigan

Appendix B Interview Schedule

The following are the question that comprises the interview schedule, which was posed to the key stakeholders:

Part 1

These following questions relate to background information regarding the key stakeholders.

1. What is your personal and/or professional interest in the Huon District regarding tourism and outdoor recreational offerings in State Forests?
2. What is your role in the planning and implementation of tourism and outdoor recreational offerings?
3. Which specific locations have you had planning and development input into?

Part 2

These following questions relate to your knowledge and experience about FT's governance of outdoor recreational opportunities within the State Forests of the Huon District.

1. What is your perception of Forestry Tasmania's (FT) mandate in terms of developing outdoor recreational offerings?
2. How is this mandate applied?
3. Can give a specific example/s of how an opportunity/s came about being established?
4. What is your understanding of the current planning framework by which opportunities are developed?

Part 3

The following questions relate to FT's SFM objectives.

1. What is your understanding of FT's SFM objectives?
2. Which of these objectives are being fulfilled?

3. Which of these objectives are not being fulfilled?
4. What would you describe as an adequate public consultation process?
5. Was there a consultation process?
6. What worked in this consultation process?
7. What didn't work in the consultation process?

Part 4

The following questions relate to your vision for the provision of tourism and outdoor recreational offerings in the Huon District's State Forests.

1. Which planning instruments should be used?
2. What would you describe as an appropriate outdoor recreation venture?
3. What is your perception of market demand: FIT, groups etc?
4. What are the tourist perceptions of wood production practices?
5. What barriers and constraints exist?
6. What are the future opportunities?

Appendix C Consent Form



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STATEMENT OF INFORMED CONSENT

Title of investigation

Outdoor Recreation in Tasmania's State Forests:

Challenges and Opportunities

1. I have read and understood the 'Information Sheet' for this study.
2. I understand that the study involves a approximately 45 minute audio-recorded recorded interview with Simon Branigan focusing on the following areas:
 - the provision of outdoor recreational opportunities in the Huon District's State Forests;
 - the barriers and constraints of current and future outdoor recreation development; and
 - ideas of appropriate outdoor recreation opportunities.
3. I understand that all research data will be securely stored on the University of Tasmania premises for a period of 5 years and then may be destroyed.
4. I understand that all research data will be treated as confidential.
5. Any questions that I have asked about the purpose and nature of the interview and study have been answered to my satisfaction.
6. I understand I have the opportunity to make any additional comments and/ or changes to the interview transcript.
7. I understand that my identity will be kept confidential unless I consent writing for it to be revealed, and any information I give to the researcher will only be used for the purpose of the project.
8. I agree that research data gathered from me for the study may be published provided that I am not identified as a participant.

9. I agree to participate in this investigation and understand I may withdraw at any time from the project without any effect and personal data I have provided may be withdrawn at my request.

Name of participant _____

Signature of participant _____

Date _____

Statement by investigator:

I have explained the project and the implications of being interviewed to the interviewee and I believe that the consent is informed and that he/she understands the implications of participation.

Appendix D

Table 17 Primary Visitor Walks in Huon Forest District

<i>Name of Track/ Walk</i>	<i>Access Point</i>	<i>Available for adopt a track program</i>
Arve River Nature Walk	Arve Road	No
Big Tree Lookout	Arve Road	No
Huon Pine Walk	Arve Road	No
Keoghs Creek Walk	Arve Road	No
Lookin Lookout	Arve Road	No
Swinging Bridges Loop	Tahune Reserve	No
West Creek Lookout	Arve Road	No
Zig Zag Track	Arve Road	No

(Forestry Tasmania 2007f)

Table 18 Secondary Visitor Walks

<i>Name of Track/ Walk</i>	<i>Access Point</i>	<i>Available for adopt a track program</i>	<i>Comments</i>	<i>Actions to be completed/resolved</i>
Adamson Peak	Peak Rivulet Road	No	FSN Group are interested, FT Included	Joint Adoption with Parks and FT
Adamsons Falls	Peak Rivulet Road	No	Needs re-development	Negotiate with FT, District Level
Blakes Opening	Picton Road	Yes	Track recently reopened by RAFT crew	Long Term project
Creekton Falls	Creekton Road	Yes	Needs re-development	
Demonstration Forest walk	Arve Road	No	Redlines Coach has options	Work finalised
Duckhole Lake Walk	Creekton Road	Yes	<u>Ready for Adoption</u>	Requires work to complete the upgrade
Huon/Picton River (McKays)	Riveaux Road	No	Needs re-development	
Kermandie Falls	Kermandie Road	Yes	Discuss formal arrangement	Dudley Geeves and Jim Wilson
Kermandie Track (Hartz Track)	Bennetts Road	Yes	<u>Adopted</u>	Joint Adoption with Parks and Wildlife
Lake Skinner Walk	McDougalls Road	No	Being re-routed then available	
Marvista Nature Walk (Bruny Is.)	Resolution Road	Yes	<u>Ready for Adoption</u>	Consider a loop to be added later
McKays Track	Arve Road	No	Needs re-development	Long Term project
Mt Mangana (Bruny Is.)	Coolangatta Road	Yes	<u>Adopted</u>	
Nevada Peak Track	McDougalls Road	Yes	<u>Informally Adopted</u>	Joint Adoption with Parks and Wildlife
Reuben Falls	South Weld Road	No	Being re-developed	Issues re access to be resolved
Slide Track (Bruny Is.)	Lockley's Road spur2	No	Track recently reopened by RAFT crew	Long Term project
Stump Walk	Hartz Mountain Road	No	Short off road only	
Weld Eddy Track	Eddy Road	Yes	Four Wheel drive Club Adopting	(Forestry Tasmania 2007f)