

# Standing Committee on Environment and Heritage Inquiry into catchment management

## Submission from Forestry Tasmania

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### Summary

The key matters raised in this submission are that:

1. The Tasmanian RFA (Regional Forest Agreement) has specific provisions designed to ensure the effective management and maintenance of catchment values on a regional scale;
2. Forestry Tasmania operates a comprehensive planning system which integrates planning, including catchment values, at the State, regional and local operational scales;
3. Tasmania's Forest Practices System, which includes a Forest Practices Code, is a proven effective mechanism for managing catchment values in forested areas on both Crown and private lands;
4. The use of catchments as the basic unit for planning and management is one of a number of useful approaches. Other approaches, which are also fit-for-purpose, are IBRA regions for conservation management and administrative units, such as Forest District, which based on a combination of social, economic and environmental considerations;
5. The current structure for managing catchment values on forested lands in Tasmania has operated successfully for more than 10 years. It includes mechanisms for public consultation, monitoring and continuous improvement, and is affordable; and
6. There is significant research being undertaken, including important long-term hydrological research at the Warra LTER site in Tasmania.

## Introduction

Tasmania has a significant forest sector, both public and private, and is recognised as having a best practice Forest Practices System. The whole of the State is covered by a Regional Forest Agreement. Existing forest management systems were accredited through the RFA, and the State is actively making further improvements to the system.

Forestry Tasmania has long experience in natural resource management, including catchment management, and currently manages 1.6 million hectares of State forest in Tasmania for the sustainable production and delivery of forest products and services. An integrated planning system is in place for all State forest.

Catchment management, as practised by Forestry Tasmania, is primarily concerned with the management of change to land, particularly the vegetation. Changes to vegetation relate to the age, condition and species composition over time (in contrast to land clearance, where forests are removed and the land use changes). Other important management aspects are fire management and the construction and maintenance of roads. Forestry Tasmania uses a range of policies, procedures and practices to address catchment management objectives. The following *Management & Planning* section provides an overview of Forestry Tasmania's planning system.

The catchment management approach to management of the environment is applied primarily to water quality and quantity. Management of vegetation and soil contribute to achieving water management objectives. The main instrument used is the *Forest Practices Code*. (The role and operation of the *Forest Practices System* is outlined in a following section). The catchment management approach is not used for biodiversity management. The scale and location of species and community distributions differ markedly from regional catchments. Biogeographic "catchments" are used to assist in conservation management of vegetation communities.

Long-term research is an important component of catchment management. An insight into the long-term hydrological research at the Warra LTER site in Tasmania is provided.

## **Management and Planning**

### **Tasmanian RFA**

The Tasmanian RFA (Regional Forest Agreement between the Commonwealth of Australia and the State of Tasmania.) is an important policy reference to catchment management. Forests are recognised as being important for overall catchment maintenance and protection. Forest cover slows run-off, reduces soil loss and erosion and, particularly in catchment recharge zones, reduces the development of waterlogging and dryland salinity problems. The Tasmanian Government attaches the utmost importance to sustainable management of Tasmania's forests, including the vision to increase the total area of forest.

The Tasmanian Regional Forest Agreement has established a CAR (comprehensive adequate and representative) reserve system. This will ensure that individual conservation values of forest communities will be achieved. Other ecologically sustainable forest management measures, including provisions for "off-reserve" management and codes of practice will complement this system.

Specific clauses in the Tasmanian RFA (60 & 61) deal with maintaining a permanent forest estate. This policy will ensure that Tasmania maintains a permanent forest estate and effectively manages its sustainability.

#### **Maintaining a permanent forest estate**

60. The State agrees to adopt the broad policy framework specified in Attachment 9 which is designed to maintain an extensive and permanent Native Forest Estate and to maintain the sustainability of the total Forest Estate.

61. The Parties agree that the policy framework referred to in clause 60, together with the CAR Reserve System and other improvements in the Forest Management Systems as part of this Agreement, meet the requirements of the NFPS for the protection of regional conservation values and catchment management objectives.

The monitoring of performance against this policy is formally conducted through five yearly reviews of the RFA. More frequent monitoring and feedback is provided annually by analysis of forest harvesting and establishment.

## **Forestry Tasmania planning system**

The management framework used by Forestry Tasmania is shown in Figure 1. The framework is hierarchical and shows the integrated relationship between the legislation and policy, through to an individual forest harvesting operation.

### *Forest Management Plans*

Forest Management Plans are prepared at the Forest District level. Management Plans bring together the range of prescriptions that are used as guiding principles for managing state forests into one document. They are useful for Forestry Tasmania staff on a day to day basis and importantly, for the public to find out what we do, where and why.

These plans are drawn up after consideration of Government decisions, Forestry Tasmania policies and objectives, and public comment based on a wide range of resource information. They provide a balance between the range of uses and values that the district contains. During the preparation of a forest management plan there are several opportunities for public participation in the planning process. Management Plans are drafted over a period of 1-2 years and are expected to have a life of 10 years although revisions can be made

### *Forest Management Zoning system*

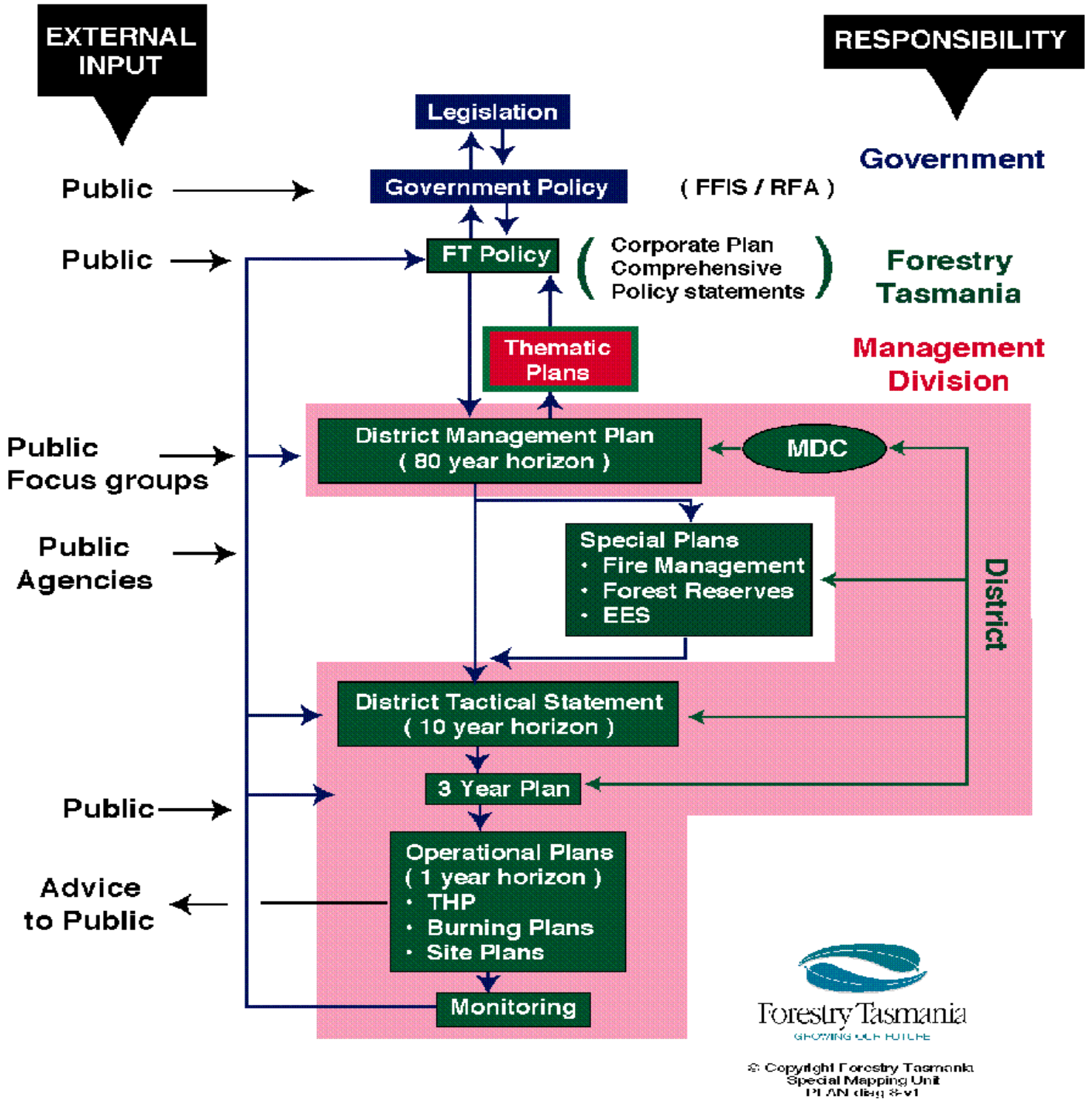
The Management Decision Classification (MDC) system is the way in which Forestry Tasmania zones the land it manages in order to optimise its management and balance the competing demands on the forest estate. Zoning enables areas with particular values to be identified and appropriate management prescriptions put in place to enable protection, maintenance or enhancement of these values. The MDC system helps ensure that the scientific knowledge, from research and measurement or modelling, is included in day to day management of the forests.

### *Three Year wood production planning*

The Three Year Wood Production Plan lists the specific areas from which Forestry Tasmania plans to supply those of its customers that have contracts to purchase forest products, i.e. veneer logs, sawlogs and pulpwood. The Plans are consistent with the Regional Forest Agreement and Forest Management Plans for each forest district.

Each Plan is a 'rolling' three year plan that undergoes a major review prior to the end of each financial year. Preparation of the Plan follows an agreed set of priorities for the scheduling of native forest coupes, and a number of specific targets. The planning process also identifies some contingency areas to ensure that supply can be maintained from alternative areas in response to changes in market demand for some products or to changes in accessibility (e.g. due to unseasonal wet weather). The Plan includes information about planned harvesting such as the coupe name, grid reference, special values, and expected yield of forest products.

# FORESTRY TASMANIA Planning Hierarchy



**Figure 1. Forestry Tasmania planning hierarchy**

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## **Catchments as the basic unit for planning and management**

Catchment Management seeks to apply a coordinated and integrated approach to management planning using catchments as the basic planning area. The primary motivation for management is usually water, however the focus may be expanded to be more encompassing. Integrated Catchment Management (ICM) may be defined as “the coordinated and sustainable use and management of land, water, vegetation and other natural resources on a regional water catchment basis so as to balance resource utilisation and conservation.” The objective of ICM can become directed more towards the *integration* of management.

*Catchments:* The use of catchments as the basic unit for planning and management is one of a number of useful approaches to achieving the aim of integrated natural resources management. Catchments as planning units, when water is a primary focus for management, serve their purpose well. Regional catchment boundaries are not well suited to some other aspects of natural resource management and should not be viewed as the ideal structure in all situations. No one approach is effective in organising all land management and planning. Other important planning and management boundaries, which are also fit-for-purpose, include:

*Forest Districts:* Forest Districts are an example of management boundaries based on administrative units. There are currently five Forest Districts in Tasmania. The scale of the unit and the selection of boundary location are based on a consideration of social, economic and environmental values. Factors such as the “resource catchment” for a major forest products processor; the “social catchment” of towns and cities and the related infrastructure of a local road network; and the scale of operations required for effective land management (including fire management) all contribute to delineating the area for which there is administrative responsibility. Forest Districts are well suited to the management of resource utilisation and forest operations.

*IBRA Region:* The Interim Biogeographic Regionalisation for Australia (IBRA) is a biogeographic framework for regional planning of conservation and sustainable resource management. IBRA regions have been used in the RFA process to assist in formulating the Permanent Forest Estate policy. IBRA regions are well suited to regional conservation management.

## Forest Practices System

It is recognised that a variety of mechanisms are needed to achieve ecologically sustainable forest management (ESFM). A progressive and innovative Forest Practices System will keep Tasmania at the leading edge of forest management practices.

The objective of the State's forest practices system is to achieve sustainable management of Crown and private forests with due care for the environment. The forest practices system is based upon the principles of self-regulation and self-funding by industry, with independent audit by the Forest Practices Board.

One of the aims Forest Practices System is to ensure that forestry activities in catchments do not adversely impact on water quality. To achieve this aim, there are various restrictions on forestry activities next to streams, and rules and guidelines governing the design of roads, culverts and drains, and the planning of forestry operations. These rules and guidelines are contained in the *Forest Practices Code*.

The *Forest Practices Code* sets out prescriptions and guidelines to protect water values during forest operations. These focus on the intensity of an activity, particularly reducing soil disturbance near watercourses (including watercourse protection through streamside reserves) and the scale & frequency of an activity, particularly managing the level of timber harvesting in water supply catchments. Major town water supply intakes are listed for priority attention. Strict procedures apply to the use of herbicides and other pesticides to ensure that water quality is maintained. Monitoring of chemicals in streams draining areas where pesticides are used is undertaken to ensure operational standards for pesticide application are safeguarding water quality.

Timber Harvesting Plans are prepared in accordance with the *Forest Practices Code*. Harvesting is planned and implemented within operational units called "coupes" A coupe is a discrete are of forest harvested and regenerated in a single operation. Coupes are the smallest mappable unit used routinely for planning forest management. Coupe boundaries are chosen considering all the competing objectives and constraints of the Forestry Act, Forest Practices Code and excludes the MDC Protection zones. Boundaries also have to take into consideration the practical aspects of operational harvesting such as road locations and particularly safe burning boundaries if fire is used to ensure regeneration of the forest after harvesting.

## Research

### *Hydrology Studies at the Warra Long Term Ecological Research Site in Tasmania*

The Warra Long Term Ecological Research (LTER) site has been established to facilitate the understanding of ecological processes and the biodiversity functions of Tasmania's wet forests. These forests are part of the southern cool temperate wet forest biome. The site contains both working forests and conservation reserves. Appropriate management prescriptions and practices prevail in the different parts of the site. The goal of research is to describe the ecology of the cool temperate wet forest (*Eucalyptus obliqua*) ecosystem by fostering multi-disciplinary research within a long-term framework.

A major hydrology research project has been established at Warra. The overall project comprises three discrete sub-projects which are interrelated but operate over varying time frames.

#### *Characterisation of a Pristine Stream*

The major aim of this project is to provide reference data on the flow and physical characteristics of a small, undisturbed stream draining a forested catchment. There has been almost no previous activity in this catchment and is therefore thought to be representative of the hydrology of undisturbed streams in this area. The initial aim is to collect data at this site for five years so that the stream can be used as a control site for the second of the sub-projects. A weir has been constructed to have a much longer life and data collection may continue for 20-30 years to provide baseline hydrological data for the LTER site. It is intended the data from this site will be of greatest utility many years into the future, but will also contribute to our current understanding of the hydrology of forest ecosystems and will be valuable as a comparison with other Australian forested and non-forested environments.

#### *Determination of the Effects of Logging on Stream Hydrology.*

This project is an extension of the preceding project and uses the Warra creek site as a control. The project is intended as a relatively short term multiple catchment study aimed at determining the hydrologic effects of forest harvesting under the Tasmanian Forest Practices Code on stream flow and water quality.

The first part of this project should be completed in about 4 years although determining the longer term effects may continue over a more substantial period.

#### *Broad Scale Water Sampling of the Warra LTER site*

The aim of this project is to provide information on the water quality of the major rivers and streams within the Warra LTER site and to ensure that the three sites which are being intensively studied adequately represent the broader environment of the Warra area. This data base of water quality information will also serve as a reference point for future studies in accordance with the aims of the LTER concept.

As sections within the Warra LTER site are designated for production forestry this project also has the potential to provide warnings of any apparent deterioration in the water quality of any of these rivers and streams as a result of routine forest operations.

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