

DISTRICT FOREST MANAGEMENT PLAN REPORT DERWENT DISTRICT 2005/2006

1 Sustainable Production

- Supply, as part of a sustainable yield unit of production forest, a range of wood products to forest industry and the community

1.1 Market trends

Throughout the review period the demand for lower grade sawlogs and pulpwood trended downwards as market demand reduced. Other products retained solid demand.

1.2 Value-adding and New Industries

During 2005-2006 construction of the plant to process current pulp logs into rotary peeler sheets commenced at Southwood. Fixed mill door deliveries of pulpwood to Norske Skog commenced. The trialing of a lower grade peeler log commenced with external customers.

1.3 Annual wood production

The commercial wood production figures for the District for the review period are shown in the table below:

Forest type	Product	2003-2004	2004-2005	2005-2006
Native forest	Sawlog Cat. 1 & 3 (m ³)	117,297	113,973	106,557
	Sawlog Cat. 2 & 8 (m ³)	28,293	18,191	14,540
	Veneer (m ³)	3,505	2,758	2,113
	Regrowth peeler (tonnes)	17,164	31,232	26,989
	Special species (m ³)	1,841	963	654
	Pulpwood (tonnes)	731,833	734,256	547,384
	Fuel & firewood (m ³)	2,594	1,817	779
	Posts & poles (units)	1,059	1,333	2,246
	Craftwood (units)	1,050	1,274	1,374
	Minor Products	0	0	1,307
Native Forest Total		904,636	905,797	703,943
Plantation	Softwood sawlog (m ³)	5,781	7,661	4,142
	Softwood export log (m ³)	0	0	0
	Softwood roundwood (m ³)	0	0	0
	Young Eucalypt Sawlog (m ³)	0	0	3,225
	Softwood pulpwood (tonnes)	142,367	116,350	78,020
	Eucalypt pulpwood (tonnes)	0	11,059	15,959
Plantation Total		148,148	135,070	101,346

NB. The quantities reported for softwood plantation production exclude production from Taswood Growers. This is the softwood joint venture company owned by Forestry Tasmania and GMO Renewable Resources.

1.4 Pulpwood Assessment

TOTAL	2003-2004	2004-2005	2005-2006
Pulpwood sold (tonnes)	731,833	734,256	547,384
Pulpwood audited (tonnes)	25,293	32,039	21,135
Sawlog recovered (tonnes)	55	87	48

Results of pulpwood assessments reflect low levels of sawlog leakage. Audits are conducted at the landings and at the mills.

1.5 Logging Residue Assessments

Year	Number coupes	Mean residues (m ³ /ha)	Median residues (m ³ /ha)
2001/2002	13	3.97	3.16
2002/2003	12	2.06	1.70
2003/2004	28	1.62	1.12
2004/2005	30	2.94	1.55
2005/2006	25	1.97	1.74

All contractors had at least one Logging Residue Assessment completed, and met the requirement.

1.6 Special Species

- Maintain or increase the sustainable supply of special species

Special Species Timbers (SST) are harvested primarily from integrated operations. Two commercial operations recover SST post integrated harvesting. Majority of SST are supplied from integrated operations and sold via Island Specialty Timbers.

Species	Use	Volume (T)
Eucalypt	Craft	230
Eucalypt	Beams	752
Myrtle	Burls	386

Non-sawlog special species only in this table. All sawlog special species volume reflected in table 1.2.

1.7 Other Forest Products

- Provide opportunities for other products to be utilised including nectar, essential oils, treeferns, other plant materials, firewood, tourism/recreation initiatives and aesthetic values of the forest.

1.7.1 Apiculture

Number of Apiary Sites Available	96
Number of Apiary Sites Utilised	65
Number of Hives	1,805
Volume of Honey	50,768 kg

Reports indicate the Leatherwood flowering period in January was very short. In addition, very cold conditions were experienced in February. These two factors accounted for most apiarists considering the season poor or fair at best.

1.7.2 Tree Ferns

	2004-2005	2005-2006
Number of FPP's which included tree fern harvesting	1	6
Volume Sold (number)	1,490	1,139

District personnel have been participated with Forest Practices Authority researchers with the study into regeneration of tree ferns in sites being harvested and retained for native forest.

1.7.3 Firewood

Volume (tonnes)	2004-2005	2005-2006
Domestic Sales	2,959	4,310
Commercial Sales	1,817	779
TOTAL	4,776	5,089

1.7.4 Seed collection

Species	Volume (kg)			
	2002-2003	2003-2004	2004-2005	2005-2006
<i>E. obliqua</i>	413.0	308.2	594.7	483.8
<i>E. delegatensis</i>	235.8	297.2	163.6	95.1
<i>E. regnans</i>	216.6	174.0	157.0	58.4
<i>E. nitida</i>	0.0	0.6	4.6	0.0
<i>E. brookeriana</i>	0.0	0.5	0.0	0.0
<i>E. coccifera</i>	0.0	0.0	8.3	1.1
<i>E. amygdalina</i>	0.0	0.0	55.8	25.6
<i>E. pulchella</i>	0.0	0.0	0.9	0.0
<i>E. viminalis</i>	2.4	0.0	22.7	0.0
<i>E. dalrympleana</i>	1.1	0.9	16.8	6.4
<i>E. rodwayi</i>	0.0	0.0	2.2	0.0
<i>E. globulus</i>	18.3	15.4	4.9	0.0
<i>E. urnigera</i>	0.6	0.0	0.3	0.0
<i>E. tenuiramis</i>	0.0	2.3	0.0	0.0
<i>E. subcrenulata</i>	0.0	0.8	0.2	0.6
<i>E. ovata</i>	0.0	1.8	0.0	0.0
<i>E. johnstonii</i>	0.0	0.0	1.9	0.0
TOTAL	887.8	801.6	1,034.0	671.0

1.7.5 Other Products

Species	Volume	Units
Tea Tree Stakes	4,250	Number
Hop Poles	50	m ³
Small Posts	98	Number
Shingles	917	m ³
NF Split Posts	387	Number
NF Seedlings	25	Number
Droppers	266	Number
Fence Rails	103	Number

2 Silviculture

2.1 Harvesting and Site Preparation

Native Forest Harvesting and Site Preparation

Treatment	Clearfell (ha)	Partial Logging (ha)	Thinning (ha)	
			PCT ₁	CT ₁
Harvesting	1,056	2,507	0	0
Area of old growth harvested	275	764		
Area of rainforest harvested	8	10		
Mechanical disturbance (non burning) ²	0	0		
Harvesting disturbance only ²	0	1,402		
High Intensity Burning (Cable Harvesting) ²	67	0		
High Intensity Burning (Ground-based Harvesting) ²	200	463		
Excavator heap +/- burn ²	4	0		
Top disposal/Low intensity burn ²	0	166		

1. Pre-Commercial Thinning [PCT] and Commercial Thinning [CT]

2. Native forest site preparation component only.

Plantation Harvesting and Site Preparation

Treatment	Clearfell (ha)	Thinning (ha)	
		NC ₁	C ₁
Softwood Harvesting	128	0	421
Hardwood Harvesting	72	0	0
Softwood Site Preparation treatment	312		
Hardwood Site Preparation treatment	513		
Effectively established Hardwood Plantation from survival surveys (1R or 2R)	196		
Effectively established Softwood Plantation from survival surveys (1R or 2R)	320		
Remediation works for understocked Hardwood Plantation areas	69		
Remediation works for understocked Softwood Plantation areas	0		

1. Commercial [C] and Non-commercial [NC]

N/A = Information Not Available

2.2 Re-establishment treatments

2.2.1 Native Forest

Native Forest Treatment Areas (ha)

	Partial Logging ¹	Clearfell	Clearfell followed by:			
			Regeneration by seeding	Plantation		Non-forest, fallow ²
				Eucalypt	Pine	
Native Forest	2,507	1,056	271	119	15	651
Old Growth	764	275	266	9	0	
Rainforest	10	8	8	0	0	

1. Thinning, retention of advanced growth, seed trees, shelterwood, and group or single tree selection.

2. Clearing primarily for infrastructure or fallow (to be planted or carryover).

Regeneration Success (ha)

Forest Type	0-9% (not stocked)	10-39% (ecological stocking)	40-64% (low wood quality)	65-84% (optimum)	85-100% (maximum)	Total
Dry eucalypt ¹	0	0	0	98	112	210
Wet eucalypt ¹	0	0	57	1,730	442	2,229
High altitude <i>E. delegatensis</i> ¹	0	0	0	0	0	0
Fenced intensive blackwood ¹	0	0	0	0	0	0
Swamp blackwood ²	0	0	0	0	0	0
Rainforest ²	0	0	0	0	0	0
Huon pine forest ¹	0	0	0	0	0	0
Total	0	0	57	1,828	554	2,439
Unacceptable Standard	% Area Met Standard					97.7%

1. 2002/2003 Sowing Season.

2. 2000/2001 Sowing Season.

2.2.2 Plantation Development

- Continue to develop a financially viable plantation estate, both hardwood and softwood, in conjunction with the forest industry and other interested parties

Operations were carried out on a number of older FT/Gunns Joint Venture hardwood plantations. The majority of these operations were on the Tasman Peninsula or in the Buckland Military Training Area. The age structure of the plantations mean FT is entering the stage where the area pruned annually will increase dramatically, and we are seeing the commencement of this trend in the pruning figures below. There was no non-commercial thinning conducted. Commercial thinning was undertaken in the softwood estate, but the hardwood plantations are not sufficiently developed to warrant thinning at this stage. The majority of the secondary fertilising was undertaken by hand rather than aerially.

Plantation R1 and R2 establishment areas (ha)¹

	Existing Plantation clearfelled followed by plantation (R2)		New plantations on cleared land (R1) ⁸		Total ³
	SW ²	HW ²	SW ²	HW ²	
Forestry Tasmania (FT) Plantation on State Forest & Crown Land	114	0	0	46	160
FT Joint Venture Plantation on State Forest & Crown Land ⁴	288	0	0	0	288
FT Joint Venture on Private Land	0	0	0	0	0
Tassie Trees Trust Plantation on State Forest ⁵	0	0	0	0	0
FT Plantation on Private Land ⁶	0	0	0	0	0
Private Plantation on State Forest	0	0	0	150	150
2005/2006 TOTAL⁷	402	0	0	196	598

- Planting period for mapping and reporting purposes is from 1st July 2004 to 30th June 2005.
- Softwood [SW] and Hardwood [HW].
- Figures in the Total column exclude fallow, and are rounded actual totals.
- Includes the softwood plantations, which are 50% owned by GMO Renewable Resources, for which data is supplied by Rayonier Australia as at 30/06/06.
- Tassie Trees Trust plantations are mainly jointly-owned with private growers, but include small proportions owned solely by FT.
- Includes recent commercial acquisitions.
- Figures in the Total row are not the sum of the columns, but the rounded actual totals.
- Cleared land includes agricultural land (generally softwood plantations) and cleared/converted native forest (generally hardwood plantations).

Plantation silviculture

	Primary Fertilising (ha)		Secondary Fertilising (ha)		Non-Commercial Thinning (ha)		Commercial Thinning (ha)		Pruning (ha)	
	SW ₁	HW ₁	SW ₁	HW ₁	SW ₁	HW ₁	SW ₁	HW ₁	SW ₁	HW ₁
Forestry Tasmania (FT) Plantation on State Forest & Crown Land	0	158	0	299	0	0	219	0	0	763
FT Joint Venture Plantation on State Forest & Crown Land	0	0	0	0	0	0	202	0	0	125
FT Joint Venture on Private Land	194	0	0	0	0	0	0	0	0	0
Tassie Trees Trust Plantation on State Forest	0	0	0	0	0	0	0	0	0	0
FT Plantation on Private Land	0	0	0	0	0	0	0	0	0	0
Private Plantation on State Forest	0	607	0	784	0	0	0	0	0	0
TOTAL	194	765	0	1,083	0	0	421	0	0	888

- Softwood [SW] and Hardwood [HW]

Plantation Ownership Area (ha)

Ownership	Net Area of Plantation at 30/06/06 ³	
	SW	HW
Forestry Tasmania (FT) Plantation on State Forest & Crown Land	1,442	5,585
FT Joint Venture Plantation on State Forest & Crown Land ¹	6,925	387
FT Joint Venture on Private Land	0	0
Tassie Trees Trust Plantation on State Forest ²	0	0
FT Plantation on Private Land ⁵	0	0
Private Plantation on State Forest	0	1,677
2005/2006 TOTAL⁴	8,367	7,650

- Includes the softwood plantations that are 50% owned by GMO Renewable Resources, for which, data is supplied by Rayonier Australia, as at 30/06/05.
- Tassie Trees Trust plantations are mainly jointly-owned with private growers, but include small proportions owned solely by FT.
- Totals exclude plantation areas clearfelled but not yet replanted.
- Figures in the Total rows are not the sum of these columns but the rounded actual totals.
- Includes recent commercial acquisitions.

Species Planted (ha)

Species ^{1,2}	Area Planted 2005-2006	Total Area Planted at 30/06/06 ³
<i>Eucalyptus globulus</i>	0	672
<i>Eucalyptus nitens</i>	196	4,767
Other Hardwoods	0	2,235
<i>Pinus radiata</i>	402	8,356
Other Softwoods	0	0

- Other hardwoods and other softwoods may contain mixed plantings of *E. globulus/nitens* and/or *P. radiata* with or without other species.
- The majority of mixed hardwood/softwood plantations are reported as hardwood.
- Totals exclude plantation areas harvested but not yet re-planted.

2.3 Seed Sown

Species	2004-2005 (kg)	2005-2006 (kg)
<i>E. obliqua</i>	225.6	134.9
<i>E. delegatensis</i>	163.1	55.5
<i>E. regnans</i>	74.4	48.0
<i>E. nitida</i>	1.1	0.0
<i>E. coccifera</i>	0.0	3.3
<i>E. amygdalina</i>	3.8	0.0
<i>E. globulus</i>	0.0	2.8
<i>E. subcrenulata</i>	4.8	1.8
TOTAL	472.8	246.3

2.4 High Intensity Burning

2.4.1 Regeneration Burning

Year	No. planned	Total area to be burnt (ha)	No. attempted	Total area which achieved standard (ha)
2003/2004	23	672	22	617
2004/2005	17	541	17	528
2005/2006	12	272	12	272

2.4.2 Plantation Establishment Burning

Year	No. planned	Total area to be burnt (ha)	No. attempted	Total area which achieved standard (ha)
2003/2004	21	985	20	965
2004/2005	22	1,214	22	1,112
2005/2006	14	513	14	513

2.5 Seeding

Year	No. coupes sown	Avg On-Site Seed (%)	Avg In-Zone Seed (%)	Avg Out of Zone Seed (%)	No. met On-Site standard	No. met Pi-type standard
2003/2004	22	47	53	0	16	22
2004/2005	23	64	32	4	19	?
2005/2006	13	33	65	2	5	13

Where sowing has not met the standard this is due mainly to the lack of on-site seed available in the coupe. The majority of seed sown on TN065B was on-site, but the coupe did not meet the standard because a small amount of out-of-zone seed had to be used to make up the shortfall in the total quantity of seed that had to be sown.

2.6 Silvicultural Season

It was a very difficult season to achieve the planned burn program due to the unstable weather patterns in early autumn followed by substantial rainfall in late autumn. This effectively cut short the burning window, although some late plantation windrow burns did achieve the desired result. The aerial sowing program was largely unaffected, although the timing was delayed due to unstable air.

3 Operational Achievements

3.1 Roading

Road work type	2005/2006
New road construction (km)	54
Major road upgrades or realignments (km)	0
Major new structures (#)	0
Road maintained/repaired (km)	650

3.2 The Forest Estate

Land Classification	Area (ha) ¹	% ³
Formal Reserves	35,700	2.4%
Informal Reserves	101,000	6.7%
Native Forest Outside Wood Production Coupes	33,200	2.2%
Native Forest Wood Production Coupes	182,300	12.0%
Hardwood Plantation ²	7,600	0.5%
Softwood Plantation ²	8,400	0.6%
State forest Total	368,100	24.2%
Non-production Total	169,900	11.2%

1. Area as at 30th June, 2006. Includes Buckland Military Training Area.

2. Excludes Forestry Tasmania managed plantations on private land as well as plantations in Reserves.

3. Percentage of total State forest (Statewide).

3.3 Browsing control

Browsing assessments

	Native forest	Plantation
Area monitored (ha)	6,680	1,243
Area deemed to require treatment (ha)	2,200	1,243

3.3.1 1080 usage

1080 usage on Forestry Tasmania's Defined Forest Area²

	1080 used (kg)	Area established (ha)	Area treated (ha)
Hardwood Plantation ¹	0.0000	46	0
Softwood Plantation ¹	0.0000	114	0
Native Forest	0.0675	2,778	137
TOTAL	0.0675	2,938	137

1. Including second rotation planting.

2. On land managed by FT (excluding JV's).

3.4 Non-chemical browsing control

Treatment Type	2003-2004	2004-2005	2005-2006
Number of shooting operations (no. of coupes)	33	81	35
Number of animals killed	3,738	6,743	650
Tree guards (number of coupes)	0	3ha	2

In 2006, shooting has been the only practical alternative to poisoning. As a general assertion, it is far less effective than poisoning, and several coupes have struggled to regenerate with heavy browsing resulting in loss of seedlings, reduced growth and poor form.

3.5 Pesticide Usage^{5,6}

Use	Category	Kilograms ³			Area treated (ha)		
		2003-2004	2004-2005	2005-2006	2003-2004	2004-2005	2005-2006
Herbicide	Unscheduled ⁴	65	0	0	0	0	0
	Sched 5 Chemical ¹	420	1,243	654	970	1,962	882
	Sched 6 Chemical ²	0	0	0	0	0	0
	TOTAL	485	1,243	654	970	1,962	882
Insecticide/Fungicide	Unscheduled ⁴	0	1	0	0	69	0
	Sched 5 Chemical ¹	0	0	4	0	0	261
	Sched 6 Chemical ²	10	9	4	385	380	143
	TOTAL	10	10	8	385	449	404
Adjuvant	Unscheduled ⁴	N/A	69	64	N/A	397	521
	Sched 5 Chemical ¹	N/A	55	20	N/A	467	106
	TOTAL	N/A	124	84	N/A	864	627

1. Poisons of a hazardous nature that are readily available to the public but require caution in handling storage and use.

2. Poisons that are available to the public but are of a more hazardous or poisonous nature than those classified in schedule 5.

3. Kilograms of active ingredient

4. Poisons that have not yet received a poison schedule rating.

5. Excludes Perth Nursery

6. Includes usage by FT on Joint Ventures and leases, but not usage by third parties (eg Rayonier) on State forest.

3.6 Weeds, Pests and Diseases

- Institute effective weed, pest and disease control

Damage agent	Area treated (ha)	Vegetation affected	Control method
Vertebrate Pests			
Possums, Wallabies	137	Native forest, Plantations	Poisoning
Possums, Wallabies	3,443	Native forest, Plantations	Shooting, Trapping
Invertebrate Pests			
Chrysomelid Leaf Beetles/ Gonipteros Weevil	589	Hardwood plantations	IPM and spray with alpha-cypermethrin or spinosad
Weeds			
Ragwort	Mainly in the dry forests in the east		Larger patches sprayed
Pampass	Roadsides on the Peninsular		Physical removal or spraying
Spanish Heath	Roadsides on the Peninsular		Spraying
Boneseed	Quarries		Hand pulling

General Forest Health Issues

Forest health issue	Number	Area
Machinery hygiene breaches	0	
New <i>Phytophthora cinnamomi</i> susceptible areas identified (ha)		0

3.7 Fire Management

- Protect high value assets from fire through application of the District fire management plan and through appropriate wildfire suppression

3.7.1 Fuel Reduction Burning

Smoke management procedures have impacted greatly on the potential to complete burns and the standard of the burns that are achieved. The weather requirements to achieve smoke management outcomes are contradictory to burning principles.

Fuel reduction burning on State forest

Performance indicator	Number of burn plans prepared	Number of burns conducted and achieved standard	Total area for which burn plans prepared (ha)	Total area burnt and standard achieved (ha)
Fuel reduction burns – partially harvested coupes ¹	9	9	625	625
Broad area fuel reduction burns ²	6	4	2,200	1,550
TOTAL	15	13	2,825	2,175

1. These partially harvested areas do not require fire for regeneration purposes, but do require burning to reduce the fire hazard. These coupes can be excavator heaped, extending the time-frame in which they can be burnt.

2. Broad-area fuel reduction burns that are strategically planned to protect nearby assets, or for ecological purposes (e.g. coastal heath or buttongrass).

3.7.2 Wildfires

The following table shows the area of **unplanned** fire including the area with severe damage on State forest:

	Area burnt 2004-2005 (ha)	Number of fires 2005-2006	Area burnt 2005-2006 (ha)	Ten year average to 2005-2006 (ha)
Total unplanned fire	142	7	50	1,491
Severe fire damage	90		24	653
Rehabilitation of severely burnt native forest	0		0	

Note: 10-year average data does include current year in the ten years.

Number of wildfires by month

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
0	0	0	0	0	0	5	1	1	0	0	0	7

4 RFA Implementation

- *Implement the outcomes of the RFA as they apply to the Plan Area, including those relating to the maintenance of a permanent native forest estate, maintenance of biodiversity and protection of regional conservation values.*
- *Maintain State forest contribution to the CAR system in accordance with RFA requirements.*

Priority communities that are known or identified through pre-harvest coupe inspections have been excluded from coupes. No known clearing of internal patches of priority communities has occurred. Areas are mapped and registered on the Management Decision Classification (MDC) system where appropriate.

5 Financial Performance

- *Provide a contribution from the commercial management of the Plan Area*

Forestry Tasmania operates as a commercial organisation and pays an annual dividend to its shareholder, the Tasmanian Government, based on operating performance after tax that is calculated by an agreed formula with the Department of Treasury and Finance. Total annual payments to the consolidated fund are comprised of dividends, taxation equivalents and guarantee fees.

All returns to the consolidated fund are based on the organisation as a whole and not individually calculated based on individual operating districts. Refer to the Forestry Tasmania 2005-2006 Annual Report for full details on financial performance.

6 Conformance with Sustainable Forest Management Policy

- *Conform to Forestry Tasmania's environmental policy, including the fulfilment of all statutory environmental standards and achievement of sustainable forest management targets*

6.1 Forest Practices Authority Audit

Forest Practices Code Criteria	2003-2004 Performance (Rating 1-4)	2004-2005 Performance (Rating 1-4)	2005-2006 Performance (Rating 1-4)
Roading	3.7	3.4	3.7
Harvesting	3.7	3.5	3.9
Planning	3.7	3.5	3.9
Reforestation	3.3	3.2	3.9
Flora	3.8	2.9	3.7
Fauna	3.7	3.7	3.9
Geomorphology	4.0	3.3	4.0
Cultural Heritage	3.7	3.7	3.9
Landscape	3.7	2.6	3.9
Fuel and Rubbish	3.9	3.4	3.8
Soil and Water	4.0	3.0	4.0
AVERAGE	3.8	3.3	3.9

1 = Unacceptable; 2 = Less than Sound; 3 = Sound (FPA benchmark score); 3.5 = Above Sound; 4 = High

6.2 Forest Practices Breaches (non-S41)

List of Forest Practices Breaches that resulted in reports being made to the Forest Practices Authority, but no S41 notice was issued.

Coupe	Non-conformance
WW058Z, 59X	Temco Feller buncher over balanced while working next to streamside reserve. The machine fell into the Class 4 stream causing minor damage to the stream bed.
TN047C	Landing constructed at a location contrary to the FPP.
MM025C roading	Due to wording on the FPP Map the road into MM025C has been constructed to a point outside of the harvest boundary of the coupe.
DU014C	Report of illegal firewood harvesting using pine harvesting machinery from adjacent private property on DU014C. The machine crossed through and removed wood from within an Historic Water Race machinery exclusion zone.
TA006F Roading	An audit of boundaries on TA006F has identified that the road construction into the coupe encroached into the 20m streamside reserve on the eastern boundary of the coupe.
WE020E	Mud and slurry on road. Road surface not permitting adequate drainage.

SH050D	The final location of the road into SH050D on varies from the approved FPP by up to 150 m.
CZ021A	Skidder operator drove machine into Protection Forest and became bogged, also evidence of parallel snigging.
Gunns Roads	Issues with road drainage requiring attention prior to issue of Certificate of Compliance.

6.3 Notices

6.3.1 S41 Notices

S41 No.	FPP No.	Coupe	Non-conformance	Corrective action
0735	CGP0183	WW022D	A harvesting contractor had carried out restoration on a landing in the coupe. This restoration work encroached into the Class 4 SSR, 5 times over a distance of 10 to 20 metres. The landing debris heap was also constructed within 40 m of the SSR.	Carry out rehab work as specified in Section 41-1 notice.

6.3.2 S38 and S39 Notices

S38 and S39 notices issued by Workplace Standards Tasmania

Coupe	Non-conformance	Corrective action
TA005I	Contractor was seriously injured after being struck by a section of tree during a falling operation. WST suspended operations until a number of dead spars had been addressed.	Investigation conducted. Recommend issue of Safety Alert through TFITB Safety Committee re-compliance with EMP procedures and protocols.
WW022D	Falling on a coupe unsupervised.	The faller was to cease work immediately and complete 10 working days felling under direct supervision of a competent person.
Styx River Bridge	Inadequate measures to prevent workers carrying out maintenance on the bridge decking from falling. Inadequate signage to control visitors to the site.	Cease work on the site immediately. Provide restraining harnesses for persons working on the edge of the bridge. Provide "No unauthorised access to work site" signs.
BD024D	Safety issues associated with the branding hammers issued by FT for the branding of logs.	Develop alternative handle options for the hammers. Issue instructions for use of the hammers.
SX018F	Excavator operator pushed a tree onto the High Voltage (22,000 volt) transmission line, which runs along the northern boundary of the coupe. The tree arced across the bottom and middle feeders of the transmission line and caused a blackout in parts of Hobart as a result. The machine operator was okay.	Conduct an investigation into the incident. Establish a documented protocol between Forestry Tasmania and Transend in regard to management of trees within and beside transmission line easements. Where contractor locks are installed for security, ensure Transend retain access to their infrastructure.
TN042E	Notice to remove dangerous trees.	Operations in the area stopped immediately. A system to fell the trees in question in a safe manner was developed.
WW051C	Notice issued to contractor in relation to the harvest prescription on this coupe.	Carry out joint inspection of the site with contractor to determine suitable control measures for the notice.

6.4 Fines or prosecutions

FPP No.	Coupe	Value of Fine (\$)	Non-conformance	Corrective and remedial action
BPH0105	WT017E	\$5,000	Incorrect boundary marking resulting in the felling of 17 trees (0.08 ha) in an area excluded from harvesting.	Provided offset (6.9 ha) by putting an area into informal reserve with Swift Parrot SMZ. Investigation and report on assessment of Swift Parrot nesting habitat affected by the incursion into the Informal Reserve. Felled trees remained in situ. Boundary marking training and on ground competency assessment extended throughout the State.

6.5 Compliance with other legislation

Derwent District complied with all other legislation.

7 Non-timber Forest Values

7.1.1 Biodiversity

- Maintain biodiversity values

Special value	Area managed (ha)
Biodiversity Spines	43,469
Fauna	13,944
Flora	106,492
Wildlife Habitat Strips	20,334

7.1.2 Threatened Flora

- Protect rare or threatened plant species, and plant communities or associations that are of botanical significance and maintain the extent and diversity of flora habitat sufficient to allow the maintenance of viable populations of plant species

Threatened species management	Number	Species
Habitat Surveys Conducted	11	<i>Eucalyptus amygdalina</i> on dry knoll and sheet rock (Jurassic dolerite); <i>E. amygdalina</i> on rocky outcrops including plates; <i>E. delegatensis</i> on high altitude peaks & plateaux above 800m; flats, frost hollows and marshes; grassy forests, woodlands and other ecosystems (<i>E.rubida</i>)
New Sites Identified	20	<i>Anthropodium minus</i> , <i>Australina pusilla subsp. Muelleri</i> , <i>Barbarea australis</i> , <i>Baumea gunnii</i> ,

		<i>Carex gaudichaudiana, Cyathea australis, Epacris acuminata, Epacris marginata, Eucalyptus barberi, E.urnigera, Festuca plebeia, Isoetes elatior, Monotoca submutica var. autumnalis, Oleria hookeri, Ozothamnus lycopoides, Pomaderris elachophylla, Scleranthus brockiei, Senecio velloides, Stellaria multiflora, Thynniorchis nothofagicola,</i>
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7.1.3 Threatened Fauna

- Protect rare or threatened forest dependent fauna species and maintain an area and diversity of fauna habitat sufficient to allow the maintenance of the long term viability and range of fauna species

Threatened species management	Number	Species
Habitat Surveys Conducted	76 (9,063 ha)	Raptor Nest Surveys (Wedge-tailed and White-bellied Sea Eagle) Broad Tooth Stag Beetle Habitat Survey
Animal/Nest Surveys Conducted	19	Wedge Tailed Eagle (Activity Checks)
	1	Abundance, type and use of tree hollows in <i>E. obliqua</i> .
New threatened species records identified on State forest	9	Wedge Tailed Eagle Nests
	1	Mt Mangana Stag Beetle – Resulted in the extension of the habitat range.
Cooperative work with other agencies	1	Abundance, type and use of tree hollows in <i>E. obliqua</i> .

7.1.4 Landscape Values

- Conserve landscape values

New area managed for Landscape/Visual Amenity 2005-2006 (ha)	874
Total area managed for Landscape/Visual Amenity (ha)	56,775

Approximately 20 coupes were assessed for landscape impacts using predictive visual analysis and photography in 2005/2006. Many more were assessed using seen-area analysis mapping. Some community liaison occurred with shack-owners at Dee Lagoon and with members of the Ellendale community.

7.1.5 Management of non-Aboriginal Cultural Heritage Sites

- Conserve places, sites and features of non-Aboriginal cultural significance

Non-Aboriginal surveys

Year	Area Surveyed (ha)	Number of new sites detected	Number of old sites redetected
2003-2004	160	0	0
2004-2005	5	15	0
2005-2006	25	12	11

Non-Aboriginal cultural heritage management

Non-Aboriginal cultural heritage management	Number	Site types
Number of sites assessed ¹	15	Sawmill, chimneys, tramways, bridges, tramway landings
• Number of sites in good condition	1	
• Number of sites in average condition	4	
• Number of sites in poor condition	10	
Number of sites with condition statements	4	Sawmill site, chimneys, Walkers Ck tramway, Fortescue tramway, Snow Hill water race

1. Assessed = assessed by or within consultation with FPA expert on site.

Numerous site surveys have been conducted as part of special values preparation for FPP's. Sites surveyed include tramways (including a substantial section of Gourlay's Tramway at Tyenna), chimney remains and huts in the Central Highlands, pack tracks and survey lines. The FPA Senior Archaeologist was involved in planning protection boundaries for significant remains of Dawson's Road near Repulse Quarry. All surveys conducted by district staff have been forwarded to the FPA Senior Archaeologist for evaluation and recommendations.

As part of the cultural heritage evaluation of the Gordon Plains fuel reduction burn, a search was conducted to find the remains of the Gordon Huts at Gordon Bend. The search was unsuccessful in locating the huts but did find the remains of a bridge on the Gordon River. A search was undertaken at Forestier in an attempt to locate the convict track between Port Arthur and Dunalley. No remains were located of this track.

7.1.6 Management of Aboriginal Cultural Heritage Sites

- Encourage cooperative management programs with Aboriginal people in areas of significance to them in a manner consistent with other management practices

Aboriginal surveys

Year	Area Surveyed (ha)	Number of new sites detected	Number of old sites redetected
2003-2004	160	3	0
2004-2005	140	3	0
2005-2006	120	3	0

Aboriginal cultural heritage management

Aboriginal cultural heritage management	Number	Site types
Number of sites assessed¹	3	Artefact scatters
• Number of sites in good condition	3	
• Number of sites in average condition	0	
• Number of sites in poor condition	0	
Number of staff trained in the procedures for the protection of Aboriginal sites	8	

1. Assessed = assessed by or within consultation with FPA expert on site.

Roadline and broadcast surveys undertaken as part of the FPP process were unsuccessful in finding any new sites. An artefact scatter was assessed and management decisions were made for the protection of this site.

7.1.7 Soil Conservation

- Conserve and identify soil values

Area assessed for soil erodibility (ha)		4,663
	Low	2,540
	Moderate	1,554
	Mod-High	145
	High	425
	Very High	0
Unavailable for harvest due to erosion hazard		10,384
Number of landslips detected in the district in 05/06		2
Total area within district managed for soil values (ha)		86,989

Two landslips were identified during operational planning in coupes in the Wentworth and Taranna Blocks. Both of these areas were assessed by the FPA Soils Specialist and subsequently excluded from harvesting and placed into MDC Protection.

7.1.8 Geodiversity and Geomorphological Significance

- Maintain geodiversity and protect features and systems of geomorphological significance

Number of geomorphological sites identified	250
Number of geomorphological sites protected from damage	50
Area managed for geoconservation values (ha)	58,155

The majority of features were found during operational level surveys. Two features were found during the course of the operation in coupe FO026A. The marked increase in the number of feature found in 2005/2006 reflects the extra survey effort required for the additional coupes that had been added to the 3-year plan to meet the plantation area targets.

As part of the Geomorphic Review Project currently being undertaken by Derwent District, a Geomorphic Features Database has been developed in 2005/2006. This now makes it easier to produce mapped information, which can be used to develop operational plans.

7.1.9 Water Quality and Supply

- Maintain water values and allow for the continued supply of water for domestic and rural purposes

Water Quality Monitoring Results

Contaminant sampled for	No. samples	No. samples returning positive results	No. returning results outside standard	Acceptable standard
Chemical Contaminants¹				
Clopyralid (Lontrel)	0	0	0	1000 µg/litre
Dominex (Cypermethrin)	5	0	0	Not listed
Glyphosate (Round Up)	10	0	0	1000 µg/litre
Haloxypop (Verdict)	0	0	0	Not listed
Metsulfuron-methyl (Brush Off, Brushkiller)	14	0	0	30 µg/litre
Phosphorous	0	0	0	100 µg/litre
Total Nitrogen	0	0	0	800 µg/litre
Terbacil (Eucmix)	0	0	0	30 µg/litre
Sulfometuron-methyl (Mako, Oust, Eucmix)	8	0	0	Not listed
Spinosad (Success)	9	0	0	Not listed
Non-chemical Contaminants²				
Temperature	2	0	0	No value set
Turbidity	2	0	0	5 NTU
pH	2	0	0	6.5-8.5
Dissolved Oxygen	2	0	0	>85%
Electrical Conductivity (EC)	2	0	0	Not listed
TOTAL	56	0	0	
Spray Operations				
No. spray operations	10			
No. spray operations where water samples were taken	9	0	0	

1. Standard is ADWG Health Value where standard exists. Where no standard exists, any detection is recorded.

2. Generally accepted standards (e.g. Waterwatch standard).

No coupes returned results outside the standard for Phosphorous and Total Nitrogen.

Fuel or chemical spills

Number of fuel or chemical spills	2
Volume of fuel or chemical spills (Litres)	5
Number of fuel or chemical spills that entered a watercourse	0

Both spills were very small diesel spills, one from a machine and one from a bulk fuel tanker. Both spills were contained and disposed of as per the emergency spill procedures.

7.1.10 Tourism, Recreation and Education

- Provide infrastructure for and foster tourism, recreation and visitor education consistent with multiple use values

Organised recreational events on State forest

Date	Event
2006	XPD race
Mar 2006	Orienteering
Mar 2006	Motor enduro - Woodsdale

Visitor numbers to specified recreational sites

Site	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Big Tree Reserve – Styx Valley	No data	No data	No data	7,000	No data*
Sandspit Forest Reserve	13,000	11,400	10,900	8,500	No data*

* No data available due to damaged counters.

New facilities or existing facilities upgraded

Facilities	Number	Details
Walking Tracks	1	Development of walking track and viewing platform to the Mount Tree in the Tall Tree Reserve, Styx State Forest.

The Derwent District has worked closely with the Timber Communities Australia – Derwent Valley Branch in the construction of a walking track and viewing platform for the Mount Tree in the Styx State Forest's Tall Tree Reserve. The District has also provided leadership in the development and upgrade of the Clark Cliffs Walking Track on the Tasman Peninsula, which has been supported by GreenCorp and the Tasman Council. Cooperation with the Hobart and Pandani Walking Clubs has seen track maintenance provided on the windthrow-affected Lichen Hill Track. Planning is also underway for the development of interpretation and additional signing for the Styx State Forest. Incorporating the newly established Tall Tree and North Styx Reserves and the expanded Big Tree Reserve in this development.

A tri-agency maintenance agreement has been developed for the cleaning of FT, PWS and Hydro visitor facilities along the Gordon River Road. The Derwent District is currently managing this contract.

Recreational activities and facilities on State forest

Activity	Site	Styx Big Tree	Sand spit	Lady Binney	White Gum	Mt Wedge	Lake Repulse	Lake Echo	Wielangta Drive	Lost Falls	Hardings Falls	Needles	Taranna Drive	Dromedary	Bradys	Meetus Falls
Self Guided Interpretation		Y	Y	Y	Y	Y			Y							
Guided Interpretation																
Short Walk		Y	Y	Y	Y	Y			Y	Y	Y		Y	Y		
Day Walk													Y	Y		
Overnight Walk																
Education									Y					Y		
Cultural Heritage									Y					Y		
Mountain Bike Riding									Y					Y	Y	
Trail Bike Riding																
Horse Riding									Y							
Boating							Y									
Canoeing							Y									
Fishing							Y	Y								
Lookout									Y				Y	Y		
Special Events															Y	
Facilities																
Disabled Access			Y													
Info/Visitor Centre																
Toilets			Y			Y				Y	Y	Y				
Gas BBQ																
Wood BBQ			Y			Y					Y					
Picnic Shelter			Y			Y				Y		Y				
Picnic Area			Y			Y				Y		Y				Y
Fireplace			Y			Y										
Camp Sites							Y					Y				
Caravan Sites																
Boat Ramp							Y	Y								
Walking Tracks		Y	Y	Y	Y	Y			Y	Y	Y		Y	Y		
Playground Equipment																

7.1.11 Education

Public and school education opportunities

	No. Presentations	No. People
Public Education		
Forest Tours by FT Staff	11	210
Forest Management Presentations	4	150
Number of positive newspaper articles	6	
School Education		
School Tours by FT Staff	5	200
School Visits	7	250
Students – Work Experience		0

Tours of the Styx State Forest have been regularly undertaken throughout the financial year involving both schools from the Derwent Valley and metropolitan schools. The tours encompassed most facets of FT's operations including inspections of Formal reserves, clearfell operations, regrowth and plantation forests and sites of high intensity regeneration burns. A total of 200 students, excluding teachers and support personnel, were guided through the forest. More tours are planned for 2006/2007.

7.1.12 Community Liaison and Sponsorship

Community forums attended by District staff

Community forum categories	Number of meetings 2002-2003	Number of meetings 2003-2004	Number of meetings 2004-2005	Number of meetings 2005-2006
Fire management	5	2	0	0
Catchment management	4	1	0	2
Local emergency management	1	1	0	0
Education	4	0	2	3
Local government	5	2	24	12
Cultural management	0	0	0	1
Biodiversity management	1	0	1	0
Feral animals/weeds	12	1	0	0
Industry	8	1	15	17
Recreation/tourism	30	12	12	14
Regional planning	6	7	0	2
Conservation/environmental	0	5	0	1
Forest practices	0	0	0	1
Other	0	0	0	0
TOTAL	76	32	54	53

District sponsorship

Name of Organisation	Type of Sponsorship (Cash, In Kind)	Value
Schools	Cash & In Kind	\$1,250
Maydena Online Access centre	In Kind	\$300
Westerway Roadhouse	In Kind	\$250
Bushwalking Clubs	In Kind	\$600
Tasmanian Trail	In Kind	\$1,000
Agricultural societies	Cash & In Kind	\$1,000
Visiting delegates	In Kind	\$2,000
	TOTAL	\$6,400

7.1.13 Mineral Exploration and Development

- Facilitate the exploration and development of mineral resources found within multiple use forest land consistent with the good management of wood, cultural, natural and recreational values

Mineral Exploration Working Group (MEWG) Referrals

Type	Number
New EL Applications	0
Existing EL Reviews and Development Proposals	0
New Works Programs	1
Mineral Lease Applications	0
Mineral Lease reviews and reports	0
Number of Site Rehabilitations	0