

**TABLE OF CONTENTS**

	<b>Page</b>
<b>LIMITATION STATEMENT .....</b>	<b>ii</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>iii</b>
<b>FRONTISPIECE.....</b>	<b>xxxii</b>
<b>TABLE OF CONTENTS.....</b>	<b>xxxiv</b>
<b>1. INTRODUCTION.....</b>	<b>2</b>
1.1. The Proponent.....	2
1.2. History of the Proposal .....	3
1.3. Need and Justification for the Development .....	3
1.3.1. <i>Need for the Development and Project Benefits</i> .....	5
1.3.2. <i>Consequences of Not Proceeding with the Development</i> .....	6
1.4. Project Timeframes and Development Linkages.....	7
1.5. Required Approvals .....	8
1.6. Alternative Site Options Investigated.....	9
1.7. Public & Stakeholder Consultation .....	13
1.7.1. <i>Consultation Overview</i> .....	13
1.7.2. <i>Phase 1 Information on Project Concept</i> .....	13
1.7.3. <i>Phase 2 Community Consultation (Focus Groups and Advisory Groups)</i> .....	16
1.7.4. <i>Regional Advisory Group</i> .....	19
1.7.5. <i>Phase 3 Statutory Consultation process</i> .....	20
1.8. Relevant Legislation, Regulations, Codes and Policies.....	21
1.9. Structure of this Report .....	22
<b>2. DEVELOPMENT PROPOSAL.....</b>	<b>26</b>
2.1 Site Location .....	26
2.2 General Site Description .....	26
2.3 The Wood Centre Operation .....	26
2.4 Site Layout .....	32
2.5 Estimated Quantities of Production.....	32
2.6 Wood for the Proposed Development .....	36
2.6.1 <i>Tasmania’s Forests</i> .....	36
2.6.2 <i>The Regional Forest Agreement</i> .....	36
2.6.3 <i>Threatened species and forest communities</i> .....	40
2.6.4 <i>World Heritage and Wilderness</i> .....	41
2.6.5 <i>Ramsar Wetlands</i> .....	41
2.6.6 <i>Tasmanian Heritage Register</i> .....	41
2.6.7 <i>Areas of Aboriginal Heritage Significance</i> .....	42
2.6.8 <i>National Estate Values</i> .....	42
2.6.9 <i>Private Land CAR Reserve Program</i> .....	42
2.6.10 <i>Greenhouse Gases</i> .....	43
2.6.11 <i>Forestry legislation and management responsibilities</i> .....	43
2.6.12 <i>Management and regulation of private forestry</i> .....	44
2.6.13 <i>Three-year plans</i> .....	45
2.6.14 <i>Forest Practices Plans</i> .....	45
2.6.15 <i>The Intensive Forest Management Program</i> .....	45
2.6.16 <i>Forest Management Strategies</i> .....	46
2.6.17 <i>The Source of Wood</i> .....	46
2.7 Infrastructure Overview .....	50
2.7.1 <i>Water Supply</i> .....	50
2.7.2 <i>Stormwater and Wastewater Infrastructure</i> .....	50
2.7.3 <i>Power</i> .....	50
2.7.4 <i>Communications</i> .....	51

---

2.7.5	<i>Road and Transport Infrastructure</i> .....	51
2.8	Planning Issues .....	51
2.8.1	<i>Land Tenure and Use</i> .....	51
2.8.2	<i>Planning Scheme Controls</i> .....	52
2.8.3	<i>Planning Issues</i> .....	54
2.8.4	<i>Planning Policy Framework</i> .....	55
2.8.5	<i>Proposed Amendment</i> .....	58
2.9	Social and Economic Impacts .....	60
<b>3.</b>	<b>EXISTING ENVIRONMENT</b> .....	<b>64</b>
3.1	Terrestrial .....	64
3.1.1	<i>Topography</i> .....	64
3.1.2	<i>Geology and Soils</i> .....	64
3.2	Climatology and Air Quality .....	65
3.3	Hydrology and Water Quality .....	67
3.3.1	<i>Surface Water / Site Drainage</i> .....	67
3.3.2	<i>Huon River Hydrology</i> .....	68
3.3.3	<i>Huon River Water Quality</i> .....	69
3.3.4	<i>Groundwater</i> .....	75
3.4	Flora .....	75
3.5	Fauna .....	79
3.6	Archaeology and Cultural Heritage .....	81
3.6.1	<i>Aboriginal Heritage</i> .....	81
3.6.2	<i>European Heritage</i> .....	82
3.7	Ambient Noise .....	83
3.8	Hazard Issues .....	84
3.9	Visual .....	84
<b>4.</b>	<b>TRANSPORT AND ROADS</b> .....	<b>90</b>
4.1	Introduction .....	90
4.1.1	<i>Projected Transport of Wood without the Wood Centre</i> .....	90
4.1.2	<i>Transport During Construction of the Wood Centre</i> .....	90
4.1.3	<i>Transport of Raw Material to the Wood Centre</i> .....	90
4.1.4	<i>Transport of Product from the Wood Centre</i> .....	90
4.1.5	<i>Summary and Conclusions</i> .....	91
4.2	Projected Transportation of Wood without the Wood Centre .....	91
4.2.1	<i>Introduction</i> .....	91
4.2.2	<i>Transport Routes</i> .....	91
4.2.3	<i>Vehicle Movements</i> .....	92
4.3	Transport During Construction of the Wood Centre .....	96
4.3.1	<i>Proposed Transport Operation</i> .....	96
4.3.2	<i>Potential Impacts</i> .....	96
4.3.3	<i>Mitigation Measures</i> .....	97
4.4	Transport of Raw Material to the Wood Centre .....	98
4.4.1	<i>Proposed Transport Operation</i> .....	98
4.4.2	<i>Potential Impacts</i> .....	100
4.4.3	<i>Mitigation Measures</i> .....	102
4.5	Transport of Product from the Wood Centre .....	102
4.5.1	<i>Introduction</i> .....	102
4.5.2	<i>Alternative Forms of Transport and Transport Vehicles</i> .....	103
4.5.3	<i>Current and Proposed Transport Vehicles</i> .....	104
4.5.4	<i>Alternative Transport Routes Considered</i> .....	107
4.5.5	<i>Potential Impacts and Mitigation Measures</i> .....	120
4.5.6	<i>Monitoring</i> .....	148
4.6	Summary and Conclusions .....	148

---

---

4.6.1	<i>Transport During Construction of the Wood Centre</i>	148
4.6.2	<i>Transport of Raw Material to the Wood Centre</i>	149
4.6.3	<i>Transport of Product from the Wood Centre</i>	149
<b>5.</b>	<b>WOOD CENTRE (SITE-WIDE) ISSUES - ENVIRONMENTAL MANAGEMENT PLAN</b>	<b>152</b>
5.1	Introduction	152
5.2	Construction Issues For All Developments On-Site	153
5.2.1	<i>Construction Boundaries and Buffers</i>	153
5.2.2	<i>Soil Disturbance and Rehabilitation</i>	154
5.2.3	<i>Dust Generation</i>	155
5.2.4	<i>Noise Emissions</i>	157
5.2.5	<i>Traffic Issues</i>	157
5.3	Site-Wide Infrastructure and Services	157
5.3.1	<i>Vehicle and Load Washdown</i>	157
5.3.2	<i>Firefighting, Fire Management and Emergency Services</i>	158
5.3.3	<i>Site-Wide Power</i>	161
5.3.4	<i>Communications</i>	161
5.3.5	<i>Security</i>	162
5.3.6	<i>Site Lighting</i>	162
5.3.7	<i>Main Gate</i>	162
5.3.8	<i>Site Roads</i>	163
5.3.9	<i>Visitor Centre</i>	163
5.4	Site-Wide Energy Use	163
5.4.1	<i>Description of Energy Consumption</i>	163
5.4.2	<i>Energy Management</i>	165
5.5	Site-Wide Water Supply	166
5.5.1	<i>Description of Operation and Equipment</i>	166
5.5.2	<i>Location and Layout</i>	167
5.5.3	<i>Quantity and Quality of Water</i>	169
5.5.4	<i>Emission Sources</i>	170
5.5.5	<i>Projected Hours of Operation and Employment</i>	170
5.6	Site-Wide Process Wastewater Management	170
5.6.1	<i>Description of Operation and Equipment</i>	170
5.6.2	<i>Quantity and Quality of Site-Wide Wastewater</i>	178
5.6.3	<i>Emission Sources</i>	180
5.6.4	<i>Projected Hours of Operation and Employment</i>	181
5.7	Site-Wide Potential Impacts and Management Measures	182
5.7.1	<i>Terrestrial</i>	182
5.7.2	<i>Atmospheric Emissions and the Greenhouse Effect</i>	186
5.7.3	<i>Water Supply</i>	193
5.7.4	<i>Wastewater Emissions</i>	194
5.7.5	<i>Noise Emissions</i>	201
5.7.6	<i>Solid Waste Generation and Disposal</i>	204
5.7.7	<i>Hazardous Materials</i>	204
5.7.8	<i>Flora</i>	208
5.7.9	<i>Fauna</i>	209
5.7.10	<i>Archaeology and Cultural Heritage</i>	210
5.7.11	<i>Visual</i>	211
5.7.12	<i>Decommissioning and Rehabilitation</i>	214
5.8	Site-Wide Monitoring, Reporting and Review	214
5.8.1	<i>Site-Wide Management</i>	214
5.8.2	<i>Site-Wide Monitoring</i>	215
5.8.3	<i>Reporting</i>	223
5.8.4	<i>Review</i>	226

---

---

<b>6. MERCHANDISING YARD AND FUELWOOD PROCESSOR - ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>229</b>
6.1 Merchandising Yard and Fuelwood Processor Description .....	229
6.1.1 <i>Description of Operation and Equipment</i> .....	229
6.1.2 <i>Description of Buildings &amp; Associated Infrastructure</i> .....	233
6.1.3 <i>Source of Wood and Quantity of Production</i> .....	235
6.1.4 <i>Emission Sources</i> .....	238
6.1.5 <i>Projected Hours of Operation and Employment</i> .....	242
6.2 Atmospheric Emissions .....	242
6.2.1 <i>Potential Impact</i> .....	242
6.2.2 <i>Management Measures</i> .....	244
6.3 Wastewater Emissions .....	245
6.3.1 <i>Potential Impact</i> .....	245
6.3.2 <i>Management Measures</i> .....	246
6.4 Noise Emissions .....	247
6.4.1 <i>Potential Impact</i> .....	247
6.4.2 <i>Management Measures</i> .....	250
6.5 Solid Waste Generation .....	251
6.5.1 <i>Potential Impact</i> .....	251
6.5.2 <i>Management Measures</i> .....	251
6.6 Hazardous Materials .....	253
6.6.1 <i>Potential Impact</i> .....	253
6.6.2 <i>Management Measures</i> .....	255
6.7 Monitoring, Reporting and Review .....	256
6.7.1 <i>Monitoring</i> .....	256
6.7.2 <i>Reporting</i> .....	258
6.7.3 <i>Review</i> .....	261
<b>7. Regrowth SAWMILL - ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>263</b>
7.1 Sawmill Process Description .....	263
7.1.1 <i>Description of Operation and Equipment</i> .....	263
7.1.2 <i>Description of Buildings and Associated Infrastructure</i> .....	268
7.1.3 <i>Source of Wood and Quantity of Production</i> .....	270
7.1.4 <i>Emission Sources</i> .....	273
7.1.5 <i>Projected Hours of Operation and Employment</i> .....	277
7.2 Atmospheric Emissions .....	277
7.2.1 <i>Potential Impact</i> .....	277
7.2.2 <i>Management Measures</i> .....	279
7.3 Wastewater Emissions .....	281
7.3.1 <i>Potential Impact</i> .....	281
7.3.2 <i>Management Measures</i> .....	282
7.4 Noise Emissions .....	283
7.4.1 <i>Potential Impact</i> .....	283
7.4.2 <i>Management Measures</i> .....	285
7.5 Solid Waste and Wood By-Product Generation and Disposal .....	286
7.5.1 <i>Potential Impact</i> .....	286
7.5.2 <i>Management Measures</i> .....	286
7.6 Hazardous Materials, Health and Safety Issues .....	288
7.6.1 <i>Potential Impact</i> .....	288
7.6.2 <i>Management Measures</i> .....	291
7.7 Monitoring and Review .....	292
7.7.1 <i>Monitoring</i> .....	292
7.7.2 <i>Reporting</i> .....	295
7.7.3 <i>Review</i> .....	297

---

---

<b>8. ROTARY PEELED VENEER- ENVIRONMENTAL MANAGEMENT PLAN.....</b>	<b>299</b>
8.1 Rotary Peeled Veneer Mill Process Description .....	299
8.1.1 Description of Operation and Equipment .....	299
8.1.2 Description of Buildings and Associated Infrastructure .....	308
8.1.3 Source of Wood and Quantity of Production .....	309
8.1.4 Emission Sources .....	310
8.1.5 Projected Hours of Operation.....	314
8.2 Atmospheric Emissions.....	314
8.2.1 Potential Impact.....	315
8.2.2 Management Measures .....	316
8.3 Wastewater Emissions.....	319
8.3.1 Potential Impact.....	319
8.3.2 Management Measures .....	320
8.4 Noise Emissions .....	321
8.4.1 Potential Impact.....	322
8.4.2 Management Measures .....	323
8.5 Solid Waste Disposal and Generation.....	324
8.5.1 Potential Impact.....	324
8.5.2 Management Measures .....	325
8.6 Hazardous Materials, Health and Safety Issues.....	327
8.6.1 Potential Impact.....	327
8.6.2 Management Measures .....	327
8.7 Monitoring and Review.....	331
8.7.1 Monitoring .....	331
8.7.2 Reporting .....	333
8.7.3 Review.....	336
<b>9. WOOD FIBRE MILL - ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>338</b>
9.1 Wood Fibre Mill Process Description.....	338
9.1.1 Description of Operation and Equipment .....	338
9.1.2 Description of Buildings and Associated Infrastructure .....	344
9.1.3 Source of Wood and Quantity of Production .....	345
9.1.4 Emission Sources .....	346
9.1.5 Projected Hours of Operation and Employment.....	349
9.2 Atmospheric Emissions.....	350
9.2.1 Potential Impact.....	350
9.2.2 Management Measures .....	350
9.3 Wastewater Emissions.....	351
9.3.1 Potential Impact.....	351
9.3.2 Management Measures .....	352
9.4 Noise Emissions .....	353
9.4.1 Potential Impact.....	354
9.4.2 Management Measures .....	356
9.5 Solid Waste Generation and Disposal .....	359
9.5.1 Potential Impact.....	359
9.5.2 Management Measures .....	359
9.6 Hazardous Materials .....	361
9.6.1 Potential Impact.....	361
9.6.2 Management Measures .....	363
9.7 Monitoring and Review.....	364
9.7.1 Monitoring .....	364
9.7.2 Reporting .....	366
9.7.3 Review.....	368
<b>10. WOOD FIRED POWER STATION - ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>371</b>

---

10.1	Wood Fired Power Station Process Description .....	371
10.1.1	<i>Description of Operation and Equipment</i> .....	371
10.1.2	<i>Description of Buildings and Associated Infrastructure</i> .....	377
10.1.3	<i>Source of Wood and Quantity of Production</i> .....	378
10.1.4	<i>Emission Sources</i> .....	379
10.1.5	<i>Projected Hours of Operation and Employment</i> .....	384
10.2	Atmospheric Emissions .....	385
10.2.1	<i>Potential Impact</i> .....	385
10.2.2	<i>Management Measures</i> .....	386
10.3	Wastewater Emissions .....	389
10.3.1	<i>Potential Impact</i> .....	389
10.3.2	<i>Management Measures</i> .....	390
10.4	Noise .....	392
10.4.1	<i>Potential Impact</i> .....	392
10.4.2	<i>Management Measures</i> .....	394
10.5	Solid Waste Generation and Disposal .....	395
10.5.1	<i>Potential Impact</i> .....	395
10.5.2	<i>Management Measures</i> .....	396
10.6	Hazardous Materials .....	397
10.6.1	<i>Potential Impact</i> .....	397
10.6.2	<i>Management Measures</i> .....	399
10.7	Preliminary Hazard Analysis and Risk Assessment .....	400
10.7.1	<i>Introduction</i> .....	400
10.7.2	<i>Principal Site Hazards</i> .....	401
10.7.3	<i>Risk Assessment</i> .....	401
10.8	Monitoring, Reporting and Review .....	405
10.8.1	<i>Monitoring</i> .....	405
10.8.2	<i>Reporting</i> .....	407
10.8.3	<i>Review</i> .....	409
<b>11.</b>	<b>HEALTH IMPACT ASSESSMENT .....</b>	<b>411</b>
11.1	Health Issues and Potential Impacts .....	411
11.1.1	<i>Transport Related Impacts</i> .....	411
11.1.2	<i>Noise</i> .....	412
11.1.3	<i>Air Pollution</i> .....	413
11.1.4	<i>Wastewater Management</i> .....	414
11.1.5	<i>Control of Biological Hazards</i> .....	415
11.1.6	<i>Health Impact Summary</i> .....	416
<b>12.</b>	<b>CUMULATIVE EFFECT, CONCLUSIONS AND COMMITMENTS .....</b>	<b>417</b>
12.1	Introduction .....	417
12.2	Cumulative Effect of the Development .....	417
12.2.1	<i>Wood Supply and Production</i> .....	417
12.2.2	<i>Planning Issues</i> .....	417
12.2.3	<i>Social and Economic Issues</i> .....	418
12.2.4	<i>Transport and Roads</i> .....	419
12.2.5	<i>Environmental Management Issues</i> .....	420
12.3	Conclusions .....	434
12.4	Summary of Environmental Commitments .....	436
	<b>EXECUTIVE SUMMARY iii .....</b>	<b>xxxiv</b>
	<b>FRONTISPIECE xxxi .....</b>	<b>xxxiv</b>
	APPENDICES .....	xliii
	GLOSSARY OF TERMS .....	xliv

**FIGURES:**

Figure 1 Site Location (Map 4823, Glen Huon) .....	27
Figure 2 Aerial Photograph of Existing Site with Approximate Proposed Site Boundary .....	28
Figure 3 Wood Centre Wood Flow .....	31
Figure 4 Change in Products Over Time .....	33
Figure 5 Conceptual Site Layout .....	34
Figure 6 Raw Material and Product Flow .....	35
Figure 7 Notional Wood Supply Zone .....	48
Figure 8 Indication of Sales of Wood From State Forest in the Huon and Derwent Districts .....	49
Figure 9 Existing Vegetation .....	78
Figure 10 Potential Vantage Points in the Vicinity .....	86
Figure 11 Estimated Vehicle (Log Truck) Movements Per Day (vmpd) without the Wood Centre .....	93
Figure 12 Road Names and Ownership .....	94
Figure 13 Regional Map showing Triabunna and Bell Bay .....	95
Figure 14 Estimated Vehicle (Log Truck) Movements Per Day (vmpd) with the Wood Centre on Non Forestry Tasmania Roads .....	101
Figure 15 Comparison of a Log Truck and B-Double Truck (HPV) Configuration .....	108
Figure 16 Transport Route Options for Products .....	116
Figure 17 Product Transport Impacts on Various Routes .....	117
Figure 18 Current Road Traffic Volumes (AAWT) .....	125
Figure 19 Comparative Traffic Flow on Preferred Route .....	126
Figure 20 Preliminary Site-wide Water Circuit (Schematic) .....	168
Figure 21 Irrigation Site Location Plan .....	177
Figure 22 Hazardous Materials Stores and Potential Emission Sources .....	185
Figure 23 Conceptual Visual Impression .....	213
Figure 24 Merchandising Yard Process Flow Digram .....	236
Figure 25 Merchandising Yard Wood Flow Diagram .....	237
Figure 26 Merchandising Yard Water Flow Diagram .....	239
Figure 27 Sawmill Process Flow Diagram .....	271
Figure 28 Sawmill Wood Flow Diagram .....	272
Figure 29 Sawmill Water Flow Diagram .....	275
Figure 30 Rotary Peeled Veneer Mill Process Flow Diagram .....	306
Figure 31 Rotary Peeled Veneer Mill Wood Flow Diagram .....	307
Figure 32 Rotary Peeled Veneer Mill Water Flow Diagram .....	312
Figure 33 Wood Fibre Mill Process Flow Diagram .....	342
Figure 34 Wood Fibre Mill Wood Flow Diagram .....	343
Figure 35 Wood Fibre Mill Water Flow Diagram .....	348
Figure 36 Wood Fired Power Station Process Flow Diagram .....	374
Figure 37 Wood Fired Power Station Wood Flow Diagram .....	375
Figure 38 Wood-Fired Power Station Water Flow Diagram .....	383

**TABLES**

Table 1 Required Approvals .....	8
Table 2 Summary of Information Sessions and Parties Consulted .....	14
Table 3 Summary of Initial Community Consultation .....	16
Table 4 Public Consultation Strategy .....	17
Table 6 Predicted Area Requirements for Facilities .....	32
Table 7 Estimated Annual Hardwood and Product Flows .....	33
Table 8 Merchantable Wood in Multiple Use and Private Forest Area .....	36
Table 9 Outcomes of RFA process .....	37
Table 10 Sustainability indicators for reporting in 2002 .....	39
Table 11 Land Tenure in the Huon District .....	47
Table 12 Typical Soil Profile Description .....	65
Table 13 Climatological Summary for the Region .....	66

Table 14	Recorded and Calculated Huon River Flows .....	68
Table 15	Huon River Water Quality Recorded Adjacent to the Site.....	69
Table 16	Huon River Long Term Water Quality Monitoring Results.....	72
Table 17	Huon River Water Nutrient Export Load.....	74
Table 18	Floral Communities on Site and their Descriptions .....	76
Table 19	Significant Faunal Species Recorded On or Near the Site .....	79
Table 20	Results of 15 Minute Statistical Noise Analysis (dB(A)).....	83
Table 21	Road Ownership of Principal Non-Forestry Tasmania Roads Used for Log Carting, Annual Tonnages and Truck Movements .....	92
Table 22	Changes in Traffic Volume – Associated with Construction Activities.....	97
Table 23	Comparison of Log cartage flows on non-Forestry Tasmania roads with and without the Wood Centre.....	99
Table 24	Specifications for Transport configurations presently used .....	105
Table 25	Indicative Vehicle Specifications for Proposed Development.....	106
Table 26	Destination of products from the Wood Centre .....	107
Table 27	Consideration of Transport Route Options – Sawlogs, Sawn Timber and Veneer .....	109
Table 28	Future Movement of Sawlogs to Sawmills in Hobart .....	111
Table 29	Future Movement of Sawn timber to Hobart .....	112
Table 30	Future Movement of Veneer to Hobart.....	112
Table 31	Future Movement of Wood Fibre to Boyer.....	113
Table 32	Consideration of Transport Route Options – Wood Fibre .....	115
Table 33	Future Movement of Export Wood Fibre.....	118
Table 34	Existing Road Condition along the Preferred Transport Route.....	119
Table 35	Indirect Cost of transport with and without the Wood Centre .....	122
Table 36	Current Total Road Traffic Volumes - East of Wood Centre .....	123
Table 37	Future Vehicle Movements.....	124
Table 38	Changes in Road Traffic Volumes (refer also to Figure 19).....	127
Table 39	Measured Noise levels .....	129
Table 40	Daytime Noise Level Measurement Results .....	129
Table 41	Night-time Noise Level Measurement Results.....	130
Table 42	Noise Criteria and Calculated Noise Levels for Wood Centre Trucks.....	134
Table 43	Estimated emissions without the Wood Centre.....	141
Table 44	Estimated emissions with the Wood Centre.....	141
Table 45	Existing Road Safety Issues .....	143
Table 46	Dust (PM-10 <sup>a</sup> ) Control Options for Open Sources During General Construction.....	156
Table 47	Total Annual Energy Consumption by Facility.....	165
Table 48	Predicted Facility and Site-Wide Water Requirements.....	169
Table 49	Typical Quantities of Wastewater including Stormwater to be Directed to the Communal Storage Ponds System.....	179
Table 50	Sewage Treatment Plant Water Quality Performance Requirements .....	179
Table 51	Categories of Forestry Product Decay Rates.....	190
Table 52	Hazardous Materials Stored/Used On-Site – Site-Wide Facilities.....	206
Table 53	Details of the Merchandising Operations Equipment .....	233
Table 54	Building Dimensions and Construction Materials .....	234
Table 55	Air Emission Generation From Merchandising Yard Equipment (AGO 1998a) .....	243
Table 56	Noise Generated by a Chain Saw.....	249
Table 57	Noise Generated by Log Stacking Operations .....	249
Table 58	Hazardous Materials Stored On-Site - Merchandising Yard.....	254
Table 59	Details of the Sawmill Operations Equipment .....	267
Table 60	Building Dimensions and Construction Materials .....	269
Table 61	Air Emissions from Sawmill Heat Plant, fuel level of 45,000 tonnes pa .....	281
Table 62	Noise Levels from a Typical Sawmill.....	285
Table 63	Hazardous Materials Annual Use Rate .....	288
Table 64	Hazardous Materials Stored/Used On-Site Sawmill .....	290

Table 65 Details of the Main Types of Rotary Peeled Veneer Mill Equipment.....	305
Table 66 Building Dimensions and Construction Materials – Rotary Peeled Veneer Site.....	308
Table 67 Air Emissions from the Rotary Peeled Veneer Heat Plant based on a fuel level of 45,000 tonnes per annum .....	318
Table 68 Hazardous Materials Annual Rate of Use .....	328
Table 69 Hazardous Materials Stored/Used On-Site – Rotary Peeled Veneer Mill.....	329
Table 70 Details of the Main Wood Fibre Operations Equipment.....	341
Table 71 Building Dimensions and Construction Materials .....	344
Table 72 Estimated Annual Wood and Product Flow - Wood Fibre Mill.....	346
Table 73 Wood Fibre Mill Atmospheric Emissions.....	346
Table 74 Typical Noise Levels Expected.....	356
Table 75 Hazardous Materials Stored/Used On-Site - Wood Fibre Generation .....	362
Table 76 Building/Structure Dimensions and Construction Materials.....	377
Table 77 Estimated Volume of Wood By-Product Supplied from Adjacent Facilities to the Power Station (tonnes/pa) .....	379
Table 78 Power Station Atmospheric Emissions .....	381
Table 79 Worst case effects for Power Station emissions [Hobart.met] .....	386
Table 80 Air Regulation Emission Levels .....	388
Table 81 Typical Noise Levels Expected from the Site Equipment.....	393
Table 82 Hazardous Materials Annual Use Rate .....	397
Table 83 Hazardous Materials Stored/Used On-Site – Power Station Facilities.....	398
Table 84 Hazard Categories.....	402
Table 85 Likelihood Score, (Frequency of Possible Cause) .....	402
Table 86 Severity Score Real Hazard Index .....	403
Table 87 Hazard Category Summary for selected critical areas within the Power Station .....	403
Table 87 Summary Of Main Noise Sources At Wood Processing Facilities .....	424
Table 88 Solid Waste Disposal Summary.....	425
Table 89 Summary of Environmental Commitments .....	437

**PLATES**

Plate 1 View from Edwards Road .....	87
Plate 2 Ranelagh Route .....	110
Plate 3 Merchandising Yard Log Segregation Area.....	230
Plate 4 Fuelwood Hogger.....	232
Plate 5 Breakdown Saw .....	264
Plate 6 Air Drying Timber .....	265
Plate 7 Log infeed to Lathe .....	300
Plate 8 Peeled veneer prior to clipping .....	301
Plate 9 Log infeed deck.....	339
Plate 10 Typical Overhead wood fibre bin .....	340
Plate 11 Power Station.....	371

**GRAPHS**

Graph 1 Comparison of CO <sub>2</sub> release from both the power generation and forestry industries .....	189
--	-----

---

**APPENDICES**

---

A	Guidelines for the preparation of Development Proposal and Environmental Management Plan for the establishment of an Integrated Processing Yard (IPY) for Timber Products. DPIWE, 2000.
B	Forestry Tasmania Environmental Policy. FORESTRY TASMANIA, September 2000.
C	Public Consultation Stage 1. CORPORATE COMMUNICATIONS, 2001.
D	Socio-Economic Report for the Planning Submission on Southwood Resources Huon, The Wood Centre. FORESTRY TASMANIA, April 2001.
E	Preliminary Geotechnical Assessment: Proposed Integrated Forest products Yard Huon District, Huon Tasmania. COFFEY GEOSCIENCES PTY LTD, August 2000.
F	Huon and Arve Rivers Water Quality Analysis Results. DPIWE LABS, 2000.
G	Revised Botanical Resources Survey of a Site Proposed for the Huon Integrated Timber Processing Yard, Glen Huon, Southern Tasmania. BIOLOGICAL CONSULTANTS, January 2001.
H	Huon Integrated Timber Processing Yard, Huon/Arve River Junction: Fauna Assessment. STEPHEN MALLICK, April 2001.
I	Aboriginal Heritage Survey. FOREST PRACTICES BOARD, 2000.
J	Aboriginal Heritage Consultation Correspondence. SETAC & TALC, 2000.
K	Aboriginal Heritage Survey: Integrated Timber processing Site. PETER SCOTTNEY, January 2001.
L	European Heritage Investigation of the Proposed Wood Centre Site. FORESTRY TASMANIA, January, 2001.
M	Noise & Noise Measurement. SEMF HOLDINGS PTY LTD., April 2001
N	Noise Assessment Report. PEARU TERTS (Noise Consultant), April 2001.
O	Huon Forest District Forest Management Plan (Draft Amendments). FORESTRY TASMANIA, September 1999.
P	Wood Centre to the Huon Highway - Transport Options. Global Value Management Pty. Ltd., April 2001.
Q	Implications of Transport Movements to and from the Huon Integrated Timber Processing Site. INDEC, January 2001.
R	Road Freight Options Between Judbury and the Huon Highway. LUPATEC PTY LTD., March 2001.
S	Overview: Diversion of Woodchip Transport to a New Port South of Hobart. INDEC, June 2000
T	Preliminary Hazard Analysis and Risk Assessment for the Wood Centre Development, Southwood Resources – Huon. SEMF HOLDINGS PTY. LTD., May 2001.
U	Air Quality Modelling for the Southwood Power Station – SEMF HOLDINGS PTY. LTD., July 2001.
V	Commonwealth Minister for Environment Declaration under EPBC Act 1999.
W	Preliminary Hydro-Geological Assessment Southwood Resources – Huon. SLOAN WELDON PTY. LTD., August 2001.
X	Water and Wastewater Report for the Wood Centre Development Southwood Resources – Huon. SEMF HOLDINGS PTY LTD., July 2001.

---

---

**ABBREVIATIONS**

µS/cm	Micro siemens per centimetre.
ADO	Automotive Diesel Fuel
AHU	Aboriginal Heritage Unit (DPIWE)
ANZECC	Australian and New Zealand Environment and Conservation Council.
AS	Australian Standards.
BOD	Biochemical Oxygen Demand.
BPEM	Best Practice Environmental Management
CEPBC	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
CESPA	Commonwealth Endangered Species Protection Act 1992 (superseded by EPBC Act).
CH <sub>4</sub>	Methane.
CO	Carbon oxide.
CO <sub>2</sub>	Carbon dioxide.
CO <sub>x</sub>	Carbon oxide compound.
dBa	Decibels.
DA	Development application.
DEM	Director of Environmental Management
DIER	Department of Infrastructure, Energy and Resources.
DO	Dissolved oxygen.
DPEMP	Development Proposal and Environmental Management Plan.
DPIF	Department of Primary Industries and Fisheries
DPIWE	Department of Primary Industries, Water and Environment.
EAP	Environmental Action Plan
EMP	Environmental Management Plan.
EMPCA	Environmental Management and Pollution Control Act 1994
ESP	Electrostatic precipitator.
FT	Forestry Tasmania.
GLC	Ground Level Concentration
HAZOP	Hazard and Operability Study
HCHRP	Huon Catchment Healthy Rivers Project.
Ha	Hectare.
HPV	High Performance Vehicle.
HVAS	Heavy Vehicle Accreditation Scheme (National).
HVC	Huon Valley Council.
ID	Induced Draft.
IFM	Intensive Forest Management.
kg/s	Kilograms per second.
km	Kilometres.
kpa	Kilo pascals
kV	Kilo volts.
Leq	The equivalent “A” weighted noise level.
L <sub>90</sub>	The noise level that is exceeded for 90% of the time
LPG	Liquid Petroleum Gas.
LUPAA	Land Use Planning and Approvals Act 1993.
M/s	Metres per second.
MI	Mega litres.
MSDS	Material Safety Data Sheets
MW	Mega Watts.
MWe	Mega Watt equivalents.
MWh	Mega watt hours.
N	Normal
NEPC	National Environment Protection Council.

---

NEPM	National Environmental Protection Measures
NMVOC	Non-Methane Volatile Organic Compound
N <sub>2</sub> O	Nitrogen oxide
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Nitrous oxide compound.
NPV	Net Present Value.
NTU	Nephelometer turbidity units.
NW Bay	North West Bay.
O <sub>2</sub>	Oxygen.
pa	per annum
PM <sub>10</sub>	Particulate Matter
RERAC	Rapid Environmental Risk Assessment Checklist
RFA	Regional Forest Agreement.
RMPS	Resource Management and Planning System
RPDC	Resource Planning and Development Commission.
SAR	Sodium adsorption ratio.
SCAG	Southwood Community Advisory Group.
SETAC	South East Tasmanian Aboriginal Corporation.
T	Tonnes.
TALC	Tasmanian Aboriginal Land Council.
TAR	Total Assessed Risk
TDS	Total Dissolved Solids.
TPH	Total Petroleum Hydrocarbon.
TSP	Total Suspended Particulates.
TSS	Total Suspended Solids.
TTSPA	Tasmanian Threatened Species Protection Act 1995.
VAC	Vertebrate Advisory Committee 1994.
VOC	Volatile Organic Compound.

### **GLOSSARY OF TERMS**

*Class 1 watercourse	Rivers, lakes, artificial storages (other than farm dams) and tidal waters.
*Class 2 watercourse	Creeks, streams and other watercourses from the point where their catchment exceeds 100 ha.
*Class 3 watercourse	Watercourses carrying running water most of the year between the points where their catchment is from 50 to 100 ha.
*Class 4 watercourse	All other watercourses carrying water for part or all of the year for most years.
Cogeneration	A process in which fuel is burnt in a boiler and simultaneously produces steam for manufacturing processes and electricity.
Condenser	A heat exchanger that cools steam to form water.
Coupe	An area of forest designated to be harvested at a particular time, usually between 50 and 100 ha.
Dry Mill	A part of a sawmill in which sawn timber is dried in a kiln and is then dressed to achieve required dimensions.
Forest residue	Comprises primarily bark and branches that are not otherwise used as forest products.
Fuelwood	Forest residue (a renewable resource) used to produce power for the site as well as the local community.
Generation	Process of producing electricity.
Green recovery mill	A sawmill in which logs are sawn into green boards.
Kiln	A building normally heated by steam in which sawn wood is dried.

---

Kyoto Protocol	A multi-national agreement aimed at limiting green house gas emissions.
Laminated veneer lumber	A product thicker than plywood, comprising layers of veneer to produce building elements such as beams and flooring.
Log segregation	A process of separating wood into merchantable product streams.
Mega litres	1 000 000 litres
Mega Watt	A measurement unit for electrical power (mega watt) equal to 1000 kW.
Natural drainage line	An undisturbed naturally occurring depression that carries water during or shortly after rainfall.
Particulates	Small particles of solid material in an exhaust gas stream.
Plywood	A wood product comprising a number of layers of veneer glued together in sheet form.
Rotary peeling	A process in which a log is rotated in a lathe and a knife peels a continuous length of veneer from the outside surface of the log.
Screening	A process in which wood chips are passed over a fixed opening grate to remove under sized and over sized chips.
Site-Wide	Refers to the Wood Centre as a whole and the facilities shared communally by individual operations on the site such as the water supply and wastewater management and managed by the Site-Wide Manager.
Turbine	A device that converts high pressure steam to electricity.
Veneer	A thin thickness of wood obtained by slicing or peeling a log.
Volatile Organic Compound (VOC)	The various organic compounds contained in wood that evaporate as wood is heated.
*Watercourse	A natural depression carrying perennial or intermittent flows of surface water for part or all of the year in most years, consisting of a defined channel, with banks and bed along which water may flow.
Wood	Refers to hardwood throughout this document.
Wood residue	Wood that cannot be used for production of sawn timber, veneer or chips for pulp and paper.
Wood fibre	Wood in chip form for further processing.
* As defined in the Forest Practices Code 2000.	