



HEARING OF REPRESENTATIONS

Draft Amendment BY and s.43A permit.
Huon Planning Scheme 1979
("Southwood")

Report of the hearings held at the Huon Council Chambers, Huonville on the following dates:

1st, 2nd, 3rd, 6th, 7th, 13th and 14th May 2002.

Representors:

See Appendix A

Appearances:

See Appendix B

Delegation:

In accordance with its decision dated 8 April 2002, the Commission delegated to us, John Vandenberg and Rick Southee, -

- a) its powers and functions under sections 40 and 43G of the *Land Use Planning and Approvals Act 1993*; and
- b) in connection with those powers and functions, its powers and functions under Part 3, to be performed and exercised in accordance with sections 10, 11 and 12 of the *Resource Planning and Development Commission Act 1997*.

The Amendment:

Amendment BY proposes to create an 'Integrated Timber Processing Site Special Area' occupying approximately 90 hectares of State Forest at Weld Road, Lonnvale, near the confluence of the Arve and Huon Rivers, about 12 kilometres south west of Judbury. The Special Area includes a 20 metre wide corridor to the Huon River to accommodate a pumping station and rising main supplying water to the proposed industrial complex.

Planning controls for this area, currently zoned Rural, are provided in proposed Schedule 10, referenced by proposed clause 3.10 of the planning scheme, which says "All use or development within the Integrated Timber Processing Site Special Area is to be in accordance with Schedule 10." The amendment is therefore a form of specified departure from the provisions of the Huon Planning Scheme 1979.

The stated intent of the Special Area is to provide for “the sustainable development and use of integrated timber-processing facilities of significant economic value to the region and the State.”
(Clause S.10.2.1)

Supporting objectives set out in Clause S.10.3.1 are:

- “
- to provide for a range of timber processing operations;
 - to ensure that the development of the site, including infrastructure, is environmentally sustainable;
 - to ensure the site is developed in an integrated manner and the various uses are complimentary to each other;
 - to encourage the downstream processing of timber products; and
 - to ensure the protection of the environmental values of the Huon River and its estuarine waters.”

In pursuit of these objectives Clause S.10.4 proposes a range of timber processing and related activities to be permitted uses. These include –

- “
- i. log segregation, cross cutting of logs and sawlog sales;
 - ii. sawmilling and timber drying
 - iii. rotary peeling and production of veneers and plywood plants
 - iv. composting plant;
 - v. wood fibre production plant
 - vi. wood fired power generation plant
 - vii. timber sales yard
 - viii. joinery
 - ix. all other uses related to the downstream processing of the timber resource
 - x. infrastructure that is integral to the development of the above uses
 - xi. visitor information centre
 - xii. engineering and maintenance workshops
 - xiii. signs
 - xiv. weighbridge
 - xv. subdivision ”

(However, uses and developments classified as Level 2 activities under the *Environmental Management and Pollution Control Act 1994*, require discretionary permits by virtue of section 25(1) of that Act.)

Clause S10.5 establishes the basis on which Council must or may issue a permit. For the listed permitted uses or developments, Council must grant a permit, either conditionally or unconditionally, provided only that the use or development complies with the standards for subdivision, car parking and setbacks set out in Clauses S10.9.2, S10.10 and S10.11.

Although Clause S10.5.2 refers to discretionary use or development, no discretionary uses are listed. The requirement to treat Level 2 activities as discretionary applications is not mentioned.

Any other uses not listed in S10.4.1 are proposed to be prohibited.

Clause S10.6 provides guidance for interpretation of Schedule 10. Apparently, the schedule is to be read as a stand alone document, divorced from the remainder of the Huon Planning Scheme.

“S10.6.2 The provisions of this Schedule are to be interpreted primarily by reference to the Intent, Objectives and content of this Schedule. Words and expressions may be used in this Schedule in a manner, or with a meaning, different from the same or similar words or expressions in other provisions of this Scheme.

S10.6.3 Only those provisions of this Scheme which are expressly, or by necessary implication, applicable to this Schedule are to apply to this Schedule.”

Any development application must include an Environmental Impact Statement, prepared to the satisfaction of Council, to address a number of matters specified in Clause S10.7.1 . (Notably, the expertise and the role of the EMPCA Board in assessing an Environmental Impact Statement for a Level 2 activity is not mentioned.) The EIS must incorporate: -

- “
- (a) A detailed description of the proposal including
 - i) proposed uses of the land;
 - ii) a site plan indicating the location of services, signs, buildings, building envelopes, roads, car parking, fencing, proposed landscaping, trees and vegetation to be retained or removed;
 - iii) plans indicating the type and colour of building materials to be used and the form and height of proposed buildings and signs;
 - iv) the number of employees;
 - v) plan of subdivision
- (b) A description of the existing environment and potential environmental impacts, including:
 - i) a geo-technical assessment of the land;
 - ii) a flora and fauna assessment of the land;
 - iii) a hydrological assessment (including water quality);
 - iv) an archaeological and cultural assessment of the land;
 - v) an air quality assessment;
 - vi) a noise impact assessment
- (b) Proposed measures to avoid, mitigate or remedy any potential adverse impacts on the environment identified under (b)above; and
- (c) An assessment of the capacity of the infrastructure to meet the demands of the proposal including:

- i) Local and regional road access;
- ii) Water supply;
- iii) Waste water disposal;
- iv) Solid waste disposal;
- v) Stormwater disposal;
- vi) Power supply and transmission capacity;”

Clause S10.8.1 sets out the matters to be considered by Council in its assessment of an application. In summary, Council must have regard to effects on:

- a) the natural environment, particularly land capability and rare or threatened species;
- b) ground and surface waters;
- c) cultural heritage values;
- d) air quality;
- e) existing roads and infrastructure, both off and on the site;
- f) local communities;
- g) scenic values of the landscape;
- h) existing uses to ensure that each additional use will not adversely impact on other uses;
- i) any other relevant matters deemed important by Council.

Additionally, S10.8.2 requires Council to be satisfied with the measures proposed to -

- i) protect highly erodible areas;
- ii) protect areas with significant environmental, scientific or conservation values;
- iii) protect air and water quality;
- iv) manage natural hazards;
- v) manage stormwater, solid and liquid wastes;
- vi) mitigate impact on local communities; and
- vii) protect visual amenity, landscape and cultural values.

Remaining clauses of Schedule 10 provide basic planning controls in respect of subdivision, car parking and setbacks. S10.9.1 purports to exempt an application for subdivision from the operation of ss 84 and 85 of the Local Government (Building and Miscellaneous Provisions) Act 1993 and deems such an application to be a permitted use. No subdivision minima or other design criteria are specified in the amendment. A 10 metre wide, landscaped setback from Weld Road is required. Dimensions of car parking spaces are specified. The numbers of car parking spaces is left for Council to determine. The amendment makes no requirements and sets no standards for the parking and manoeuvring of larger vehicles, such as minibuses, tourist coaches or trucks.

The Permit:

The permit is for a combination of five, level 2 activities and supporting infrastructure as described in the proponent's Development Proposal and Environmental Management Plan (the DPEMP) and its Supplement. These documents were compiled by SEMF Holdings Pty Ltd, as consultants to Forestry Tasmania, in response to the guidelines supplied by the Board of Environmental Management and Pollution Control.

The level 2 uses proposed to be permitted are:

- a log merchandising yard;
- a regrowth sawmill;
- a rotary peeled veneer mill;
- a wood fibre mill; and
- a wood fired power station.

Indicative layout plans also show storage areas for logs, sawn timber, wood fibre and fuel wood. Supporting infrastructure for the whole site includes a water off-take point, pump station and rising main from the Huon River to the Wood Centre, reticulated electricity supply from the State grid, wastewater management works, internal road works, maintenance workshops and staff amenities. A visitor centre and viewing facilities are also proposed.

Other related uses and developments are foreshadowed in the proponent's documentation but are not part of the permit before the Commission. For example, irrigation areas on which to dispose of waste water and upgrading of roads external to the site are not part of the permit. Separate applications for those uses and developments will be necessary if the amendment and permit are approved.

Permit conditions for the level 2 activities and management of the Wood Centre and its environment were established by the Board of Environmental Management and Pollution Control and were then adopted by Council. In total there are 265 conditions required by the Board, 203 site-wide conditions plus specific conditions for each level 2 activity. Council separately required a further 33 permit conditions.

Council's Section 39(2) report:

Council resolved at its Special Meeting held on 12 December 2001 to certify the draft amendment and publicly exhibit it for a period of six weeks.

Following public exhibition, Council reported that 216 representations had been received. Council's assessment of these representations was comprehensive and identified several issues pertinent to the amendment and the development application.

General issues were discussed but not considered by the assessing officers to be directly relevant to consideration of the amendment or the development application. Issues identified as 'general issues' were: -

- 1) Legislative/procedural matters;
- 2) Forestry Tasmania being the proponent;
- 3) Public consultation;
- 4) Limitations statement within the DPMP;
- 5) Use of public funds and public land;
- 6) Liability of Southwood to pay rates;
- 7) Resource supplies;
- 8) Concept of an 'investment-ready' permit;
- 9) Compliance with the many permit conditions and the need for further investigations; and
- 10) A need for independent studies into environmental, social and economic impacts of the development proposal.

Issues identified by Council as being pertinent to the draft amendment were: -

- a) Site selection;
- b) Location of pumping station; and
- c) Furtherance of LUPA Schedule 1 Objectives.

Issues relevant to the development application were identified as: -

- a) Whether Environmental Assessments were adequate;
- b) Whether the Permit would ensure all components of the proposal are built as an integrated complex within a reasonable time frame;
- c) Anticipated efficiencies and value-added benefits of specific components;
- d) The need for further approvals for associated infrastructure;
- e) Transport issues, especially those relating to assessment of alternatives and their impact on the Ranelagh community;
- f) Social and economic impacts of the proposals;
- g) Division within the Huon Community;
- h) Impacts on other local industries such as agriculture, aquaculture and tourism;
- i) Visual and landscape impacts;
- j) Cultural heritage;
- k) Fire management and risk management.

Council, at its Special Meeting held on 26 February 2002, concluded that, "There was insufficient merit within the objections to warrant refusal of the draft amendment" and accordingly recommended, by a 5/4 majority, that the Commission approve the amendment as certified.

No major changes to the permit conditions were suggested. Nor were any additional conditions proposed. However, Council heeded the advice of

Representor Borrie and proposed minor changes to the wording of several conditions so as to clarify their interpretation.

Summary of Evidence:

The evidence put to the hearing was extremely wide ranging in its scope. Many representors emphasised that a broad view of the LUPAA Schedule 1 objectives was necessary, in their opinion, to adequately assess the long term, local, regional, State and global implications of the Southwood proposals.

In many cases the 216 representations cover common grounds for concern and common cause for support. It is not considered necessary to separately identify each representor's evidence. Rather, it is the issues they raise that require discussion. The following summary of the evidence attempts to group these concerns into convenient headings, with relevant references given in the end-notes. The Special Area was variously referred to in the evidence as either 'the Wood Centre', 'the ITPS' or 'the Southwood site'.

In this report, 'the Wood Centre' and 'the ITPS' are used synonymously to mean the land, buildings and works within the 90 hectare site the subject of Amendment BY and the planning permit. The 'Southwood site' is a label for the location of the Wood Centre and land in the vicinity, including possible irrigation areas, access roads and nearby stretches of the Huon River.

The proponent, Forestry Tasmania, relied entirely on the written documentation contained in the Development Proposal and Environmental Management Plan and Appendices (the DPEMP) (August 2001) and the DPEMP Supplement (August 2001) and provided verbal explanations of the material in these documents at the hearing. From among the many contributing authors several expert witnesses were made available by Forestry Tasmania for questioning by the Commission and representors.

The delegates have read the Environmental Assessment Report (the EAR) prepared by the Department of Primary Industries, Water and Environment (DPIWE, November 2001). This EAR contains an environmental assessment and recommendations to the Board of Environmental Management and Pollution Control. We have also read the subsequent report to the Commission prepared by the Board (February 2002).

It is impractical to reiterate, except in a highly condensed way, the large volumes of factual data and analysis presented in the DPEMP, the DPEMP Supplement, the EAR and the Board's report to the Commission.

(For the most part, this evidence was not disputed by the representors on matters of fact. Where opinions diverge between the proponent of the Wood Centre, its supporters and detractors, this divergence appears to rest on –

- i) Scepticism about the assumptions regarding ecological sustainability, resource supply, markets, prices and State economic benefit that underpin Forestry Tasmania's forest management strategy;
- ii) Mistrust by some representors of the actual figures provided by Forestry Tasmania to support its predictions of forest resource use, employment and consequent economic benefit;
- iii) Dissatisfaction with the scope of investigations into regional socio-economic factors, and lack of analysis of impacts upon other industry sectors and the community, using tools such as social cost-benefit analysis;
- iv) Doubts about the accuracy and reliability of predicted impacts based on mathematical models for which there is insufficient local baseline data, e.g. air quality using the Ausplume model;
- v) Apprehension on the part of affected residents and businesses about the health, safety and noise impacts and the adequacy of suggested mitigation measures relating to heavy traffic movements to and from the Wood Centre;
- vi) Additional concerns about the traffic impact on Ranelagh in terms of loss of property values, quiet rural lifestyle, recreational activities and community cohesion.)

For the purposes of this section of the report, it is sufficient to summarily describe the selection of a preferred site, the proposed activities to be carried out there, the probable impacts of those activities and the means by which those impacts are proposed to be avoided or mitigated.

Site Selection

Before the DPMP was submitted, DPIWE prepared guidelines for the preparation of that document. The guidelines were published (June 2001) and some of the representors drew attention to the guidelines in their submissions.

In 'General Information for the Proponent' the following statement appears.

"These guidelines provide a summary of the information requirements for a Development Proposal and Environmental Management Plan (DPMP) for Forestry Tasmania's proposed integrated timber processing site, also referred to as Southwood Resources – Huon, located near the confluence of the Huon and Arve Rivers, south west of Judbury. These guidelines are based on the Project Description (version June 2001) prepared by Forestry Tasmania in relation to the proposed activity."

Section 2.1 of the guidelines calls for a description of the Southwood Resources – Huon site and lists in some detail the topics for which information is required.

Section 2.2 of the guidelines begins,

“Prudent and feasible alternatives that could satisfy the objectives of the project should be discussed in sufficient detail to make clear the reasons for preferring certain options and rejecting others. The reasons behind the choice of the preferred option should be explained including the environmental, technical, social, economic and other criteria influencing the choice of the preferred options and a comparison of the expected adverse and beneficial effects at local, regional, state and national levels.

...

Specific alternatives to be examined include:

- a) Alternative sites;
- b) Alternative forms of transport;
- c) Alternative transport routes for all products coming to or leaving the site, including the construction of bypasses;
- d) Alternative port locations and associated transport routes;
- e) Alternative sources of energy/power with regard to the power station;
- f) Alternative configuration, design and construction options for the project.

The alternative of not proceeding with the project should be discussed, with reference to the environmental, social and economic implications for both the short and long term.”ⁱ

The DPEMP describes the site selection process undertaken to choose between potential sites at –

- Boyer (integrated with the Norske Skog mill);
- Karanja (west of Plenty);
- Plenty and Puzzle River Junction;
- Russell Road;
- Denison/Weld Road Junction;
- North Huon River (Southwood); and
- Port Huon (Former Australian Paper Mill site).

Three sites (Karanja, Denison/Weld, Port Huon) were rejected after initial assessment. Stated selection criteria for the remaining four sites included present zoning, surrounding land use, availability of infrastructure (power, water, sewer, fire services), available area, land suitability (topography, geology/soils, site history/contamination, natural hazards), water issues (quality, proximity of supply, wastewater management), other environmental issues and off-site impacts.

The pros and cons of each site, identified in Section 1.6 of the DPEMP, are tabulated below. Factors identified in the DPEMP are shown in plain text, whilst factors not mentioned in Section 1.6 of the DPEMP but raised either by representors or at a consultation workshopⁱⁱ, are shown in italics.

Table 1. Assessment of Alternative Site Options

Site	Advantages	Disadvantages
Boyer	Possible integration with existing wood processing complex. Only <i>minor</i> infrastructural development required. <i>Rail infrastructure for products is available</i> <i>Link road already available.</i>	Privately owned land. Sufficient land not available. Much longer distance to transport unprocessed wood. Residential use on south side of Derwent (although buffers/screening thought to be adequate)
Karanja	<i>Rail infrastructure for products is available.</i> <i>Link road already available.</i> <i>No affected residents.</i>	Too remote to allow economic cartage of timber. (Option rejected after initial assessment.)
Plenty/- Puzzle	State Forest (several potential sites). No zoning or adjoining use issues. <i>No affected residents.</i>	No power supply, reticulated water or sewer. Water supply unreliable. Snow might hamper winter operations.
Russell	Two potential sites, one adjacent to Russell River. No residences within 1km.	Water supply insufficient for projected needs. No power supply, reticulated water or sewer. Pastoral /rural-residential nature. Privately owned land.
Denison/- Weld	Not stated.	Insufficient water available to enable integration of other industrial activity. (Option rejected

		after initial assessment)
South-wood	Not productive forest. No residences within 6 km. No significant zoning issues. Abundant water supply available	No power supply, reticulated water or sewer. Possible incompatibility with aesthetic values and recreational use of Huon River (thought to be manageable with screening).
Port Huon	<i>Proximity of port facilities reduces road transport task.</i> <i>Infrastructure available.</i>	Insufficient flat land. Privately owned land. (option rejected after initial assessment)

The DPMP reports that economic modelling was carried out for the four short-listed sites but this modelling was not presented. The final site selection by the proponent appears to have been based largely on site characteristics, environmental impact, tenure, availability of water and wood supply transport costs. Downstream impacts on communities seem not to have been considered in Forestry Tasmania's assessment.

Description of the Proponent's Preferred Site – Southwood

The project site occupies almost 90 hectares of State Forest land, located 25km west of Huonville, on the northern side of, but set back from, the Huon River. About 16 hectares is unsuitable for development due to topography. The site is located on a gently sloping ridgeline underlain by Permian sedimentary deposits. Surface soils range from clayey to gravelly. A Pleistocene glacio-fluvial terrace escarpment of 'outstanding geo-conservation significance at the regional level' encircles the ridge. Its location is not shown on maps provided in the DPMP.ⁱⁱⁱ A major rockslide had been located by the geotechnical consultants at the southern end of the site. The location of the rockslide was not shown on plans of the site but is presumably in the vicinity of the proposed power station. The EAR concluded that the DPMP did not provide sufficient information to determine the risks of land instability. The EAR called for further geotechnical and hydrogeological investigations of the site.

Climatically the Southwood site is temperate, but the nearest weather stations at Geeveston and Grove are unlikely to provide a true indication of rainfall or wind direction at this more inland and mountainous location. Specifically, rainfall, prevailing wind direction and strength cannot be determined without on-site monitoring being undertaken. The site is likely to experience more frosts and fogs than either of the nearest weather stations. The DPMP says that temperature inversions are most likely to occur in wintertime, 50

-100 m above the ground.^{iv} Dr Mike Power told the hearing that inversion layers could rise from zero to 200-300 m above the ground.^v

The site is located within the Huon River catchment which extends over 3900 square kilometres. The Huon River flow at Southwood is calculated to range seasonally from 497Ml/day to 146,000 Ml/day, the average flow being 6,960 Ml/day. Water quality is good, key parameters being indicative of a healthy river system. The EAR proposed that appropriate Protected Environmental Values for the Huon River within State Forest would be:

“A: Protection of Aquatic Ecosystems

- (i) modified (not pristine) ecosystems
- (a) from which fish are harvested

B. Recreational Water and Aesthetics

- (i) Primary contact water quality
- (ii) Secondary contact water quality
- (iii) Aesthetic water quality.”^{vi}

Groundwater was not detected in 12 shallow test pits (up to 6m in depth) and the groundwater table was presumed, by the geotechnical consultants, to be flat and unlikely to be highly elevated above the Huon River. However the EAR reports that Mineral Resources Tasmania questioned that assessment and noted the possibility that over time the groundwater table could become elevated and increase the potential for landslides.

Existing vegetation consists of heath, eucalyptus woodland and forest. A roughly circular ring of *Eucalyptus amygdalina* forest on sandstone occupies the mid-slopes of the ridge. This plant community is a high priority for conservation under the RFA Private Land Reserve Program but not a high priority on public land. *Eucalyptus obliqua* forest is found on the lower slopes. The DPMP says that there is no requirement for the forest or non-forest communities to be reserved on public land. No plant species of conservation significance were identified on the site.

The habitats found on or near the site are likely to support seven animal species listed as having conservation significance. However, no nesting sites of the vulnerable Wedge-tailed Eagle or the rare Grey Goshawk were found on the site. The Swift parrot may utilise *E. obliqua* forest as post-breeding food supply. Both the Spotted Quoll and the Eastern Quoll may occur in the area. The Australian Grayling is likely to be found in the Huon River. The Mt Mangana Stag Beetle inhabits rotting logs in wet *E. obliqua* forest but surveys found no evidence to suggest that the site contains critical habitat for this species. Other invertebrate fauna were not surveyed.^{vii} This was regarded as a significant omission in the DPMP by one representor, a member of the local Field Naturalists Association. She also suspected that more vertebrate species would be found on the site than had been reported.^{viii}

No Aboriginal sites were found but the absence of aboriginal artefacts cannot be confirmed yet due to the dense vegetative cover. The EAR considered it likely that the project site is potentially significant in terms of Aboriginal cultural values.

There are thought to be no significant remains of European cultural activity at the Wood Centre site, although evidence of past timber mills can be found in the locality.

The site is surrounded by State Forest and immediate access is gained via forestry roads; to the north by Weld Road and Denison Road, to the south by Lidgerwood Road. Weld Road runs north-south along the ridge before dropping to the Huon River where it crosses a recently constructed bridge. The nearest residence is reported to be 6 kms away but there is a large block of private land north east, and within 3km of the Wood Centre that the owner (Representor Fullard) claimed to occupy for three months each year in his preparatory efforts to develop an eco-tourism project on his land.

Beyond the forestry road network, transport of products from the site to ports and markets is proposed to be via Council Roads and State Roads. The route preferred by Forestry Tasmania is from Weld Road to Denison Road then along Lonnvale Road, North Huon Road and Lollara Road (the last four maintained by Huon Council or DIER), passing through the towns of Judbury and Ranelagh. From the junction of Lollara Road and the Huon Highway, transport of wood products would be over State Highways to sawmills in Hobart and woodchip export ports at Triabunna or Bell Bay. A relatively small amount of wood fibre (approximately 40,000 tonnes p.a.) destined for the pulp mill at Boyer would be taken via the Plenty/Derwent link road.

Proposed Activities

Forestry Tasmania's stated rationale for combining a number of activities at the Wood Centre was that it would improve the safety of forest workers through improved log handling facilities. Secondly, it would enable better categorisation of timber so that it could be processed to its highest value. Thirdly, centralising processing operations within the Southern Forests at the Wood Centre would minimise transport costs for raw materials. Fourthly, it would utilise waste material, currently burnt on the forest floor, to generate electrical power and industrial steam.

The Wood Centre is anticipated by the proponents to create 200 construction jobs for 12 months, 200 –250 jobs in ongoing direct employment and a further 200 indirect jobs. About \$9 million per annum in wages and salaries is expected to flow from direct employment at Southwood.

Approximately 2000 hectares of State Forest per year will be harvested and regenerated, either to regrowth forest or plantation.

Four categories of forest material will be brought to the Wood Centre; sawlogs, rotary peeler logs, pulpwood and forest residues. These inputs will be graded and sorted through a merchandising yard to supply an on-site sawmill and sawmills elsewhere, a rotary peeled veneer mill, a wood fibre mill and a wood-fired power station.

The commercial outputs of the processes at the Wood Centre will be sawlogs for other sawmills elsewhere, sawn timber, veneer, woodchips and electrical power. Estimated quantities of inputs and out puts are shown in Table 2 below.

Table 2. Estimated Annual Hardwood and Product Flows
(adapted from Table 7 & Figure 6 of the DPEMP)

Raw Materials	Green wood inflow (p.a.)		Products	Product Outflow (p.a)
Sawlogs	88,000 m ³		Sawn timber	15,000 T (green) (= 7000 T dry)
			Sawlogs	38,000 m ³
Rotary Peel Logs	150,000 T		Dried veneer	57,000 T
Pulpwood	300,000 T		Wood fibre	340,000 T
Forest Residues	300,000 T		Electricity	Up to 400,000 MWh (a)
Total	838,000 T		Low Pressure Steam	Up to 12,000 T (a)

(a) Assuming a 50 MW power station operating for 8000 hrs per annum^{ix}

It should be noted that all estimates of timber volumes/tonnages presented in the DPEMP are based on projected outputs from State Forest only. The future pulpwood contribution that might come from private forests, possibly up to a further 50%, have not been included in calculating throughputs and traffic impacts.^x

To put the Wood Centre operations in context, the DPEMP provides the following summaries of land tenure, timber volumes and forest use.

Table 3. Merchantable Wood, Tasmania
(adapted from Table 8, DPEMP)

	Multiple Use Forest	Private Forest (million ha.)
Total area	1.77 million ha.	1.04 million ha.
Available for production	0.78 million ha.	0.55 million ha.

Standing volume of sawlog	18.6 million cubic metres	7.3 million cubic metres
Standing volume of pulpwood	142 million tonnes	46.6 million tonnes

Table 4. Land Tenure, Huon Forest District
(Adapted from Table 11, DPEMP)

	Afforested area (ha),	Old Growth area (ha)	Total area (ha)
NPWS Reserves	172,200 (50%)	139,100 (84.8%)	503,600 (66%)
Private land	59,500 (17.2%)	2,600 (1.6%)	125,500 (17%)
Multiple Use State Forest	101,700 (29.5%)	20,600 (12.6%)	164,000 (15%)
State Forest reserves	6,000 (1.7%)	1,300 (0.8%)	7,300 (1%)
Other Crown land	5,100 (1.4%)	400 (0.24%)	10,700 (1%)
Total area	344,500 (100%)	164,000(100%)	762,000 (100%)

The Southwood project is to be carried out in accordance with the Regional Forest Agreement. The RFA process established a system of Comprehensive, Adequate and Representative reserves to protect biodiversity, old growth forest and wilderness values.

The DPEMP reported that the RFA had increased the area of reserves in Tasmania by 420,000 hectares, to 2.7 million hectares. Post-RFA, 32% of dry eucalypt forest, 33% of wet eucalypt forest and 68% of rainforest was secured in reserves.

Forestry Tasmania advised that the Commonwealth Minister for the Environment and Heritage had determined that the integrated timber processing facility was not a controlled action under the *Environment Protection and Biodiversity Act 1999*.

Probable Impacts of Activities

Mr Estcourt QC, on behalf of the proponent, submitted that the Commission should not be concerned with “the timber resource or with the economic viability or commercial morality of the operator”. He raised a general objection to evidence from the representors that sought to show that the resource delivery system was unsustainable. In his submission, “It is the site of the proposal not land or forest elsewhere which is within the jurisdiction of the Commission.” (his emphasis).^{xi}

Several representors^{xii} argued an opposite position, seeking to show that the Commission, through its assessment of Amendment BY and the planning permit under the Schedule 1 Objectives of LUPAA, must take a broader, long term view of matters such as resource use, cultural landscapes, biodiversity and climate change.

Council’s view, as expressed in its s.39 report, was that the Wood Centre is based on utilising regrowth and plantation timber. Council considered the assertion that approval of the Southwood project will accelerate harvesting of old growth forests was without foundation. “Old growth timber will not be suitable and will therefore not be specifically targeted as part of Southwood”. The report went on to say that the Regional Forest Agreement provides the basis for the allocation of forested lands for harvesting or conservation and this allocation will not change whether the Wood Centre is approved or not. Forest practices and plantation establishment are controlled through separate legislation and planning processes (*Forest Practices Act 1985*). While acknowledging that the broader timber resource issues were open to conjecture, Council considered that they lay outside the scope of the Southwood assessment.^{xiii} The RFA is a twenty year agreement, reviewable every five years.

Council’s position was supported by Mr Tomat, the project manager, who advised that the Wood Centre would not change the way the Southern Forests were managed or the volumes of timber to be extracted, except insofar as forest residues would be recovered for power production, rather than burnt on the forest floor. He confirmed that ‘old growth ‘ forests would not be harvested for processing at the Wood Centre.

Impacts can be broadly classified as ‘upstream impacts’, ‘site-related impacts’ and ‘downstream impacts’.

‘Upstream impacts’ relate to the environmental, economic and social effects that result from the management of forest resources, silvicultural techniques, timber harvesting methods and transport systems that would deliver wood resources to the Wood Centre.

Adverse ‘upstream’ impacts of current forestry practices anticipated by the representors included:

- Reduced availability of fine eucalypt and minor species timbers for high value products such as furniture, boat-building and craft items;^{xiv xv xvi xvii}
- Continued wastage of valuable timber under clear-felling and burning techniques;^{xviii} (Evidence was given that at the Warra research site almost half the timber volume on the 98 hectare site consisted of minor species but only 1% of it was harvested by contractors. ^{xix})
- Reduced availability of leatherwood flowers, an essential food source for bees that provide irreplaceable pollination services to the orcharding, horticultural and agricultural industries;^{xx}
- Loss of habitats and biodiversity through simplification of forest ecosystems^{xxi xxii}
- Continued rising emission levels of greenhouse gases and reduction of sequestered carbon sinks through removal of mature forests and their replacement by shorter-rotation forests and plantations;^{xxiii}
- Obliteration of long-established and historically significant cultural landscapes by the establishment of eucalypt plantations;^{xxiv}
- Continued log truck traffic on sections of the Huon Highway not designed for safe use by those vehicles;^{xxv}
- Adverse effects on the region's landscapes, its 'natural, accessible environment' and its 'clean, green' tourism image.^{xxvi}

The preceding upstream impacts generally were not discussed in the DPMP or in Council's assessment but were the subject of many representations.

The only upstream impact dealt with in the DPMP is a comparison of expected log truck movements from the Southern Forests, with or without the Wood Centre. Logs are carried on a combination of High Productivity Vehicles (HPV's), having a payload of 44 tonnes, and conventional log jinkers having a payload of 28 tonnes.

Without the Wood Centre, the DPMP projects that the annual average tonnage leaving State forests during the 2001-2008 period would be 513,000 tonnes. This task requires 31,090 truck movements annually, or an average of 104 movements per day, normally on a 24 hour, 6 day per week basis. (A round trip - from forest to destination and return - is counted as two movements, one loaded, one unloaded.)^{xxvii} (See Appendix C for further analysis.)

With the Wood Centre, the DPMP predicts a redirection of State Forest wood so that fewer log trucks will travel on public roads. Log truck traffic on the Huon Highway south of Huonville, for example, is anticipated to drop from 104 to 36 movements per day. North of Huonville the traffic reduction is offset to some extent by the carriage of products from the Wood Centre - woodchips, sawn timber and veneer. This aspect is discussed under the

heading of 'downstream impacts'. Additional tonnage on (mainly forestry) roads to Southwood arises from cartage of forest residues for the power station, in the order of 300,000 tonnes, that would otherwise be left, or burnt, on the forest floor.

Mr Tomat advised that by processing timber closer to its source and reducing its moisture content, the tonnage to be transported would be reduced, thereby requiring fewer vehicle movements than would otherwise be the case.

Site-related impacts are discussed at length in both the DPEMP and its Supplement and in DPIWE's Environmental Assessment Report. After describing the proposal and the existing environment, the main focus of the DPEMP documents is to quantify the probable emissions from the site generally (and from each of the proposed level 2 activities specifically) and to propose management responses for the potential impacts. The EAR reviewed the DPEMP's site description, environmental impact analysis and management responses before drawing up recommended permit conditions for consideration by the Board.

Identified **site-related** impacts on air, land and water are discussed below.

Atmospheric emissions from the Southwood site

Atmospheric emissions within the site would include –

- a) Dust from vehicles, wood handling and disturbed areas;
- b) Combustion gases from vehicle exhausts, the sawmill and veneer mill heat plants and the power station;
- c) Particulates from heat plants and the power station;
- d) Steam from boilers, kilns, timber re-conditioners and driers;
- e) Diesel emissions from heat plant and power station start-ups;
- f) Sawdust and wood fibre particles escaping from fuelwood stockpiles, log cutting processes and the wood fibre mill;
- g) Odours from storage ponds, sewage treatment plant and wastewater irrigation areas; and
- h) Hot polypropylene emissions from the veneer composing process;

Air contaminants such as particulates (PM₁₀), CO, NO₂, SO₂, heavy metals and dioxins may be harmful to humans depending on exposure time and concentration. Carbon dioxide (CO₂) methane (CH₄) and oxides of nitrogen (NO_x) contribute to the global greenhouse effect. The Global Warming Potential of emissions varies considerably; methane (CH₄) being 21 times as effective, and nitrous oxide (N₂O) 310 times as effective as carbon dioxide.^{xxviii}

A weather station was proposed to be installed by December 2001 to gather meteorological data for a representative 12 month period^{xxix} but to date this has not occurred.

Cumulative emissions from the site were modelled, in the absence of on-site meteorological observations, using a 'synthetic data file' for Hobart and US

EPA literature, to provide 'worst case' scenarios for Ground Level Concentrations (GLC's) of possible contaminants. The Ausplume model takes account of terrain but does not consider the effects of cold air drainage, or fumigation events (in which accumulated air pollutants move downwards when an inversion layer breaks up). These atmospheric dynamics may be important at the Southwood site.^{xxx}

The results of that modelling indicate that GLC's (at the 99.9%ile level) for CO, NO_x particulates, lead and dioxins will be below the National Environment Protection Measure objectives for those contaminants. Most maximum GLC's are predicted to be found within 2000 metres of the site, the plume tending to impact on the terrain due east and on the ridge to the north.^{xxxi} Estimates for Glen Huon and Huonville were provided and appear to be at least an order of magnitude lower than the relevant NEPM objective. On that basis the effect of stack emissions was acceptable to the Board. However, the limitations of the Ausplume model and the data used in the model were highlighted in the EAR. It was considered that the exercise should be repeated with a more sophisticated model once sufficient information –i.e. technical specifications and local climatic data - was available.^{xxxii}

Some representors expressed the view that the control of emissions such as dioxins, furans and other carcinogens was not in accordance with world's best practice, and advocated imposition of additional permit conditions. The absence of GLC estimates for Judbury or other occupied lands closer than Glen Huon was criticised.^{xxxiii}

The largest single atmospheric emission, by weight, is carbon dioxide (CO₂) primarily from the power station and to a lesser extent from the two other heat plants. Combined emissions from all sources of CO₂ are predicted to be 366,000 tonnes, of which 282,000 tonnes are produced in the power station. Atmospheric emissions are summarised in Table 5 below. The DPMP acknowledged that a 50Mw power station would also emit up to 150 tonnes per hour (up to 120,000 Tonnes/year) of water vapour and water droplets. This would be visible as a plume during periods of cool and/or humid weather. The possible effects of this emission on fog formation in the Huon valley were not considered further in the DPMP, on the assumption that water vapour would not cause adverse impact.

Forestry Tasmania argued in favour of wood-fired power generation on two grounds. Firstly that wood waste was a renewable fuel and could be considered as a source of 'green energy' for the national grid if Basslink eventuates. "Forest growth, harvesting and regeneration over a constant land area are part of a carbon cycle that is greenhouse gas neutral. New forests on previously cleared land will sequester carbon."^{xxxiv} Secondly, it argued that greenhouse gas emissions were already occurring through occasional

regeneration burns and the power station would, by more efficient combustion, reduce absolute emission levels and dilute their effect by spreading them over the whole year.

The EAR recognised that the science underpinning the greenhouse gas debate was far from simple. “In principle, the argument of forests acting as carbon sinks in line with the official Australian position in relation to this issue. However within the context of this argument there needs to be recognition of the fact that the interaction between atmospheric CO₂ and carbon contained in living and non-living biomass is very complex. Furthermore, the timeframe for sequestration is very different from that for CO₂ release during combustion of biomass.” Also, “ it is not possible to predict at this stage whether [connection to the National Grid] would result in a net State benefit from a greenhouse gas perspective, as there is nothing to preclude energy generated by wood-fired boilers to replace more greenhouse friendly energy sources such as hydro, solar or wind energy.”^{xxxv}

Electrostatic precipitators are proposed to control particulate emissions from the power station. At the other two heat plants either baghouses or electrostatic precipitators could be used.

Emissions of dust and wood fibre particles are intended to be managed by covered conveyors for wood fibre and by dust suppression (by watering or sealing) of trafficked areas. Prevailing winds were presumed to blow fugitive wood fibre away from other buildings on the site. If on-site climatic data suggests otherwise, the layout of buildings will need to be reviewed. Wood fibre particles are thought to be implicated in some health issues for timber industry workers.

Table 5. Atmospheric Emissions from Wood Centre (Tonnes/year)
(adapted from Table 16 of the EAR)

Pollutant	Stack emissions - combustion			Fugitive emissions	Total emissions
	Sawmill	Veneer Mill	Power Station	Processing & vehicles	
PM10	n.d.	n.d.	n.d.	5.4	5.4
TSP	3.83	3.83	25.50	133.75	166.90
N ₂ O	33.75	33.75	12.30	7	79.81
NO _x	33.75	33.75	225.00	4.27	296.8
CO	306.00	306.00	2040.00	2.17	2654.17
CO ₂	42,300.00	42,300.00	282,000.00	336.24	366,936.24

SO ₂	n.d.	n.d.	n.d.	0.56	0.56
CH ₄	1.89	1.89	12.6	0.02	16.4
NM VOC	3.06	3.06	20.4	0.76	27.28
VOC	4.95	4.95	33.0	520.53	563.43
Note: Totals may not sum due to rounding n.d. = not determined					

Noise generated from the Southwood site

Noise was recorded from comparable equipment and used to model the likely noise level at a distance of 6 km, equivalent to the distance of the nearest residence. The model did not allow for hilly terrain, which might be expected to attenuate noise even more, and so represents a worst case situation.

Background noise at the site (L_{90}) was surveyed on two occasions and found to be 36-37dB(A). This is generally consistent with daytime background noise in rural situations.^{xxxvi} The maximum noise level (L_{max}) for all Wood Centre operational sources combined, calculated at 6km from the site, was estimated as 37.7dB(A). The equivalent noise level (L_{eq}) was calculated to be 28.4dB(A).

The EAR concluded that ambient noise levels in the immediate vicinity of the Wood Centre would increase but noise from the Wood Centre would not exceed ambient noise levels at the nearest sensitive receptor, 6 kms away. Some intermittent events, such as safety steam releases from the power station might be heard at this distance. Some construction noise, e.g. percussive pile driving or blasting may also be heard. However, the EAR considers noise emissions unlikely to impact on the nearest residences. The EAR recommended that noise modelling should be repeated once technical specifications of key equipment becomes available.^{xxxvii}

The noise levels at Mr Fullard's land, 1-2 km from the Wood Centre, have not been calculated.

Water

The Huon River is a source of good quality water that supports a number of beneficial uses, including recreational boating, swimming, irrigation for agriculture, stock watering, domestic water supplies and aquaculture in the estuarine region.

The DPMP proposes the extraction of up to 3.3MI/day from the river, however a license to pump up to 5MI/day (90 l/sec) has been granted.^{xxxviii} This licensed volume represents only 1.5% of the minimum flow or 0.003% of the maximum flow in the Huon. The EAR did not suggest that abstraction

of the proposed volumes would disadvantage downstream users or environmental flows. It did recommend that water metering and water quality monitoring (including bio-monitoring) should be carried out.^{xxxix}

The proposal involves excavation of a rock-lined sump chamber in the river bed from which twin intake pipes would convey water to a pumping station located adjacent to the bridge, above the 1 in 100 year flood level. Dual electrical submersible pumps (each rated at 90L/sec) would lift the water through a 200mm steel rising main to a high level storage tank, from where the bulk of it (1233 ML p.a.) would it would be used in the cooling towers of the power station. A small proportion (16 ML p.a.) would pass through a domestic water treatment plant and be distributed around the Wood Centre.

The DPMP places particular emphasis on recycling water within the Southwood site, by establishing drainage systems and storage ponds to maximise collection and re-use of site run-off and process wastewater. It states that 75% of the site will drain to three, clay-lined storage ponds, with only undeveloped parts of the site continuing to drain to natural drainage lines. A summary of water usage and disposal is shown in Table 6, below.

Table 6. Water Usage and Disposal (Megalitres/Year)
(adapted from Tables 4 & 5 , DPMP Appendix X)

Site	Total usage	Water evapo- r-ated	Waste water gener- ated	Destination		
				Storage Ponds	Sewage Treatment	Direct to Irrigation
Merchandising Yard	94	45	49	48	1	-
Regrowth Sawmill	7	2.7	4.3	1	3.3	-
Veneer Mill	9	2	7	-	7	-
Woodchip Mill	51	10	41	40	1	-
Power Station	1233	1072	161	-	1	160
Total	1394	1131.7	262.3	89	13.3	160

Four types of wastewater are identified; Type 1 processing (boiler blowdown, boiler bleed streams and cooling tower bleed stream), Type 2 processing (mainly from truck and log washdown), contaminated stormwater from roofs and developed parts of the site and, fourthly, domestic waste water and sewage from staff facilities. Washdown processes would be almost closed-loop with relatively small volumes of make-up water required. Process water and

fire service water would share common storage and reticulation systems. The domestic waste water and heat plant boiler bleed streams would be treated in a sewage treatment plant, combined with the power station wastewater streams and then directed to off-site irrigation areas. The EAR estimates that approximately 170ML per year would be disposed of by irrigation. No waste water is intended to be discharged directly to creeks or the Huon River. Storage ponds are sized to accommodate run-off from two months of average rainfall but during a 1 in 10 year, 72 hour duration rainfall event, emergency overflows from the storage ponds could be discharged to natural drainage lines.

The water budget of the Southwood site hinges on whether or not a wood fired power station is installed and if so, whether stormwater and processing wastewater can be circulated through the cooling towers. If all cooling tower water is sourced from the storage ponds then there would be an annual water supply deficit of 850 ML in a year of average rainfall (and presumably more in dry years). This would be made up by water abstracted from the Huon River.

If, however, the power station did not proceed, or if it were not technically feasible to recycle waste water through the cooling towers, then a surplus of wastewater would be produced on the Wood Centre site. The EAR considers it unlikely that the nominated irrigation areas could “accommodate the considerable surplus volume of effluent involved”. Surplus effluent might be discharged to the Huon River or a tributary stream but the DPMP has not provided sufficient information to assess the impacts of that possibility.^{xi}

The EAR considers that storage of hazardous materials on site is not considered to pose a significant risk to water quality of waterways, provided the standards and emergency response protocols described in the DPMP are adhered to. The potential for contamination of groundwater is more problematic, with conflicting advice given by consultants for the DPMP and Mineral Resources Tasmania. The EAR recommends that more detailed hydrogeological and geotechnical site investigations are necessary.^{xii} Further detailed information is also required to assess the potential for water-borne contamination at the irrigation sites. The DPMP supplement commits to preparation of a site management plan conforming to DPIWE’s guidelines for the use of recycled water. It also commits to ground water monitoring at the Wood Centre and the irrigation areas.^{xiii}

Terrestrial impacts at the Southwood site

Construction of the Wood Centre will result in removal of most of the heathland and some of the woodland and forest, together with the habitat they provide for native fauna, including three birds and two marsupials on the ‘threatened species’ list. Clearing of vegetation may lead to sediment run-off. The DPMP proposes a number of measures to mitigate these impacts,

such as establishing a construction boundary, limiting the removal of large trees or significant patches of vegetation, minimising soil disturbance, avoiding contamination of surface waters and collecting wastewater and potentially contaminated stormwater.

The EAR notes that the *E. amygdalina* community has high ecological value and warrants protection to the maximum extent practicable. The riverine vegetation within the water supply pipeline corridor, is a potential location for the rare plant species *Westringia angustifolia*. A further survey of the riverine area is recommended by the EAR.^{xliii}

Rotting logs in *E. obliqua* forest provide habitat for the Mt Mangana stag beetle, *Lissotes menalcas*. The EAR recommends a further survey prior to construction to determine whether the species is present on the site. If so, additional measures will be required to protect its habitat or relocate it.

Solid Waste Generation

Identified solid wastes include: -

- (a) wood fines, sawdust, off-cuts etc, that can be burnt in the power station or heat plants (9000 T);
- (b) mud, rocks and screenings, that can be returned to the forest floor or sent to an approved landfill (8970 T);
- (c) ash from the power plant and heat plants, that can be returned to the forest floor, used in a composting process or sent to landfill (6000 T);
- (d) solid waste from boiler water treatment (quantity not known); and
- (e) general refuse, that can be sent to landfill (quantity not known).

At least 23,970 tonnes of these materials are anticipated per annum.^{xliv} The EAR notes that most of the solid waste stream can be beneficially reused, consistent with general principles of the waste management hierarchy. Problematic wastes include small amounts of polypropylene glue from the veneer mill, oil and petroleum sludges and sewage sludge, but appropriate measures can be applied to manage the handling and disposal of these wastes. The risk of spreading the fungus *Phytophthora cinnamomi*, through the proposal to return mud and screenings to the forest, was assessed and considered acceptably low by DPIWE's Nature Conservation Branch. The EAR requires preparation of a comprehensive Solid Waste Management Plan.^{xlv}

Visual Impact

The DPEMP states that “no readily accessible vantage points are situated within the vicinity of the site (i.e. on public roads) Access to the area is possible only along Weld Road.” Only three vantage points from other forestry roads are noted; from Barnback Ridge, Whale Point and Bermuda

Road. When viewed from Hartz Mountain, approximately 15km to the west, the buildings were not thought to be distinguishable. The visual impact of plumes from the power station and heat plants was not discussed in the DPEMP. Nor was the possible impact of site lighting on wilderness values considered. The EAR accepts the DPEMP's assessment and adds that the power station stack and the pumping station may be visible from the Huon River.^{xlvi}

Representor Sheridan, a qualified town planner and cultural landscape researcher, considered the assessments offered in the DPEMP and EAR to be completely inadequate. She said that the Huon Valley/Mountain River valley area was a unique cultural heritage that would disappear under hardwood plantations if the Southwood proposal proceeds. Furthermore, the World Heritage Area contained many viewing points for walkers and no proper consideration had been given to views of the site from the WHA. She considered that the Southwood site has low Visual Absorptive Capacity. The Wood Centre, being an industrial complex in the middle of a forest setting would exhibit edge boundaries, different colours and patterns in contrast to its surroundings. Ms Sheridan doubted that these elements could be effectively screened.^{xlvii}

Downstream impacts relate principally to the anticipated negative effects of heavy vehicle traffic along Forestry Tasmania's preferred transport routes.^{xlviii} Other issues of concern raised by representors included long term health effects of atmospheric emissions, the quality and quantity of water in the Huon River and the effects of an industrial complex on the region's reputation and tourist business potential.

Representors in support of a Wood Centre project in the Huon, irrespective of its location, pointed to positive downstream impacts in terms of employment generation, stimulation of businesses, retention of wealth within the region, reduced emigration by young people and raising or diversification of skills within the local workforce.^{xlix}

A recurrent theme in the evidence was the difficulty of quantifying or even identifying the linkages between measures of economic, social and environmental performance. Mr Bob Cotgrove, an expert witness called by the Ranelagh Community Group noted, "I strongly believe that a project of this magnitude should be subject to a full social cost-benefit analysis, transparently conducted and reported, so that the community can be assured that decisions are made in the best long-term interests of Tasmanians."¹

Traffic

The transport task for Wood Centre products involves the northward movement of 421,000 tonnes of sawlogs, sawn timber, veneer and wood fibre; to markets in Hobart and Boyer and to wood fibre export ports at Triabunna, Bell Bay or Burnie. The largest task is the movement of wood fibre; 40,000 tonnes to Boyer and 300,000 tonnes for export.

The DPEMP examined seven route options for the movement of wood fibre and other wood products from the Wood Centre at Southwood¹. Its assessment is summarised in Table C.4, appended to this report. The routes shown in the table are not mutually exclusive; some product bound for northern ports could use options 1, 2 or 3. Use of Glen Huon Road, a State Road, for carrying wood fibre was not considered. There is a sawmill in Glen Huon Road that will continue to receive 2 -3 log trucks per week.

Based on the comparison of routes, option 1, the North Huon route, is preferred by the DPEMP for transport of all wood products, except wood fibre to Boyer, which is intended to be carted over the Plenty Link Road.

Estimates of future traffic along the North Huon route are shown in Appendix C, Table C.3. and are derived entirely from statistics presented in the DPEMP. The DPEMP contemplated the carriage of 28, 40 or 44 tonne payloads. Appendix C shows that, without a requirement for maximum truck payloads, average weekday truck traffic on the North Huon Road section could increase by up to 221%, from a current level of about 52 truck vehicle movements per day to 167 vmpd after commencement of operations at Southwood. Prior to that there will also be short-term additional traffic during the construction phase. Vehicle numbers in the long term would depend on production levels and the payloads of trucks employed. Non-truck traffic may increase by 14.8% because of employees, service vehicles and visitors. Total traffic volumes on the route may increase by up to 38%. As noted earlier, these traffic levels could increase further if additional resources are sourced from private lands.

The estimates of changes in road traffic volumes presented in Appendix C are higher than those given by Table 38 of the DPEMP. That table predicts truck traffic on North Huon Road will increase by 148% and total traffic by 23%.

The DPEMP states that the Wood Centre will not contribute to increased traffic volumes on the Huon Highway, because the increase in wood product traffic will be offset by the reduction in log truck movements. Furthermore,

¹ An option (or set of options) that was removed from consideration by State Government decision involved road transport to a southern port, such as Electrona or another site in the D'Entrecasteaux Channel. This is surprising, given that a preliminary assessment by Indec Consulting reported to Forestry Tasmania that the annual economic benefits of such an option could approach \$5 million. (See Appendix S of the DPEMP)

log truck traffic through the towns such as Huonville and Franklin will be substantially reduced by diversion, at Geeveston, of log trucks to the Wood Centre. Forestry traffic reductions in other towns such as Geeveston and Dover will be dependent upon construction of (i) a proposed bypass of Geeveston and (ii) a proposed haul road parallel to the Huon Highway from Hastings to Lidgerwood Road.

Several impacts arising from increased heavy vehicle traffic along the preferred route, during construction and operation of the Wood Centre, were identified in the DPEMP. These were noise, vibration, dust, vehicular emissions, safety, social/cultural disruption and vertebrate road kill. The DPEMP considers that all these issues can be satisfactorily addressed or mitigated by a combination of : -

- (a) final route selection and new road construction through Ranelagh;
- (b) road design and reconstruction of some sections, including widening, sealing, construction of shoulders and bridge rebuilding;
- (c) attention to vehicle characteristics, such as payloads, suspension and braking mechanisms;
- (d) fleet size and operating hours;
- (e) speed limits;
- (f) driver behaviour and training;
- (g) monitoring and community consultation.

The EAR restates the traffic information provided in the DPEMP and appears to accept the proposed mitigation measures. The EAR does not estimate the percentage change in traffic volumes on North Huon Road. The Board recommended that the permit be conditioned to require all export wood fibre to be carried in high productivity vehicles. Limited operating hours (0700-2100 for export wood fibre and 0700 1600 for wood product vehicles) were also recommended. In its subsequent report to the Commission, the Board suggested several modifications to the permit's traffic conditions and an additional condition in relation to the impacts of traffic related vibrations.

Representors pointed to flow on effects such as sleep disturbance, health impacts, stress, loss of property values, severance of the Ranelagh township and inhibition of community life, and increased danger to pedestrians, cyclists and horse riders.

The Huon Planning Scheme 1979 nominates Ranelagh as a preferred location for residential development. The scheme says, at p.34, "Because of the presence of flood plains around Huonville, the land suitable for development is limited. In the long term Ranelagh offers the most potential as a growth centre and the sewerage of Ranelagh should be seriously considered."

Traffic Noise

The DPEMP reported that current average day-time noise levels were measured at several locations along the preferred route between the Wood Centre and the Huon Highway. Three night-time measurements were made at Ranelagh.ⁱ Day-time L_{90} levels taken over a 15 minute period ranged from 32.3dB(A) to 54 dB(A). At the intersection of Agnes St and North Huon Road, Ranelagh, over two, three-hour periods, L_{90} was recorded as 42.0 dB(A) and 38.8 dB(A). Night-time L_{90} levels at the Ranelagh playground were found to be between 26.3 and 27 dB(A).

L_{90} , the noise level that is exceeded for 90% of the time, is considered to be a good descriptor of the background noise level.

L_{eq} , the equivalent continuous 'A' weighted noise level, is an indicator of what might be termed simplistically as the 'average noise'. The L_{eq} at the Ranelagh playground was 27.5 dB(A) with no traffic, 36.6 dB(A) with a nearby log truck and 40.5 dB(A) with a passing car.

L_{10} (18h) is the arithmetic mean of sound levels exceeded for 10% of the time, for 18, one hour periods between 0600hrs and 2400hrs. It is used to establish acceptable or desirable daytime standards for noise levels.

The DPEMP calculated the expected L_{10} (18h) to be 56.5 dB(A) with the Wood Centre operational. The calculations are based on a measured 'Sound Exposure Level' (SEL) average of 83.6 dB(A) at a noise receptor located 15 metres from a truck travelling at 60 kph. The derivation of L_{10} (18h) assumed an average of 5.11 trucks per hour between 0700 hrs and 1600 hrs.

The DPEMP notes that "when assessing the noise impact of road traffic it is the maximum noise levels generated, the increase in noise above the ambient noise level and the number of noise events which all influence sleep disturbance (EPA 1999)."ⁱⁱⁱ

In response to the DPEMP, DPIWE produced a Traffic Noise Assessment Report for the Ranelagh region.ⁱⁱⁱ The existing noise environment at the front of a house in North Huon Road, 120 m west of the playground, was monitored continuously over a 10 - day period, encompassing six weekdays and four weekend days. Several noise level measures, L_1 , L_{10} , L_{90} and L_{eq} , were calculated and graphed over a typical 24 hour period for both weekdays and weekends.

The data shows a clear diurnal pattern on all days. Weekday L_{eq} , for example, fluctuates between approximately 30 and 50 dB(A) during the early morning hours (midnight – 5.00 a.m.), remains fairly constant around 60 dB(A) from 6.00 a.m. to 7.00 p.m. then gradually subsides to the midnight levels once

more. The weekend pattern is similar, although the morning rise in noise levels is more gradual.

L_{10} levels tend to mimic L_{eq} but at a slightly lower level.

The report noted that, “the most interesting feature ... [of the graphs is that] ... in most instances the L_{eq} exceeds the L_{10} measure. This suggests that the L_{eq} levels are largely controlled by discrete transitory noise events, such as occasional passing vehicles which rise well above the background.”

The report commented that in the past, DIER had applied the following noise criteria at the façade of residential buildings: -

Maximum acceptable level - L_{10} (18h) = 68 dB(A)

Maximum desirable level - L_{10} (18h) = 63 dB(A)

DPIWE’s draft noise policy, proposed to apply to roads opened after January 1, 2004, is: -

Daytime level (0600-2400) - L_{10} (18h) = 63 dB(A)

Nighttime level (2200 – 0700) - L_{eq} (1h) = 55 dB(A)

For comparison, the report noted that an L_{10} (18h) of 63 dB(A) had been measured in upper Macquarie Street where the 18 hour vehicle count was 21,600. It concluded, “When assessing traffic noise in Ranelagh as a result of Southwood Transport Operations, the proposed daytime standard is clearly not applicable.”^{liv}

DPIWE and SEMF consultants agreed to use New South Wales’ *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999) and in particular, Criterion 8 as a ‘best practice’ standard. Criterion 8 uses the L_{eq} (1h) descriptor set at 60 dB(A) for daytime (0700 – 2200) and 55 dB(A) for nighttime (2200 – 0700). Where the criterion is already exceeded, mitigation measures are warranted. Furthermore, “In all cases, traffic arising from the development should not lead to an increase in levels of existing traffic noise of more than 2 dB.”

Analysis of the current noise environment at the monitoring site showed that Criterion 8 was breached in five hourly time slots during weekdays and two hourly slots on weekends, especially in late afternoon.

Three traffic noise model programmes, each comparing seven scenarios, were analysed and compared with the current situation. The three models were:-

1. Exclusive use of low productivity vehicles (29 wood product vmpd, 68 wood fibre vmpd);
2. Exclusive use of high productivity vehicles (17 wood product vmpd, 48 wood fibre vmpd); and
3. Combination of the above (29 wood product vmpd, 48 wood fibre vmpd).

The seven scenarios applied different operating hours; all product trucks being limited to 0700 to 1600 , but fibre trucks ranging from unrestricted hours down to a 12 hour operating period (0700 –1900).

For Model 1, Criterion 8 was breached continuously between 0600 and 1800, under all scenarios. It should not be considered a viable option.^{iv}

For Model 2, Criterion 8 was frequently breached (that is, for 11 –13 hourly periods) mostly between 0600 and 1800 under all scenarios.

For Model 3, Criterion 8 was more frequently breached than Model 2 (that is, for 13-14 hourly periods) under all scenarios.

Considering Model 2 more closely, scenarios 3, 4 and 5 appear less intrusive than others. The breaches of Criterion 8 are all less than 2 dB , but the duration of the excessive noise levels is progressively longer for scenarios 3, 4 and 5. For scenario 3, noise up to 1.9 dB over-criterion is predicted between 7.00 a.m. and 6.00p.m. For scenario 5, noise up to 1.8 dB over-criterion is predicted between 7.00 a.m. and 8.00 p.m.

DPIWE's report considers that Model 2/scenario 5 is the preferred option, allowing the optimal range of operating times for wood fibre vehicles, namely 0700 –2100, without overstepping the 2dB limit of Criterion 8. It recommends that the noise impact modelling should be repeated, once more information is available about vehicle characteristics, fleet numbers, 'clustering' of vehicles and proposed operating times.

Mr Bill Butler, of Vipac Engineers & Scientists, gave expert evidence that the DPEMP used inappropriate noise criteria and understated the impact of traffic noise. He considered that noise from a passing truck will be perceived as annoying, not because the general noise level is raised, but because it is so much louder than the background. For such intermittent events it was more appropriate to use the maximum noise level (Lmax or Sound Exposure Level - SEL).

Specialist studies reviewed by the NSW EPA had shown that sleep disturbance was not related to L_{eq} but to the amount the noise exceeds the background, the maximum noise level (Lmax or SEL) and the number of times it occurs. There are no formal criteria in the regulations for disturbance events.

Butler reported that there are approximately 50 houses in the Ranelagh area that are within 30m of the road. From the results given in the DPEMP, he calculated that the maximum pass-by noise inside a house 15m from the road would be 25-33dB above the background. Levels more than 8-15 dB above background have the potential to cause sleep disturbance. He concluded that truck noise may be considered very annoying. Furthermore, he concluded,

truck noise will have considerable effect on the houses within 30 m of the roadway and may be a disturbing event up to 150m from the roadway.

Several residents represented by the Ranelagh Community Group occupy houses closer than 15m from the road. Representatives Glendenning and van de Gumster, for example, operate the Summer Kitchen Bakery at the junction of Agnes Street and Marguerite Street. Mr Glendenning is a shift worker whose bed is located only 2 metres from the road.

Property Values

Mr Hamish Kyle, a certified practising valuer, gave expert evidence on the impact of the proponent's preferred route on four properties, none of which will be subject to whole or partial acquisition for proposed roadworks. The properties are:-

- Property 1. Northern corner Marguerite & Agnes St.
- Property 2. Southern corner Marguerite & Agnes St.
- Property 3. 100 Agnes St (northeastern side).
- Property 4. Helen St (northwestern side).

Property 1 is built to the frontage of Marguerite and Agnes Street. Property 2 is set back approximately 50 metres. Property 3 is in an elevated position, approximately 275 m from Marguerite Street. Property 4 is situated below and approximately 120 m from Marguerite Street.

Properties 1 & 2 will suffer the most injurious affection. The last two properties were considered by Kyle to be representative of many properties in Ranelagh that would suffer varying degrees of injurious affection. For all four houses, Kyle estimated the potential loss to be in the order of thousands of dollars.

Relevant Considerations

To bring some structure to consideration of the evidence it is discussed under the following headings; global context, national obligations, State and regional effects, local environmental impacts, local traffic impacts, other local community impacts and site-specific impacts.

Global Context

Several representatives sought to show that the Southwood project is proposed within a global context, both economically and environmentally. Within the framework of World Trade Organisation rules, the Wood Centre would produce eucalypt wood fibre and structural veneer at globally determined prices, in competition with other eucalypt plantation projects in countries such as Chile and South Africa. The direction of future price trends was disputed by the parties and it is obviously a matter of considerable interest to

the proponent and any investors in the Wood Centre. It is not a matter that we consider is relevant to the planning decisions to be made.

The consensus of world scientific opinion is that green house gas emissions have a global impact for which every nation, State, region and community must share some responsibility. Climate change has profound implications for the stability and continuity of ecosystems and the survival of species and it is legitimately a matter for consideration under the LUPA objectives. Although it not yet clear how climate change might affect Tasmania, it is at least possible that winters will become wetter, while the other seasons become drier. We do not yet know how specific ecosystems in the Huon district might be affected.

Tasmania is fortunate that almost all of its electricity is generated by renewable hydro-electric resources. The proposed wood-fired power station and heat plants would establish long-term generators of greenhouse gas emissions at a time when all Australian States are being called upon to reduce such emissions. Greenhouse gas reduction is an obligation under the National Greenhouse Strategy.

There appears to be some uncertainty as to the actual level of CO₂ and other greenhouse gas emissions. Opinions were divided and all tended to oversimplify a very complex set of interactions between the biosphere and the atmosphere. Several representors held the opinion that the conversion of mature forest to regrowth forest and plantations under shorter rotation harvesting regimes would reduce the size of existing carbon sinks and ultimately lead to more carbon dioxide in the atmosphere. Forestry Tasmania asserted that the proposed Wood Centre would lead to a slight decrease in total ghg emissions in the Southern Forests as a whole but the DPEMP did not quantify how that conclusion was reached.

If we were to follow strictly Mr Escourt's submission that, "it is the site of the proposal, not land or forest elsewhere which is within the jurisdiction of the Commission," we would have to discount the greenhouse gas absorption of the regenerated forests elsewhere and only consider the possible impact of ghg emissions from the Southwood site. That does not seem to us a sensible approach to an issue that requires a more holistic view. Nevertheless, in the absence of scientific evidence one way or the other, we are unable to determine whether the net effect of the Wood Centre within the Southern Forests will be to increase or decrease greenhouse gas emissions.

It was also disputed, and unclear from the evidence at the hearing, whether electricity derived from burning wood waste would qualify for renewable energy certificates under the Commonwealth's *Renewable Energy Act 2000*.

National context

The Regional Forest Agreement provides an overarching and legally binding control over timber harvesting in the Southern Forests to ensure that biodiversity, old growth forests and wilderness values are adequately conserved, according to nationally accepted scientific criteria. Within the spectrum of community opinion on forest management it can be expected that there will always be disagreement over whether a particular level of forest reservation provides 'adequate conservation'. That divergence of opinion was evident at the hearing. Nevertheless, we were not persuaded that the Wood Centre operations would threaten the biodiversity of a region in which 50% of the total afforested area and nearly 85% of the old growth forest is secured in reserves under the *National Parks and Wildlife Act 1970*. (See Table 4.) The Commonwealth Minister for the Environment and Heritage appears to have reached a similar conclusion.

State and Regional Effects

When considering a large and complex proposal such as the Wood Centre it is important at some point, to step back from the voluminous detail of the proposed operation at Southwood in order to focus on the bigger picture – the long term, regional and State impacts and their implications for the furtherance of 'sustainable development'.

What the Southwood debate has illustrated is a clash of alternate visions of the future. Both visions have found sincere and passionate support within the Huon Valley community.

One vision is based on a traditional model of 'value-adding' through intensification of established forestry practices and integration of the supply chain to produce large volumes of industrial commodities (woodchips, sawn timber, plywood-grade veneer, electricity) for a global market place within an industrial complex funded by global investors.

The other vision, perhaps less specific and tangible, called for a diversification away from 'industrialised forestry'; preferring to harness other local resources (including fine timbers, agricultural products, wilderness, landscapes, human creativity and skill) to generate local wealth through many small businesses that could offer unique products and recreational experiences both to Tasmanians and visitors from around the world.

These two views are opposite ends of a spectrum that spans the whole range of possible futures. Both claim to be 'sustainable' and operating on principles of sustainable management of resources over many decades to come. They need not be mutually exclusive views and the emerging reality is likely to contain elements of both visions.

“Sustainable Development”, as defined in Schedule 1 of *Land Use Planning and Approvals Act 1993*, means managing the use, development and protection of natural and physical resources in a way or at a rate which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while—

- a) sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and
- b) safeguarding the life-supporting capacity of air, water, soil and ecosystems; and
- c) avoiding, remedying or mitigating any adverse effects of the activities on the environment.

This definition requires the balancing of multiple human objectives – social, economic, cultural, health and safety - upon the secure foundation of healthy ecosystems.

Economic benefits of the project are important but they are not the sole criterion. It is clear to us that, as detailed in other parts of this report, the proposed use and development of Southwood is a significant economic activity which will generate employment and income for the Huon community. Whilst precise details of the numbers which will be involved at the construction and operational stages of the use and development may not be definite at this stage, the figures given will, in an economic sense, be substantial - as will be the activity itself.

What remains less clear is the potential for adverse effects on other industries. Representatives of the bee-keeping industry, for example, are obviously very concerned that without a reliable long-term, accessible stock of leatherwood trees, the pollination services that their bees provide to all crop growers will be jeopardised. Leatherwood is a slow maturing species that may be reduced in extent by clearfelling timber harvesting. How to sustain the leatherwood resource is a potentially serious problem deserving further research but it is not a problem that can be addressed through our deliberations.

It is beyond the Commission’s power to impose conditions or restrictions in order to achieve some other purpose, no matter how worthy, that is not directly related to the use and development being applied for.

It seems to us that the bee-keepers and Forestry Tasmania need to collaboratively conduct research into forest management practices that will safeguard the leatherwood resource.

Similarly, representors supporting the use of so-called ‘minor species’ for activities such as boat building, furniture making and producing craft articles,

suggested that too much of the non-eucalypt resource was being wasted and burnt on the forest floor.

Once again, this is a matter of concern to the users of minor species, but cannot be addressed by permit conditions that the Commission might impose on the planning application before us. In passing, it is observed that the efficient utilisation of minor species would seem to be a market development problem, so that those species will be seen to have a significant commercial value.

Some representatives of the tourism industry highlighted the importance of 'regional image' for the growth and prosperity of this sector. This image was threatened, they contended, by the alteration of forested landscapes or the establishment of plantations within the traditional rural setting. Other representors considered that regrowth forest was visually indistinguishable from mature forest, to the average tourist, after one or two decades. The visual impact of the Wood Centre itself had been inadequately considered in relation to the World Heritage Area, according to one representor well-qualified to hold that opinion.

In regard to changes to the wider cultural landscape, it is considered that under the current planning scheme the Commission cannot impose conditions or restrictions on the permit to prevent such changes occurring.

In regard to the development site itself, we find that the proposed changes to the landscape at Southwood have not been assessed in sufficient detail, or from enough viewpoints, to be assured that the visual impact of the development will be minimised. The proponent should undertake further investigations and produce a landscaping plan for the site, as required by Condition 13 of the permit. This plan should assist to disguise the bulk of the proposed buildings and structures, screen buildings, roads and hardstanding areas, visually soften hard edges and nominate preferred colours for building materials so that they blend with the natural vegetation of the locality.

Returning to the economic issues, the Wood Centre is not a proposal for a major new industry but principally for the reorganisation of the existing forest harvesting and timber processing industries. The proponent asserts that the way in which the Southern Forests are managed, and the volume of timber to be extracted, will not be altered by the Southwood operations. Therefore, additional economic benefits to the State will only arise from: -

- (i) greater transport cost efficiencies, or
- (ii) using the current resource to manufacture new products with higher end-values than at present.

The only new product proposed at this stage is rotary peeled veneer – the other products (sawn timber, woodchips and electricity) already being

produced elsewhere in the State. It is possible that other new products could be produced in 'Stage 2', which does not form part of the current proposal. Whether the value of these expected efficiencies and new products represents a 'significant benefit to the State' compared to the investment required, is essentially a judgement for the Government. The delegates accept that there will be a substantial economic benefit to the Huon district, through job creation.

There is likely to be some redistribution of economic benefits from other parts of the southern region (particularly Hobart and Triabunna) to the Huon. Conversely, there may be economic disbenefits from forestry operations that will be felt in other industry sectors such as agriculture and tourism. The delegates considered that the hearing was not the appropriate forum in which to explore costs and benefits at the regional and inter-sectoral level, despite the urgings to do so by many of the representors.

In terms of transport, once vehicles reach the Huon Highway their impact will be little different to the present situation, except that some log trucks will be replaced by closed vehicles carrying wood products. The use of the Plenty Link Road to carry wood chips to Boyer is considered an improvement over the current arrangements.

It was submitted by some of the representors that a full social cost/ benefit analysis should be carried out in relation to the operation of the development, but, having regard to the nature of the present application and its economic substance it is not the function of the Commission to quantify it or to engage in an inquiry involving the commercial and financial qualifications of the developer.

Whilst such an analysis involving matters of commercial sensitivity may be relevant for the developer they are not necessary, in this instance, in a consideration of the objectives enumerated under Part 2 of Schedule 1 of LUPA. Objective (c) of that Part says,

“ To ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land;”

Explicit consideration has been given to the environment and to economic and social effects even though the evidence was unable to fully quantify those effects. As a result, the economic effects of the proposed use and development of Southwood have been considered to the extent required by that Schedule.

The DPEMP summarises the process by which Southwood was selected as the proponent's preferred site. Selection appears to have been based solely on site characteristics, with no discussion of collateral impacts, such as traffic through

towns. All sites other than Southwood are dismissed in less than half a page of discussion.^{lvi}

The EAR seems to have taken the selection of the Southwood site as a 'given'. It did not critically review the site selection process or the adequacy of the information on this aspect supplied in the DPEMP.

From the perspective of State economic benefit, the precise location of a Wood Centre is not critical, so long as it is efficiently located in terms of total transport costs for inputs and outputs and for the provision of required infrastructure. The evidence at the hearing did not offer an assessment of alternative sites with sufficient detail to displace Southwood as a preferred site.

It is accepted that Southwood is, an adequate site for the ITPS, for the following reasons:

- a) It provides improved facilities for the safe handling, sorting and directing of logs to processes that will potentially maximise their value;
- b) Southwood is sufficiently remote from residences and most other sensitive uses to achieve adequate buffering of noise and atmospheric emissions;
- c) It encourages greater use of forestry roads rather than public roads for resource delivery to mills;
- d) The location is central to the Southern Forest resource and this assists to minimise cartage distances and delivery costs 'to the mill gate' for Forestry Tasmania;
- e) Construction and operation of an integrated timber processing complex will create additional jobs and economic benefits for the Huon region;
- f) The development of the 90 hectare site does not appear, on the information provided by the proponent, to create unacceptable environmental problems at the local level.

There remain some serious information gaps related to construction and operation of a wood-fired power station. Specifically, more investigations are required into the geotechnical stability of the proposed site. Impacts on some landowners in the vicinity have not been ascertained. Local climatic baseline data has not been collected. Preliminary modelling of atmospheric emissions has not examined local dynamic factors such as cold air drainage or the possibility of fumigation events. There were different views about what constitutes 'world's best practice' for the operation of a wood-fired power station and what emission standards should be applied. Furthermore, as noted above the estimates of greenhouse gas emissions appear open to question. We conclude that while it may be appropriate to confirm the permit for the power station, construction should not be commenced until further investigations have been carried out. Specifically this will include collection

of local climatic data, geo-technical and hydro-geological investigations, atmospheric emissions and noise modelling and visual impact analysis.

Local Environmental Impacts

The main local (that is, external to the project site) impacts arising from operations at the Wood Centre are noise, atmospheric emissions, contaminated liquids and solid wastes. Traffic impacts are considered separately below.

The Wood Centre will raise significantly the average noise levels on surrounding lands, most of which are either State Forest or unallocated Crown land. Recreational users of the nearby Huon River or private lands in the vicinity will undoubtedly be alerted to the presence of industrial activity, particularly at night when background levels subside. The DPMP calculated the cumulative noise emissions from the Wood Centre, in terms of the maximum and average noise levels perceived at a distance of 6 km and concluded that it posed a very low risk of nuisance to residents. We note, however, that the specific impacts on more nearby land such as that owned by Mr Fullard, a representor, have not been adequately documented. We consider this a shortcoming in the DPMP and the EAR that should be rectified.

Similarly, maximum ground level concentrations of atmospheric pollutants will occur downwind, probably on State Forest or Crown land. Although local wind directions have not yet been monitored it appears likely that Mr Fullard's land, lying north west and within 2 km of the Wood Centre, may well receive relatively high levels of pollutants from the power station and heat plant stacks.

The disposal of contaminated process water and stormwater appears to be acceptable, but only on the presumption that the power station proceeds and is able to recycle waste water through the cooling towers. If either of these pre-conditions are not fulfilled, the whole question of waste water management would need to be reviewed.

Disposal of solid wastes to a controlled landfill off-site does not appear to be problematic.

Local Traffic Impacts

It was acknowledged by all parties that the proponent's preferred 'North Huon' transport route for wood fibre and other wood products would cause a substantial increase in heavy vehicle traffic, potentially affecting the towns of Judbury and Ranelagh, other landowners along the route and other road users. The proponents sought to show that the impacts of traffic could be mitigated by roadworks, vehicle characteristics, speed limits and driver

behaviour. The EAR presented further noise investigations and recommended restricted hours for Southwood truck movements, essentially requiring that there would be a curfew between 9.00 p.m. and 7.00 a.m.

Attached to the permit issued by the Council was Condition No. T2, as follows,

“T2 The person responsible for the activity must take reasonable steps to ensure that following commencement of operations on the land, transport of raw materials to the land and product away from the land is restricted to the routes specified in Attachment 9, and as depicted in the maps which form Attachment 10 and 11 to this permit and complies with the other restrictions contained in that Table. This restriction only applies to public roads and does not restrict traffic on roads owned by Forestry Tasmania. “

Attachment 9 provides alternative routes for the carriage of timber and products to and from the Southwood site. This provides that the North Huon Road route which runs through Judbury and Ranelagh to the Huon Highway is the route upon which transport to and from the site may travel. This is the preferred route of Forestry Tasmania. Upon the evidence of cartage costs presented this appears as the most economical route for the Southwood operation. The capital costs of upgrading the route to a standard acceptable for High Productivity Vehicles has not been ascertained with any certainty. Nor have any noise mitigation measures for adjacent properties been estimated.

At present the North Huon Road carries light traffic to serve a rural and residential population. It appears that, together with bridgework, it would need considerable upgrading to carry heavy transport to the heavy daily density as provided for in the permit.

From the evidence given by many of the representors at the hearing such transportation would substantially interfere, if not destroy the lifestyle of the residents in a quiet residential setting. The proposals by Forestry Tasmania for upgrading, re-routing and the creation of noise mitigating measures through Judbury and Ranelagh are at a very preliminary stage, but it is apparent that any measures taken are unlikely to have any significant mitigating effects.

It appears from the valuation evidence given at the hearing that property owners would face an uncertain future if such a route is approved.

The safety aspects for the residents, especially with children, is of overriding and understandable concern when considering the radical change in road use which is proposed. The social and community well being for the residents contained in Schedule 1 of the objectives of *Land Use Planning and Approvals Act 1993* would not be promoted and would fall outside the

concept of “Sustainable Development” as that term is defined in Part 1 of the Schedule.

The Huon Planning Scheme 1979, as amended, provides under the implementation of this Scheme (Part 6) that the Council, inter alia, shall take into consideration;

“6.2.3 The character of the locality, the existing and future amenity of the neighbourhood and the values of the properties in the surrounding localities”

Under Schedule 1, the tenor of the planning scheme states that, “There are three main population centres within the Municipality; they are Huonville, Franklin and Ranelagh. Under the heading “Characteristics” it is stated “In the long term Ranelagh, located close by, offers the most potential for residential expansion”. These expressions need to be considered with the “Broad Aims” contained in Schedule 1 of the scheme.

Strategically, the proponent’s preferred route is at odds with the Huon Planning Scheme’s intention that Ranelagh be a residential growth area. The proposed route options through Ranelagh would divide the town, physically and socially, and subject many residents to unacceptable levels of noise. Property values would be depressed. The effect on Judbury and other residences along the route was not specifically determined from the evidence but is likely to be comparable with residences in Ranelagh. Other possible adverse effects, more difficult to quantify without further investigation, include dangers to road users (car occupants, pedestrians, cyclists and horse riders), sleep disturbance, vehicle emissions, dust and road kill (of both native and domestic animals).

The DPMP is considered to understate both the likely level of traffic generated by activities at Southwood and the consequent impacts of that traffic on affected communities. The reduction in heavy vehicle traffic through other towns does not compensate, in our view, for the substantial increase in traffic, post-Southwood, along the North Huon Route. In particular, the noise from passing trucks is expected to be so far above existing background levels as to be very disturbing and annoying, even within residences set well back from the road. For properties that are not acquired, wholly or partially, for road construction there is no mechanism proposed to compensate owners for loss of amenity and property values.

After closely considering all the evidence given in relation to the transport route or routes which should be approved and the objectives contained under Schedule 1 of the *Land Use Planning and Approvals Act 1993* and the provisions of the Huon Planning Scheme 1979, we are satisfied that the amendment may be approved provided that the traffic impacts on the towns

of Ranelagh and Judbury, associated with vehicles that transport raw materials to the land and product away from the land, can be minimised. This can only be achieved by modifying Conditions T2 and T3 and Attachment 9 of the permit. These conditions regulate the kinds of vehicles serving the Wood Centre that may use specified public roads. Approved and prohibited routes are shown in a Traffic Route Table provided in Attachment 9.

We consider that Attachment 9 should be varied so as to prevent the North Huon Road route via Judbury and Ranelagh being used for vehicles (laden or unladen) that transport raw materials to the land and wood fibre and wood product away from the land

This is such a central matter that the favourable consideration of Amendment BY is contingent upon the effective enforcement of Conditions T2 and T3 and Attachment 9, in their recommended modified form.

Even without the North Huon route, there remain other routes available to transport wood product and wood fibre from Southwood that appear to have less potential for adverse impact. There may be other route options that have not yet been thoroughly investigated.

The North Huon route would still be available for access to Southwood by employees and service vehicles. It is not unreasonable to allow some increase in vehicular traffic along this route, consistent with the planning scheme's intentions for Ranelagh as a residential area.

It is noted from the evidence given on behalf of Forestry Tasmania that the link road to the Derwent Valley, which is a Forestry road and as such is not subject to any planning approval was cited by it as one of the preferred routes. It does not, on the evidence presented, appear to result in any environmental or planning problems and, subject to economic considerations, could be used for transportation to and from the site.

Site Specific Impacts

The main impacts arising from operations at the Wood Centre are noise, atmospheric emissions, contaminated liquids and solid wastes. Putting aside the reservations we have raised about the power station, the DPEMP adequately described the impacts and the proposed mitigation measures. Subject to the preparation of more detailed management and operational plans required by the Board, the EAR was generally satisfied that the Wood Centre could operate without adversely affecting the environment. We accept the Board's expert view on that point, subject to the qualifications raised earlier in this report.

State Policies

The amendment is considered to have been prepared in accordance with relevant State Policies. The State Policy for Water Quality Management has been taken into account in the design of waste water treatment facilities so as to preserve the foreshadowed Protected Environmental Values of the Huon River.

Schedule 1 Objectives

(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity;

Comment: When modified in accordance with the recommendations of this report, Amendment BY and the permit for an integrated timber processing facility will assist to promote sustainable development of the land. Detailed examination of ecological processes and genetic diversity in the Southern Forests generally goes beyond the scope of this report and would be better dealt with in the context of a review of the Regional Forest Agreement.

(b) to provide for the fair, orderly and sustainable use and development of air, land and water;

Comment: When modified in accordance with the recommendations of this report, it is considered that the amendment and the permit will provide for fair, orderly and sustainable use and development of air, land and water at Southwood.

(c) to encourage public involvement in resource management and planning;

Comment: There has been adequate opportunity for the public to be involved in the planning process for Southwood. Ongoing opportunity for involvement is provided through a number of reporting and consultative mechanisms required by the permit.

(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a),(b) and (c);

Comment: The modified amendment and permit will facilitate economic development in accordance with the foregoing paragraphs.

(e) to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.

Comment: Implementation of the amendment and the permit will require co-operation between the proponent, the Department of Industry, Energy and Resources, Huon Valley Council, the timber industry and the community. The permit establishes some consultative mechanisms to promote that sharing of responsibility.

Conclusions

1. Amendment BY can be approved in a modified form by the Commission.

Changes to the amendment are intended to strike out clauses considered to be *ultra vires* and to clarify information requirements.

2. The permit can be granted in a modified form by the Commission.

Approval of a wood fired power station should be conditional upon the completion of further investigations, including assessment of geotechnical and hydrogeological factors, visual impact analysis, impact on private land located within 3 km of the site and more sophisticated atmospheric emission modelling, taking into account local climatic data.

If, ultimately, the power station proposal does not proceed, it follows that the water balance for the Southwood site will need to be recast. Amended conditions relating to water abstraction and wastewater management would need to be set by the Board of Environmental Management and Pollution Control.

Some of the Council's conditions should be slightly modified to improve investigation and reporting commitments. Other site-related permit conditions, as reviewed by the Board, may be largely confirmed.

For reasons that are explained under the heading 'Relevant Considerations' the delegates concluded that the 'North Huon route' through Judbury and Ranelagh is not an acceptable solution for the transport of wood fibre and wood product from Southwood to the Huon Highway and should not be approved. Permit conditions related to 'downstream' traffic impacts are recommended to be modified.

John Vandenberg
Delegate

Rick Southee
Delegate

End Notes

-
- ⁱ DPEMP, Appendix A, p10
- ⁱⁱ DPEMP, Appendix P
- ⁱⁱⁱ DPEMP, p 64, Section 3.1.
- ^{iv} *ibid.*, p 66, Section 3.2
- ^v Dr Mike Power, expert witness for DPIWE, 13/05/02
- ^{vi} EAR, p.19-20, Section 3.2.3
- ^{vii} DPEMP, p.80, Section 3.5 and Appendix H
- ^{viii} Elizabeth Brettingham-Moore, # 149, 13/05/02
- ^{ix} EAR, p.38, Section 3.4.5.1
- ^x DPEMP, p.91, Section 4.2.1
- ^{xi} Estcourt, submission tabled 1/05/02
- ^{xii} eg G. Sheridan, C.& G. Velnaar, Tas Conservation Trust and others
- ^{xiii} Council minutes, 26/02/02, p. 84-85, Section 3.1.7
- ^{xiv} John Young, #156, 3/5/02
- ^{xv} John Maddock, #216, 6/5/02
- ^{xvi} P. Dimmock, #172, 6/5/02
- ^{xvii} Ian Johnstone, #123, 6/5/02
- ^{xviii} Southern Forests Community Group, #84, referring to *Esperence 74D Logging Coupe Inventory (Green, 2002)* that claimed 998 tonnes of timber /hectare was left on the forest floor after logging and salvage.
- ^{xix} *Esperence 74D Logging Coupe Inventory (Green, 2002)*, Table 7, p.8
- ^{xx} Dr Simon Pigot, Hedley Hoskinson, Des Wilmot, John Duncan and Bob Davey, o.b.o. Southern Branch Tasmanian Beekeepers Association
- ^{xxi} Alistair Graham, Tasmanian Conservation Trust, # 178, 2/5/02
- ^{xxii} Sarah Dudley, #141, 13/05/02
- ^{xxiii} Camille & Gerard Velnaar, # 165, 2/05/02
- ^{xxiv} Gwenda Sheridan, #94, 13/05/02
- ^{xxv} Martin Wohlgemuth, #174, 13/05/02
- ^{xxvi} Ian Hall, tourism operator, called as an expert witness by Martin Wohlgemuth
- ^{xxvii} DPEMP, p.92, Table 21 and Figure 11
- ^{xxviii} EAR, p.147, Table 27
- ^{xxix} *ibid.*, p.106, Section 8.6.7.3
- ^{xxx} *ibid.*, p.104, Section 8.6.7.1
- ^{xxxi} DPEMP Appendix U, p4-6
- ^{xxxii} EAR, p. 108, Section 8.6.9
- ^{xxxiii} e.g. Representors Shields, Lucas, Fullard & Donohoe
- ^{xxxiv} DPEMP, p.186, Section 5.7.2
- ^{xxxv} EAR, p.152, Section 8.12.5.1.1
- ^{xxxvi} Pearu Terts, DPEMP Appendix N, p. 3
- ^{xxxvii} EAR, p125, Section 8.7.10
- ^{xxxviii} The Board reported that this license was issued on 31/1/02.
- ^{xxxix} EAR, p82-84
- ^{xl} *ibid.*, p80, Section 8.3.5.1
- ^{xli} *ibid.*, p81
- ^{xlii} DPEMP Supplement, p68
- ^{xliiii} EAR, p88, Section 8.4.4
- ^{xliv} *ibid.*, p.134, Table 25
- ^{xliv} *ibid.*, p.135-6. Section 8.8.11

-
- ^{xlvi} DPEMP p.84-87, EAR, p172-3
- ^{xlvii} G. Sheridan, # 94, and at hearing 13/5/02
- ^{xlviii} Ranelagh Community Group, #155 and others
- ^{xliv} Huon Citizens for Southwood, #18 and others
- ¹ In evidence tabled by Ranelagh Community Group
- ^{li} DPEMP, 128-130, Tables 39,40,&41.
- ^{lii} DPEMP, p. 131
- ^{liii} Environment Division, DPIWE, Appendix 11.6 of the EAR
- ^{liv} Ibid. p.2
- ^{lv} Ibid, p.13
- ^{lvi} DPEMP, p9, Section 1.6