



ITS Global

Consultants on Global Issues

Review of the Social and Economic Benefits of the Gunns Limited Pulp Mill Project

Final Report

ITS Global

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Executive Summary

Introduction

A Pulp Mill is proposed for construction by Gunns Limited at Bell Bay in Tasmania.

ITS Global was commissioned to assess the net social and economic benefit for Tasmania. The impact of the Mill will be felt over two stages, first during construction (expected to take two years) and then during the operational period of the Mill which has been assessed out to 2030.

Impacts were assessed for the State, the Bell Bay region and the local level where relevant. Seven impacts were examined. These impacts were requested by the Tasmanian Resource and Planning Development Commission in the Final Scope Guidelines for the *Integrated Impact Statement – Proposed bleached kraft pulp mill in Northern Tasmania by Gunns Limited*. The assessed impacts are: on the economy, on population and social structure, on land and housing, on transport and transport infrastructure, on local services, on tourism and recreation and on community attitudes.

The net benefits of the economic factors and then social factors were assessed separately. The outcomes of each of these impacts were assessed separately, then an overall assessment was made.

The net benefit

The net benefit for Tasmania overall is assessed to be positive and high, both over the long term, the operational phase of the Project and during the construction phase.

This benefit will be felt at State level, in the Bell Bay region and in the local area.

The consultant considered that economic gains would outweigh economic costs and that social gains would outweigh social costs.

The Mill will add approximately 2.5 per cent to annual GSP (Gross State Product) above a no-Project Base Case scenario. In lump sum terms, this is equivalent to approximately \$6.7 billion¹. It will also broaden and strengthen the industrial base of the Tasmanian economy, increase employment by 1600 jobs on average and serve as tangible evidence that Tasmania is aligning itself with growth and investment patterns in the rest of Australia.

The Northern Statistical Division will be the greatest beneficiary, with Gross Regional Product (GRP) being assessed as rising by 4.4 per cent by 2030 above the Base Case. In lump sum terms this is equivalent to approximately \$4.9 billion². This Statistical Division is a close approximation of the Bell Bay region.

The conclusions about the impact of the construction phase were similar. The injection of \$1.5 billion dollars during the construction phase will boost GSP by 1.3 per cent in the first year and 2.7 per cent in the second above the Base Case. The increase in Gross Regional Product in the Northern region will be double – 3 per cent and 5.8 per cent above the Base Case. The economic welfare gains may be reduced somewhat by the cost of securing the required skilled workforce, but on balance they will remain positive.

Social impacts will be felt most strongly in the vicinity of George Town. On the positive side, living standards will rise, property values will rise, the rate of untenanted rental should fall, unemployment will fall and the social indicators in the immediate region should rise. George Town will convert from being a declining town to a growing town.

The introduction of a guest workforce of 800 to George Town (which has a current estimated population of 6,700) will have an impact. There may be some social tension, but the

¹ Net present value (NPV₅ to 2030)

² Net present value (NPV₅ to 2030)

temporary workforce will only be for two years. A minor increase in demand for local public services, probably law enforcement and health, is likely. This is anticipated by authorities and costs should be covered by the increases in tax revenue generated by the Mill.

Prosperity in Launceston and the Northeastern region should increase in line with economic growth, being over 4 per cent higher above the Base Case by 2030.

Key questions

Concern has been expressed about the impact on forestry and tourism. Demand for timber for the Mill will depend on a number of factors. If demand rises over existing production, this is provided for under the existing Regional Forest Agreement.

There is no reason why the Mill should damage the “clean and green image” of Tasmania on which much tourism depends. The Mill will be located in Bell Bay, the largest industrial precinct in Tasmania, the existence of which has not deterred eco-related tourism in the Northeastern region. In the construction phase, accommodation available for tourists will be reduced, but 60 per cent of the workforce is expected to be drawn from outside Tasmania and they are likely to become “locally-based” tourists for the period.

The Mill will increase demands on transport infrastructure during the construction phase and in the long term. In the construction phase, pressure will be limited to a few key routes, which are assessed as being able to cope with additional traffic. In the long run the largest prospective increase in traffic in the vicinity is 6 per cent above the Base Case and that is assessed as being comfortably absorbed by the road system without significant reduction of service.

Intangible benefits

The numbers demonstrate the gains to Tasmania of the Pulp Mill. There are also intangible benefits. One way to assess them is to reflect on the consequences of failure to proceed. Failure to build on Tasmania’s comparative advantage in this major area would be taken as disposition in Tasmania not to keep pace or even narrow the gap between economic growth and growth in employment in Tasmania compared to the rest of Australia. It would discourage other large investors.

The upside is that building the Mill would reflect preparedness to seek to align economic growth of Tasmania with the rest of Australia. This could be expected to generate increased interest in investing in Tasmania.

The general case has been made that the Mill is an “either/or” project for Tasmania –either develop an important economic resource or build on Tasmania’s “clean and green” image. There is no economic or social basis for the “either/or” contention. Tasmania can do both.

List of Abbreviations

ABS	Australian Bureau of Statistics
ADt	Air Dried tonnes
CAR	Comprehensive, Adequate and Representation (Reserve System)
CCD	Census Collection Division
CGE	Computable General Equilibrium
CoPS	Centre of Policy Studies (Monash University, Victoria)
DIIS	Draft Integrated Impact Statement
GMt	Green Metric Tonnes
GRP	Gross Regional Product
GSP	Gross State Product
LGA	Local Government Area
LOS	Level of Service
MIS	Managed Investment Scheme
MMRF	Monash Multi-Regional Forecasting
NAIRU	Non-Inflation Acceleration Rate of Unemployment
NPV	Net Present Value
RFA	Regional Forest Agreement
RPDC	Research, Planning and Development Commission
SD	Australian Bureau of Statistics Statistical Division
SEIFA	Socio-Economic Index For Areas
SFM	Sustainable Forest Management
SIA	Social Impact Assessment
STCRC	Sustainable Tourism Cooperative Research Centre
STP	Social Rate of Time Preference
TAP	Tasmanians Against Pulp Mill

1. Introduction

1.1 Purpose of this document

ITS Global was commissioned by the Tasmanian Government to undertake a Review of the Social and Economic Benefits of the Gunns Pulp Mill Project (referred to as 'the Project' in this document) at Bell Bay, Tasmania.

ITS Global was appointed by the Minister of Planning to assess the net social and economic benefit of the Project.

The purpose of this document is to report on whether the Project will, on-balance, deliver a net social and economic benefit to Tasmania.

In undertaking this assessment, ITS Global was required to take into account a number of key information sources that constituted the contract material for this Review, namely:

- The information provided to the Resource Planning and Development Commission (RPDC) on social and economic issues, including information provided by Gunns in its Draft Integrated Impact Statement (DIIS) and IIS Supplementary Information;
- All relevant public submissions to the RPDC in respect of the social and economic issues;
- All relevant Government Agency submissions to the RPDC in respect of the social and economic issues;
- The Economic Impact Assessment by Monash University - Centre of Policy Studies (CoPS).
- Any other research proposed by the Consultant and agreed by the Consultant Selection Panel necessary to undertake this review.

ITS Global was asked specifically to consider the social and community issues related to the construction and operational phases of the Project, with respect to:

- Impacts on population and social structure;
- Impacts on demand for housing and property values;
- Impacts on transport;
- Impacts on local services;
- Impacts on tourism and recreation.

These issues are assessed on-balance across three geographical distributions where relevant, i.e. local, regional and State.

ITS Global was also asked to specifically consider the economic significance of the Project at regional and State level.

ITS Global thought it useful to summarize the community impacts in a discrete review in Annex I. The review is a summary of community attitudes towards the Project, which are assessed by comparing social and economic impacts against the community values the Project affects.

1.2 Legislative framework

This Review is part of the requirements of the *Pulp Mill Assessment Act 2007*. The *Pulp Mill Assessment Act* requires the appointment of consultants to assess the Project.

An environmental assessment has also been undertaken as part of the Act under S.4(3). The environmental assessment must assess the Project against the Tasmanian *Environmental Emission Limit Guidelines*.

This Review has been commissioned under S.6(10) of the Act. S.6(10) states that the Planning Minister may table and commission reports the Minister considers relevant to the Project at the same time as the Pulp Mill Permit.

If it is advised that the Project should proceed, statutory regulators assess the Project and submit permit conditions that should be attached to the Pulp Mill Permit.

The Pulp Mill Permit is to be tabled in Tasmanian Parliament along with this document and any other relevant reports.

Parliament then decides whether to approve the Pulp Mill Permit.

1.3 Scope of this assessment

ITS Global has been asked to assess the impacts on the economy, society and community of the Pulp Mill Project at Bell Bay.

This Review does not assess any environmental considerations. This is beyond the scope of the Review.

ITS Global has not been asked to assess impacts on forestry and forest industries as part of this assessment. The current Tasmanian Regional Forest Agreement (RFA) defines forestry practices within Tasmania. This Review is not an assessment of the RFA. However, forestry issues are taken into account with regards to community values.

ITS Global has not been asked to assess indigenous or cultural heritage issues as part of this assessment or to assess the financial viability or operating practices of the proponent of the Project. This is also beyond the scope of the Review.

It should also be noted that this Review is not a cost-benefit analysis.

The Review is based primarily around the documents outlined below. These have been the primary source of data for this Review.

Bell Bay Pulp Mill Draft Integrated Impact Statement

The Bell Bay Pulp Mill Draft Integrated Impact Statement (DIIS) was authored by the Project's proponent, Gunns Limited, outsourcing much of the work to external consultants.

The Gunns Draft IIS was produced by Gunns as a response to the RPDC's *Final Scope Guidelines for the Integrated Impact Statement – Proposed bleached kraft pulp mills in Northern Tasmania by Gunns Limited*.

As part of the new guidelines for the mill, a set of guidelines for the Draft IIS was also produced. The document was submitted to the Resource Planning and Development Commission at the draft stage.

Gunns withdrew from this assessment process in 2006, making the DIIS guidelines defunct for the purposes of this Project. However, most, if not all, the material in the DIIS is still relevant.

Peer review reports commissioned by the Resource Planning and Development Commission including: Farley Consulting Group, Independent Advice to RPDC, August 2006

The RPDC commissioned a number of peer reviews to address concerns arising from information gaps associated with the DIIS.

Bell Bay Pulp Mill Draft Integrated Impact Statement Supplementary Information

The DIIS Supplementary Information was commissioned by Gunns as a response to gaps identified by the RPDC as a result of public submissions on the DIIS and peer reviews undertaken by the consultants on behalf of the RPDC. This information was communicated to Gunns at the RPDC directions hearing on 25 October 2006.

Relevant public and Government Agency submissions to the RPDC on the Draft IIS

As part of the RPDC assessment process, public submissions were invited on the DIIS. 780 public submissions were made as part of the process. They were authored by individuals, public bodies and government agencies. These submissions contributed heavily to the assessment of community values in Annex I. Details of the analysis made by the Consultant are outlined in Annex II. While the submissions could not be addressed individually, they provided the results of a public consultation process that contributed heavily to this Review.

Economic Impact Assessment by Monash University (2004) - Centre of Policy Studies (CoPS)

The Tasmanian Department of Treasury and Finance commissioned the Centre for Policy Studies at Monash University, Victoria, to model the economic impact of a new pulp mill on the Tasmanian economy. As part of the DIIS, Gunns commissioned Allen Consulting and CoPS to re-model the impacts based on updated data.

In addition, ITS Global drew extensively on knowledge of the area from its consultants and associate consultants, who have direct local knowledge of local industry and social conditions. ITS Global also conducted a site visit to the local and regional areas, which was used to assess the economic and social conditions of the areas and assess any potential impacts on issues such as transport and tourism. The site visit was also invaluable in gaining a 'sense of place', which could not be gained through desk research.

1.4 Commentary on Data

This Review is essentially a review of pre-existing and extensive material examining the Project. ITS Global did not and was not required to perform any new economic modeling or social impact analysis.

However, there are some features about the data within the contract material that merit comment, in particular variation in the boundaries of areas examined.

The Draft Guidelines for the DIIS did not specifically define a local or regional area. The areas examined in the Social Impact Assessment were based on geographical and demographical characteristics (20 and 50 km radius respectively).

The Final Scope Guidelines produced nearly 12 months after the DIIS had commenced, defined these areas differently. It used definitions relevant to the local airshed (12 and 55 km radius respectively).

The extent to which analysis of local level impacts (at a 20 km radius from the project site) in the DIIS Social Impact Assessment correlated with statistics collected for 35 census collection districts (within a 12 km radius of the project site) is unclear.

Similarly, the DIIS economic impact assessment was based on the MMRF-Green economic modeling process. This process does not permit with any accuracy the disaggregation of economic data down to the Census Collection Division (CCD) level, which was the basis of the DIIS social impact assessment.

The result of the foregoing is that the boundaries of social and economic assessment for the local and regional levels do not coincide; and that the SIA was not able to provide a full socio-economic profile of the community. In some areas, therefore, estimates of impact may not be precise.

This has not produced any notable problems with the data for the purposes of this Review. However, it is noted, and where inconsistencies arise throughout the report they are also noted.

The two-year timeframe over which the Project is to be constructed is referred to as Year 1 and Year 2, as no commencement dates have been specified. However, for the operational phase of the project, for ease of use, it is assumed the Project will commence operations in 2009, with the operations assessment concluding in 2030. This is consistent with pre-existing data in the Contract Material.

1.5 Methodology

Approach of the Consultant

The Consultant was required to make a single comparative assessment of the positive and negative impacts of the Project on economic and social aspects and to make an overall assessment of the net benefit.

To measure gains against losses requires comparison of apples with apples. Economics can create common units of value to measure gain against cost. The capacity of economics to do this leaves a misleading impression it can be used in all cases. This method cannot be employed when a wide impact, such as on an economy or society, is to be measured.

The analysis of the economic impacts using the Monash modeling was conditioned by constant reference to the limits of the model. This is proper in one sense - econometrics can indicate broad likely trends, but it is not a tool for predictions.

But to limit assessment of economic impact to carefully couched statements of the result of econometric modeling is a poor use of our understanding of economics. Economics can tell us in general terms the likely effect when changes occur. For example, certain non-quantifiable things typically happen when wealth increases or decreases and when taxes change. We may not be able to quantify precisely the impacts, but we can assess whether they are likely to be positive or negative and then counterweigh those assessments. This requires experienced analysts upon whom the Consultant can draw.

The positive economic impact of the large investment which this project entails on George Town, Launceston and Tasmania of the Project are obvious. Measuring the positive gains against some social negatives, for example when the negative is non-economic, like social disruption from the arrival of a large number of foreigners in town, is difficult.

In many, if not most cases, the positive can be expressed in economic terms which permit an assessment of the economic positive (a job, more business) against a current negative (no job, slow business) to be illustrated in a way that enables the reader to understand the assessment.

For example, very few specific and on ground gains such as on job prospects and wealth of individual workers and businesses in George Town were drawn from the Monash modeling, yet the GHD social impact analysis strongly illustrated what some of those effects might be. Combining the results of both sets of work enables more effective illustration of the gains.

When negative social impacts are not economic, it is difficult to assess them against positive impacts which are economic. Similarly balancing out a negative social impact against a positive social impact is difficult because there is no common unit of "social satisfaction". The only practicable approach is to identify any negative social impacts and contrast them with directly related positive impacts and proffer an opinion on the balance.

Ultimately this approach and comparative assessment necessarily makes this Review a qualitative review, for which some quantitative support can be produced, as opposed to a quantitative review.

Identification of outputs

The Consultant was requested to specifically assess the impact of the Project on the following seven matters:

- the economy;
- transport;
- demand for land and housing;
- property values;
- impact on services (including local government and impact on rates);
- tourism and recreational; and
- population and social structure (including employment).

Following review of the studies undertaken and relevant public submissions, the Consultant felt assessment of community attitudes to society and development would also assist.

The Consultant was directed to assess the impact against the state of affairs likely to prevail if the Pulp Mill was not constructed.

Where practicable, a separate assessment of the impact of the Project on each of these matters was made at the state, regional and local level. This was consistent with much of the analysis already undertaken and public interest.

The Review also required the assessment of the impact of the Project at both the Operational and Construction phase. Thus, both long-term and short-term impacts were identified in the final assessment according to the schema below.

Assessment of specific impacts

For each specific impact, for example on the economic impact on the region, ITS Global's approach was first to define the most significant factors. In virtually all cases, a number of issues had already been identified by the proponent, by State Government authorities including the RPDC, and interested parties during the period of the call for public comment.

ITS Global then reviewed all available public material and rated the impact of the Project on each factor as positive or negative and for its significance. Significance was judged qualitatively. For example an impact might have been highly positive, but not significant.

A framework to enable comparative assessment of positive and negative impacts was developed. It identified the positive and negative impacts and counterweighed them.

For the economic issues, counterweighing the impacts entailed balancing out the economic effects. For the social issues, the assessment rested on the Consultant's judgement on the relative impact on community well-being and the impact (positive and negative) to the community. The significance of the impacts was assessed against the assessment of community values and attitudes set out in Annex II.

In some cases the Consultant faced the need to balance an economic gain against a social cost. In that case the significance of the economic gain was weighed against the significance of the social impact.

Where impacts were found, ITS Global identified an appropriate management response, if available, thus assessing whether the negative impacts were mitigated or manageable.

Each factor was then assessed to give a final, qualitative assessment of the issue at each distributional level.

The impacts in each specific report are assessed under the relative ratings according to the following schema³:

³ Assessments that fall between these ratings are denoted with a '/' symbol.

High negative	---
Moderate negative	--
Low negative	-
Neutral	+/-
Low positive	+
Moderate positive	++
High positive	+++

Overall assessment of net benefit

As noted above, the Consultant was required to make a single comparative assessment of the positive and negative impacts of the Project on economic and social aspects and to make an overall assessment of the net benefit.

This is a difficult task. Social science is imperfect and cannot construct a common means of reducing all factors to a comparable value and then calculating a number to find it is numerically positive or negative to show if the impact is positive or negative.

The Consultant made such an overall assessment each of the Construction phase and the operational phase. In each case it reviewed the assessed impacts on each issue, stepped back to see if most were negative or positive, reviewed the prospect that mitigation measures were feasible where impacts were negative, and then drew an overall conclusion.

This is a qualitative assessment. A table illustrating the Consultant's conclusions for the Operational phase and the Construction phase is set out in the next section which sets out the Consultant's overall assessment.

2. Overall Assessment

2.1 General

Following is the Consultant's assessment first of the impact of the Pulp Mill (referred to as the Project) during the operational phase, then during the construction phase. In each case an overall assessment of net benefit is first provided, then the assessment of each of the individual impacts, which is provided in full later in the document, is summarized.

2.2 Operational Phase

Overview

The Consultant's assessment is that the net benefit of the Project, assessed until 2030 on economic and social factors in Tasmania, is positive and high.

It also found that stand alone assessments of the net benefit of the economic impacts and of the net benefit of the social and community impacts factors also produced positive and high results.

The net benefits to Tasmania are tangible and intangible. Economically, the Project will add 2.5 per cent to GSP in Tasmania over the planned life of the Project and create work equivalent to around 1600 jobs on average in the Bell Bay region. Impact on demand for local services including transport infrastructure will be modest and affordable given the additional revenue which the project is likely to create.

Environmental impacts are not assessed in this report, but assuming permit conditions for the Project are likely to enforce strict environmental standards, additional costs of mitigation could be offset by additional revenue. Previous economic assessments of the Project did not place an economic value on any external costs, including those associated with the environmental impacts of the project. Among other things, this was outside the scope of the RPDC assessment guidelines. ITS Global considers that the absence of any environmental external costs does not provide a basis for rejecting the results of these economic assessments.

It is common for major projects to create adverse social impacts which are commonly taken as a necessary side-effect of the economic gain. Our assessment of this project is that the positive social impacts of the project – the likely revitalization of George Town with attendant improvements in social indicators – will outweigh the social change created by the increases in population.

The intangible benefit will be perceptions about Tasmania among Tasmanians and investors. This will be the largest investment in a single project in Tasmania in recent decades and a clear demonstration Tasmania is participating in the current wave of growth and investment in Australia. Conversely, failure to proceed with the Project will reinforce perceptions Tasmania is economically Australia's laggard State.

Concern has been expressed that the Project will undermine Tasmania's powerful reputation as a "clean and green" state, and weaken the expanding tourist industry which has substantially built on that reputation. The physical impact of the Mill on Tasmania is very small. Even in the Bell Bay area it is located in an already heavily industrialized region with a power station and two other major industrial plants. Tasmania is a large island which is lightly settled. There is no substantive reason why Tasmania cannot continue to foster a thriving tourist industry based on its natural and environmental assets if the Project proceeds.

In summary, the Project helps broaden the base of the Tasmanian economy in the direction of the national economy where prosperity is supported by productive investment in all sectors.

A summary of the impacts during the operational phase is presented in the table below:

Table 2.1 Summary of impacts during the Project's operational phase

Issue	Distribution	Significance
Economic impacts	State	++/+++
	Regional	+++
Transport	State	+/-
	Regional	-
	Local	-
Housing and property values	Regional	++
	Local	++
Tourism and recreation	State	+/-
	Regional	+/-
	Local	+/-
Impact on services	Regional	+/-
	Local	+/-
Population and Social Structure	Regional	+ /+++
	Local	++
Community values	State	++
	Regional	+++
	Local	++

Summary of impacts

Economic

The net economic benefits of the Project to the State economy are assessed as positive and high. From the commencement of the Project's operations until 2030, the Project will add 2.5 per cent to Gross State Product (GSP) each year above a no-Project scenario, generate on average an additional 1600 jobs, increase household consumption by 2.6 per cent above the Base Case and increase annual tax revenue for the State by \$48 million by 2030 above the Base Case.⁴ This translates to an NPV GSP increase of \$6.7 billion, \$3.1 billion of further investment and \$3.3 billion in increased consumption over the same period, and a net NPV of \$440 million in additional government revenue. Overall, the results suggest that the welfare gain to Tasmanian households is in excess of \$3.3 billion.

Most of the economic gain from the Project will be delivered to the Bell Bay region. It will deliver an increase in Gross Regional Product totaling \$4.9 billion (NPV) compared to the no-Project scenario over the same period. In addition it will deliver a substantial increase in hours worked in the region. Some of this will be realised as an increase in the hours worked by each employee but the rest will be from those in newly created jobs. The region is expected to have most of the 1600 new jobs created by the Project.

Some of the newly generated tax revenues could be used to implement Government strategies to mitigate negative impacts, such as improving transport infrastructure, mitigating environmental impacts and training unskilled workers. The Consultant was not able to assess specifically the cost of mitigation of environmental impacts of the project. It is aware the plant will have to comply with specified environmental standards. The Consultant's assessment is that the funding generated by the Project will be adequate to meet those demands.

An intangible economic benefit will be demonstration of significant investment in new industry in Tasmania, and diversification of the economy.

⁴ All the NPV results necessarily include the impacts of both the operational and construction phases of the project.

Two broad contentions are that the Project would have serious, adverse effects on forestry and tourism. The argument on forestry is that the Project will increase forest harvesting in Tasmania. It may, but even if it does, the harvesting will still occur within the areas set aside for commercial forestry under the Regional Forest Agreement (RFA). The argument is a restatement of longstanding opposition to the RFA, rather than a case against the economic impact of the Project.

The concern about tourism is that establishment of the Project may undermine Tasmanian tourism which, in part, rests on branding Tasmania as “clean and green”. The reality is that the Project is being built in a pre-established industrial area which includes the Rio Tinto Aluminum Smelter, Bell Bay Power Station and TEMCO. The Project will not reduce the overall environmental amenity in Tasmanian on which tourism rests. To the extent debate about the impact of the Project may have damaged perceptions of that amenity, it can be relatively easily corrected by tourism marketing.

Transport impacts

The impact on transport was rated as a high concern in public consultation, in particular the consequence of the need to deliver materials, particularly logs, to the Project. The principal concern is the impact of more heavy trucks on the road and more traffic accidents involving heavy trucks. Decisions on whether or not rail will be upgraded to transport logs to the Project and whether or not most logs for the Project will be sourced from plantations rather than native forest will determine how heavy road traffic increases.

The number of vehicles on regional roads is likely to increase by around 6 per cent with no use of rail. The assessment of engineering experts is that this is not likely to reduce the level of service on the roads and highways which service the Project.

The proponent of the Project has proposed improvements to a road junction critical to delivery of material to the Project and the Government has indicated consideration is being given to improvements in transport infrastructure to meet the increased demands on it by the Project, including upgrading the rail system. At a State level, impacts will be low and negative to neutral without any additional rail infrastructure investment, but the use of rail for the Project's transport task will lead to a net reduction in truck kilometers on public roads in comparison with existing operations; this could result in a net economic and social benefit.

Impacts on housing and property

The long term impact is assessed as positive and moderate. The increased employment generated by the Project would be expected to lift the value of residential housing and land, reduce the amount of untenanted housing stock, bring a greater number of unoccupied private dwellings to market (estimated at 21 per cent) as well as increase rents. Most residents would benefit from that.

Attention has focused on the impact on provision of housing for low-income residents. In the George Town area and the Northern region, the overall demand for public housing should decline somewhat because of the increase in employment and wealth. It should be noted that across Tasmania there has been a shortage of public housing.

Management responses to address the need for more public housing could include ensuring the supply of land for housing is not unduly restrained, thereby ensuring the price of land does not rise excessively. It is also open to public authorities to review the extent to which they may choose to use the additional revenue generated by the Project to increase the provision of more public housing.

Impact on Services

The long term impact will be neutral or negative and low. The Project will increase demand for some utility services, particularly water, electricity, waste disposal and gas. The Project will supply electricity to the State power grid and manage waste disposal. A new water supply infrastructure will be required. The economic impacts are on balance neutral.

The impact on social and other community services is considered neutral or negative and low. The assessment is that the Project will lead to an increase of 380 people in the local population around George Town⁵, which is less than 3 per cent of the local population. The impact on the rate of utilization of local services would be low. Additional revenue for local and government authorities from the Project will give authorities options to meet increased demand or increase absolutely the supply of services.

Tourism and Recreation

The impact will range from low and negative to neutral. Concern has been expressed about the Project altering tourist appreciation of local foodstuffs and wine in George Town, Launceston and the Tamar Valley. The visual impact of the Project on the landscape is unlikely to have such an effect given it is based in an industrial region. The Project may generate odours and emissions from time to time that, while not environmentally damaging, may be considered unpleasant by some tourists.

This putative impact cannot be completely assessed in advance. However, this Review finds that tourism and industry can co-exist successfully, as they already do in the local area and region. A management response to the evolution of such a problem cannot be determined until the real phenomenon is observed. Similarly, any viticultural, agricultural or aquacultural industries that rely on the 'clean and green' images for marketing can also co-exist with the Project.

Population and social structure

The impact on population and the social structure in the local area and the Northeast region is assessed as moderate and positive. Social indicators in George Town (for employment and levels of education) are lower than in Tasmania at large and Australia. The Project will increase employment, raise local work skills, boost the local economy and raise local living standards. The local population is likely to increase as people move to the area in response to increased jobs and economic activity.

There is concern that there might be social tension – isolation of new arrivals and tension between supporters and opponents of the Project. There may be some limited experiences such as these, but given support for the Project has been strong in George Town and that the existing trend of a declining town will be reversed because of the Project, these are not likely to be generalized phenomena.

Community Values

The impact on community values is assessed as moderate and positive across the State and highly positive in the region and locally. Concerns about the Project can be divided into two categories: desire to alter and reduce the extent of commercial forestry in Tasmania (i.e. concern that the Project institutionalizes further forestry as an industry in Tasmania); and concern about the general impact of the Project, usually expressed in terms of environmental and social impacts.

The debate about the pros and cons of forestry in Tasmania will not alter as a result of the Project proposal. If criticisms and concerns about the impact on forestry reduce to just that (for example, concern that through the Project, plantation forestry may supplant other forms of farming) then it is set aside in this assessment. That is a debate about forestry, not the Project.

The concerns about broader impacts reflect wider concerns. The Consultant considers the formal public discussion to date has provided comprehensive exposure of the issues. Reports show greater enthusiasm for the project locally than at a State level, although the greatest impact is local.

At State level, the debate is about patterns of development for the future. The Government objective is to diversify the Tasmanian economy. Economic growth entails change and

⁵ It is assessed that most of the new employment will be taken up by people from Tasmania and in the general region.

impact. The Consultant notes that directly affected local communities appear receptive to the degree of change, but at a State level there is apprehension. This is paradoxical. It may be a consequence of this Project being the first major industrial project undertaken in Tasmania for several decades.

2.3 Construction Phase

Overview

In the construction phase, the net benefit to Tasmania, the region and the local community is highly positive.

The Project will be constructed over a two-year period. The gain in Gross Regional Product is estimated to be more than \$400 million in the Northern Region over the two years. The short-term investment of nearly \$1.5 billion dollars into the region through the construction phase will produce high short term economic gains which will generate benefits throughout the region.

There is expected to be a demand for additional employment in the region of more than 2,000 people, entailing the accommodation of a temporary workforce in the general vicinity of the Project of around 800. It is estimated that at the construction peak there will be an additional 900 vehicles and 40 buses per day, mostly during peak hours.

There is concern about the strain imposed on local services and on the local community, particularly in George Town. The introduction of a large workforce for a period of up to two years carries the risk of some social disruption. Public comment has focused much on the impact on George Town, where residents seem generally very positive about the benefits of the Project, but community groups are concerned about the impact on local society and services.

The assessment suggests the likelihood that the new population will be dispersed more widely through the Launceston region where the impact is considered slight and manageable. The general picture of the Launceston region is that it is well serviced with roads and local services, such that, on aggregate, the additional demand on those services by the construction of the Project can generally be comfortably met.

On matters where the supply of adequate services – such as temporary accommodation for construction workers, training to upgrade skills for workers, and call on additional law enforcement and health services – clearly needs to be supplemented, both the proponent of the Project and government authorities have begun to develop management responses to address those needs.

A summary of impacts is shown in the table overleaf.

Table 2.2. Summary of impacts during the Project's construction phase

Issue	Distribution	Significance
Economic impacts	State	++
	Regional	+++
Transport	State	+/-/-
	Regional	-
	Local	+/-/-
Housing and property values	Regional	++
	Local	++
Tourism and recreation	State	+/-/-
	Regional	-
	Local	-
Impact on services	Regional	+/-/-
	Local	-
Population and Social Structure	Regional	+/-/+
	Local	++
Community values	State	++
	Regional	+/-
	Local	++

Summary of impacts

Economic impacts

Gross State Product is estimated to increase \$230 million in Year 1 and \$480 million in Year 2 over the no-Project scenario. Business investment in Year 1 will increase by an additional \$500 million and in Year 2 by \$1,020 million. At the construction peak additional direct employment in each construction year is estimated at around 2,200, peaking at 2,500 in Year 2. It is estimated that 40 per cent of the construction jobs will be filled by Tasmanians.

Most of the offsetting impacts are not statewide during the construction phase, but local and regional.

The surge in economic activity created by the construction of the Project is estimated to increase Gross Regional Product (GRP) in the Bell Bay region over the two years by more than \$400 million.

The Project will also have a significant impact on employment in the region with approximately 2,300 new jobs. Securing the full economic benefit depends significantly on how successful the company and Government agencies are in quickly raising the level of technical skills of local workers. Management responses indicate detailed planning has commenced.

On balance, the economic impact is assessed as highly positive.

Transport impacts

Construction will generate substantial traffic on the East Tamar Highway, in George Town and, to a lesser extent, in Launceston. Most traffic is expected between the Project site and the Port or the Major Industrial Zone. Impacts on local residential traffic in George Town are assessed as low negative.

Assessments from experts indicate that the increased traffic on the major routes would still allow an acceptable level of service. The existing transport infrastructure has the capacity to deal with the additional traffic movements necessitated by construction. The current main

traffic corridors, the East Tamar Highway in particular, have a high level of service. Additional traffic will not pose a significant threat of a deterioration of service on these roads.

Some access points to the Project have been identified as requiring improvement to cope with the increased demand; management responses indicated to address this impact are underway and, if implemented, will minimize the impact of increased traffic to acceptable levels.

Housing/Property values

The economic impact on housing and property values will be moderately positive. Property values have already increased in George Town in anticipation of the Project, by 16 per cent according to one estimate. The proponent plans to create special accommodation to house around 800 construction workers. While that should ease pressure for accommodation, the rate of untenanted rental properties should also decrease, and a greater number of unoccupied dwellings (currently assessed at just over 21 per cent) should be brought to market.

The increase in property values and increased rate of rentals is expected to extend into the Launceston area, and not be restricted to George Town in light of the existing disposition of people in the Launceston region to travel across the region for employment, thus increasing wealth across both the local and regional areas.

The primary focus of concern has been on the impact of demand for supplies of public housing for low income and socially disadvantaged people. The Consultant notes that across Tasmania, Government agencies have not been able to satisfy demand for special housing. This is a small population in the local area, but probably higher as a percentage of the workforce in George Town given the relatively more depressed economic conditions there compared to other towns in Tasmania.

To the extent some long term unemployed will receive skills training and work at the site, demand for special housing should decrease. The financial capacity of Government agencies to provide special accommodation should increase in light of the increased revenues Government will receive.

Tourism and Recreation

The influx of people into the Northeastern region for the construction phase will reduce accommodation available for tourist businesses. On the other hand, with estimates that more than half of the construction workforce is likely to come from outside Tasmania, it would be reasonable to assume that the workforce constitutes a replacement consumer group for tourist services other than accommodation. The temporary population influx has the potential to reduce vacancy rates of tourist accommodation within the local area.

The Project will have no impact on tourism at State level during construction. While the Project's construction has the possibility of altering the revenue base at local and regional levels, any overflow of visitors outside of these regions will have a positive, but negligible effect on tourism at State level.

The impact on tourism is therefore rated as between neutral to low and negative at worst.

Impact on services

The most significant local concern was the impact on local services of the influx of a migrant workforce, largely of single males (of around 800) housed in George Town and to a degree in the Launceston area. Services of concern are law enforcement, health, emergency response, medical support and other social services.

It is assessed that the increase in demand for services in George Town is likely to be the same as the increase during the peak construction period of 10 to 12 months, which is about 10 per cent. Pressure is assessed at being greatest on entertainment and health care with the primary impact on law enforcement and health services.

The increased workforce at the peak of construction is likely to increase the population of the Launceston region by 1 per cent. This will have minimal impact on local services in the region. The biggest impact in Launceston is likely to be on TAFE training. The State Department of Education has assessed those training needs. These needs can be easily addressed with additional resources.

The negative impact on supply of local services will be limited to a period of 12-14 months. In Georgetown this is assessed as low and negative and on the Launceston region as low and negative to neutral.

Population and social structure

The impact on the local population and social structure is assessed as moderate and positive to neutral in George Town and moderate and positive in the Launceston region.

The local population of the Project site (George Town, Beaconsfield, Beauty Point and surrounds) is approximately 13,000. A sudden influx of more than 1000 workers is significant. George Town's population is around 6,800; adding a resident migrant workforce of 800 would also have a noticeable social impact.

However, the 2001 census shows that nearly half of the people who work in George Town commute from other Municipal areas, 22 per cent of them from Launceston. It is likely that the temporary workforce for the construction phase will be similarly dispersed and not necessarily concentrated in George Town.

George Town's population has been falling – in 1993, it was just over 7,100. George Town also has a lower level of education than the Tasmanian average and a greater proportion of rental and public housing than is average in Tasmania. An influx of new residents, both for the construction and operational phases of the Project would reverse the trend of the falling population and alter the demographics.

Notwithstanding positive impacts on employment and wealth from the construction phase in George Town, there is also a risk of temporary social disruption. Management responses by Gunns Limited and the authorities demonstrate anticipation of such an occurrence.

Community values

The rating of the impact on community values varies according to the perceived impact of the Project and the economic and social circumstances of those affected. The assessment within the region ranges from highly positive to negative.

The Project will be a significant boost to the Bell Bay industrial area (which generates 20 per cent of Tasmania's economic output), adding to wealth, reducing unemployment, raising workforce skills, increasing wages; in short, providing a significant boost to confidence in the future.

Those who consider intensification of industrial activity as adverse to their interests, such as producers and tourist operators who have promoted the non-industrial character of much of Tasmania, for example in the West Tamar area, as a beneficial quality, will not consider this an advance.

But since the greater proportion of economic activity in the Bell Bay area is industrial, demonstrating how greater industrialization can produce wealth for Tasmania and for the people who work in those industries must on balance be regarded as positive for community values in the immediate region.

2.3 Significance of the net benefit to Tasmania

Failure to build on Tasmania's comparative advantage in this major area would be taken as predisposition in Tasmania not to keep pace or even narrow the gap between economic growth and growth in employment in Tasmania compared to the rest of Australia. The first significance of proceeding with the Project reflects preparedness to seek to align the

economic growth of Tasmania with the rest of Australia. This could be expected to generate increased interest in investing in Tasmania.

The general case has been made that it might be an “either/or” project for Tasmania – either develop an important economic resource or build on Tasmania’s “clean and green” image. There is no economic or social basis for the “either/or” contention. Tasmania can do both. That is the second significance of this project.

The failure to proceed with the Project would generate a greater loss to Tasmania than the economic benefits that have been estimated. It would reinforce perceptions outside Tasmania that the State cannot catch up with the rest of Australia and leave many Tasmanians to think, unjustifiably, that Tasmania cannot develop a broadly based economy.

3. Operational Phase Assessments

- 3.1.1 Economic Impacts - State**
- 3.1.2 Economic Impacts - Regional**
- 3.2.1 Transport - State**
- 3.2.2 Transport - Regional and Local**
- 3.3 Housing Rentals and Land Prices - Regional and Local**
- 3.4 Impact on Services - Regional and Local**
- 3.5 Tourism and Recreation - State, Regional and Local**
- 3.6 Population and Social Structure - Regional and Local**

3.1.1

Phase: Operation

Issue: Economic impacts

Impact level: State

Overview

The operation of the Project will have a moderate to high positive impact on the Tasmanian economy that is of moderate to high significance. Over the long term, the lump sum (or net present value) of the annual impacts the Project is expected to generate, compared to the no-Project base case, are equivalent to:

- **an increase in Gross State Product (GSP) of \$6.7 billion;**
- **an increase in business investment of \$3.1 billion;**
- **an increase in household consumption of \$3.3 billion; and**
- **an increase in State tax revenue of \$440 million.**

The Project will also create approximately 1600 additional jobs.

Overall the estimated welfare gains for Tasmanian households from the Project are equivalent to a lump sum (net present value) in excess of \$3.3 billion. All the estimates above are expressed in 2005 prices.

These estimates are based on credible and sound economic modeling and are relatively conservative; other modeling scenarios can and most likely would project benefits of a greater magnitude.

Economic impacts

The economic assessments undertaken by Allen Consulting in 2006 and the Department of Treasury and Finance in 2004 both used the Multi-Regional Forecasting Model (MMRF-Green) developed by the Centre of Policy Studies (CoPS) at Monash University.

Although the two assessments used somewhat different assumptions - mostly concerning the timing and the length of the assessment period and the construction and operating costs of the pulp mill - their results were broadly similar. Between them these modeling analyses paint a broadly consistent picture of the economic impacts of the project, even though one of the analyses was undertaken on behalf of the Tasmanian Treasury (CoPS 2004) and the other on behalf of Gunns Ltd (Allen Consulting 2006). The figures used in this report have been taken from the more up-to-date assessment by Allen Consulting.

Allen Consulting (2006) assessed the economic impacts of the project over the period from 2007 to 2030, at both the national and State level, against a Base Case in which there is no new pulp mill at Bell Bay. The key results of the assessment of the impacts on Tasmania are presented in Table 3.1. They consist of the following macroeconomic measures: Gross State Product (GSP)⁶, business investment, household consumption, tax revenue and employment.

Each impact is estimated as the change in value from the Base Case. Two perspectives are presented on most of the macroeconomic measures. The first is the net present value (NPV) of the annual value of the changes from the Base Case over the assessment period, discounted to 2005 at a real discount rate of 5 percent.⁷ The second perspective is the percentage change from the Base Case in 2030, the last year of the assessment period. This year should be representative of the long run changes generated by the operational phase of the project.

⁶ GSP is the State equivalent of Gross Domestic Product (GDP) at the national level. Both are measured by the amount of value-added produced in the jurisdiction in question. Value-added is the sum of the gross returns to the labour and capital employed in productive activity.

⁷ All the NPV results necessarily include the impacts of both the operational and construction phases of the project.

All monetary evaluations are expressed in constant 2005 prices.

Table 3.1 Economic impact of Project on Tasmania over Base Case, 2007 to 2030, in 2005 prices

Measure of Impact	NPV	Increase over 2030 Base Case (%)
Gross State Product (GSP)	\$6.7 billion	2.5%
Investment	\$3.1 billion	2.2%
Consumption	\$3.3 billion	2.6%
State tax revenue	\$440 million	\$48 million (increase in annual revenue)
Employment	Average increase in number of employed over operating phase: approx. 1600 persons	Increase in hours worked over base case in 2030: 2.0%

The employment results reflect the widely accepted view that the growth in the labour force over the long run is determined by demographic factors. Although there is some scope in MMRF-Green for labour to move between and within States and Territories over the short run in response to *differentials* in wage and unemployment rates, it assumes that the rate of unemployment cannot be reduced below a level that is consistent with stable inflation — also known as the non-accelerating inflation rate of unemployment or NAIRU. To the extent the project helps to lower the relatively high level of structural unemployment in Tasmania compared to the mainland, MMRF-Green will tend to understate the net economic benefit of the project to the State.

Over the long run, the national economy can only expand by employed persons becoming more productive. This underlines the importance of the economic assessment addressing all the factors that are important to productivity growth over the long run. In this regard ITS Global notes that, due to the inherent technical difficulties in doing so, the following potential impacts were unable to be included within the MMRF-Green assessments of the project carried out to date:

- the up-skilling of the workforce and the introduction of state-of-the-art technology, which are key elements in the project;
- the effects on investor and business confidence as a consequence of the State electing not to proceed with the project, particularly with respect to large-scale investments in high value activities by non-Tasmanians; and
- any externalities (also called external costs and benefits) that are expected to be associated with the project.⁸

Evidence

MMRF-Green is a computable general equilibrium (CGE) model. This means that it includes a comprehensive mathematical representation of the economic links between each economic sector and the rest of the economy. Uniquely MMRF does so at both the national and the State levels. MMRF-Green is therefore the most comprehensive CGE model of the Australian economy and is highly regarded in terms of the robustness of its assumptions (see Pizzey and Lambie 2001 for a survey of the publicly available CGE models of the Australian economy).

ITS Global concludes that both the MMRF-Green model and the specific data and assumptions that were used with MMRF-Green to assess the economic impacts of the project were sound and credible. This has been confirmed by the peer review of the assessment by Allen Consulting that was conducted for the RPDC (Beca AMEC 2006). Moreover, neither

⁸ Externalities are those economic costs and benefits that are not expected to be fully taken into account by either the owners of such a mill, its workers, its suppliers or its customers — environmental pollution being the most commonly cited text book example.

the use of MMRF-Green nor the way it has been used in the economic assessment was seriously challenged in the RPDC public inquiry process.

Full descriptions of MMRF-Green are set out in the two reports on the economic assessments of the project. Its key features are reasonably well known, and need not be replicated here in full. However, a number of characteristics of the model will require consideration in the following discussion of the results.

Overall the results of the assessment appear to be very consistent with the Government's long run framework to facilitate strong economic growth (Tasmania Together 2020). This is particularly so for Goal 19 which (inter alia) calls for an enhanced rate of economic growth, and improved business confidence supporting internationally competitive investment and value-adding activities.

Impact on household welfare

The best measure of the project's impact on the welfare of Tasmanians is the sum of the changes in household consumption and State tax revenues. The former reflects the increase in household income and is conventionally taken as a good proxy of the net welfare gains involved. In the case of the latter, the economic assessment by Allen Consulting had assumed that additional tax revenue simply improved the fiscal balance and did not increase public spending. The fiscal balances in question are by definition available for redistribution to taxpayers by lowering tax rates or for expenditure on additional and/or expanded public services. Either would benefit households by at least the amounts that would be spent in doing so.

At the end of the assessment period, Tasmanian households would be consuming about 2.6 per cent more goods and services than they would have had without the pulp mill. For its part, the State Government would be collecting an additional \$48 million a year in tax revenue. This means that the annual welfare gains by all Tasmanian households would be equivalent to a lump sum (NPV) in excess of \$3.3 billion in today's dollars.

Allen Consulting did not estimate the welfare impact of the project on a per capita basis. If the increase in population were to match the increase in the workforce estimated over the assessment period – 0.7 per cent over the Base Case – ITS Global would still expect to see a substantial increase – 1.3% over the Base Case – in consumption per capita for the residents of the State.

All the lump sums in the economic assessment were calculated with a real discount rate of 5 per cent. The choice of this discount rate is justified in terms of the *social rate of time preference (STP)*. STP is the trade-off facing the community between present and future consumption and is approximated by the real yield on long term government bonds. Although it would have been useful to test the sensitivity of the results to a higher discount rate, say 7 per cent, the net benefits of the project would still remain very substantially positive.⁹ In our estimation the use of a 7 per cent discount rate would reduce each of the NPV results by about 20 per cent.

Impact on Gross State Product

It is estimated that the level of GSP each year will be up to 2.5 per cent higher for the assessment period, compared to the Base Case. These increases are a consequence of:

- increased investment by Gunns and its suppliers;
- higher net exports for Tasmania from replacing lower value woodchips with higher value pulp; and
- more jobs and higher wage rates for the Tasmanian workforce.

⁹ Some propose that the discount rate should reflect the *social opportunity cost of capital (SOC)*. SOC is the trade-off between investment and consumption and equates to the marginal rate of return on investment. In an ideal world, the market interest rate optimizes both the STP and the SOC. In the real world, capital market imperfections and taxation drive a wedge between them. Therefore the choice of discount rate necessarily involves optimizing either the allocation of investment or consumption over time but not both. While preferring a discount rate of 7 per cent ACIL Tasman concluded the absence of sensitivity testing did not constitute a case for rejecting the modeling results (Beca AMEC).

In lump sum (or NPV) terms, these annual increases are expected to amount to \$6.7 billion. The commercial assumptions for the economic assessment were taken from confidential financial modeling of the project undertaken on behalf of Gunns by Jaakko Poyry. Jaakko Poyry provided the annual revenues and costs for the pulp mill over the assessment period.

A number of submissions to the RPDC inquiry expressed concern about failure of the economic assessment to address the risks to the project and that the project might eventually require a government subsidy should it prove to be unprofitable. Gunns is in the best position to assess the project's risks and future profitability and is required to do so by the Corporations Act for the benefit of all its shareholders.

The role of government is not to assume effective responsibility for making decisions about private investment projects, even particularly large ones. Rather it is to ensure that public policy provides the right environment in which such decisions are made by private individuals. This includes ensuring that any government intervention — including the payment of any subsidy, whether explicit or implicit, or the imposition of any regulation or tax — is justified by the net benefit that the intervention is expected to provide for the community as a whole. There is no legal obligation for the State Government to pay any subsidy to Gunns, contingent on Gunns proceeding with the pulp mill.

Impact on investment

The operating phase of the project is characterized by additional on-going business investment in Tasmania. By 2030 this is estimated to reach around \$150 million a year.

Traditionally business investment in Tasmania, as a proportion of GSP, has been significantly less than the equivalent measure for Australia as a whole. Partly as a consequence of this, the growth in output per hour worked in Tasmania and therefore living standards has tended to consistently lag that for the rest of the country. The project would go a long way to closing the State's investment gap, which, in turn, would help to narrow the others.

Impact on business confidence

By its nature business confidence is ephemeral, forward-looking and inherently subjective. For this reason its substance cannot be captured in a CGE model such as MMRF-Green. It is, nonetheless, a critical factor in Tasmania's attractiveness as a place in which to conduct business, to innovate or to invest, particularly for non-Tasmanian businesses.

Whatever the merits of the outcome, the failure of the proposal to build a pulp mill at Wesley Vale undoubtedly did not help in this respect. Negative perceptions about the State's attractiveness to business would have been further reinforced by persistent elements of 'irrational pessimism' in the public debate over economic development in Tasmania.

If the pulp mill cannot be shown to have external costs that are demonstrably greater than the welfare benefit calculated for the project, it should be approved by the State. Failure to do so, or to do so subject to clearly uneconomic restrictions on the project, would entrench adverse business sentiment about doing business in Tasmania. This would tend to drive mobile capital away from the State; capital which it sorely needs to expand employment, accelerate productivity growth and close the gap in living standards with the rest of the country.

The consequences of such a failure will not be immediate and dramatic. It will, nevertheless be clearly evident in accelerating migration by young Tasmanians to the rest of Australia (and the rest of the world for that matter). Despite making good progress in closing the gaps in economic performance with the rest of the country over recent years, Tasmania continues to face a serious demographic challenge. Its demographic profile increasingly looks like an 'apple core' due to the migration of young adults (Jackson & Kippen 2001).

Impact on employment

Nearly two-thirds of the increase in hours worked due to the project is accounted for by increased hours per worker with the balance met by job creation. Some 1,600 additional jobs are expected to be created in Tasmania over the operating phase of the project compared to the Base Case. In addition there is potential for the project to reduce structural

unemployment in the State but this has probably not been fully captured in the economic assessment by Allen Consulting.

The rate of unemployment has traditionally been consistently higher in Tasmania compared to the rest of Australia and its participation rate consistently lower. However, these gaps are narrowing – so much so that, by May 2007, the difference in the unemployment rate had narrowed to approximately 0.5 per cent.

Gunns intends to concentrate on recruiting semi-skilled workers and training them up to the levels it requires through the TAFE system (Gunns 2006). To the extent that Gunns' recruitment and training strategy reduces the rate of unemployment in Tasmania, the above results will underestimate the net economic benefits to Tasmania. This possibility is underlined by the fact that the vast bulk of the estimated employment gains were in the form of increased hours per employee.

Traditionally productivity in Tasmania, measured in terms of output per hour worked, has been significantly lower than that for Australia as a whole. Up to 2001, the gap had continued to widen as the rate of growth of productivity on the mainland consistently outstripped that in Tasmania. As a consequence Tasmanian GSP per capita was only just over 70 per cent of Australian GDP per capita in 2001, although the gap has closed slightly since then.

The Project will accelerate the closing of this productivity gap over the assessment period. In 2030 Tasmanian GSP would be 2.3 per cent more than it would have been under the Base Case, which would significantly outstrip the 1.69 per cent increase in hours worked. These results imply that the Project would increase the output per hour worked in Tasmania, over the Base Case, by 0.5 per cent in 2030.

Impact on State tax revenue

About 60 per cent of the increased tax revenue to Tasmania was estimated to accrue from higher GST collections in Tasmania. The actual GST revenues that are received by the State Government will, however, depend on the Commonwealth Grants Commission distribution formulae. Despite the apparent uncertainty over future revenue distributions, any concern that there will be a substantial leakage of Tasmanian collections to the mainland States and Territories is unfounded.

Tasmania also stands to benefit, in some degree, from the expected increase in Commonwealth Government revenue, which was estimated to be \$26 million more than the Base Case in 2030.

Impact on State expenditure

The economic assessment conducted by Allen Consulting assumed that this additional tax revenue simply improved the fiscal balance and did not increase public spending. It did not, however, conduct a detailed analysis of the potential demands for increased spending by any level of government. It is reasonable to ask, therefore, whether and under what circumstances the Tasmanian Government would need to increase its expenditure as a consequence of the project.

As far as incentives for the project are concerned, ITS Global understands that no expenditure has been agreed by the Government so it is neither possible nor appropriate to comment on their potential impact.

The possibility of additional expenditure on public services or infrastructure is canvassed in the various sections of this report dealing with specific impacts. As Allen Consulting (2006) has noted, Gunns and the State Government are discussing the provision of common user infrastructure for the project, such as public roads and water supply.

ITS Global observes that any growing economy is likely to require some growth in government capital expenditure on basic infrastructure and other public services, which may, to some degree, offset the estimated increase in welfare discussed above.

Significance of impact

In terms of the Tasmanian Government's economic strategy *Tasmania Together 2020*, each of the economic impacts on Tasmania is positive and high. These results would not be substantively altered by a more refined analysis.

Each of the impacts from this one, albeit large-scale, project could be assessed on the numbers as positive and moderate to high for the State as a whole.

Opting to ignore Tasmania's comparative advantage in the harvesting and exploitation of natural resources could be taken as confirming that the State will depend increasingly on its traditional rural, mining and industrial sectors, supplemented by emerging service industries, to provide the productivity growth needed to underpin rising living standards for the community as a whole and to encourage young Tasmanians to stay and work in the State. While attractive and valuable in themselves, the emerging service industries are unlikely to enable Tasmania to keep pace with, let alone narrow the gaps in, economic and employment performance on the mainland over the medium to longer term.

A failure to approve the project or to subject its approval to uneconomic restrictions would affect perceptions about the risks of investing in Tasmania. These perceptions have undoubtedly been heightened by the persistence of 'irrational pessimism' in the public debate over economic development in Tasmania, including the failed attempt to construct a pulp mill at Wesley Vale. Any perception that these risks have increased would drive mobile capital away from Tasmania. This would, in turn, be likely to accelerate migration of young Tasmanians to the rest of Australia.

Given such an outcome, the 'no mill' base case that was assumed in the economic assessment would be shown to be unduly sanguine, and the significance of the mill compared with a true base case would be that much greater.

Issue	Distribution	Phase	Significance
Economic impacts	State	Operation	++/+++

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3.1.2**Phase: Operation****Issue: Economic impacts****Impact level: Regional****Overview**

The operational phase of the Project will have a high positive economic impact on the Bell Bay region. It will deliver an increase in Gross Regional Product totaling \$4.9 billion compared to the no-Project scenario. In addition it will deliver a substantial increase in hours worked in the region. Some of this will be realised as an increase in the hours worked by each employee but the rest will be from those in newly created jobs. By 2030, the region is expected to have 1600 more jobs than it would have had without the pulp mill.

Economic impacts

Allen Consulting (2006) assessed the economic impacts on Tasmania against a Base Case with no new pulp mill at Bell Bay. Their assessment covered the period from 2007 to 2030, with the operational phase of the project commencing in 2009. The impacts were measured in terms of the absolute and relative changes in value-added (or GSP), business investment, household consumption, State tax revenue and employment.

To provide a regional perspective on the economic impacts, Allen Consulting broke down a sub-set of their Tasmanian results — specifically those for Gross Regional Product (GRP)¹⁰ and employment — among the four ABS Statistical Divisions (SD) that make-up the State. They are the Greater Hobart, Southern, Northern and Mersey-Lyell SDs. The Northern SD includes the Local Government Areas (LGAs) of George Town, West Tamar and Launceston, which constitute most of the region around Bell Bay that has been used for this assessment. The balance of the Bell Bay region consists of the most northeasterly portion of the Mersey-Lyell SD — namely the La Trobe LGA and the eastern parts of the Devonport and Kentish LGAs.

The changes in GRP and employment by SD are summarized in the Table 3.2. They are presented as percentage increases over the Base Case in 2030. This year should be representative of the long run changes generated by the operational phase of the project.

Table 3.2 Economic impact of Project over Base Case in 2030, by Tasmanian Statistical Division, in 2005 prices

Statistical Division	Increase in GRP	Increase in hours worked
Greater Hobart	1.1%	0.7%
Southern	1.3%	1.2%
Northern	4.4%	4.2%
Mersey-Lyell	1.1%	0.8%

Evidence*Impact on Gross Regional Product*

The strongest gains in GRP due to the operational phase are expected to occur in the Northern SD. In 2009 its GRP increase was expected to be 3.7 per cent more than under the

¹⁰ GRP is the regional equivalent of GSP (at the State level) and GDP (at the national level). They are all measured by the amount of value-added that is produced in the jurisdiction in question.

Base Case. By 2030 the gain would be even greater, at 4.6 per cent over the Base Case. In the case of the Mersey-Lyell SD, the increases in GRP were much lower and more in line with the rest of Tasmania. They were estimated at 0.5 per cent in 2009 and 1.1 per cent in 2030.

As noted previously, Gunns intends to recruit semi-skilled workers and train them up to the levels it requires (Gunns 2006). To the extent that this strategy reduces the rate of structural unemployment in the relevant SDs, these results would underestimate the regional gains in value-added, as well as in employment.

In absolute terms, the estimated increase in GRP in the Northern SD amounts to \$230 million at the start of the operational phase and more than \$440 million by the year 2030. In the case of the Mersey-Lyell SD, the absolute gain in GRP was estimated at \$26 million at the beginning of the phase, subsequently increasing to \$88 million by its end. All these dollar amounts are, of course, expressed in real terms (specifically in 2005 prices).

Expressed as lump sums — that is, discounted to their NPVs at a rate of 5 per cent — ITS Global estimates that the annual gains in GRP from both phases of the project would total around \$4.2 billion for the Northern SD and about \$0.7 billion in the case of Mersey-Lyell. On this basis, the pulp mill can be expected to generate gains in the value-added product in the Bell Bay region, equivalent to a lump sum of \$4.9 billion. This represents a very substantial increase in gross incomes for the labour and capital employed across the Bell Bay region.

Impact on employment

As would be expected with a project of this size in this location, the operational phase is expected to generate strong employment gains in the Northern SD, with hours worked there increasing by 3.1 per cent in 2009 against the Base Case, and by 4.4 per cent in 2030. The equivalent figures for the Mersey-Lyell SD were much more modest at 0.4 per cent and 0.8 per cent respectively. On average, around two-thirds of these gains are accounted for by an increase in the hours worked per employee.

The absolute increase in employment in the Northern SD over and above the Base Case was estimated at 800 persons in the beginning of the operational phase. The employment gain was estimated to grow over the operational phase to the point where it was 1,300 by the year 2030. In the case of the Mersey-Lyell SD the increase in employment was estimated at 100 persons at the beginning of the operational phase, and to grow to 300 by the year 2030.

Given the potential of the project to reduce structural unemployment in the Bell Bay region, the above estimates are likely to understate the gains in job creation and are therefore somewhat conservative. On this basis, ITS Global expects that the pulp mill would generate at least 900 extra jobs in the Bell Bay region once it is fully operational and that this figure should nearly double by the end of the operational phase in 2030.

Significance of impact

For the Bell Bay region the net economic impact of the operational phase of the project is both positive and high.

Issue	Distribution	Phase	Significance
Economic impacts	Regional	Operation	+++

References

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Draft Integrated Impact Statement, Report prepared for the Resource Planning and
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Jonathan Geoffrey Stanford, Expert Witness Statement, November

3.2.1

Phase: Operation

Issue: Transport

Impact level: State

Overview

Overall the transport impacts from the operation of the pulp mill at the State level are expected to be low and negative. This is largely due to the increase in share of log volumes that are expected to travel to Bell Bay for processing, if the mill proceeds. In the absence of a switch to rail transport, this will mean a small increase in total traffic on the State's road system. If a switch to rail transport is made, impact will be positive and low.

The impacts of the increased log traffic on overall volumes and congestion are such that they will not substantially affect existing levels of service on the State's road system. These impacts will be minor and negative, at worst. Road fatalities, road trauma and noise impacts may rise.

These results are highly sensitive to the share of log traffic that will be carried to Bell Bay on the State's rail system in future. Committed and proposed investments in both the State's rail and road infrastructure will significantly reduce the impacts outlined here and increase the net economic benefits of the Project to the State, as will the implementation of traffic management plans and improvements to the design of the mill's access points to the road system.

Economic and Social Impacts

Operation of the Project will involve an additional transport task for the movement of logs from forest harvesting areas across the State to Bell Bay. Although the operation of the pulp mill is not expected to change the volume of logs that would be harvested over the assessment period, it is expected to mean that a greater share of the harvest is transported to Bell Bay for processing – into both pulp and wood chips.

The impacts on the State from the increased transport task will hinge critically on the share of the task carried by road compared to rail and the share of the logs harvested from plantations as opposed to native forests. What these shares might be in practice are far from clear.

At present the log traffic is handled exclusively by road. Other things being equal, the higher the share carried by rail to the pulp mill during operation, the lower will be the economic and social costs for the State. If sufficient logs were to move onto rail, these costs could fall in absolute terms, notwithstanding the increase in the volume of logs transported to Bell Bay over the assessment period. The available evidence suggests that these negative impacts will be relatively minor. It also suggests that the existing infrastructure can handle the projected transport task – even if most or all of it is undertaken by road.

The key background document is a report prepared by GHD as part of the Gunns' integrated impact statement (GHD 2006). It provides an engineering, rather than an economic, analysis of the transport impacts. Nevertheless it provides a sufficient basis on which to reach conclusions about most of the key impacts. That said, distinguishing between these impacts at the State, regional and local level is particularly difficult, as the report does not provide separate analyses from each of these perspectives.

The most significant gap in understanding concerns the implications of the choice of transport mode: road or rail and their respective shares of the future transport task.

Switching logs onto rail would reduce the extent of the external costs of the freight task and, prima facie, increase the net economic benefit of the project for the State. If rail is used rather than road, there will be significantly less trucks on major State highways and less net tonne kilometers on public roads generally at a State level.

Evidence

Traffic volumes

From the State perspective, the road transport impacts are likely to be most visible with the aggregation of log truck traffic onto the East Tamar Highway. The section of the East Tamar Highway near the junction with the proposed access point to the Project is a suitable proxy measure of the maximum severity of these road transport impacts at the State level.

Transport impacts can be defined in terms of a Level of Service (LOS). LOS is a qualitative measure that describes operational conditions within a traffic stream, and their perception by motorists and/or other passengers. In Australia LOS ratings are generally based on published AusRoads guidelines and range from LOS A (representing the best operating conditions) to LOS F (a breakdown of traffic flow).

Currently sections of the East Tamar Highway north and south of its junction with the Batman Highway both have a current LOS grading of B, which implies a lack of any significant congestion. In 2003, the East Tamar Highway south of the Batman Highway carried 248 trucks per day, of which only 5.5 per cent were heavy vehicles (GHD 2006). In the same year the section north of the Batman Highway had 460 trucks per day, of which 12.2 per cent were heavy vehicles.

GHD (2006) has forecast the increase in road traffic over the operational phase of the pulp mill. It has done so by taking the historical traffic volumes on the East Tamar Highway and applying a 1.9 per cent compound growth rate to them over the period to 2021. This growth rate was provided to GHD by the Department of Infrastructure, Energy and Resources (DIER). Other things being equal, the resultant forecast is expected to be a worst-case scenario for road traffic over the operational phase of the Project.

The overall traffic forecasts were prepared on the basis of various combinations of harvesting and transport options. The harvesting options were:

- An Anticipated option in which the Project continues to use a combination of native and plantation wood; and
- A Plantation option in which the Project progressively moves towards using predominantly plantation timber by the end of the assessment period.

The transport options were road with rail (With Rail) and road only (No Rail). The Anticipated No Rail scenario was the baseline for the GHD analysis and represents continuation of the *status quo*.

Under the No Rail option all additional log traffic goes by road, as does the transport of all other inputs to the mill as well as the solid and liquid by-products of the pulp production process from the mill. The transport of chemicals and boiler residue via trucks is more significant on the East Tamar Highway south of the proposed access point compared to any other road in the system. This assessment also holds for the With Rail option.

For the Anticipated No Rail scenario, there is an increase of 4 per cent in the volume of all road traffic on the East Tamar Highway south of the proposed access point for the Project but a 36 per cent increase in the volume of heavy vehicles. The comparable figures for the East Tamar Highway north of the Gunns access point are 1 per cent and 7 per cent, respectively. The LOS rating is not expected to change for either section of the Highway.

The Plantation No Rail scenario generated the greatest increase in traffic volumes. It forecast an additional 223 log trucks per day on the East Tamar Highway sections north and south its junction with the Batman Highway. This represents an increase of only 6.2 per cent over the current level of truck traffic on this section of the Highway (which is 3,770 vehicles per day). As a consequence no change to the LOS grading is expected.

Traffic accidents

A number of submissions to the RPDC have raised the possibility of the Project leading to an increase in road accidents in the local area.

As far as road fatalities are concerned, GHD has reported that there is no clear correlation between fatalities on Tasmanian roads, on the one hand, and either the number of log trucks on the road or the distances they travel, on the other. Data have been collected on the fatalities associated with log trucks over a five-year period to 2004. Analysis of these data by GHD did not reveal any statistically significant specific trends over this timeframe — the sample was simply too small. Accordingly, it is not possible to draw any precise conclusions about the number of additional fatalities that are likely to be associated with increased log traffic on the State's road.

There is a relatively larger data set on log truck accidents in Tasmania over the five-year period to 2004.

- There were 51 accidents involving a log truck or high productivity vehicle (that is, a heavy truck). These incidents comprised a mere 0.12 per cent of all reported road crashes over the same period.
- Almost half of all log truck and high productivity vehicle accidents involved only the vehicle in question. No other vehicle(s) was/were involved.
- Only 11.5 per cent of all accidents involving a log truck or a high productivity vehicle resulted in a fatality. (28)

Of the 51 accidents that involved a log truck or high productivity vehicle in this period, nearly 30 per cent occurred in an urban area of the State. That said, the data do not indicate how many of these urban accidents involved a log truck, how many of them involved a fatality or a serious injury, or what factors contributed to them in the first place.

A report by TERNZ on heavy truck safety in Tasmania provides some additional information on this issue. TERNZ found that log trucks, wood chip trucks and stock units have a significantly higher crash rate (2.5 times) than other heavy vehicles and that log trucks have significantly more crashes proportionate to their traffic volume, but this result was not statistically significant.

Any increase in log traffic on the State's road system is likely to be associated with a corresponding increase in the number of accidents involving log trucks and the number of associated fatalities. It is not, however, clear how many more accidents and fatalities would occur each year. The conclusion on each of these impacts depends critically on the share of the log freight task that is carried by rail. In this regard it is clear that any shift of the log traffic from road to rail is likely to ameliorate significantly the expected impacts from these two sources (BTE 1999).

Road maintenance

Additional log truck traffic during the operational phase of the Project is likely to have implications for the upkeep of road pavements across the State road system.

The State's forestry transport task is geographically dispersed, but constitutes a relatively high proportion of the State's freight task (35 per cent). The forestry freight task will therefore increase during the operation of the Project.

Maunsell Australia has provided estimates of the road maintenance costs due to the transfer of rail traffic to road. (Maunsell 2007:7) These estimates are specific to particular roads and highways, so they cannot readily be extrapolated to estimate the increase in regional road maintenance that may be expected from log traffic during the operational phase of the Project more generally. For example, the tonnage originating from Circular Head is likely to double between 2015 and 2030.

However, the impacts were inherently difficult to predict given the paucity of relevant information that was available to ITS Global. Detailed asset management data and certainty regarding the road-rail scenarios would be required to make any assessment. Nonetheless, assuming either or both appropriate mitigation strategies for road maintenance and a shifting of the task to rail, these impacts are assessed as minor.

Noise

In terms of additional traffic noise that would be likely to be generated by the additional log traffic, a meaningful assessment is unable to be made until a decision is reached on the transport options for the Project. Nevertheless, the geographically dispersed nature of the log transport task means that most of the additional traffic noise would be generated in rural areas of the State, or at the Project site itself where its impact would be low.

Management response

It will be necessary to manage the transport impacts at the State level that are expected to be associated with an increase in the volume of logs transported to Bell Bay for processing into wood chips or pulp over the assessment period.

The most critical need is to ensure that the provision and operation of the State's transport infrastructure optimizes the net benefits to the State from the performance of this transport task. This will mean minimizing the costs to transport users as well as the external costs to third parties in the form of accidents and pollution. Among other things, it will require investment in the State's road and rail infrastructure by State and Federal Governments. It will also involve the preparation and implementation of traffic management plans by DIER, in accordance with normal practice, and the acceptance of proposals to improve design of the road access points for the pulp mill.

The Tasmanian Government and Federal Government have already allocated \$72.7 million for the upgrading of the East Tamar Highway until 2009-2010. It has also proposed an investment program for the Tasmanian rail system to the Commonwealth Government. The latter program is to facilitate the transport of logs from southern Tasmania for processing in northern Tasmania as well as upgrade the rail line north of Brighton.

ITS Global expects that the rate of deterioration in road pavements will accelerate if the log traffic on the State's road system were to increase. This, in turn, will require the Tasmanian Government to spend more than it otherwise would have on road repairs and maintenance. The extent of such additional expenditure is not clear, in large part because the scope for shifting log traffic onto the rail network is also unclear.

From the community perspective the most sensitive issue is likely to be the increase in road accidents involving log trucks that is expected to occur were this freight task to remain on the road system. The Heavy Truck Safety Advisory Council on freight vehicle stability has found that the forestry sector in Tasmania supports a code of practice to address the stability problems that are associated with log trucks. The Council has recommended that such a code should be developed (HTSAC 11). ITS Global concludes that this recommendation is the most sensible way to proceed.

Given the substantial economic benefit for the State from having the mill proceed, there is a strong *prima facie* case for improvements to the State's road and rail transport infrastructure to accommodate prospective log traffic demand on a more economic basis. Among other things, such improvements are likely to lower the costs to all transport users, not just those involved in transporting logs for processing, and to reduce the costs imposed on third parties.

Significance of Impact

Unless and until management decisions and investments to deliver them are put in place, it is difficult to make definitive assessments of the transport impacts on the State from the operation of the Project. Based on the available evidence, however, these impacts are neutral or negative and low, but unlikely to undermine in any significant way the overall net

economic and social benefits of the project. On the other hand appropriate investments to upgrade the State's transport infrastructure are likely to change the direction of any negative impacts to a net benefit.

Issue	Distribution	Phase	Significance
Transport	State	Operation	+/-

References

- BTE [Bureau of Transport Economics], Competitive Neutrality between Road and Rail, Working Paper No. 40, September 1999
- GHD, *Northern Tasmania Pulp Mill: Transport and Traffic Impact Assessment*.
- Heavy Truck Safety Advisory Council, *Heavy Vehicle Stability – Tasmania*, Report to the Tasmanian Minister for Infrastructure, 2007.
- Midson, Keith, *Bell Bay Pulp Mill: Expert Witness Statement*.
- Maunsell Australia, Assessment of Financial and Economic Impacts from the Transfer of Freight from Rail to Road, *Draft Final Report*, 2005.

3.2.2

Phase: Operation

Issue: Transport

Impact level: Regional and Local

Overview

During the operation of the Project the transport impacts at the local and regional levels are expected to be negative but minor. The impacts will not substantially change the existing levels of service on either regional or local roads. Road fatalities, road trauma and noise impacts may rise but, in each case, the changes will be minor.

These results are highly sensitive to the share of log traffic that will be carried to Bell Bay on the State's rail system in future. Committed and proposed investments in rail and road infrastructure will significantly reduce the impacts outlined here and increase the net economic benefits of the Project to the region and the local area. The same is true for the implementation of appropriate traffic management plans and improvements to the design of the mill's access points to the road system.

Economic and Social Impacts

As we have seen already, the operation of the Project will involve an increase in log traffic to Bell Bay, which will have impacts at both the regional and local levels. These impacts will critically depend on the share of the transport task that shifts from road to rail and the share of logs that are harvested from plantations as opposed to native forests.

The higher the proportion of the freight task that is carried by rail to Bell Bay during the operational phase, the lower will be the economic and social costs associated with the transport task for both the region and the local area. If sufficient logs were to move onto rail, these costs could fall in absolute terms, notwithstanding the increase in the volume of logs transported to Bell Bay over the assessment period. For most of the key transport issues, however, the distinction between their regional and local impacts is not clear cut.

Evidence

Most of the evidence that has been used to undertake these two assessments has been outlined in the section of this report that deals with the impacts at the State level. For that reason it is only briefly summarized here.

Regional Impacts

At present the log traffic is handled exclusively by road. To the extent that some of the transport task was to be carried on rail, the transport impacts on the region would generally be lower than they would otherwise have been.

The available evidence suggests that the negative impacts on the region from increased log traffic will be low to moderate. It also suggests that the existing infrastructure can handle the projected transport task – even if most or all of it is undertaken by road.

Traffic volumes

Most of the transport impacts at the regional level are associated with the East Tamar Highway. At present the section of the East Tamar Highway with the proposed access point to the Project has the second best rating on AusRoads Level of Service (LOS) scale. In 2003 the section south of the junction with the Batman Highway carried 248 trucks per day, of which 5.5 per cent were heavy vehicles, while the section north of the junction carried 460 trucks per day, of which 12.2 per cent were heavy vehicles.

As reported previously GHD (2006) prepared traffic forecasts for the operation of the mill based on combinations of log harvesting and transport options over the period to 2021. If all logs, pulp production inputs, and pulp by-products go by road, there is an increase of 4 per cent in all traffic over the period to 2021 on the section of the East Tamar Highway south of the proposed mill access point. The increase in the volume of heavy vehicles is 36 per cent. The comparable figures for the section north of the access point are 1 per cent and 7 per cent, respectively. For both outcomes the AusRoads LOS measure would be unaffected.

Traffic accidents

As previously discussed, any increase in log traffic is likely to be associated with a corresponding increase in the number of accidents involving log trucks in the region, as well as the number of associated fatalities. It is not, however, clear how many more accidents and fatalities would occur in the region each year. The outcome depends critically on the share of the log freight task that is carried by rail and any shift of traffic to rail is likely to ameliorate significantly these impacts on the region (BTE 1999).

Road maintenance

Additional log truck traffic during the operational phase of the Project is likely to have implications for the upkeep of regional roads but they are difficult to predict given the paucity of information available to ITS Global. Maunsell Australia has provided estimates of the road maintenance costs due to the transfer of rail traffic to road. (Maunsell 2007:7) They are specific to particular roads and cannot readily be extrapolated to others in the region. Given the geographically dispersed nature of the log transport task and its relatively small share of the State's total freight task, these impacts are likely to be moderate.

Noise

In terms of the traffic noise from the additional log traffic, a meaningful assessment cannot be made ahead of a decision on the transport options for the Project. Nevertheless, as most of the additional traffic noise would occur in rural areas, the impact on the region would be minor.

Local Impacts

Traffic volumes

ITS Global expects that the GHD traffic forecasts would closely mirror the outcomes for the local area. On this basis the local impacts of the expected increase in log traffic over the operational phase of the project would be negative but negligible, given that the LOS on the key approaches to the mill is not expected to be changed. If part of the log traffic moves onto the rail network, the results for the local area could be significantly positive.

Traffic accidents

A number of submissions to the RPDC inquiry have raised the possibility of the Project leading to an increase in road accidents in the local area. As previously discussed, the increased log traffic is likely to involve a corresponding increase in the number of accidents and fatalities in the local area but the precise extent of these impacts is unclear and depends on the share of log freight carried by rail.

Noise

There may be some additional noise at the local level during the operation of the Project, specifically at the Project site itself. But for the reasons given in the regional noise section above, there is no evidence to suggest that this impact will be significant.

Management response

The most critical need is for the State Government to ensure that the efficient and timely provision of transport infrastructure both at the region and local levels. It will also require the optimization of the existing infrastructure by way of the implementation of traffic management plans and road access points for the pulp mill.

At the regional and local levels the most sensitive issue is likely to be the increase in road accidents involving log trucks. The recent initiative for the forestry sector to develop a code of practice to address the stability problems associated with log trucks will help to ameliorate these impacts. They will also be reduced by a switch of log traffic from road and upgrades to the road system.

In this regard, the Tasmanian Government has already allocated \$65 million for the upgrading of the East Tamar Highway and has proposed an investment program for the Tasmanian rail system to the Commonwealth Government. Local councils have expressed concern that these commitments may not be sufficient. Effective communication with local government, local service providers, and affected community members, as proposed by Offor Sharp and Associates, is important for addressing community concerns about transport impacts of the operational phases.

Given the substantial economic benefit for the State from having the mill proceed, there is a strong *prima facie* case for improvements to the State's road and rail transport infrastructure to accommodate prospective log traffic demand on a more economic basis. Among other things, such improvements are likely to lower the costs to all transport users, not just those involved in transporting logs for processing, and to reduce the costs imposed on third parties.

Significance of Impact

Regional

Unless and until management decisions and investments to deliver them are put in place, it is difficult to make definitive assessments of the precise extent of the impacts on the region from the operation of the project. Based on the available evidence, however, the regional impacts are expected to be negative and low but are unlikely to undermine in any significant way the overall net economic and social benefits of the project.

Issue	Distribution	Phase	Significance
Transport	Regional	Operation	—

Local

The increase in the volume of logs that are expected to be transported to Bell Bay over the assessment period will have an impact on the local area, which will be negative but its significance will be low, provided infrastructure on local roads is improved to accommodate increased freight traffic. Again, these impacts are unlikely to undermine in any significant way the overall net economic and social benefits of the project

Issue	Distribution	Phase	Significance
Transport	Local	Operation	—

References

BTE [Bureau of Transport Economics], Competitive Neutrality between Road and Rail, Working Paper No. 40, September 1999
 GHD, *Northern Tasmania Pulp Mill: Transport and Traffic Impact Assessment*.

Government of Tasmania, Heavy Truck Safety Advisory Council, *Heavy Vehicle Stability – Tasmania*, Report to the Minister for Infrastructure, 2007.

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Maunsell Australia, Assessment of Financial and Economic Impacts from the Transfer of Freight from Rail to Road, Draft Final Report, 2005.

3.3

Phase: Operational

Issue: Housing rentals and land prices

Impact level: Regional and Local

Overview

The demand for labour for the operational phase is expected to encourage immigration into the region, which in turn is likely to affect the availability and prices of residential housing and land. There will be upward pressure on rental prices; this impact can be considered moderate and positive, generating greater construction activity. There will be some additional pressure on land supply, which will in turn generate greater wealth in the region. This can be considered moderate and positive.

However, these impacts will also generate some negative social impacts for some sectors of the community, such as a decrease in housing affordability. It will be possible to mitigate these social impacts through: the timely release of suitable land, both locally and regionally; relevant Tasmanian Government agencies, affected local government authorities and Gunns co-ordinating activities that are likely to affect the demand for residential accommodation in the region or its supply.

Economic and Social Impacts

Regional and Local

Once the Project is fully operational, Gunns expects to employ 292 full-time workers at the site (Gunns 2006). The employment indirectly generated, however, is expected to be substantially greater than this. The economic assessment undertaken for Gunns estimated that the operational phase would generate an average of 1,600 jobs in Tasmania, compared to what would happen without the Project (Allen Consulting 2006). Furthermore, by the end of the assessment period, approximately 1,044 of the additional jobs would be located in the Northern Statistical Division of the State, most of which would probably be in the region used for this assessment, but outside the local area of this assessment.

Gunns intends to concentrate on recruiting semi-skilled workers and training them up to the levels required through the TAFE system (Allen Consulting 2006). Given the skill shortages currently evident in the rest of Australia, a similar approach is likely to be used by other employers to fill the jobs indirectly created by the operational phase. Such an approach will help the employers in question to reduce unemployment and minimize their need to import workers from outside the region and local area.

The benefit from reducing the very high unemployment rate in the locality and region has not been captured in either of the economic assessments commissioned by the Treasury and Gunns (CoPS 2004 and Allen Consulting 2006). The same is true for the net population gain that the operational phase is expected to generate at the local level, although it is likely to be considerably less than that produced by the construction phase.

Any significant influx of workers from outside the region will put upward pressure on the regional and local housing markets, as well as on its tourist accommodation. This pressure will manifest itself initially in a reduction in vacancy rates followed by upward pressure on prices. The price pressure will peak with the peak in construction activity. After this, housing rentals will decline but, other things being equal, not to their pre-construction levels. The impacts on tourist accommodation, however, are likely to be confined to the construction phase of the project.

The long term rise in housing rents is likely to lead to some residents of the region and locality being priced out of the house rental market. Some of the people displaced by this process are likely to be on low incomes and would add to the demand for public housing assistance. Others are likely to relocate to other parts of the State where housing is cheaper. However, the increased employment prospects for those on low incomes may neutralise these impacts.

Over the longer term the higher rentals should stimulate additional investment in residential construction — in parallel, rising prices for tourist accommodation will bring forward the construction of additional capacity in that industry. This additional housing will tend to lessen the upward pressure on rentals, either directly or indirectly. The economic assessment undertaken for Gunns has estimated that the value added by the construction sector during the operational phase would be around \$49 million higher than would be the case without the Project (Allen Consulting 2006). This includes the higher value added from the sector's output of houses for rent and for owner-occupation, as well as the additional tourist accommodation capacity.

While the pressure on housing rentals is expected to be concentrated in the local area, it will tend to spread out to adjacent municipalities due to locational competition. This process will commence with West Tamar and Launceston and extend progressively further away from the local area. Such competition effectively prevents local rentals from increasing beyond a certain level. The limit will tend to reflect the additional commuting costs that would be involved in the affected workers having to live in places that are further away from their workplace in George Town.

To the extent that the supply of suitable land is restricted locally, either physically or by land-use regulation, the increase in residential construction could lead to upward pressure on land prices. The extent of any land price increase will be limited, however, by the extent of locational competition that is exercised by other parts of Tasmania, both inside and outside the study region. The extent of the competition will reflect the additional travel costs that would be involved in prospective site workers moving to these alternative locations in terms of commuting time and vehicle operating costs. These land price impacts have not been captured by either of the economic assessments that have been commissioned by the Treasury or Gunns.

Evidence

The MMRF model¹¹ includes a comprehensive representation of all the economic linkages between each economic sector and the rest of the economy, both at the national and the State levels. These linkages include the interstate movement of workers and, by implication, their dependents. In doing so MMRF separately identifies the construction sector as well as the services generated by housing ownership. The latter includes both the rental income that is received by housing investors as well as the implicit rental earned by owner-occupiers. We therefore conclude that the economic assessments fully reflect all the impacts of the operational phase on the construction sector, the stock of residential housing, and the stock of tourist accommodation in Tasmania.

Both sets of MMRF results fully reflect all the impacts of the operational phase of the project on the output of the construction sector, the stock of residential housing, and the stock of tourist accommodation in Tasmania. In the case of housing ownership, it is estimated that the total housing stock in the State at the end of the assessment period would be \$58.4 million higher than what would have been achieved without the Project. It has not been established what would happen to either housing rentals or land prices.¹²

It is estimated that the percentage change in employment in Tasmania over the operational phase compared to what would happen without the Project would outstrip the change to the housing stock. This implies upward pressure on housing prices, albeit only to a small degree when measured at the State level. As most of this upward pressure is concentrated in the Northern Statistical Division of the State, its impact would tend to be amplified at the local

¹¹ Both of the economic assessments undertaken for Gunns and the Treasury used the Monash Multi-Regional Forecasting Model (MMRF) developed by the Centre of Policy Studies (CoPS) at Monash University (Allen Consulting 2006 and CoPS 2004). Although these studies used somewhat different assumptions — notably for the timing and the length of the assessment period as well as the construction and operating costs of the pulp mill — they obtained broadly similar results.

¹² This reflects the fact that the MMRF Model cannot disaggregate State-wide impacts down to either the local or the regional level used in this assessment. Moreover it cannot disaggregate either the output of the construction sector into its residential and non-residential components or housing ownership services between their rental and owner-occupied components.

level. Other things being equal, this suggests that rentals could easily rise over the operational phase to a much greater extent locally than they would across the State.

Other things may not be equal but could act to mitigate the extent of any increase compared to the rest of the State. For example, the latest Census data has revealed that there is higher underutilization of the housing stock in the local area and region as well as a greater tendency for residents to work elsewhere (ABS 2002). Nearly 22 per cent of local dwellings were unoccupied on Census night and around 12 per cent of workers who live in George Town commute to work outside the region used for this assessment. Upward pressure on local rentals would therefore tend to both enhance the supply of and to ease the demand for rental housing thereby reducing the extent of any rental increase that would be realized over the longer term.

A separate analysis of the residential housing and land implications of the Project by a firm of property valuers and consultants (Brothers & Newton 2006) estimated that the median house rental in Launceston had risen by around 16 per cent since Gunns had publicly announced its intention to build the Project. This analysis covered the period from the December quarter of 2004 to the June quarter of 2006 and was conducted against a background of rising house prices and declining vacancy rates for rental properties across the State, both of which predated the Gunns announcement.

This analysis forecasts that housing rentals would rise by a further 10 to 15 per cent if the Project were to proceed¹³. Given the tightness of the rental market throughout the assessment region, future increases in rental levels were likely to be higher than they would otherwise be if the project were to proceed.

The 2001 Census revealed that parts of the region and the George Town municipality generally had lower median incomes, lower proportions of owner-occupied housing, higher rates of unemployment and lower rates of labour force participation compared to Tasmania as a whole or to Australia (ABS 2002). As a consequence, the region and the local area have a significant proportion of low income residents. Those outside the public housing system would be vulnerable to a further increase in rentals.

There may be a shortage of crisis accommodation emerging in parts of the region in the light of recent developments in the rental market (Offor Sharp & Associates 2006). This is consistent with recent State-wide trends in public housing demand and supply over the four years to 2004 (Auditor-General 2005). Waiting lists have generally increased, with the waiting time for those in highest category of need having increased by 115 per cent to more than 12 months. These increases were due to a decline in the number of people leaving public housing — due to the deferral effect of rising house prices — and a decline in the stock of public houses — due to change in State Government policy. Notwithstanding these State-wide developments the Auditor-General has found that the provision of public housing across the various regions of the State remained equitable.

It has been observed that the median house price in George Town had increased faster than that in Launceston from the December quarter of 2004 to the June quarter of 2006. It has also been forecast that house prices in George Town would rise by at least a further 10 per cent were the Project to proceed. This is generally a positive impact for the local community as it is simply one measure of their increased wealth. It will, however, tend to dampen the demand for owner-occupied housing, particularly by those on low incomes.

Management response

In its expert witness statement, Offor Sharp & Associates (2006) recommended that early action was the key to mitigating these social impacts, including those caused by any rental increases. The action recommended included the timely release of suitable land, both locally and elsewhere in the study region. This, in turn, implies that the removal of State and local government regulation that leads to sub-economic land use would mitigate any impacts.

¹³ This report, however, gave no details as to how they had estimated this rise and did not state over what period it was expected to take place.

Offor Sharp & Associates (2006) saw a need for the relevant Tasmanian Government agencies, the affected local government authorities and Gunns to co-ordinate those of their activities that are likely to affect the demand for residential accommodation in the region or its supply. In addition, they proposed that Housing Tasmania explore opportunities with prospective property developers — such as educational institutions — for the State Government to pay them to bring forward the construction of suitable accommodation that is being planned for the future.

While such initiatives would undoubtedly involve additional public expenditure, the project will also generate substantial additional revenue for Tasmania that it can use to fund them. For example once the Project is fully operational, the additional tax revenue that would be received by the Tasmanian Government has been estimated at least \$35 million a year (Allen Consulting 2006) and would continue to increase over time in real terms.

Significance of impact

Regional and local

On balance the impacts of the operational phase of the Project on residential housing and on land prices at the regional and local levels are expected to be positive and moderate. The forecast increases reflect the greater wealth that is expected to be generated by the Project.

To the extent that these developments will have negative impacts on those residents who are on low incomes and rely on the public housing system, the State's existing public housing programs should be capable of mitigating their worst aspects. Moreover, the Project should generate sufficient additional public revenue from which the State should be able to fund the additional expenditures involved.

The negative impacts are likely to be far more pronounced during the construction phase than for the operational phase and are likely to be more evident in particular parts of the region than across the region more generally. In any event, the decline in local employment after the construction peak has passed should see a reversal in most of the increase in local housing and land prices.

Issue	Distribution	Phase	Significance
Housing rentals and land prices	Regional	Operation	++

Issue	Distribution	Phase	Significance
Housing rentals and land prices	Local	Operation	++

References

- ABS [Australian Bureau of Statistics] 2002, *Census of Population and Housing: Selected Social and Housing Characteristics for Statistical Local Areas, Tasmania, 2001*, Catalogue 2015.6, 12 September
- Allen Consulting Group 2006, *The Bell Bay Pulp Mill: Economic Impact Assessment Report*, Report prepared for Gunns Ltd, May
- Auditor-General 2005, *Public Housing: Meeting the Need?*, Special Report No. 57, Tasmanian Government Printer, August
- Brothers & Newton 2006, *Bell Bay Pulp Mill Project*, Report prepared for Gunns Ltd, 27 November
- CoPS (Centre of Policy Studies) 2004, *Economic Impacts of a New Pulp Mill in Tasmania*, Report prepared for the Tasmanian Department of Treasury & Finance, 13 October
- Gunns 2006, *Bell Bay Pulp Mill Integrated Impact Statement*, 14 July
- Offor Sharp & Associates 2006, *Expert Witness Statement by Tim Offor*, Report prepared on behalf of Gunns Ltd, November

3.4**Phase: Operation****Issue: Impact on services****Impact level: Regional and Local****Overview**

The operation of the plant will have some low impacts on local and regional services because of a small rise in the residential population associated with the permanent work force requirements of the plant. Some of the jobs will be filled by people re-locating from other parts of the State and by labour from outside Tasmania. They will live locally or in the surrounding areas. These impacts will be neutral to negative and low overall.

The plant will increase the demands on some utility services that are inputs in the pulp manufacturing process. There will be greater utilisation of the existing infrastructure for water, electricity and gas services. Increased revenue received for these services will cover the cost of the resources; additionally, the increase in residents will increase local government revenue. There may be an impact on the demand for some social services. Services likely to be affected include law enforcement, health, emergency response, medical support, education and other social services such as emergency housing and crisis counselling. These impacts will be negligible and can be mitigated with an appropriate government agency response.

Economic and Social Impacts

The local impact area is defined as a 12 km radius around George Town. The SIA suggests around 80 per cent of the jobs will be filled by people from Tasmania. Some workers will relocate from other parts of the state but most will be local or regional residents located within commuting distance of the plant. If this assessment is correct, about 230 of the jobs will have no impact on local or regional services because the people will be existing residents.

If each imported worker (i.e. the remaining 20 per cent) involved a family of four, the population inflow would be about 250 people. Most of these people will probably choose to live within a 12km radius of the site. But some will choose to live in regional locations (e.g. Launceston).

If a third of the permanent jobs involved the movement of families of four into the local area or region, it would be equivalent to a rise in the local population of about 380 people (< 3 per cent based on 2001 estimates). These people would be new users of local and regional services. It is a relatively small change in the residential population and it would have little impact on the rate of service utilisation. There will be very little impact on family related social services such as schools, child health care, aged care, family support, child care, government housing, and crisis counselling.

Regional

Launceston will be the focal point of the regional impacts. Services currently available that may be affected include:

- police services available 24 hours – number of stations and officers unknown;
- a 300 bed 24 hour public hospital with emergency service facilities and two private hospitals (bed capacity unknown);
- ambulance services with full time paramedics (resources unknown) and medical centres and a large number of GPs (resources unknown);
- full time specialist health care services – optometrists, dentists, physiotherapists, chiropractors;
- crisis counselling services – includes phone based services and drop-in centres;
- several fire stations and an SES capability;

- public and private education services (12 primary schools and 8 secondary schools);
- TAFE training facilities.

Launceston is well serviced in the provision of social services and the negative impact from the increased population will not be significant. There may be some low level impacts on law enforcement. Existing GP health care and medical services should be sufficient to cope with the increased demands from a larger population.

The most significant impact will be an increased demand for TAFE training in Launceston. The SIA states 60 per cent of the 292 jobs created will require skills training. Extra TAFE training courses will be provided to meet this demand. Teaching resources will need to expand – an estimated 6-8 positions may be required. The demand for these services will be for a limited period unless the plant experiences a high level of staff turn-over.

The relocation of families into the region will increase the demand for school enrolments. The State Department of Education believes the existing level of school resources will be sufficient to meet the extra demands for enrolments.

These factors, evidence, management response, impacts and their significance are summarized in the table below:

Local

Some of the workers that relocate into the local area will be single people and some will be families. Given the likely size of the change in the residential population there will be very little impact on family related social services such as schools, child health care, aged care, family support, child care, government housing, and crisis counselling. Services currently available that are likely to be affected include:

- a police station not manned for 24 hours – number of officers unknown;
- a 15 bed hospital with no emergency facilities, an ambulance service with a full time paramedic supplemented by volunteers, a medical centre and 8 doctors (2 part time);
- a restricted level of specialist health services – optical (part time), physiotherapy (full time);
- public and private education services (3 primary schools and 3 secondary schools);
- two local fire stations and SES.

In general the negative impact on the provision of local services will not be significant. There may be some low level impacts on law enforcement, GP health care and medical services caused by the small rise in the residential population. The local area is well serviced in terms of sporting and recreational facilities.

The relocation of families into the local area will increase the demand for school enrolments. The State Department of Education believes the existing level of schooling resources will be sufficient to meet the extra demands.

There will be a positive impact on long term public revenue for the local council. Revenue gains include water rates, sewerage supply charges and waste disposal fees. This will apply to the plant and the increased housing stock that will accompany new residents associated with the 292 jobs. There are no estimates of these revenue gains; annual water supply and effluent disposal expenditures for the plant are estimated to be \$3.6 million – it is not clear if this estimate includes municipal charges. There may be impacts on sewerage due to the increased population; it is assumed that the additional revenue will cover any additional expense.

The operation of the Project will increase the demands on some utility services that are inputs in the pulp manufacturing process. There will be greater utilisation of the existing infrastructure for water, electricity and gas services. Revenue received for these services will rise – it will cover the cost of the resources. There is no indication the existing infrastructure will not cope with the additional demands. The water supply infrastructure to connect the plant

to the Trevallyn Dam will be designed to accommodate future industrial growth in the area – the public contribution towards the cost of this development is unknown. Infrastructure connection costs for electricity and gas will presumably be covered by the standard arrangements that apply to local industrial developments.

Demand for waste disposal services will rise but it will have no impact on local facilities. The plant will produce water effluent and dry waste. A water treatment plant and discharge pipeline will be constructed. An exclusive landfill facility will also be established. This means the impact will be limited to any public contributions towards the connection and development costs. There are no estimates of this impact.

These factors, evidence, management response, impacts and their significance are summarized in the table below:

Table 3.4.1 Summary of impacts on local services during operation

Factor	Local/ regional	Evidence	Management response	Impact	Significance of impact
Increased demand for law enforcement services	Regional	- Increase in local & regional population to be a mix of families & single people. Current police resources may not be adequate for anti-social behaviour. Impact in Launceston as the major entertainment centre. - Regional population rise of 380 suggests a limited impact.	- Prevention of more anti-social behaviour may require extra resources. Police service needs to be assessed.	Negative	Low
	Local	As above	As above	Negative	Low
Increased demand for education and work skills training services: – school enrolments – TAFE training	Regional	- Increased TAFE training needs for 60% of new jobs (175 people). Availability of extra teaching resources unknown. Capacity of facilities to support extra classes unknown. - Region is well serviced by school services. No significant impact likely – extra demand for school places will be minimal.	- Launceston TAFE to provide extra training courses as required. Short term need for 6-8 teaching staff to train 175 people. - Dept of Education believes existing school capacity will cope with expected increase in demand.	Negative	Low
	Local	As above	- Dept of Education believes existing school capacity will cope with increase in demand. - Public school class sizes & resource needs should be assessed. - Spill-over effect on regional TAFE training services in Launceston.	Negative	Low
Increased demand for health services: – GPs – specialists (optical, physiotherapy, etc)	Regional	- Higher population will mean increased GP visits across the region. Some workers and family members will use Launceston GP & specialist services. - No significant impact likely – small rise in population suggests service demands are manageable with local & regional resources.	-Increase in GP services unlikely to be necessary. Extra GP services in George Town would limit the impact in Launceston. -Supply of specialists sufficient to handle rise in residential population.	Negative	Not significant

Factor	Local/ regional	Evidence	Management response	Impact	Significance of impact
	Local	<ul style="list-style-type: none"> - Increased residential population to increase number of GP visits. Current service is 8 doctors (2 part time) & a medical centre. - No data on current wait times for specialists & GP consultations. No assessment of current rate of service utilisation. - No significant impact likely – net population inflow of 380 people. 	<ul style="list-style-type: none"> - Small increase in GP services may be needed. Role of State Govt in GP service provision unknown. Resource needs to be assessed. - Supply of specialists sufficient to handle rise in residential population. - Specialist services in Launceston are easily accessible alternative. 	Negative	Low
Increased demand for other social services: <ul style="list-style-type: none"> - mental health - crisis counselling - emergency housing services - legal services - aged care, child care, family care Increased demand for other social services: <ul style="list-style-type: none"> - mental health - crisis counselling - emergency housing services - legal services - aged care, child care, family care 	Regional	<ul style="list-style-type: none"> - Increased population will mean increased use of other social services in Launceston. No data on service utilisation rates. - No significant impact likely – small rise in residential population suggests extra demand is manageable with existing resources. - Reduced availability of emergency housing. No significant impact likely: <ul style="list-style-type: none"> - less unemployment; - new residents unlikely to seek public housing; construction of new houses likely during construction phase. 	<ul style="list-style-type: none"> - Launceston has a range of other social services. Likely to be sufficient capacity to cope with extra short term demand. - Regional stock of public housing and emergency housing similar to pre-construction period. 	Negative	Not significant
	Local	As above	<ul style="list-style-type: none"> - Frequency of part time services could be increased if required. - Spill-over effect on regional services – Launceston is an easily accessible alternative. 	Negative	Not significant
Increased demand for water services	Local	<ul style="list-style-type: none"> - Plant needs year round water supplies - higher risk of ST water restrictions; higher charges <p>No significant impact likely. Annual needs are limited:</p> <ul style="list-style-type: none"> - 26 gigalitres at full capacity; flows to Trevallyn power station cut by 1.3%. 	<ul style="list-style-type: none"> - Environmental flows to Cataract George to be maintained. - New infrastructure to accommodate future industrial growth at George Town. - Public contribution to cost of new water supply infrastructure unknown. 	Negative	Not significant
Increased demand for electricity & gas services	Local	<ul style="list-style-type: none"> - Plant energy needs may reduce supplies for all users in peak demand periods: higher risk of power shortages; higher charges <p>- No significant impact likely – resource & infrastructure demands are limited.</p>	<ul style="list-style-type: none"> - Gas connected to off-shore service. - Electricity connected to State power grid. - Gunns to sell 60 MW of surplus power to the grid. 	Positive	Not significant
Increased demand for waste disposal services	Local	<ul style="list-style-type: none"> - Plant will produce: water effluent; 49 kt of dry waste. - Infrastructure needs for waste water disposal. Municipal landfill too small and close to full capacity. - No impact – waste disposal managed by new infrastructure. 	<ul style="list-style-type: none"> - Effluent treatment plant & pipeline to Bass Straight built & operated by Gunns. - New landfill facility to be developed for construction & operational activity. - Public contribution to cost of new landfill facility unknown. 	Negative	Not significant

Factor	Local/ regional	Evidence	Management response	Impact	Significance of impact
Increased demand for emergency and medical support services: – hospital – emergency care – Ambulance – SES	Local	- Increased residential population with local services restricted to: – 15 bed hospital, no emergency reception – one ambulance & paramedic - Small rise in risk of work accidents requiring emergency services. - No significant impact likely – small rise in residential population suggests risks are manageable with local & regional resources.	- Limited capacity of local hospital can be managed by using regional services. - Launceston has sufficient public & private hospital services available. - Spill-over effect on regional services – Launceston Hospital may require bed management plan for emergencies.	Negative	Not significant
Public revenue from: rates, water supply charges, waste disposal fees	Local	Local council will receive revenue from rates and service charges for: – the pulp plant; – new housing stock.	Revenue estimates to be assessed.	Positive	High

Significance of impact

Regional

The operation of the plant will require some labour to be imported from outside the region. Some labour will relocate from other parts of the State and some from outside the State. It will increase the residential population and the demand for some regional services. The existing level of services will be sufficient to cope with the additional demands in most cases. There will be a limited low negative impact on TAFE training services in Launceston and there may be a low negative impact on the regional provision of law enforcement services.

Issue	Distribution	Phase	Significance
Impact on services	Regional	Operation	+–

Local

In general, the negative impact on local services will be low or not significant. Intra-state relocations and labour imported from outside the state will lead to a relatively small rise in the residential population. A small increase in police and GP health services may be necessary. Concerns about the availability of short term emergency housing and the demand for public housing need to be kept in perspective. There will be no significant impact as new residents are unlikely to seek public housing. The local stock of housing is likely to rise. Private sector developers will see opportunities and many intra-state re-locations are likely to involve the transfer of pre-existing housing equity. The operation of the plant will increase the demands on some utility services. There will be greater utilisation of the existing infrastructure for water, electricity and gas. In general, the existing infrastructure will cope with the extra demands.

There will be a high positive impact on local Government revenues through water rates, sewerage supply charges and waste disposal fees. The revenue will be raised from the plant operations and the increased housing stock that will accompany new residents associated with the 292 jobs. There are no estimates of these revenue gains.

It should be noted that George Town has adapted to the construction and operation of the Rio Tinto aluminum plant, the TEMCO smelter and the Bell Bay Power Station among others. Historically these types of impacts are not extraordinary.

Issue	Distribution	Phase	Significance
Impact of services	Local	Operation	+–

References

Draft Integrated Impact Statement prepared by Gunns Ltd.
Bell Bay Pulp Mill IIS Social Impact Assessment prepared by GHD for Gunns Ltd.
Integrated Impact Assessment for Workers Accommodation Facility prepared by Pitt & Sherry for Gunns Ltd.
The Bell Bay Pulp Mill Economic Impact Assessment Report prepared by the Allen Consulting Group for Gunns Ltd.
Expert Witness Statement of Jonathon Geoffrey Stanford, Insight Economics Pty Ltd, engaged by Gunns Ltd.
Expert Witness Statement of Tim Offor, Offor Sharp & Associates, engaged by Gunns Ltd.
Economic Impacts of a New Pulp Mill in Tasmania, Report by the Centre of Policy Studies to the Tasmanian Department of Treasury and Finance.
Public Submissions to the RPDC on the Draft IIS

3.5

Phase: Operation

Issue: Tourism and recreation

Impact level: State, Regional and Local

Overview

The operation of the Project will have a neutral to low negative impact on tourism in Tasmania at the State level. Tasmania offers a diversity of experiences to tourists throughout the State. The Project will not damage the 'Tasmanian brand' at the State level. As a result, any negative impacts (even if they are unlikely) that arise at regional and local level will, with high likelihood, be offset by positive impacts within other regions. Nonetheless, to reduce the likelihood of negative perceptions impacting on the tourist industry it is important that appropriate management and mitigation actions be implemented by agencies prior to negative perceptions taking hold.

The operation of the plant could have minor negative effects on tourism at the regional and local levels. Although the Project site is located in an existing industrial zone it is also recognised that the common opinion among visitors is that the Tamar Valley experience is based around landscapes incorporating vineyards, orchards, agriculture and aquatic recreation. The evidence is that activities within the current industrial complex and the tourism industry in the Tamar Valley co-exist without negative impacts on tourism activity.

The significant factor relating to tourism and recreation during the operation of the Project at the regional level will be the sensitivity to perceptions and actual levels of effluent and odour emissions resulting from the Project. It must be assumed that the Project will be operating completely within environmental guidelines as attached to the Project's permit conditions. These impacts are therefore highly likely to be minor or negligible, but negative. These negative impacts need to be managed and/or mitigated in a timely manner with an appropriate agency response.

Economic and Social Impacts

State impacts

The current economic impact of tourism as an industry is incorporated into baseline economic activity through the impacts of tourists on such sectors as retail, accommodation, food and beverage, and transport in broader economic assessments (Allen Consulting Group 2006 and CoPS 2004).

Tourism delivers significant economic benefits to Tasmania, contributing \$862 million (6 per cent) to GSP in 2004 (STCRC, 2007). There were approximately 870,000 international and interstate visitors to Tasmania in 2006, plus significant numbers of intrastate tourists (Tasmanian Visitors Survey, December 2006). Intrastate tourists are estimated to have generated 1.07 million overnight trips and 4.8 million day trips (National Visitors Survey, December 2006). Combined, all tourists are estimated to have spent \$1.8 billion, supporting the direct employment of approximately 23,000 Tasmanians and a further 15,500 indirectly (Tourism Tasmania 2007).

The Tasmanian tourism industry has a goal of "developing the industry into a contribution to Tasmanian economy of even greater significance, providing ever more economic, social and environmental benefit for Tasmania" (*Tourism 21 – Strategic Plan for Tasmanian Tourism Industry*, June 2004).

A key component of the strategies detailed in *Tourism 21* is the support and delivery of Tasmania's tourism brand, the "unforgettable natural experience". *Tourism 21* calls for the brand's promise to be achieved by providing "a range of visitor experiences based on the core appeals of (Tasmania's) nature, cultural heritage and food and wine."

The delivery of these core appeals has led to the development of cluster and touring route strategies to focus traveller interest on nature, cultural heritage, and food and wine. These experiences have been identified by a number of submissions to the RPDC as the 'Tasmanian brand'. There is concern that this brand may be damaged in the operation phase of the Project.

Regional impacts

Factors which may come into play with the operation of the Project at the regional level include the direct and indirect impact of emissions, odour and effluent on the image of the regional area.

Experience to date is that the visual and aural impact of the industry on the west bank of the Tamar has not diminished the tourist appeal of the west and east flanks. Nor has the operation of the existing chip mill and loading facility affected the tourist and wine industry in the Rowella district immediately adjacent on the Tamar.

The proposed Project is scheduled to operate below environmental benchmarks and produce results above world best practice standard for emissions, effluent and odour. Although the content and quantities of emissions, effluent and odour may not be assessed by experts as a health concern, businesses dependent on marketing lifestyle and "clean and green" food and beverage experiences are concerned that emissions within these benchmarks, particularly odour, could reduce the attractiveness of the region as a tourism and recreation destination.

There is not as yet, except in a general qualitative sense, a benchmark relative to current background levels on which to allow potentially impacted operators of business, to quantitatively assess the probability of impact. Their concerns relate to potential impacts on their business from perceived tainting of food and wine from emissions, odours and effluent.

Local impacts

George Town is a pre-existing industrial area; any loss to amenity will be negligible.

However, there are factors which may come into play with the operation of the pulp mill including the direct and indirect impact of emissions, odour and effluent on the image of the local area, particularly on the Rowella Peninsula and other areas heavily involved in tourism and recreation such as Low Head, as a 'clean and green' tourism and recreation experience.

It is also noted that the operation of the Project could generate a niche tourism opportunity for visitors interested in the workings of a large, complex and technologically advanced industry.

Evidence

A number of organisations, businesses and individuals have expressed concern over the potential for the operation of the Project to adversely impact on future levels of Tasmania's tourism and the quality of recreation experiences. These potential adverse impacts were, in the main, identified in the DIIS Social Impact Assessment (SIA), associated work (Offor Sharp & Associates, 2006) and submissions to the RPDC.

The major concerns identified at State level during operation relate to the loss of attractiveness of Tasmania as a tourism destination if potential tourists change their intentions because of continuing advocacy against the Project.

Even though there is wide acknowledgement that the Project will be located in a diverse industrial precinct and operated to reduce emissions and effluent below technical environmental benchmarks, businesses are concerned that visitor experiences, and hence tourism and recreation levels, will be decreased if there is a perception that the resources – visual amenity, fresh air, "clean and green" seafood and wine – required to attract tourists are tainted. The common opinion amongst tourists is that the Tamar is primarily about vineyards, orchards, agriculture, seafood and small scale industry, compatible with the tourism industry.

The most significant adverse cumulative impacts of these consequences would be captured indirectly by businesses in the Tamar Valley utilizing lifestyle and food from land (e.g. grapes and olives) and marine sources (e.g. fish, scallops, lobsters) to market their activities.

These adverse cumulative impacts would fall largely on businesses immediately to the west of the operating Project and the handful of businesses on the Rowella Peninsula at the local level, and more broadly in the region, i.e. the Tamar Valley and associated wine route, utilizing lifestyle and food from land (e.g. grapes and olives) and marine sources (e.g. fish, scallops, lobsters) to market their activities.

Management response

Tasmania is a reasonably large area with a number of tourist destinations and clusters that will not be positively or negatively impacted by operation of the Project. It is reasonable to assume that whatever the impact upon tourism in the regional and local areas, this will not affect the entire state. It is therefore reasonable to assume that any loss of tourist numbers to the local and regional areas could result in an increase in tourist numbers to other areas. However, fear of negative impact, whether substantial or not, needs to be managed and mitigated with appropriate agency responses and market research and development.

A number of initiatives could mitigate potential adverse impacts associated with the construction and operational phase of the Project on tourism. Initiatives include appropriately focused marketing campaigns, traffic management, noise management and operating standards. The impacts of these initiatives will be dependent on how effectively they are implemented.

In the material reviewed, ITS Global has not observed specific actions to mitigate potential adverse impacts, including potential impacts on businesses dependent on marketing lifestyle and "clean and green" food and beverage experiences in the regional area. This is particularly relevant to businesses immediately to the west of the Project, focused on the Rowella Peninsula due to loss of visual amenity and tourist sensitivity to effluent and emission levels.

Any impact on lifestyle and food and wine experiences on the Rowella Peninsula and the West Tamar, and surrounding region, including Low Head on the East Tamar, could also be mitigated with actions by agencies that address specific issues and by businesses at the local level. A key component of developing effective actions, given the conjecture about the potential impacts, would be the development and implementation of effective monitoring activities.

Significance of impact

State

Within the context of Tasmanian tourism, the impact of the Project will be neutral at the State level during operation. It is highly likely that Tasmania's tourism industry and the Project can co-exist with Tasmania attracting the same number of tourists with and without the Project.

Issue	Distribution	Phase	Significance
Tourism and recreation	State	Operation	+–

Regional

Within the context of Tasmanian tourism, the impact of the Project will be minor and negative to neutral at the regional level during operation. Concern has been expressed about the Project's potential to alter tourist appreciation of local foodstuffs and wine in the Tamar Valley and Launceston. The Project may generate odours and emissions which while not environmentally damaging, may be considered unpleasant by some tourists. An effective monitoring program to track the potential putative impacts, sensitive to regional and local

concerns, should be implemented. An appropriate management response to the evolution of such a problem could be implemented if the real phenomenon is observed.

Issue	Distribution	Phase	Significance
Tourism and recreation	Regional	Operation	+/-

Local

Within the context of Tasmanian tourism the impact of the Project will be minor and negative to neutral at the local level during operation. Concern has been expressed about the Project altering tourist appreciation of local foodstuffs and wine in George Town, and the lower Tamar Valley. The visual impact of the Project on businesses on the Rowella Peninsula will be limited. The Project mill stack and plume will replicate the pre-existing industrial stack and plume immediately across the Tamar. The Project may generate odors and emissions which, while not environmentally damaging, may be considered unpleasant by some tourists. As noted above an effective monitoring program to track and manage their potential adverse impacts needs to be developed.

Issue	Distribution	Phase	Significance
Tourism and recreation	Local	Operation	+/-

References

- Allen Consulting Group (The), "The Bell Bay Pulp Mill Economic Impact Assessment Report", Report prepared for Gunns Limited, May 2006.
- Australian Hotels Association (Tasmanian Branch), Accommodation Division, "Hotel Occupancy Report", December 2006.
- CoPS (Centre for Policy Studies), "Economic Impacts of a New Pulp Mill in Tasmania" Report prepared for the Department of Treasury and Finance, 2004.
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- STCRC, Centre for Tourism Economics and Policy Research, May 2007.
- Tasmanian State Government and Tasmanian Tourism Industry (Joint Project), "Tourism 21, 2004, Strategic Plan for the Tasmanian Tourism Industry", June 2004.
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- Tourism Tasmania. Personal Communication, 2007.
- Tourism Tasmania, "Tasmanian Visitor Survey", December 2006.
- Tourism Tasmania, "National Visitor Survey", December 2006.

3.6

Phase: Operation

Issue: Population and social structure

Impact level: Regional and Local

Overview

The operational phase of the Project is likely to have a low to moderate positive impact on the population and social structure of the regional area. There is likely to be an increase in population and improvement in social indicators, with falling unemployment, increasing average incomes and wealth.

The impact on the population and social structure of the local area is likely to be moderately positive. The decline in the George Town population may reverse over the long term with increases in the population, the workforce, a reduction in the rate of aging and an increase in the average level of skills in the workforce.

The level of affluence of the local community is predicted to increase with an increase in local economic activity and employment opportunities.

Economic and Social Impacts

Regional Impacts

Gunns expects to employ 292 full-time workers at the site during its operational phase. The employment indirectly generated, however, is expected to be substantially greater than this. The economic assessment estimates that the Project would create a total of around 1,600 jobs, on average, in Tasmania over this phase, compared to what was expected to happen without it. This assessment expected that most of these jobs would be created within the Northern Statistical Division of Tasmania.

Population size

An increase in the population of George Town is likely, reversing the base case decline and potentially enhancing the viability of George Town and the local area.

Population structure

The profile of the local population is likely to alter. Individuals and families are likely to move to the local area. The spatial distribution of changes in social structure will be influenced by lifestyle choices, available community services, accommodation availability and pricing and social factors.

Socio-economic profile

The impact on the immediate vicinity of George Town is likely to be moderate to major and positive. Although the rate of unemployment in George Town has decreased over the past decade, the 2001 Census revealed that the George Town municipality generally had a lower median income, a lower proportion of owner-occupied housing, a higher rate of unemployment and a lower rate of labour force participation compared to Tasmania as a whole or to Australia.

Employment and education

An increase in the number and level of skilled workers in the region is likely. Gunns will need nearly 300 technically qualified workers and intends to concentrate on recruiting semi-skilled workers and training them up to the levels required through the TAFE system (Allen Consulting 2006). Given the skill shortages currently evident in the rest of Australia, a similar approach is likely to be used to recruit for the jobs indirectly created by the project. Such an

approach will help the employers in question to draw down the ranks of the local unemployed and thereby minimize their need to import workers from outside the local area.

Local Impacts

Population size

There is likely to be a positive impact on the population size of the region as a result of the increase in employment in Northern Tasmania from the Project any economic flow on. If the current pattern of residence of people employed in George Town is any guide, half the people will reside in George Town and half in the wider region.

Population structure

The change in social structure at the regional level is likely to be minor to moderate. From anecdotal evidence, it can be predicted that there is likely to be an increase of working age individuals and families.

Socio-economic profile

The impact on socio-economic indicators in the region is likely to be moderate and positive. The region will have higher growth than the Tasmanian average. The unemployment rate for the region is generally low and socio-economic indicators are generally similar to those for the State (which are generally below those for Australia). However, there remains a considerable portion of relatively low income residents with relatively low levels of education within the region according to socio-economic indicators, particularly in Devonport and to a lesser extent Launceston.

Evidence

Both of the economic assessments undertaken for Gunns and the Treasury used the Monash Multi-Regional Forecasting Model (MMRF) developed by the Centre of Policy Studies (CoPS) at Monash University (Allen Consulting 2006 and CoPS 2004). This model includes a comprehensive representation of all the economic linkages between each economic sector and the rest of the economy, both at the national and the State levels. These linkages include the interstate movement of workers and, by implication, their dependents. The results of the economic assessments also explicitly incorporate the impacts of the proposed mill on the prices of labour and other inputs more generally, as well as any output adjustments made by sectors other than the pulp processing sector in response to those input price changes. But the MMRF Model cannot disaggregate State-wide impacts down to either the local or the regional levels used for this assessment. This includes the distributional impacts of income, education, population increases, housing and employment. The model is not able to capture the benefits from reducing unemployment or net population changes at the local or regional levels.

The Social Impact Assessment (SIA) undertaken by GHD as part of the DIIS examined the community profile based on demographic data, potential social impacts based on desk research and limited consultation, and identified potential mitigation measures. These social assessments and the peer review by Farley Consulting provide a basic statistical profile of the local and regional communities and information based on assumptions about the likely social profile of the construction workforce. Offor Sharp and Associates and Farley Consulting suggested modeling the distribution of social impacts. While more information about the socio-economic profile of the community would assist management of the impacts¹⁴, given the relatively small numbers involved over the longer term, the material available enables an assessment appropriate to the task of making a general assessment.

¹⁴ It was submitted that the extent to which analysis of local level impacts (at a 20 km radius from the project site) correlated with statistics collected for 35 census collection districts (within a 12 km radius of the project site) is unclear. The SIA did not able provide a complete socio-economic profile of the community, the estimated impacts to the population and social structure or information on the spatial and social distribution of positive and negative impacts of the mill.

Approximately 90 of the public submissions related to social and economic impacts of the Project on the community profile, social cohesion, education and employment. The public submissions to the RPDC provide an important addition to public consultation undertaken by GHD and Offor Sharp and Associates.

Regional Impacts

Population size

According to the 2001 Census, the regional population was 136,909 persons. At that time, nearly half the people who work in George Town commuted from other municipal areas, with 21.7 per cent of the workforce commuting from Launceston. It is likely that the settlement of people moving to work in the local area may be distributed similarly across the region. Moreover, it is estimated there will be an increase in jobs in Northern Tasmania in the order of 1,044 on average each year as a result of the Project being built. There are likely to be people moving into the region to meet employment vacancies. There is likely to be some population outflow from the region naturally and from people's changed perception of the local amenity, although this is likely to be lower in the operation phase than the construction phase.

The population of Launceston was 65,021 in 2005. The populations of Launceston and Devonport are projected to decrease between 2006 and 2018 by 2 per cent and 6 per cent respectively. The operation phase of the Gunns Limited Project would increase the population in these areas as well as others in the region. The operation of the mill may in fact stem some population outflow from the region that may have occurred under the base case as people moved to seek employment.

It has been suggested in some public submissions that the operation of the Project will contribute to the decline of the regional population through an increase in plantations and a decrease in rural industries. The Monash modeling which assesses the impacts of the Project on all areas of the economy assesses a significant increase in the regional economy which would entail increased employment and probably population increases.

Social structure

The operational impact of the Project on the social structure of the local area is likely to be an increase in diversity (GHD 2006). The age structure of the population is also likely to change. In 2001, 37.3 per cent of the regional population was over 45. The median age of the region was 37 years, consistent with the rest of Tasmania. There were 37,049 families in the region. This proportion of the population over 75 is predicted to increase in the future according to the base case. However the operation of the Project and associated employment creation and economic activity is likely to increase the number of individuals and families.

In 2001, 84.9 per cent of the local population was born in Australia, with 4.6 per cent born in the UK. English was the only language for 92.7 per cent of local people. The background, language capabilities and religion of people living in the local area may diversify. It is not possible to predict the direction of changes in social structure.

Socio-economic status

The 2001 Census found that mean weekly individual income in the region (\$300-399) was on par with the rest of Tasmania and Australia (\$300-399). The mean weekly household income in the local area (\$600-699) was relatively lower than for Tasmania (\$700-799) and Australia (\$800-899).

However, the socio-economic position of people in the regional area varies spatially. The population of the West Tamar is at an economic advantage compared to Tasmanians in general, according to the Socio-Economic Indexes for Areas (SEIFA) which includes relative socio-economic disadvantage, economic resources and education and occupation (Department of Health and Human Services). Socio-economic indicators in Launceston and Devonport on the other hand are lower than the Tasmanian average. Indeed, one-quarter of the populations of both Launceston and Devonport receive Centrelink payments in contrast to 12 per cent in West Tamar. In 2001, the level of education in the region was slightly lower than the State average. 59.1 per cent of people in the local area had no tertiary qualifications,

almost on par with Tasmanians in general (59 per cent). 6.9 per cent of people in the local area had bachelor degrees, compared to 7.4 per cent at the state level.

The socio-economic indicators for the community as a whole are likely to rise as a result of the operational phase. The project is also projected to generate an increase in employment, levels of education, economic activity and average incomes across the community. Economic modeling suggests consumption in Tasmania between 2007 and 2030 will rise by \$3.3 billion as a result of the mill (The Allen Consulting Group 2006).

Employment

Employment is highlighted in a significant number of public submissions and throughout the consultation processes as a major local benefit of the construction phase and the Project as a whole. Specific benefits include the 'upskilling' of the local community through formal and on-the job training and the creation of job opportunities to provide work for the unemployed and to retain job seekers who might otherwise move within Tasmania or interstate for work.

In 2004-05 ABS statistics show George Town as having a higher unemployment rate (7.8 per cent) than surrounding areas such as West Tamar (5.0 per cent), Launceston (5.8 per cent) and Devonport (7.7 per cent). Over the last four years, the unemployment rate in the region has continued to fall, except in Devonport which had an unemployment rate of 8.3 per cent for the March quarter 2006. At the same time, West Tamar had an unemployment rate of 4.3 per cent and Launceston of 5.1 per cent.

The increase in job opportunities through local employment sourcing and related training initiatives is likely to reduce unemployment in the region. Economic modeling predicts the operational phase of the mill will provide an average additional 1,044 jobs annually in Northern Tasmania (Allen Consulting Group 2006). The modeling however does not capture the distribution of employment opportunities within the region or the benefits from lower unemployment and the longer term benefits of the training and workplace experience provided to the persons from the region.

Local Impacts

Questions were raised about the adequacy of the statistical base for assessing social impacts and the spatial distribution of the impacts which assist in assessing needs of the socially disadvantaged. The Consultant did not consider these were significant shortcomings. The increase in the population of George Town is assessed at around 5 per cent and of the immediate wide area at 3 per cent. With increased employment, the number of socially disadvantaged in the community are expected to decrease.

Population size

According to the 2001 Census, the local population was 12,951 persons. In 2005, the population of George Town was 6,679, an increase since the 2001 Census but worth noting a decrease from 7,151 in 1993. The base case scenario for George Town without the Project is a projected decrease in population between 2006 and 2018, with an increasing proportion of the population aged 75 years and over (Department of Health and Human Services 2007).

The increase in population from the operational phase of the Project has the potential to reverse the decline in George Town's population and contribute to the growth and viability of the town.

The 2001 Census indicated that nearly half the people who work in George Town commute from other municipal areas, with 21.7 per cent of the workforce commuting from Launceston. It is likely that people moving to the area to work at the mill could settle according to that pattern.

The net population gain to the local area has not been estimated to date.

Social structure

The operational impact of the Project on the social structure of the local area is likely to be an increase in diversity (GHD 2006). The age structure of the population is also likely to change. In 2004, 39.3 per cent of the George Town population was over 45. This proportion of the population over 75 is predicted to increase in the future from 5.4 per cent in 2004 to 7 per cent in 2018. According to the 2001 census, the median age of the local area was 37 years, consistent with the rest of Tasmania. There were 3,723 families in the local area. The number of individuals of working age and families is likely to increase. In 2001, 83.5 per cent of the local population was born in Australia, with 6.3 per cent born in the UK. English was the only language for 93.5 per cent of local people. The background, language capabilities and religion of people living in the local area may diversify.

It is not possible to predict the direction of changes in social structure.

Socio-economic status

The 2001 Census found that mean weekly individual income in the local area (\$200-299) was relatively low compared to the rest of Tasmania and Australia (\$300-399). The mean weekly household income in the local area (\$500-599) was also relatively lower than for Tasmania (\$700-799) and Australia (\$800-899). The population of George Town itself is more disadvantaged than Tasmanians in general according to the Socio-Economic Indexes for Areas (SEIFA), including for relative socio-economic disadvantage, economic resources and education and occupation (Department of Health and Human Services).

There is a lower proportion of private housing (owned or being purchased) in George Town compared to West Tamar or Tasmania in general. There is a greater proportion of rental housing and public housing in George Town than Tasmania in general (Offor 2006). Approximately one fifth of the population of George Town is in receipt of selected Centrelink payments (Department of Health and Human Services).

George Town and the local area had a lower level of education than the region and the State. 66.4 per cent of people in the local area had no tertiary qualifications, compared to 59 per cent in Tasmania generally. 4.2 per cent of people in the local area had bachelor degrees, compared to 7.4 per cent at the state level. The socio-economic indicators for the community as a whole are likely to rise as a result of the operational phase. The project is also projected to generate an increase in employment, levels of education, economic activity and average incomes across the community. Economic modeling suggests consumption in Tasmania between 2007 and 2030 will rise by \$3.3 billion as a result of the mill (See Section 3.1.1).

Employment

Employment is highlighted in a significant number of public submissions and throughout the consultation processes as a major local benefit of the construction phase and the Project as a whole. Specific benefits include the 'upskilling' of the local community through formal and on-the job training and the creation of job opportunities to provide work for the unemployed and to retain job seekers who might otherwise move within Tasmania or interstate for work.

In 2004-05 ABS statistics show George Town as having a higher unemployment rate (7.8 per cent) than surrounding areas such as West Tamar (5.0 per cent), Launceston (5.8 per cent) and Devonport (7.7 per cent). Over the last four years, the unemployment rate in George Town has been falling. In the March quarter 2006 it was 6.2 per cent, slightly below the Tasmanian rate of 6.9 per cent (Department of Health and Human Services). The increase in job opportunities through local employment sourcing and related training initiatives is likely to draw down unemployment in the local area. Economic modeling predicts the operational phase of the mill will provide an average additional 1,044 jobs annually in Northern Tasmania (The Allen Consulting Group 2006).

Social interaction and cohesion

Concerns have been raised during public consultation undertaken in preparation of the draft IIS and public submissions about social tension that may be created by the Project, including for the operational phase. This includes potential social isolation of new residents and continued division between supporters and opponents of the mill.

Provided there is effective communication and coordination with the local community during the construction phase of the mill and that social impacts of the construction phase are managed effectively, the likelihood of ongoing social tension is low. The impact of the Project on community attitudes to the local area and local amenity may be affected. This is considered in Annex I.

It is likely that the longer term increase in population size and diversity in the local area and improvement in community affluence and local services could improve social interaction.

Management response

A number of measures have been proposed in the draft IIS to maximize the social and economic benefits and to minimize the negative impacts of the project on the local and regional community.

Offor Sharp and Associates recommends the development of a community consultation plan, a complaints handling and disputes resolution process and a community liaison committee. Effective communication with local government, local service providers, and affected community members is proposed. These measures are important for addressing community concerns about the social impacts of the construction and operational phases.

As mentioned above, Gunns Limited has proposed a local employment and purchasing policy. Offor Sharp and Associates has noted the importance of developing a local skills register and working with local employment agencies to maximize the benefit of the employment policy. The Tasmanian Government has undertaken a skills audit which has identified training needs for construction and operation of the Project. Gunns Limited has also developed an initial proposal for developing an education and training program to provide unskilled and semi-skilled workers with appropriate qualifications.

These programs if well implemented should maximize the regional employment benefits from the construction phase and maximize the socio-economic benefits to the local community, including through targeting unemployed and low-income residents. They will increase the skills and education levels in the community.

These measures are likely to minimize the impacts of the change in population size and social structure on the local community and maximize the potential socio-economic benefits from employment and education opportunities.

Significance of impact

Regional

The impact on the population and social structure of the local area is likely to be low to moderate, depending on locality within the region, and generally positive.

If the Project does not proceed, it is likely that the trend in population and social structure will follow the Base Case. This includes a decreasing and ageing population at the local level with young job seekers leaving the area for work.

Issue	Distribution	Phase	Significance
Population and social structure	Regional	Operation	+ / ++

Local

The impact on the population and social structure of the local area is likely to be moderate and positive. If the mill does not proceed, it is likely that the trend in population and social structure will follow the base case. This includes a decreasing and ageing population at the local level with young job seekers leaving the area for work.

It should be noted that George Town has adapted to the construction and operation of the Comalco aluminum plant, the TEMCO smelter and the Bell Bay Power Station among others. Historically these types of impacts are not extraordinary.

Issue	Distribution	Phase	Significance
Population and social structure	Regional	Operation	++

References

- GHD 2006, *Bell Bay Pulp Mill IIS Social Impact Assessment*, Report prepared for Gunns Limited, July
- Offor Sharp & Associates 2006, *Expert Witness Statement*, November
- Department of Education 2005, *Pulp Mill Skills Audit Report*, August
- Public submissions to the RPDC
- Beca AMEC Limited 2006, *Gunns IIS Poort Review IU01 of Gunns Limited Bell Bay Pulp Mills Draft Integrated Impact Statement*, Report prepared for the Resource Planning and Development Commission, October
- Farley Consulting Group & The Work Lab 2006, *Independent Advice to RPDC: Gunns Pulp Mills IIS Assessment*, Report prepared for the Resource Planning and Development Commission, August
- Jonathan Geoffrey Stanford 2006, *Expert Witness Statement*, November
- The Allen Consulting Group 2006, *The Bell Bay Pulp Mill Economic Impact Assessment Report*, Report prepared for Gunns Limited, May
- Department of Health and Human Services 2007, *Primary Health Services Plan – Community Profile*, Reports for George Town, Launceston, West Tamar and Devonport, February

4. Construction Phase Assessment

- 4.1.1 Economic Impacts - Regional**
- 4.1.2 Economic Impacts - State**
- 4.2 Transport - State, Regional and Local**
- 4.3 Housing Rentals and Land Prices - Regional and Local**
- 4.4 Impact on Services - Regional and Local**
- 4.5 Tourism and Recreation - State, regional and Local**
- 4.6 Population and Social Structure - Regional and Local**

4.1.1**Phase: Construction****Issue: Economic impacts****Impact level: State****Overview**

The construction of the Project will have an impact on the economy at the State level. Its economic impact will be moderate and positive over the two-year construction period. Measured in real terms, it will increase:

- Gross State Product by more than \$700 million;
- investment by more than \$1.5 billion;
- consumption by more than \$330 million; and
- State tax revenue by more than \$46 million.

It will also increase employment, in terms of hours worked, by 4.4 per cent.

Given the tightness of the skilled labour market at present, there is a real risk of the project generating increased wage and other labour market pressures were it to proceed. With sufficient coordinated information flow and planning, however, the net effect on the region should be positive and, to the extent that there are any negative impacts, they should be transitory.

Economic and/or Social Impacts

The key results of the assessment of the economic impacts on Tasmania over the construction phase of the project are presented in Table 3.3. These have been assessed on the basis of the following macroeconomic measures: Gross State Product (GSP), investment, consumption, tax revenue and employment.

Each impact has been estimated as the change compared to its value in the Base Case, which has no new pulp mill. In most cases two perspectives are presented for each result. One is the net present value (NPV) of the annual value of the changes from the Base Case over the substantive construction period, which was assumed to be Year One and Year Two. The NPVs have been discounted to 2005 at a real discount rate of 5 percent. The other perspective is the percentage change from the Base Case in each year of the construction period. All monetary evaluations are expressed in constant 2005 prices.

Table 3.3 Economic impact of Project on Tasmania over Base Case in 2005 prices

Construction year Measure of impact	Year 1		Year 2	
	%	\$m	%	\$m
Gross State Product (GSP)	1.3	230	2.7	480
Investment	9.7	500	20.0	1020
Consumption	1.0	110	2.2	230
State tax revenue		15		31
Employment (increase in hours worked)	2.2		4.4	

Evidence*Impact on household welfare*

As was used earlier in the assessment of the operational phase, the welfare benefit for Tasmanian households from the construction phase is the sum of the changes in household

consumption and State tax collections. On this basis the net welfare gain is estimated at \$125 million in the first year of the construction period and \$261 million in the second year.

Impact on Gross State Product

The construction phase will generate increases in GSP, over and above the Base Case, totaling more than \$700 million. GSP gains of this magnitude, on top of the underlying growth that is built into the Base Case, are achievable, subject to the availability of appropriately skilled labour. As discussed below, this will depend, in considerable part, on the ability of the Tasmanian TAFE system to provide the required training for the workers recruited for the construction phase, in a timely and effective manner.

Impact on investment

The construction phase will be dominated by an increase in business investment in Tasmania of more than \$1.5 billion, compared to the Base Case. Most of this will be spent by Gunns and its suppliers and it would represent the largest private sector investment ever made in Tasmania. This investment will drive the subsequent strong changes in GSP, consumption and tax revenues that will be experienced by the State during this period.

Impact on State tax revenue

State tax revenues are expected to increase by about \$46 million over the construction period, compared with the Base Case.

Impact on employment

The hours worked in Tasmania during the construction phase are expected to increase significantly compared to the Base Case. Nearly two-thirds of the estimated increase in hours worked is expected to be accounted for by an increase in the hours worked per worker, with the balance from an additional 2,187 jobs. Some 40 per cent of these new jobs would be filled by Tasmanians, with the rest recruited from the mainland and the rest of the world.

At the peak of activity in Year 2, around 2,500 workers are expected to be employed on the construction site in Bell Bay.¹⁵ Taking into account the multiplier effects on other industries, a total of 3,400 additional jobs would be created throughout Tasmania in the peak. This is equivalent to 1.5 per cent of the Tasmanian labour force. Over 1,000 of the additional jobs will be created in the Tasmanian construction sector, representing an expansion of 19 per cent in the employment by this sector compared to the Base Case.

Gunns intends to recruit semi-skilled workers and train them up to the levels it requires through the TAFE system (Gunns 2006). This would maximize the likelihood of the construction phase reducing the level of unemployment in Tasmania, minimize the need to import workers from outside the State, and thereby help to contain any inflationary pressure on wages that the construction phase may generate within the Tasmanian economy. As we have previously pointed out, to the extent that Gunns' recruitment and training strategy is successful, the above results will underestimate the extent of the net economic benefits of the construction phase to Tasmania.

The sharp increase in labour demand during the construction phase is likely to represent a major challenge for the flexibility of the Tasmanian economy in containing any inflationary pressure on wage rates. Most of the new jobs that would be generated are likely to be in occupations that traditionally have been dominated by males – civil works, mechanical works and pipeline works. This has the potential to limit the ability of the Tasmanian labour market to accommodate the expected increase in labour demand without a wages breakout that spills over into other sectors, thereby choking off potential economic growth.

Since late 2005, businesses across Australia have been pointing to shortages of skilled labour as being a significant constraint on their expanding output (Allen Consulting 2006). If anything, the labour market has strengthened since then and prospective conditions are

¹⁵ This reflects the results of confidential financial modeling of the project that Jaakko Poyry have undertaken for Gunns.

continuing to tighten. Tasmanian wage rates are currently lower than those on the mainland, and the wage rates that are likely to be needed to attract workers from the mainland may have a material impact on other construction activity in Tasmania, as well as on other sectors in the State that depend on the same skills.

The Tasmanian Department of Education (2005) has analysed the data on the Tasmanian labour market leading up to the middle of 2005 and concluded that

‘...there is a general shortage of skilled labour in Tasmania and the mill project will place additional strains on the current pool of skilled labour’.

Given the nature of subsequent developments in the labour market, this is likely to be an understatement of the prospective position. Moreover, the skills that are most required for the construction phase overlap quite heavily with those that are already in shortest supply.

The increased flexibility that has been realized in the labour market over the past two decades should not be overlooked or understated. There is, nevertheless, a risk that significant labour shortages and wage pressures could emerge within the Tasmanian economy during the construction phase and that they could constrict the extent of the economic benefits that would otherwise have been realized by the State.

Management Response

Gunns and the Tasmanian training and labour authorities need to continue to work together to anticipate as closely as possible the volume, nature and timing of skill requirements that are expected to arise from the construction phase. This needs to be done within an approach that addresses the prospective skill requirements of the Tasmanian economy as well as the scope to reduce the ranks of the long-term unemployed, either directly or indirectly, when doing so.

In this connection, an updated skills audit would be desirable, together with further detailed planning for expansion of relevant TAFE and other training facilities. The 2005 Skills Audit Report details a number of relevant budget initiatives by the Tasmanian Government that were in hand at the time of that audit (Department of Education 2005).

Significance of Impact

The impacts of the construction phase of the project on GSP, investment and consumption are all positive and are of moderate to high significance.

The sharpness of the increase in the demand for labour at the peak of the construction phase will create more jobs, thereby reducing unemployment, and increase wage rates. Given the tightness of the skilled labour market in Tasmania at the present time, however, there is a real risk of the increase in labour demand generating increased wage and other labour market pressures were the project to proceed. In such circumstances it is unlikely that the short term impact of the peak of the construction phase on the demand for labour would be an unqualified positive for everyone in the region. With sufficient coordinated information flow and planning, however, the net effect on the region should be positive and, to the extent that there are negative impacts, they would be transitory.

Issue	Distribution	Phase	Significance
Economic impacts	State	Construction	++

References

The Allen Consulting Group 2006, The Bell Bay Pulp Mill Economic Impact Assessment Report, Report prepared for Gunns Limited, May
 Gunns Limited, Draft Integrated Impact Statement, July 2006

CoPS (Centre of Policy Studies) 2004, Economic Impacts of a New Pulp Mill in Tasmania, Report prepared for the Tasmanian Department of Treasury & Finance, 13 October
Department of Education 2005, Pulp Mill Skills Audit Report, August 2005
Beca AMEC Limited 2006, Gunns IIS Peer Review IU01 of Gunns Limited Bell Bay Pulp Mills Draft Integrated Impact Statement, Report prepared for the Resource Planning and Development Commission, October
Jonathan Geoffrey Stanford 2006, Expert Witness Statement, November

4.1.2**Phase: Construction****Issue: Economic Impacts****Impact level: Regional****Overview**

The construction phase of the Project will have a high positive impact on the Bell Bay region. Compared to the no-Project Base Case, the increase in Gross Regional Product (GRP) generated over the two-year construction period is likely to exceed \$400 million. At the construction peak the project will have created 2,300 new jobs in the region.

The economic impacts for the region are therefore positive and high in significance. Other parts of the State will also be affected positively, but these impacts will generally be much smaller in significance.

Economic and/or Social Impacts

As indicated previously, to provide a regional perspective on their results, Allen Consulting have broken down the State-level GRP and employment results by ABS Statistical Divisions (SD) – namely, Greater Hobart, Southern, Northern and Mersey-Lyell. The definition of the Bell Bay region, which is used for our assessment, takes in most of the Northern SD – to the east of the Bell Bay region – and part of the Mersey-Lyell SD – to the west.

The changes in GRP and employment by SD are summarized in Table 3.4. They are presented as percentage increases over the Base Case in Year 1 and Year 2. These make up the substantive part of the construction phase of the project.

Table 3.4 Economic Impact of Project over Base Case, by Tasmanian Statistical Division, 2007 & 2008, in 2005 prices

Statistical Division	Increase in GRP in Year 1	Increase in GRP in Year 2	Increase in hours worked in Year 1	Increase in hours worked in Year 2
Greater Hobart	1.2%	2.4%	1.6%	3.1%
Southern	0.4%	0.8%	0.8%	1.5%
Northern	3.0%	5.8%	4.7%	9.2%
Mersey-Lyell	0.4%	0.8%	0.8%	1.5%

Evidence*Impact on Gross Regional Product*

In the Northern SD, the absolute increase in GRP over the Base Case was estimated at \$130 million in Year 1 and \$278 million in Year 2. In contrast the absolute gains in Mersey-Lyell GRP are far more modest – \$14.8 million in Year 1 and \$32.8 million in Year 2 – as are the GRP gains to Greater Hobart and the Southern SDs.

On this basis, ITS Global concludes that the total increase in GRP for the Bell Bay region would be likely to exceed \$400 million over the two-year construction period. Indeed, most of the gains in value-added at the State-level would accrue within the region, although every part of the State would benefit to some degree.

ITS Global consider that these results are realistic expectations, subject to availability of appropriately skilled workers to provide the labour required to produce the increase in regional output. This will depend, in considerable part, on the ability of the Tasmanian TAFE

system to provide the required training for the local workers, who are recruited for the construction phase, in a timely and effective manner.

Impact on employment

The employment gains in terms of hours worked and the number of new jobs were also concentrated in the Bell Bay region. The increase in the number of jobs in the Northern SD was assessed at 1,000 in Year 1 and 2,000 in Year 2. In the Mersey-Lyell SD, the job increases were 100 in Year 1 and 300 in Year 2. These results imply that the construction phase would generate more jobs in the Bell Bay region, to the tune of 1,100 extra jobs in Year 1 and 2,300 in Year 2.

As with the GRP results, these outcomes will depend upon the availability of skilled labour and the ability of the Tasmanian TAFE system to provide the required training. Skilled labour availability is likely to be an issue for businesses throughout the region during the construction phase.

The regional unemployment rate appears to be about the same as the State as a whole, although its labour force participation rate is slightly lower. As has previously been noted, since late 2005 there have been signs that there is insufficient skilled labour nation-wide and that the shortages have been a significant constraint on output (Allen 2006). The Tasmanian Department of Education (2005) has drawn attention to the general shortage of skilled labour in Tasmania and concluded that the mill project would place additional strains on the current pool of skilled labour.

Given the nature of subsequent developments, this is likely to be an understatement of the prospective position. Moreover, the skills that are most required for the construction phase overlap quite heavily with those already in shortest supply.

While the flexibility now attained in the general labour market to adapt and adjust should not be overlooked or understated, there is a risk that labour shortages and wage pressures could emerge during the construction phase that would constrict the regional macroeconomic benefits that have been estimated above.

Management Response

As proposed in the economic assessment at the State level, Gunns and the Tasmanian authorities need to continue to work together to avert the risks to labour costs from the labour market pressures that are expected from the construction phase of the project. In this regard, an updated skills audit would be desirable, together with further detailed planning for expansion of TAFE and other training facilities. The 2005 Skills Audit Report provides details of a number of relevant budget initiatives by the Tasmanian Government that were in hand at that time (Department of Education 2005).

Significance of impact

The impacts for the Northern SD will be positive and high; they will be positive and moderate and positive for the Mersey-Lyell SD. The Bell Bay region takes in the more economically significant parts of both SDs. The outcome for it should therefore be somewhere in between these two but closer to that of the Northern SD, to take account of their relative economic weights. Economic impacts in the Bell Bay region will therefore be positive and high.

This assumes that the labour market issues are appropriately managed at the State level. The large employment requirements of the construction phase will benefit some unemployed persons, and the workforce generally through higher wages. Given the tightness of the labour market at present, however, there is a risk of the project generating excessive wage and other pressures on the labour market were it to proceed.

In such circumstances it is unlikely that the short term impact of the construction peak would be an unqualified positive for everyone in the region. With sufficient coordinated information

flow and planning, however, the net effect on the region should be positive and, to the extent that there are negative impacts, they would be transitory.

Issue	Distribution	Phase	Significance
Economic impacts	Regional	Construction	+++

References

- Allen Consulting Group 2006, The Bell Bay Pulp Mill Economic Impact Assessment Report, Report prepared for Gunns Limited, May
- Gunns Limited, Draft Integrated Impact Statement, July 2006
- CoPS (Centre of Policy Studies) 2004, Economic Impacts of a New Pulp Mill in Tasmania, Report prepared for the Tasmanian Department of Treasury & Finance, 13 October
- Department of Education 2005, Pulp Mill Skills Audit Report, August 2005
- Beca AMEC Limited 2006, Gunns IIS Peer Review IU01 of Gunns Limited Bell Bay Pulp Mills Draft Integrated Impact Statement, Report prepared for the Resource Planning and Development Commission, October
- Jonathan Geoffrey Stanford 2006, Expert Witness Statement, November

4.2

Phase: Construction

Issue: Transport

Impact level: State, Regional and Local

Overview

There will be transport impacts generated by the construction phase of the Project at the State, regional and local levels. Generally they will be associated with the use of the road system.

At the State level, the impacts will be confined to the Midland Highway, between Hobart and Launceston, but they will be negligible at worst.

The regional impacts are likely to be negative overall but low. The existing regional roads are generally more than adequate to handle the relatively minor amount of additional traffic that would be generated by the construction phase of the Project. The net economic benefit of the Project as a whole for the residents of the region is expected to greatly outweigh any regional transport impacts that have not been formally captured in the economic assessment.

The local impacts are considered to be negative and low to moderate in overall extent. There will be additional traffic movements on local roads during construction but the existing infrastructure has the capacity to deal with the additional traffic. The main traffic corridors, the East Tamar Highway in particular, have a high level of service at present and the additional traffic will not pose a significant threat of a deterioration of service. With sensible planning, the additional local traffic should be able to be managed in a way that minimises the additional traffic delays, noise and accidents.

Economic and Social impacts

State

The transport impacts from the construction phase of the Project are expected to be associated with the following transport tasks:

- The daily journey to and from the Bell Bay construction site for the workers and contractors who will be employed there from time to time;
- The inward movement of the plant and equipment, engineering assemblies and materials that will be used in the construction of the mill;
- The outward movement of the waste and by-products of the construction process.

Most of these tasks will be undertaken by road and the majority of the vehicle movements that they generate will be confined to the Bell Bay region.

Virtually all the workers and contractors that will be employed at the Bell Bay construction site are expected to reside within the region. Based on the economic modeling results undertaken by Allen Consulting (2006), ITS Global estimates that around 60 per cent of the additional value-added that is expected to be generated in Tasmania by the construction phase will be located within the Bell Bay region. Other things being equal we can expect that at least 60 per cent of the inward freight movements would originate from within the region. Because much of the plant and equipment for the Project is likely to be imported through the Port of Launceston or at wharf facilities at Longreach, this figure is likely to be a significant underestimate. Finally, we expect that the greater part of the waste and construction by-products would be disposed of within the region.

Of the inwards freight movements to the construction site from outside the region, ITS Global expects that the bulk would originate from the Greater Hobart Statistical Division (SD). This is based on our estimate that this SD would produce just over 80 per cent of the additional value-added that would be generated outside the Bell Bay region by the construction phase.

The increase in Gross Regional Product in the Greater Hobart SD, compared to the no mill Base Case, was estimated at 1.2 per cent in Year 1 of the construction phase and 2.4 per cent in Year 2 (Allen Consulting 2006). Other things being equal, these results suggest that the associated increases in total vehicle movements on the Midland Highway during construction are likely to be relatively modest.¹⁶

Regional

At its peak the construction phase will see up to 2,500 workers located on the construction site, with around 1,060 of them recruited from within the Bell Bay region (Gunns 2006). The balance will be recruited from the rest of Tasmania, interstate or overseas. Gunns also plans to house some 800 of the on-site construction workers in a temporary accommodation facility to be built at George Town (Gunns 2006).

This means that we can expect at most 1,700 people to commute by private vehicle to the Bell Bay construction site. Most of this travel is likely to originate from residences in Launceston and West Tamar. Some of these workers will probably choose to live further away from the construction site than this, in an attempt to avoid the rental increases that are expected to occur in Launceston, West Tamar and George Town during the construction phase – this is discussed in detail in Section 4.3. The data on the journey to work from the 2001 Census reveal that commutes over such distances are not uncommon for residents of northern Tasmania (ABS 2002).

Virtually all of this commuter traffic will eventually end up on the East Tamar Highway. Given the capacity of the Highway and its main feeder routes, any additional light vehicle traffic involving workers moving to and from the construction site will be relatively small compared with both the existing daily traffic on and capacity of these roads.

There will be additional freight traffic associated with moving equipment, materials, and plant components and pre-assemblies to the construction site. Most of this freight is expected to be carried by road but the extent of the vehicular traffic that it would generate is unclear.

The GHD (2006) report on the transport impacts of the project provides a lot of information and analysis that is useful for assessing the prospective truck and rail transport tasks generated by the project. Not much of this information, however, is useful for a regional perspective on the transport movements and none of it is specific to the construction phase of the project. Most of it relates to the operational phase.

Local

The transport impacts generated by the construction phase will involve some disruption for local residents and businesses. In particular the Project will generate additional traffic on the main road corridors in and out of the area. It will also mean substantial additional vehicular movements within the area, particularly between the construction site, George Town, the Port of Launceston and the Major Industrial Zone.

Evidence

State

Evidence of the social and economic impacts of the additional traffic that would be generated by the construction of the mill is generally lacking at the State level. The GHD report (2006) report provides some information and analysis on the regional transport implications of the project, but mostly this relates to its operational rather than its construction phase. This is an engineering, rather than an economic, analysis. In most instances, this is appropriate. It is

¹⁶ The expected increase in heavy vehicle movements on the Midland Highway would, of course, be significantly greater than the increase in total vehicle movements.

however difficult at times to distinguish clearly between local, regional and statewide transport impacts, and to reach assessments on the key economic and/or social impacts.¹⁷

The most relevant evidence of the impacts at the State level comes from the results of the economic assessment that was conducted by Allen Consulting (2006) on behalf of Gunns Ltd. This assessment was based on an analysis of the impact of the project on the various sectors of the economy using the MMRF-Green model. In doing so, the model separately identifies both the output from the transport sector and the ownership of motor vehicles but only at the State level. The modeling relationships representing these activities should, on average, capture most of their impacts on the rest of the economy.

The notable omission is any external costs from the additional traffic, most of which would be produced by the operation phase rather than by the mill's construction. In its operational assessment ITS Global concluded that they are unlikely to change the result of the economic assessment for the State. This conclusion also applies to the construction phase.

The construction phase will involve some additional road freight traffic, mostly along the Midland Highway, to move plant, equipment and materials to the construction site at Bell Bay. Although forecasts of this additional traffic were not prepared for the RPDC process, the economic modeling by Allen Consulting (2006) implies that that it would be relatively small and very temporary. It is therefore unlikely that the increase in truck traffic during the construction phase of the mill will reduce the Levels of Service on the State's trunk roads or significantly increase the number of accidents involving heavy vehicles.

Regional

Although some of the economic modeling results can be broken down to the sub-state level, it is not possible to do so for individual economic sectors down to the Bell Bay region. Doing so would require additional information and analysis to be conducted outside of the model. An analysis has not been carried out to determine the nature and the extent of the costs and benefits of the transport impacts at the regional level.

ITS Global does not believe that such further work along these lines is warranted to enable a decision to be made on the Project. It is clear that the regional transport impact during construction is likely to be low. There is no evidence that any additional car or truck traffic will substantially reduce the Levels of Service on key regional roads and, in any case, such impacts will be of short duration (less than two years).

The construction phase will involve some additional road freight traffic to move plant, equipment and materials to the construction site at Bell Bay. Forecasts of this traffic have been prepared but the results have not been comprehensively broken down to individual roads at the regional level. This is appropriate. The freight transport impacts will be local rather than regional in nature. There is no evidence that a relatively small and temporary increase in overall levels of truck traffic during the construction phase will reduce the Levels of Service on regional roads.

Equally, there is no compelling evidence to suggest that such an increase in traffic would generate a significant increase in the other external costs associated with road transport, including fatality and trauma levels.¹⁸

Local

Construction is scheduled to peak after 18 months, and then gradually decline. Determining whether the economic costs associated with the additional local traffic during construction exceed the net local benefits from the construction of the mill would require a separate cost-benefit study, which has not been undertaken for the RPDC process. Given the substantial net economic benefits to Tasmania flowing from the Project as a whole, however, and the relatively low level of the local transport costs and their short duration, such a study would

¹⁷ As noted in more detail in the sections on operational phase of the mill, the GHD report errs when it purports to reach cost/benefit conclusions from its engineering analysis. Cost/benefit is an economic concept, and therefore requires economic rather than engineering analyses.

¹⁸ Although such costs are generally thought to be associated with road transport, there is little consensus on how to estimate them (PC 2006 and BTE 1999).

almost certainly conclude that the additional traffic during construction would be justified by the wider economic benefits from the project.

Construction of the Project will generate substantial traffic on the East Tamar Highway near George Town. To a lesser degree it will also generate traffic on the Highway traveling to and from Launceston and other parts of the State and the region. Most of the local heavy vehicle traffic will be between the construction site, George Town, the Port of Launceston and the Major Industrial Zone. There will be some additional vehicular traffic associated with that part of the construction workforce which will reside in George Town.

There will be increased traffic volumes on the East Tamar Highway, but given its capacity this impact will be low. GHD (2006) has forecast that there will be an additional 900 vehicles and 40 buses per day during construction, mostly in the traffic peak hours. There will also be additional traffic to the construction site originating from the local area. The traffic on the local section of the East Tamar Highway and the site's access and George Town are expected to be acceptable in terms of their LOS.

As described in Section 3.2, GHD has forecast the additional daily traffic generated by the Project on the East Tamar Highway, under both a Rail and a No Rail option for moving logs into Bell Bay. It is a moot point as to whether the additional traffic on the East Tamar Highway should be regarded as a local or a regional impact. For the purposes of this analysis, this traffic can be described as being more local than regional. Given the absence of other local traffic estimates during construction, we include it here.

GHD forecast an additional 275 cars per day on the East Tamar Highway during construction. This can be compared with the 4,276 vehicles that used the section north of Batman Highway on average for each day in 2004 – in other words an increase of only 6.4 per cent. This is unlikely to lower the existing LOS on that highway. GHD also forecast an additional 128 trucks on the East Tamar Highway per day, which represents a further increase of 2.9 per cent over the average for 2004.

This additional local traffic during construction will not alter LOS on the East Tamar Highway. The increase is likely to be associated with a corresponding increase in the number of accidents involving log trucks and the number of associated fatalities. It is not, however, clear how many more accidents and fatalities would occur each year, but the increase is unlikely to be substantial.

Management response

The Tasmanian Government and Federal Government have already allocated \$72.1 million for the upgrading of the East Tamar Highway from now to 2009-2010. Given this, ITS Global concludes that there will not be a need for a substantial management response to manage the regional and local transport impacts during the construction phase of the project. There is however a case for monitoring of traffic flows during construction and for implementing traffic management plans to ensure that there are no unnecessary regional transport bottlenecks.

There will need to be some modifications to existing roads to allow vehicular access to the construction site. Gunns intends to redevelop the access road to the site during the initial phase of construction. The new access road will be in place when the significant increase in traffic to the site occurs.

GHD has proposed that a review of the East Tamar Highway should be undertaken to ensure signage, delineation and roadside hazards are identified and that temporary speed limits be imposed. Given the low local transport impact from the construction of the mill, it is likely that if these recommendations are implemented the overall local transport impact will be minimal. The more that construction workers are transported to and from the site by bus rather than private cars, the less likely are local traffic delays during peak periods.

An estimate of an additional local 1,186 vehicles per day during construction leads to the conclusion that even higher estimates could be supported adequately by the road network in George Town, with no significant adverse impacts on capacity or road safety.

Many of the additional workers required for the construction work will bring their own cars with them. Such workers are likely to use their own cars rather than buses if they can park their cars at the site free of charge or at minimal cost. Requiring such workers to use buses is not an option. Limiting the number of free car parking spaces at the site may help to increase the probability of workers using buses or car pooling, rather than their own cars to travel to the construction site.¹⁹

Significance of impact

The transport impacts from the construction phase of the Project at the State level are likely to be negative but effectively negligible in their extent.

Issue	Distribution	Phase	Significance
Transport	State	Construction	+—/—

The regional transport impacts from construction are likely to be negative. Although they will be more significant than those at the State level, in absolute terms they will be of low significance.

Issue	Distribution	Phase	Significance
Transport	Regional	Construction	—

The local transport impacts from construction will be negative. Although they will be more significant than those at the regional level, in absolute terms they will be of low to moderate significance.

Issue	Distribution	Phase	Significance
Transport	Local	Construction	—/—

References

Allen Consulting Group 2006, The Bell Bay Pulp Mill Economic Impact Assessment Report, Report prepared for Gunns Limited, May
 GHD, *Northern Tasmania Pulp Mill: Transport and Traffic Impact Assessment*.
 Keith Midson, *Bell Bay Pulp Mill Project: Expert Witness Statement*, January 2007
 Maunsell Australia, *Assessment of Financial and Economic Impacts from the Transfer of Freight from Rail to Road*, Draft Final Report, November 2005

¹⁹ Whether such an option would be practical would need to be determined. Presumably a large number of workers will need their own vehicles to transport tools and other equipment to the site. Buses may not be a practical option for trade persons who need access to their own equipment at the site.

4.3

Phase: Construction

Issue: Housing rentals and land prices

Impact level: Regional and Local

Overview

The demand for labour for the construction phase is expected to encourage immigration into the region, which in turn is likely to affect the availability and prices of residential housing and land. There will be upward pressure on rental prices; this impact can be considered moderate and positive. There will be a pressure on land supply, which will in turn generate greater wealth in the region. This can be considered moderate and positive.

However, these impacts will also generate low negative social impacts for some sectors of the community. It will be possible to mitigate these social impacts through: the timely release of suitable land, both locally and elsewhere in the study region; relevant Tasmanian Government agencies, the affected local government authorities and Gunns co-ordinating activities that are likely to affect the demand for residential accommodation in the region or its supply.

Economic and Social Impacts

At its peak the construction phase will involve the employment of some 2,900 workers at the construction site and will indirectly generate additional jobs offsite (Gunns 2006). It is estimated that the construction phase would generate a total of 3,400 additional jobs throughout Tasmania, at its peak, compared to what would have happened in the absence of the Project (Allen Consulting 2006).

It is estimated that 2,000 of these jobs would be located in Tasmania's Northern Statistical Division, which includes the regional area used for this assessment. It can be concluded that some the indirect jobs will also be located in the local and regional areas used for this assessment, such that the additional employment in the local area is likely to exceed 3,000 at the peak of the construction phase. These jobs will be located principally at George Town and Launceston.

Of the on-site workforce at the peak of the construction phase, Gunns expect to recruit around 1,060 workers from either the local area or the rest of the region used for this assessment (Gunns 2006). The balance of its construction workforce will be recruited from the rest of Tasmania, interstate or overseas. In addition, some of those who are recruited by Gunns and its suppliers from other employers in the region are likely to replace their labour losses by recruitment from outside the region.

In doing so, Gunns intends to concentrate on recruiting semi-skilled workers and training them up to the levels required through the TAFE system (Gunns 2006). Given the skill shortages currently evident in the rest of Australia, a similar approach is likely to be used by other employers to fill to the jobs indirectly created by the project. Among other things, this approach will maximize the likelihood of reducing local unemployment and minimize the need to import workers from outside the local area.

The economic benefit from reducing the region and locality's high unemployment rate compared to the rest of Australia has not, however, been captured in either of the economic assessments of the project completed to date (CoPS 2004 and Allen Consulting 2006). In addition, neither assessment estimated the extent of the net population gain generated by the construction phase at the regional and local levels.

Early in the project Gunns proposes to complete a temporary accommodation facility to house some 800 of the on-site construction workers at George Town (Gunns 2006). Any significant net inflow of construction workers beyond this figure will therefore put upward pressure on the

housing market — as well as on tourist accommodation capacity. In the case of the former, this pressure will manifest itself initially in a reduction in the vacancy rate followed by upward pressure on rental levels.

Initially the price pressure may be expected to be concentrated in the local segment of the regional housing market but locational competition from progressively more distant localities, particularly Launceston, should spread this pressure throughout the regional market. This greatly limits the scope for rentals to increase. The limit of the extent of any increase will tend to reflect the additional commuting costs that would be involved in the affected workers having to live in places that are further away from their place of work. Once the employment peak has passed, local housing rentals will tend to decline, although probably not to their pre-construction levels due to the need to house the additional workers required by the operational phase of the project.

Any rise in residential rents during the upswing in construction employment may lead to some residents being priced out of the housing market. Those most affected are likely to be concentrated in the George Town area. These people will have to relocate elsewhere in the region or the State. Some of them are likely to be on low incomes and their displacement will add to the demand for public housing assistance.

The upward pressure on rents may translate into increased construction of additional housing — as well as increased tourist accommodation capacity — both in the local area and elsewhere in the region. The economic assessment undertaken for Gunns estimated that the additional value-added by the construction sector over the construction phase will peak at around \$241 million compared to what would have happened without the Project (Allen Consulting 2006). This includes any increased value-added associated with new housing, either for rent or owner-occupation, as well as new tourist accommodation capacity.

Any new housing capacity completed prior to the peak in construction employment will tend to reduce the upward pressure on rentals. In the absence of a rising residential market, however, investors are unlikely to be strongly attracted by the mere prospect of a transitorily higher return, so any increase in capacity is unlikely to be relatively large.

To the extent that the supply of land suitable for residential development is restricted, either physically or by land-use regulation, the increase in residential construction locally could lead to upward pressure on local land prices. The extent of any land price increase will be limited, however, by the extent of locational competition that is exercised by other parts of Tasmania, both inside and outside the study region. The extent of the competition will reflect the additional travel costs involved. These impacts have not been captured by either of the economic assessments commissioned by the Treasury and Gunns

Evidence

A discussion of the economic assessments for this section is included in Section 3.3.

It is estimated that the Tasmanian housing stock would be unchanged by the construction phase compared to what would have happened without it. Its estimated increase in State-wide employment implies that rentals would increase in real terms as a consequence but its assessment cannot say by how much.²⁰

It is estimated that employment in the Northern Division would be around 9 per cent higher during the construction phase. Other things being equal, this suggests that house rental demand would rise by an equivalent amount and, with unchanged housing stock, rentals could easily rise by a similar magnitude.

However, the 2001 Census indicated that there might be significant underutilization of the housing stock in the George Town municipality (ABS 2002). Nearly 22 per cent of dwellings

²⁰ This reflects the fact that the MMRF Model cannot disaggregate State-wide impacts down to either the local or the regional level used in this assessment. Moreover it cannot disaggregate either the output of the construction sector into its residential and non-residential components or housing ownership services between their rental and owner-occupied components.

in George Town were unoccupied as were over 13 per cent of those in West Tamar.²¹ A proportion of these unoccupied dwellings were probably holiday or second homes, which could be expected to be made available for rental by construction workers, if local rents were to rise significantly during the construction phase. Moreover, the Census data also revealed that 12 per cent of the workers who live in George Town commute to work outside the region used for this assessment. A proportion of these commuters could be expected to relocate to the regions where they work, if local or regional rents were to rise in real terms.

An analysis of the housing and land price implications of the pulp mill project by a firm of property valuers and consultants forecast rentals would rise by a further 10 to 15 per cent if the Project were to proceed. This data is discussed in section 3.3.

The 2001 Census reveals the George Town municipality and the region have a significant proportion of their residents on low incomes (ABS 2002). Those on low incomes who are currently outside the public housing system are vulnerable to further increases in rental levels. Evidence suggests that a shortage of crisis accommodation is emerging in some parts of the region in the light of recent developments in the rental market (Offor Sharp & Associates 2006).

These emerging shortfalls are consistent with recent State-wide trends in public housing demand and supply (Auditor-General 2005). Waiting lists have generally increased, with the waiting times for those in highest category of need increasing by 115 per cent to more than 12 months. The increase in waiting times was due to declines in the numbers leaving the public housing system — due to the deterrent effect of rising house prices — and in the stock of public housing — due to changes in State Government policy. Despite these developments access to public housing across the various regions of the State remained equitable.

Any further rental increases within the region or locality would be very likely to increase the demand for public housing assistance, although the likely extent of the latter has not been estimated for any of the assessments carried out. Such a development needs to be seen in the context of the strong and broadly-based economic stimulus to the region associated with the construction phase of the project. This stimulus can be expected to lead to generally higher incomes and a reduction in the number of residents who were on a given low income level in real terms.

Brothers & Newton (2006) estimated that the median house price in George Town had risen faster than that in Launceston from the December quarter, 2004 to the June quarter, 2006. They also forecast that house prices in George Town would rise by at least a further 10 per cent were the Project to proceed. This is generally a positive impact for the community in question as it is simply one measure of their increased wealth. It will, however, tend to dampen the demand for owner-occupied housing, particularly by those on low incomes.

Management response

Offor Sharp & Associates (2006) has recommended that early action is the key to mitigating the social impacts of the project, including those caused by any subsequent rental increases. The action recommended included the timely release of suitable land, both locally and elsewhere in the study region. This, in turn, implies that the removal of state and local government regulation that leads to sub-economic land use would be of assistance.

Offor Sharp & Associates (2006) also noted the need for the relevant Tasmanian Government agencies, the affected local government authorities and Gunns to co-ordinate those of their activities that are likely to affect the demand for residential accommodation in the locality or region and its supply.

While such initiatives would undoubtedly involve additional public expenditure, the project will also generate substantial additional revenue for Tasmania that could be used to fund them. For example, once the Project is fully operational, the additional tax revenue that would be

²¹ This is reflected in the George Town Council's submission to the RPDC, which states that there is sufficient capacity within the existing housing market such that the construction of a workers' accommodation facility is unwarranted.

received by the Tasmanian Government has been estimated to be at least \$35 million a year (Allen Consulting 2006) and would continue to increase over time in real terms.

However, coordination between and consultation among relevant government agencies, the proponent and community groups is paramount in terms of identifying accommodation vacancies that may be allocated to either the proponent or crisis agencies.²²

Significance of impact

Regional and local

On balance the impacts of the construction phase of the Project on residential housing and on land prices at the regional and local levels are expected to be moderate and positive. The forecast price increases reflect the greater wealth that is expected to be generated for residents of the locality and region by the project during its construction phase.

To the extent that these developments will have negative impacts on those residents who are on low incomes and rely on the public housing system, the State's existing public housing programs should be capable of mitigating their worst aspects. Moreover, the Project should generate sufficient additional public revenue from which the State should be able to fund the additional expenditures that would be involved in doing so.

The negative impacts are likely to be far more pronounced during the construction phase than for the operations phase and are likely to be more evident in the local area than in the rest of the region. In any event the decline in local employment generated by the project after the construction peak has passed should see a reversal in most of the increase in local housing and land prices.

Issue	Distribution	Phase	Significance
Housing rentals and land prices	Regional	Construction	++

Issue	Distribution	Phase	Significance
Housing rentals and land prices	Local	Construction	++

References

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- Allen Consulting Group 2006, *The Bell Bay Pulp Mill: Economic Impact Assessment Report*, Report prepared for Gunns Ltd, May
- Auditor-General 2005, *Public Housing: Meeting the Need?*, Special Report No. 57, Tasmanian Government Printer, August
- Brothers & Newton 2006, *Bell Bay Pulp Mill Project*, Report prepared for Gunns Ltd, 27 November
- CoPS (Centre of Policy Studies) 2004, *Economic Impacts of a New Pulp Mill in Tasmania*, Report prepared for the Tasmanian Department of Treasury & Finance, 13 October
- Gunns 2006, *Bell Bay Pulp Mill Integrated Impact Statement*, 14 July
- Offor Sharp & Associates 2006, Expert Witness Statement by Tim Offor, Report prepared on behalf of Gunns Ltd, November

²² It is estimated that the 7,300 beds (Tourism Tasmania, 2007) currently utilized by tourists in the regional area have an average occupancy rate of around 65 per cent (interpreted from Hotel Occupancy Report, Australian Hotels Association, December 2006). The beds are located in holiday units, motels, hotels, hostels, and caravan parks with around 5,000 beds in the Launceston area (located in 75 facilities) and 2,300 beds in the rest of the region (located in 50 facilities). This suggests vacancy in the region of approximately 2,500 beds, well in excess of the regional worker influx. See Section 4.4.

4.4

Phase: Construction

Issue: Tourism and recreation

Impact level: State, Regional and Local

Overview

The Project will have negligible effect on tourism at State level during construction. While the Project's construction has the possibility of altering the revenue base from traditional tourism activities at local and regional levels, any overflow of visitors outside of these regions will have a positive, but negligible effect on tourism at State level.

There will be a minor impact on tourism at the regional and local levels during the construction of the project. Any impact on tourist numbers will probably be negative. Any loss of tourist numbers because of the Project's construction will have a high likelihood of being mitigated by the worker population influx. The temporary population influx has the potential to reduce vacancy rates of tourist accommodation within the regional area. Impacts on tourism from increased traffic volumes on tourist routes such as the East Tamar Highway will be negative and minor. However, they will also be manageable, and will not impact significantly on tourism provided an adequate management response is implemented.

There will be no noise and loss of amenity impacts within George Town, which is a highly industrialized area. Low negative impacts from noise may affect parts of the West Tamar and Rowella Point. These localized impacts need to be managed with suitable consultation with the community members affected and effective monitoring and mitigation actions.

Economic and Social Impacts

State impacts

The current economic impact of tourism as an industry is incorporated into baseline economic activity through the impacts of tourists on such sectors as retail, accommodation, food and beverage, and transport in broader economic assessments (Allen Consulting Group 2006 and CoPS 2004).

Tourism delivers significant economic benefits to Tasmania, contributing \$862 million (6 per cent) to State Gross Product in 2004 (STCRC, 2007). There were approximately 870,000 international and interstate visitors to Tasmania in 2006, plus a number of intrastate tourists (Tasmanian Visitors Survey, December 2006). Intrastate tourists are estimated to have generated 1.07 million overnight trips and 4.8 million day trips (National Visitors Survey, December 2006). Combined, all tourists are estimated to have spent \$1.8 billion, supporting the direct employment of approximately 23,000 Tasmanians and a further 15,500 indirectly (Tourism Tasmania 2007).

The Tasmanian tourism industry has a goal of "developing the industry into a contribution to Tasmanian economy of even greater significance, providing ever more economic, social and environmental benefit for Tasmania" (*Tourism 21 – Strategic Plan for Tasmanian Tourism Industry*, June 2004).

A key component of the strategies detailed in *Tourism 21* is the support and delivery of Tasmania's tourism brand, the "unforgettable natural experience". *Tourism 21* calls for the brand's promise to be achieved by providing "a range of visitor experiences based on the core appeals of (Tasmania's) nature, cultural heritage and food and wine."

The delivery of these core appeals has led to the development of cluster and touring route strategies to focus traveller interest on nature, cultural heritage, and food and wine. These

experiences have been identified by a number of submissions to the RPDC as the 'Tasmanian brand'. There is concern that this brand may be damaged in the construction phase of the Project.

Regional impacts

Tourism in the Tamar Valley, excluding intrastate overnight and day trips, in the 12 months to December 2006 was estimated at 448,000 persons (Tasmanian Visitor Survey, December 2006). Tourism is estimated to employ around 7.7 per cent of the workforce (3,300 people) in the region (Tourism Task Force, 2004).

The highest potential impact on regional tourism will most likely be associated with the reduction in accommodation bed spaces available for tourists during the construction phase. During the construction phase it is highly likely that current accommodation used by tourists will be used to accommodate the overflow of construction workers unable to find suitable housing alternatives.

In addition there are a number of potential flow-on impacts. Firstly, the use of traditional tourism accommodation to cater for the overflow of construction workers could inhibit the ability of an operator to rejoin the tourism pool after the construction phase is completed due to impacts of property condition, visitor demand and distribution loyalty. Second, there could be a significant impact on non-accommodation based tourism facilities due to differences between workers and tourists visiting the same type of attractions.

In addition the attractiveness of the Region for tourism and recreation opportunities could be negatively impacted by additional traffic movements during construction.

Local impacts

As noted above, tourism visitation in the Tamar Valley (including George Town) was estimated at almost 448,000 persons in the 12 months to December 2006. The Tamar Valley is part of a touring route strategy; it contains a number of designated touring routes based on nature, cultural heritage and food and wine experiences. The Tamar Valley cluster is unlikely to be affected by the construction of the Project.

As noted above, local tourism opportunities during the construction phase could be impacted due to reductions in accommodation available for visitors caused by demand for accommodation by construction workers.

The construction of the Project also has the potential to disrupt local tourism experiences via noise impacts, particularly in West Tamar.

It is highly unlikely that the Project will have a negative impact on tourism to George Town, which is a pre-existing industrial area. Any loss to amenity is likely to be negligible at best.

ITS Global acknowledges the potential reduction in visitors due to disruptions generated by construction activities. The additional heavy vehicle movements and vehicle movement associated with transport of construction workers, mainly between George Town and Bell Bay, could disrupt the tourism experience of visitors utilizing the East Tamar Highway. Any disruption of tourism patterns due to construction traffic is likely to be negligible.

Evidence

A number of organisations, businesses and individuals have expressed concern over the potential for the construction and operation of a pulp mill to adversely impact future levels of Tasmanian tourism and the quality of recreation experiences. These potential adverse impacts were, in the main, identified in the IIS Social Impact Assessment (SIA), associated work (Offer Sharp & Associates, 2006) and submissions to RPDC.

Construction activities are estimated to require an average of 2,900 workers over a 26 month period. With the accommodation of 800 workers in the George Town Facility and assuming 40 per cent (1060) of the construction workers currently live locally, other accommodation for

the estimated overflow of about 1000 workers will be required. It is highly likely that current accommodation primarily utilized by tourists (hotels, motels and caravan parks) will be used to accommodate this overflow, thus reducing the opportunities to accommodate tourists in the local and regional areas during the construction phase. It is estimated that the 7,300 beds (Tourism Tasmania, 2007) currently utilized by tourists in the regional area have an average occupancy rate of around 65 per cent (interpreted from Hotel Occupancy Report, Australian Hotels Association, December 2006). The beds are located in holiday units, motels, hotels, hostels, and caravan parks with around 5,000 beds in the Launceston area (located in 75 facilities) and 2,300 beds in the rest of the region (located in 50 facilities). This suggests vacancy in the region of approximately 2,500 beds, well in excess of the regional worker influx.

A small number of businesses marketing lifestyle, food and wine experiences immediately to the west of the construction site (Rowella Peninsula) may experience negative impacts due to loss of visual amenity and noise impacts (Offor Sharp & Associates, 2006). Additionally, the experiences of visitors could be lessened by the loss of visual amenity associated with construction of water pipelines (Trevallyn Dam to Bell Bay) and effluent pipeline (Bell Bay to Four Mile Beach) and potential disruption due to construction traffic in their areas.

Management response

There are a number of initiatives which could mitigate potential adverse impacts associated with the construction and operational phase of the Project on tourism. Initiatives include traffic management, noise management and operating standards. The impacts of these initiatives will be dependent on how effectively the initiatives are implemented.

No specific actions to mitigate potential adverse impacts have been observed by ITS Global for: probable reductions in accommodation available to tourists during the construction phase and flow on impacts to non-accommodation tourism attractions; or potential impacts on businesses dependent on marketing lifestyle and clean and green food and beverage experiences in the regional and local areas, particularly businesses immediately to the west of the Project, e.g. the Rowella Peninsula, due to loss of visual amenity.

It has been identified in other sections of this report that the demand for rental and holiday accommodation as well as recreational facilities and hospitality services will increase as a result of the construction phase of the project. This will significantly mitigate any lost revenue from any fall in recreational visitor numbers. It can be assumed that the consumption levels of the temporary worker population will not be significantly different to tourist consumers and that they are roughly equivalent.

Any impact on lifestyle and food and wine experiences on the Rowella Peninsula and the West Tamar could also be mitigated with a marketing campaign that specifically targets the worker population in the area.

Significance of impact

State

Within the context of Tasmanian tourism the impact of the Project will be neutral at the State level during construction. The State will attract the same number of visitors, if not more, due to the population influx from the Project's construction.

The State tourist industry and the Project can therefore co-exist throughout the construction stage.

Issue	Distribution	Phase	Significance
Tourism and recreation	State	Construction	+–

Regional

Within the context of Tasmanian tourism the impact of the Project will be low and negative at the regional level during construction. The area will attract the same number of visitors, if not more, due to the population influx from the Project's construction. While the consumption habits of the new population may be marginally different, the basic needs, i.e. housing, recreational services, hospitality, will be roughly equivalent. Transport infrastructure will not be adversely affected by the construction phase of the Project. The regional tourist industry and Project can therefore co-exist throughout the construction stage.

Issue	Distribution	Phase	Significance
Tourism and recreation	Regional	Construction	—

Local

Within the context of Tasmanian tourism the impact of the Project will be low and negative at the local level during construction. The area will attract the same number of visitors, if not more, due to the population influx from the Project's construction. While the consumption habits of the new population may be marginally different, the basic needs, i.e. housing, recreational services, hospitality, will be roughly equivalent. It is therefore highly likely that Tasmania could expect to attract the same number of tourists with or without the Project. The local tourist industry and Project can therefore co-exist.

Issue	Distribution	Phase	Significance
Tourism and recreation	Local	Construction	—

References

- Allen Consulting Group (The), "The Bell Bay Pulp Mill Economic Impact Assessment Report", Report prepared for Gunns Limited, May 2006.
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- Offer Sharp & Associates 2006, Expert Witness Statement, November 2006.
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- Tourism Task Force, "Estimate of Residents Employed in Tourism", July 2004.
- Tourism Tasmania. Personal Communication, 2007.
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4.5

Phase: Construction

Issue: Impact on services

Impact level: Regional and Local

Overview

The project will have an impact on local and regional services during the construction phase because it will require a large work force. There will be a peak workforce requirement of 2,900 people in the construction phase.

There will be an increased demand for some regional social services caused by the temporary expansion in the residential population. This impact can be considered negative and low. The quality of service provision for regional residents may be affected for a limited period at certain times. There will be a high negative impact on services locally during the construction phase. There will be an increased demand for some social services caused by a temporary expansion in the residential population. The quality of service provision for local residents may be affected for a limited period in some cases. The provision of essential local services such as water supply, waste disposal and other public infrastructure will not be affected.

The extent of the impact will depend on the net inflow of labour, the composition of the work force and the duration of the stay of individual workers. The need for a government response will depend on the existing service utilisation rates and/or service coverage.

Economic and Social Impacts

Construction of the project is expected to take 26 months. Around 40 per cent of the construction work force will be sourced from Tasmania. Some workers will re-locate from other parts of the state but most will be local or regional residents within commuting distance of the site. If this assessment is correct, about 1,000 of the peak work force will have no impact on regional services.

This suggests a potential population inflow of around 1,900 people at the peak of construction activity. It is reasonable to assume these people will be accommodated within a 50km radius of the site. The impact of this inflow of labour will be concentrated on local services because of the proximity of the site to George Town. But the limited supply of services in George Town will lead to a spill-over effect on some regional services.

An accommodation facility will be built to house 800 construction workers. However, most of this labour will impact on local services irrespective of their accommodation location. This is because of the proximity of the site to George Town and the type of services that will be affected by a workforce predominantly composed of single males.

The peak imported labour requirement is equivalent to a rise in the regional population of 1 per cent (based on 2001 population estimates) during the peak construction period – about 10 to 12 months. A change of this size suggests the impact on the utilisation of services outside the George Town area will be minimal. The impact will be concentrated in Launceston: it is the major regional centre for social services and entertainment; it will be a popular option for accommodation for workers who are unable to secure housing in the George Town area.

The majority of the imported work force is expected to be single males. Some families are likely to relocate into the local area during the construction phase. It means there will be very little impact on family related social services such as schools, aged care, family support, child care, child health, government housing, and crisis counselling.

Given the likely composition of the workforce, the negative impact on the provision of services will be concentrated in a few areas. Entertainment and health care are the two biggest needs

of a work force composed of single males. The local area and region are well serviced in terms of sporting and recreational facilities. Primary impact will be on law enforcement and health services. Impact on other types of services will be either insignificant or can be accommodated by the existing level of service.

Regional impacts

Launceston will be the focal point of the regional impacts. Services currently available that may be affected include:

- police services available 24 hours – number of stations and officers unknown;
- a 300 bed, 24 hour public hospital with emergency service facilities and two private hospitals (bed capacity unknown);
- ambulance services with full time paramedics (resources unknown); medical centres and a large number of GPs (resources unknown);
- a full range of full time specialist health care services;
- crisis counselling services – includes phone based services and drop-in centres;
- several fire stations and an SES capability;
- public and private education services (including 12 primary schools and 8 secondary schools);
- TAFE training facilities.

Launceston is well serviced in the provision of social services. The peak inflow of workers from outside the State is unlikely to have a significant impact. If a third of the imported labour were users of Launceston services, it would be equivalent to a rise in the city's population of 630 people (1 per cent based on 2001 estimates).

The biggest regional impact during the construction phase will be the increased demand for TAFE Training in Launceston. Special accelerated training courses will be provided. They will be utilised by imported and domestically sourced labour. The increased demand for these training services could be substantial. Workers will come and go during the construction period so the peak labour requirement is not a suitable reference point. The State Department of Education has assessed training needs during the construction period but the implications for funding and facilities are not specified.

The workforce residing in both the local and regional areas will use the health and medical services available in Launceston because of the limited availability of services in George Town. Hospital, GP and specialist medical services will be affected. But the existing services capabilities are expected to be sufficient to cope with the extra demands during the construction period. The impact on emergency services and other social welfare services such as crisis counselling and emergency housing are likely to be minimal.

The factors, evidence, management responses, impacts and their significance are summarized in the table below.

Local impacts

If two-thirds of the imported labour were users of local services, it would be equivalent to a rise in the local population of 1,250 people (10 per cent based on 2001 population estimates) during the peak construction period – about 10 to 12 months. This is a significant change and it could have a moderate short term impact on the utilisation of some services.

There will be an increased demand on services. Services currently available that are likely to be affected include:

- a police station not manned for 24 hours – number of officers unknown;
- a 15 bed hospital with no emergency service facilities;
- an ambulance service with a full time paramedic supplemented by volunteers²³;
- a medical centre and 8 Doctors (2 part time);

²³ The recent Tasmanian budget has altered the payment scheme for the State ambulance service to a 'user pays' system. Any financial burden associated with ambulance emergency services needed for the Project will therefore be borne by the Project.

- a restricted level of specialist health care services – optical (part time), physiotherapy (full time);
- a range of public and private education services including 3 primary schools and 3 secondary schools;
- two local fire stations and SES.

Concern on the impact on these services has been raised by the George Town Council. However, there will be a positive impact on public revenue for the Council. The classification of the workers accommodation facility for council rates has not been specified. A \$13,000-\$26,000 annual charge could apply to the facility for 2-3 years. Other public revenue gains include a water supply levy, water rates, sewerage supply charges and waste discharge fees. Annual water rates could be around \$22,000. Revenue from other charges is to be negotiated.

These factors, evidence, management response, impacts and their significance are summarized in the table below:

Table 4.4.1 Summary of impacts on services during construction phase

Factor	Regional/ Local	Evidence	Management response	Impact	Significance
Increased demand for law enforcement services	Regional	- Large transient labour force of mostly young single males will lead to more anti-social behaviour. Impact concentrated in Launceston as the major entertainment centre. - Current police resources may not be a sufficient deterrent to anti-social behaviour. - Net population increase of 1,900 at peak of construction activity (10-12 mths) suggests there will be some impact.	Prevention requires: – extra police – extra random breath testing on regional roads. Cost of short term relocation of police resources for State Govt unknown. Resource needs to be assessed.	Negative	Low
	Local	As above	As above	Negative	Moderate
Increased demand for education and work skills training services: – TAFE training – school enrolments	Regional	- Increase TAFE training needs. Availability of additional teaching resources unknown. Capacity of facilities to support extra classes unknown. - Regional area is well serviced by private and public school services. Few family relocations expected. Impact on demand for school places will be minimal.	- Launceston TAFE to provide accelerated training courses as required. Extra teaching resources will be required. Resource needs to be assessed. - Dept of Education believes existing school capacity will cope with any increase in demand.	Negative	Moderate
	Local	- Local area well serviced by school services. Imported work force not likely to involve families. Impact on demand for school places will be minimal. - Increased TAFE training needs in construction phase.	- Dept of Education believes existing school capacity will cope with expected increase in demand. - Spill-over effect on regional services – Launceston TAFE to increase training courses as required.	Neutral	Not significant

Factor	Regional/ Local	Evidence	Management response	Impact	Significance
Increased demand for health services: – GPs – specialists (optical, physiotherapy etc)	Regional	- Higher population will mean increased GP visits across the region. Some workers will use Launceston GP & specialist services. - Limited impact. Work force of single males tends to be low level use of GP and specialist services. Many workers on-site for short term assignments.	- Gunns may provide medical service for on-site medical needs. Extra GP services in George Town would limit the impact in Launceston. Resource needs to be assessed. - Launceston users of specialist services may occasionally face longer queuing times.	Negative	Low
	Local	- Anecdotal evidence for increased number of GP visits. Current service is 8 doctors (2 part time) & a medical centre. - No data on current wait times for specialists & GP consultations. No quantitative assessment of current rate of service utilisation. - Limited impact likely. Work force of single males tends to be low level use of GP and specialist services. Many workers on-site for short term assignments.	- Gunns may provide medical service for minor on-site medical needs. Extra GP services may be required for 1-2 years. - Role of State Govt in increasing GP service provision unknown. Resource needs to be assessed. - Users of specialists may face longer queuing times. Specialist services in Launceston are easily accessible alternative.	Negative	Moderate
Increased demand for emergency and medical support services: – hospital – emergency care – Ambulance – SES	Regional	- Increased population will mean increased use of Launceston hospital & ambulance services. - Greater risk of industrial accidents may require emergency response from Launceston. Reduced availability of services for residents. - Limited impact – work safety requirements and composition of work force suggest risks are manageable with existing resources.	- Launceston has sufficient public & private hospital services available. Resource needs to be assessed. - Spill-over effect on Launceston Hospital may require bed management plan for emergencies.	Negative	Low

Factor	Regional/ Local	Evidence	Management response	Impact	Significance
	Local	<ul style="list-style-type: none"> - Local services restricted: 15 bed hospital, no emergency reception, one ambulance & paramedic - Greater risk of industrial accidents requiring emergency services. Reduced availability of services for residents. - Limited impact – work safety requirements and composition of work force suggest risks are manageable with local & regional resources. 	<ul style="list-style-type: none"> - Limited capacity of local hospital can be managed by using regional services. Launceston has sufficient hospital services available. - Resource needs to be assessed. - Spill-over effect on regional services – Launceston Hospital may require bed management plan for emergencies. 	Negative	Low
Increased demand for other social services: <ul style="list-style-type: none"> – mental health – crisis counselling – emergency housing services – legal services – aged care, child care, family care 	Regional	<ul style="list-style-type: none"> - Increased population will mean increased used of social services in Launceston. No data on service utilisation rates. - Limited impact – work force of single males tends to be low level users of these services. Many workers on-site for short term assignments. - Reduced availability of emergency housing. Limited impact – residents in need of emergency housing will be very small. 	Launceston has a range of other welfare services. Likely to be sufficient capacity to cope with extra short term demand. Increased rents & reduced availability of housing for short term emergencies in George Town may have spill-over effect on emergency housing services in Launceston. May require extra Govt funding for welfare service providers.	Negative	Low
	Local	As above	<ul style="list-style-type: none"> - Frequency of part time services could be increased if required. - Resource needs to be assessed. - Increased rents & reduced availability of housing for short term emergencies may require extra Govt funding for welfare service providers. - Spill-over effect on regional emergency housing services – Launceston is an easily accessible alternative & likely to be used as required. 	Negative	Low
Increased demand for utility services: <ul style="list-style-type: none"> – water – waste disposal – quarry construction material 	Local	<ul style="list-style-type: none"> - Municipal landfill too small and close to full capacity. Quarry for construction materials. - No impact – water charges will apply; no affect on infrastructure capacity. 	<ul style="list-style-type: none"> - New landfill facility to be developed for construction activity. - Company to establish quarry to supply construction material. 	Neutral	Not significant
Public revenue from rates, water supply charges, waste disposal fees	Local	Local council will receive revenue from rates and service provision charges.		Positive	High

Significance of impact

Regional

In general, the low negative impact on regional services will be limited for a relatively short time period. Peak labour requirements are expected to be during months 12 to 22 of the construction schedule. The biggest regional impact in the construction phase will be a significant increase in demand for TAFE training services in Launceston. The State Department of Education has assessed the likely training needs but an estimate of the impact was not provided. A temporary increase in teaching resources may be necessary. An assessment of these needs is required.

A temporary increase in police services in Launceston may be necessary. Launceston is the major entertainment centre in the region and it will be a focal point for weekend recreational activities by the imported work force. An assessment of these needs is required. The impact on medical and health services in the Launceston region is likely to be limited. In general, the existing level of services is expected to be sufficient to cope with additional short-term demands that are likely to arise during the construction phase.

Issue	Distribution	Phase	Significance
Local services	Regional	Construction	+–

Local

The negative impact on local services will be for a limited period. Peak labour requirements are expected to be during months 12 to 22 of the construction schedule. During this period a low negative impact on the availability of some services can be expected. A temporary increase in police and GP health services is likely to be necessary. An assessment of these needs is required. The potential negative impacts will be concentrated over a short period when the work force requirements reach a peak. These issues can be addressed through an increase in State Government funding to temporarily supply additional public services or encourage extra private service providers.

Concerns about the availability and rental cost of short term emergency housing in the peak construction period need to be kept in perspective. The impact will be limited as very few local residents (population 13,000) will need to use this service during this period. For a limited period there may be a small spill-over effect on regional demands for emergency housing.

There will be a significant positive impact on local Government revenues for 2-3 years during the construction phase. The size of the revenue gain is dependant upon negotiations in respect of the workers accommodation facility for 800 people.

It should be noted that George Town has adapted to the construction and operation of the Comalco aluminum plant, the TEMCO smelter and the Bell Bay Power Station among others. Historically these types of impacts are not extraordinary.

Issue	Distribution	Phase	Significance
Local services	Local	Construction	+–/–

References

Draft Integrated Impact Statement prepared by Gunns Ltd.
 Bell Bay Pulp Mill IIS Social Impact Assessment prepared by GHD for Gunns Ltd.
 Integrated Impact Assessment for Workers Accommodation Facility prepared by Pitt v& Sherry for Gunns Ltd.

The Bell Bay Pulp Mill Economic Impact Assessment Report prepared by the Allen Consulting Group for Gunns Ltd.

Expert Witness Statement of Jonathon Geoffrey Stanford, Insight Economics Pty Ltd, engaged by Gunns Ltd.

Expert Witness Statement of Tim Offor, Offor Sharp & Associates, engaged by Gunns Ltd.

Economic Impacts of a New Pulp Mill in Tasmania, Report by the Centre of Policy Studies to the Tasmanian Department of Treasury and Finance.

Submissions to the RPDC on the Draft IIS

4.6

Phase: Construction

Issue: Population and social structure

Impact level: Regional and Local

Overview

The impact on the population and social structure of the region of the construction period will be short term and is likely to be moderate and positive overall given the relatively small increase in population. This is provided measures to manage the social impacts of the construction phase are implemented appropriately.

The impact on the local area is likely to be greater, an expansion overnight of the population by 5 per cent. The impact is likely to be moderate and positive overall, provided measures to manage the social impacts of the construction phase are implemented appropriately. If those measures are not implemented, the impact is likely to be major and negative.

If the mill does not proceed, it is likely that the trend in population and social structure will follow the base case. This includes a decreasing and ageing population at the local level with young job seekers leaving the area for work.

Economic and Social Impacts

Regional Impacts

The construction phase is estimated to last 26 months. It is estimated that it will involve the employment of 2,900 people at the peak of the construction phase; a period of 10 months.²⁴ In addition, it is estimated that an additional 3,400 jobs will be created indirectly throughout Tasmania during the construction phase.

Of the on-site workforce at the peak of the construction phase, Gunns expects to recruit 1160 workers from Tasmania. They have a committed policy of preferential sourcing of employees from the local and regional areas. The remainder (1750 workers) is expected to be sourced from mainland Australia and overseas. In addition, some workers who are recruited from businesses within the region will be replaced in their former jobs by workers from outside the region. Therefore the majority of the indirectly created jobs are likely to be located within the region and may attract additional people to the local area and region.

Population size

There are likely to be additional population increases at the local level from construction workers and people moving to fill employment opportunities in the region. The increase cannot be accurately estimated because the number of workers and those with families is impossible to know. Should 3000 move to the region, this would increase the population of the region by about 2.5 per cent for two years.

Social structure

In 2001, 83.5 per cent of the local population was born in Australia, with 6.3 per cent born in the UK. English was the only language for 93.5 per cent of local people. It is estimated that 10 per cent of the Project's construction workforce will be sourced overseas. These workers are expected to diversify the origin and language ability of the local population.

The construction phase will most likely increase the diversity of the local population as well as its size. The influx of construction and other workers will have a substantial impact on the social structure of the local population. It is assumed that most of the construction workers will

²⁴ The peak period has been identified as months 12 to 22 of the construction phase schedule.

be single males. However, families and individuals other than single males could also move to the local and regional areas.

Socio-economic profile

The 2001 Census found that mean weekly individual income in the local area (\$200-299) was relatively lower compared to the rest of Tasmania and Australia (\$300-399). The mean weekly household income in the local area (\$500-599) was also relatively lower than for Tasmania (\$700-799) and Australia (\$800-899).

Social structure

The total number of individuals of working age and families in the local area will increase. The 2001 Census showed 83.5 per cent of the local population was born in Australia with 93.5 per cent of people having English as their only language. Gunns Limited estimates that 10 per cent of the construction workforce will be sourced overseas with a further 50 per cent to be sourced from mainland Australia. The diversity of origin and language spoken in the local population is likely to change in the construction phase.

Social interaction and cohesion

Although population growth was identified as a positive impact of the Project, concerns have been raised about the impact of population increase and social change on older members of the community, and to social interaction in general. The influx of construction workers will be temporary. Any such effort to mitigate the impact of greater diversity arising from the long term increase in employment should address any such apprehension in the community.

Local impacts

Approximately 1750 non-local workers will be employed on the construction site at George Town. It is likely that beyond the 800 construction workers to be housed by the company at the accommodation facility, the population will be spread regionally as well as locally. The distribution of the population increase will reflect current patterns of settlement for people working in George Town; that is, a significant portion will reside in Launceston and the region and commute to work.

It will also be influenced by the availability of accommodation. The supply of accommodation in the local area is limited in the short term. Competition for rental and holiday accommodation by construction workers has the potential to move some low-income renters out of the local market (into public housing or housing in another location). The issue of impacts on residential housing rentals and land prices is covered in Section 4.4.

The impact on the population size in George Town and the surrounds will be significant.

Population size

George Town's population in 2005 was 6,679, an increase since the 2001 Census, but a decrease from 7,151 in 1993. The population in the immediate vicinity of George Town, Beaconsfield, Beauty Point and surrounds is approximately 13,000. An influx of 1750 workers represents approximately 13 per cent of that population. If they all moved to the area this would represent a major change in the number of people living and working in the local area. The 2001 Census indicated that nearly half the people who work in George Town commute from other municipal areas, with 21.7 per cent of the workforce commuting from Launceston. It is likely that the settlement of people moving to work on the construction phase would be spread similarly.

The base case scenario for George Town without the mill is a projected decrease in population between 2006 and 2018, with an increasing proportion of the population aged 75 years and over (Department of Health and Human Services 2007). The net population gain to the local area and the change to social structure has not been estimated to date.

Social structure

In the construction period, the proportion of males to females is likely to change. In 2004, the proportion of males in the George Town population was 50.3 per cent. That is likely to rise.

The age structure of the population is also likely to change. In 2004, 39.3 per cent of the George Town population was over 45. This proportion of the population over 75 is predicted to increase in the future from 5.4 per cent in 2004 to 7 per cent in 2018. There is likely to be an increase in working age persons (15 to 55 years) and families in George Town during the construction phase.

According to the 2001 census, the median age of the local area was 37 years, consistent with the rest of Tasmania. There were 3,723 families in the local area. The number of individuals of working age and families is likely to increase.

Socio-economic profile

George Town has a significant proportion of relatively low income residents who also have relatively lower levels of education compared to the rest of Tasmania. The 2001 Census revealed that the George Town municipality generally had a lower median income, a lower proportion of owner-occupied housing, a higher rate of unemployment and a lower rate of labour force participation compared to Tasmania as a whole or to Australia.

Although the rate of unemployment has decreased, George Town residents still have a lower median income and are considered relatively socio-economically disadvantaged to Tasmanians generally according to ABS SEIFA (Socio-economic Indexes for Areas) statistical indexes. Low income residents who are currently outside the public housing program would be vulnerable to a further increase in rentals. This subject is covered in Section 4.4.

The construction phase of the Project will improve the average education and income levels of the population through the increase in population from workers. It will also create employment and demand for local goods and services. It will have a positive impact on the average incomes of local people.

There is a possibility that low-income residents could be negatively affected by increased demand for housing and local services. The issue of impacts on residential housing rentals and land prices is covered in Section 4.4.

The substantial increase in population size and diversity and changes to the population's socio-economic position over a short period has implications for the supply of local community and emergency services. The social and economic impacts of the construction of the Project on local services is considered in Section 4.5.

The impact on population structure will be major given the large number of workers to be accommodated in George Town. Beyond that facility, the spatial distribution of changes in social structure will be influenced by accommodation availability and pricing.

There is a lower proportion of private housing (owned or being purchased) in George Town compared to West Tamar or Tasmania in general. There is a greater proportion of rental housing and public housing in George Town than Tasmania in general (Offor 2006). Approximately one fifth of the population of George Town is in receipt of selected Centrelink payments (Department of Health and Human Services).

George Town and the local area had a lower level of education than the region and Tasmania. 66.4 per cent of people in the local area had no tertiary qualifications, compared to 59 per cent in Tasmania generally. 4.2 per cent of people in the local area had bachelor degrees, compared to 7.4 per cent at the state level.

The socio-economic indicators for the community as a whole will rise as more educated and skilled workers move to the area for the construction phase. The project is also projected to generate an increase in employment, economic activity and average incomes across the community.

Employment and education

Employment is highlighted in a significant number of public submissions and throughout the consultation processes as a major local benefit of the construction phase and the pulp mill project as a whole. Specific benefits include the 'upskilling' of the local community through formal and on-the job training and the creation of job opportunities to provide work for the unemployed and to retain job seekers who might otherwise move within Tasmania or interstate for work.

In 2004-05 ABS statistics show George Town as having a higher unemployment rate (7.8 per cent) than surrounding areas such as West Tamar (5.0 per cent), Launceston (5.8 per cent) and Devonport (7.7 per cent). Over the last four years, the unemployment rate in George Town has been falling. In the March quarter 2006 it was 6.2 per cent, slightly below the Tasmanian rate of 6.9 per cent (Department of Health and Human Services).

The increase in job opportunities through local employment sourcing and related training initiatives is likely to draw down unemployment in the local area. Economic modeling predicts the mill will provide an additional 2,300 jobs in Northern Tasmania in the second year of construction (see Section 4.1.2).

According to the 2001 Census, the largest proportion of persons in a particular industry in George Town was manufacturing (24.4 per cent), followed by retail trade (12.7 per cent), health and community (9.4 per cent) and education (6.8 per cent). The highest proportion of persons employed in a particular occupation was labourer and related (20.5 per cent), followed by trades and related (16.6 per cent), intermediate clerical sales and services (12.7 per cent) and then professionals (12.6 per cent). The occupational profile of the local community is likely to change during construction as the proportion of labourers and trade and related employees rises.

Social interaction and cohesion

Concerns have been raised during public consultation undertaken in preparation of the draft IIS and public submissions about the social impacts of an influx of male construction workers. Concerns include both the direct social impacts of the construction workers (behaviour, social integration) and the social cohesion of the community at large during the construction phase, as well as the possibility of professionals leaving the area as a result of the Project.

Although population growth was identified as a positive impact of the Project, concerns have been raised about the impact of a temporary population increase and social change on social cohesion and local lifestyles. It has been suggested in social impact studies for the project that there may be social tension and division related to support for the project and the integration of the temporary workforce into the local community. It is possible that some residents may choose to relocate due to changes in the social dynamics of the community or changed perceptions.

Some of these concerns may abate through effective communication by the Project management and experience once construction has begun. The impact of the construction phase of the Project on local community attitudes and local amenity is considered in detail in Annex II.

The social impact of the behaviour and leisure activities of construction workers has also been raised. There is potential for benefits to sports, recreation, entertainment and tourism activities. However, there are also concerns about anti-social behaviour and safety.

The impact of the construction phase of the Project will depend heavily on the effective planning and implementation of management mitigation measures. With appropriate and proactive management of social impacts and engagement with the community, the impacts can be moderated for the balance of the construction period.

Without mitigation, the increase in population and changes in social structure is likely to have a major negative impact on social interaction and cohesion in the local area. Effective implementation of communication activities within the community and management of the behaviour of construction workers is likely to render the significance of the impact to minor

negative. The impact of the project on community attitudes and local amenity is considered in Annex I.

Evidence

The same material that is reported on the impact of the Project on Population and Social Structure of the Operational Phase was used for this assessment.

Management response

A number of measures have been proposed in the draft IIS to maximize the social and economic benefits and to minimize the negative impacts of the project on the local and regional community.

The construction of an 800-bed worker accommodation facility is a key measure to minimize the impact of the temporary increase in the local population. In addition, Offor Sharp and Associates propose active management of accommodation for workers beyond the accommodation facility and monitoring of accommodation availability. These measures may alleviate some of the temporary pressure on residential housing.

Offor Sharp and Associates recommends the development of a community consultation plan, a complaints handling and disputes resolution process and a community liaison committee. Effective communication with local government, local service providers, affected community members is proposed. These measures are important to addressing community concerns about the social impacts of the construction phase.

As mentioned above, Gunns Limited has proposed a local employment and purchasing policy. Offor Sharp and Associates has noted the importance of developing a local skills register and working with local employment agencies to maximize the benefit of the employment policy. Gunns Limited has also developed an initial proposal for an education and training program to provide unskilled and semi-skilled workers with appropriate qualifications.

These programs, if well implemented, should maximize the regional employment benefits from the construction phase and maximize the socio-economic benefits to the local community, including through targeting unemployed and low-income residents. Offor Sharp & Associates has proposed a social monitoring activity that if implemented appropriately can address any negative socio-economic trends.

A number of measures have been proposed to manage the social impacts of the workers housed at the accommodation facility and living in the local area generally. These include initiatives to encourage worker participation in local sports, cultural and recreational activities, appropriate amenities at the worker accommodation facility, an induction program for project workers, including a brief on expected behaviour and rules for and monitoring of worker behaviour. Gunns Limited has also signaled consideration of including a worker code of conduct as part of employee conditions for work.

If implemented, these measures are likely to significantly minimize the impacts of the change in population size and social structure on the local community during the construction phase. It will be necessary however, for the Project management to take an adaptive approach to managing social impacts and maintain open channels of communication with the local community through the liaison committee.

Significance of impact

Regional

The impact on the population and social structure of the region is likely to be neutral to low given the relative increase in population. The impact is likely to be positive, provided

measures to manage the social impacts of the construction phase are implemented appropriately.

If the mill does not proceed, it is likely that the trend in population and social structure will follow the base case. This includes a decreasing population in some localities with young job seekers leaving the area for work and an increase in others due to lifestyle choices.

Issue	Distribution	Phase	Significance
Population and social structure	Regional	Construction	+ -/+

Local

The impact is likely to be moderate and positive, provided measures to manage the social impacts of the construction phase are implemented appropriately. If those measures are not implemented, the impact is likely to be major and negative.

It should be noted that George Town has adapted to the construction and operation of the Comalco aluminum plant, the TEMCO smelter and the Bell Bay Power Station among others. Historically these types of impacts are not extraordinary.

If the mill does not proceed, it is likely that the trend in population and social structure will follow the base case. This includes a decreasing and ageing population at the local level with young job seekers leaving the area for work.

Issue	Distribution	Phase	Significance
Population and Social Structure	Local	Construction	++

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Annexes

Annex I Community Values and Attitudes

Annex II Analysis of Submissions to the RPDC on the Draft IIS

Annex I

Community Values and Attitudes

Drivers of Community Values and Attitudes

Community values at individual and community levels are expressed through complex trade-offs between social, economic, environmental, cultural and political frameworks. Community attitudes represent expressions to events which impact on the value framework, such as the proposed establishment of a pulp mill, and the effectiveness of management of issues associated with the event, such as the impact of an event on community services and access to and affordability of accommodation.

The proposed construction and operation of a pulp mill at Bell Bay and associated support activities (wharf, landfill, quarry, water reservoir, water supply pipeline, effluent pipeline and workers' accommodation) is the driver of potential changes in the current social, economic, cultural, environmental and political settings for the local community, regional community and Tasmanian community.

The purpose of this chapter is to identify the significant community values impacted by the proposed Project, and the expressions of community attitudes associated with the proposed Project. This work will provide information relevant to understanding and evaluating the net social and economic benefits of the Project, a core requirement of this review.

Expressions of Community Attitudes

The spectrum of community attitudes to the Project is compiled from an individual's assessment of the significance of the potential beneficial and adverse impacts across social, environmental, economic and cultural dimensions; and the relationships between the capture of benefits and effectiveness of management of the adverse impacts of the proposed Project.

While the focus of this Review is to evaluate the net social and economic benefits, delivery of this evaluation requires the analysis to be informed by environmental issues impacted by the proposed Project. Environmental issues such as noise, visual amenity, water quality, emissions, waste disposal and maintenance of terrestrial and aquatic flora and fauna can potentially impact on the social and economic well being of communities, often with social and economic impacts not being distributed equitably.

It should be noted that commentary on forestry processes associated with the Project development are included in a separate chapter.

As would be expected the proposed construction and operation of a pulp mill and auxiliary facilities has generated a wide diversity of attitudes and demands for actions to be taken to address specific areas considered to be important.

At a macro-level community attitudes to the proposed construction and operation of the Project fall into three main categories, namely:

- blanket opposition to the pulp mill proposed;
- total support for the pulp mill; and
- support for the pulp mill provided desired and agreed environmental and social targets are met.

The Proponent in preparing Social Impact Assessment (SIA) for IIS for Bell Bay Pulp Mill surveyed community leaders and the general community at local, regional and Tasmanian level (Bell Bay Pulp Mill IIS – SIA, July 2006). Broadly the results of these surveys indicate that there is majority support for the Project at local level (62 per cent), with support reducing at regional (52 per cent) and State (41 per cent) levels. Conversely opposition to the Project is highest at State level (35 per cent) decreasing at regional (27 per cent) and local (24 per cent) levels.

This survey also identified the key community issues associated with the Project. Positive issues identified included increased opportunities for employment, economic activity, value adding and population growth.

Major negative issues identified focused on environmental impacts and potential intensification of forestry practices. Tasmanians Against Pulp Mill (TAP) has recently reported, based on a telephone survey of 1,000 Tasmanians in the 63 telephone district (covering Northeast Tasmania) that 46 per cent expressed opposition to Gunns current proposal for a pulp mill in the Tamar Valley, 36 per cent supported a pulp mill in the Tamar Valley and 18 per cent were undecided.

Gaps in Surveys

Both the survey results in SIA and the work of TAP generate and consolidate high level responses built around a 'yes' or 'no' response. Neither survey allows for the drilling down to identify what specific factors/issues generate responses from individuals, which would in turn allow a more detailed identification of (and potentially more efficient and effective management response to) social and economic issues.

More effective use of survey results for decision makers could have been achieved by examining the consistency of responses to potential social, economic and environmental issues between the different demographic, social and economic groupings at the local, regional and state levels.

The thrust of the SIA for the Project does not provide a level of sensitivity to identify the distribution of potential social and economic impacts (beneficial and adverse) within the various human groupings and communities or the trade offs which must be addressed to generate equitable distribution.

Compilation of Community Attitudes

Within the context of the survey results reported, it is considered useful to summarize the range of community attitudes to the proposed Project. The summary of community attitudes will provide useful background information to the detailed evaluations of social and economic impacts of the proposed Project and the judgements on net benefits.

In compiling a summary of community attitudes to the processes and outcomes proposed for the Project, the information in SIA was supplemented with information from the following sources:

- articles in local, regional, Tasmanian and Australian newspapers;
- articles and opinions expressed on websites for a range of organisations advocating both support and opposition to pulp mill – for example, Tasmanians Against Pulp Mill (TAP), WWF, Wilderness Society, Gunns Ltd, NAFI;
- web blogs;
- public letters published in local, regional and national newspapers;
- expert witness statements prepared by Mr Jonathan Stanford (Insight Economics Pty Ltd), and Mr Timothy Offor (Offor Sharp & Associates Pty Ltd).

To assist in tracking social, economic and environmental impacts on community values and attitudes, schedules have been prepared to consolidate responses at local, regional and State levels, broken down between construction and operational phases for the potential Project. These schedules are incorporated into the following pages.

As part of the process of informing the evaluation of social and economic net benefits the schedules also incorporate a judgement on the overall/aggregate impact of the expression of community attitude together with a judgement on the significance/relative importance to the community of the community attitude in relation to successfully constructing and operating the potential Project.

The overall impact of expressions of the community attitudes is a judgement on whether the potential changes generated by the proposed Project are considered by the local, regional and Tasmanian communities to be positive (i.e. high likelihood of increasing community well being), neutral, or negative (i.e. high likelihood of decreasing community well being).

The judgement on relative levels of significance/importance to the community of the specific expression of community attitudes has been categorised into: high significance, moderate significance or lower significance based on the authors' informed assessment of how the community perceives the significance and importance of benefits or the significance and importance of adverse impacts of the Project.

In making these judgements three comments are relevant. First, the aim is not to provide a comprehensive list of social and economic impacts; that can be found in work referred to earlier.

Second, community attitudes to a major development such as a pulp mill will depend ultimately on how the projects and any impacts are managed.

Third, in some cases where the expression of community concern may be rated as 'Significant', this does not indicate that the particular expression is an accurate assessment of the impact itself. As this report shows, in several cases, such as impact on transport and tourism, it does not.

Cumulative impacts on community values and attitudes

During the construction phase there is wide recognition and expectation that the social and economic base, particularly at local level, will increase significantly and overall this is beneficial to the majority of people and communities at local, regional and State levels.

Within these expected social and economic benefits there is also recognition that to obtain these benefits the potential adverse social consequence, particularly consequences associated with equitable access to and affordability of accommodation, and unintended economic impacts on business, particularly on businesses dependent on the non-accommodation section of the tourism sector and life styles and businesses immediately to the west of the Project site, need to be effectively managed.

Following the construction phase there is strong recognition in the Tasmanian community that while the overall employment levels will decrease, the operation of the Project will provide Tasmania with more diverse employment opportunities, generate higher levels of economic activity through value adding and provide a broader framework for other industries and services to develop in Tasmania. These economic benefits will generate flow-on social benefits.

As with the construction phase the operation of the Project has the potential to have significant adverse impacts at the local, regional and State levels.

The most significant high profile adverse impact is associated with the potential impact on the lifestyles and wealth of residents and landowners immediately to the west of the Project, and on communities whose businesses dependent on a "clean and green image" of natural resources used to support economic activity.

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Schedule 1.1**Phase: Operation****Issue: Community Attitudes to Social and Economic Impacts****Impact level: State**

Community Values	Community Attitudes	Impact	Significance of Impact
Improve the economic performance of Tasmania	Support for opportunities the operation of the Project would bring to Tasmania in areas such as: <ul style="list-style-type: none">• benefits of increased, upskilled and diversified employment;• increasing the gross state product through value adding;• diversifying the industrial and manufacturing base for Tasmania;• increasing the competitiveness of Tasmanian industries;• additional tax revenue;• creating opportunities for additional business opportunities due to availability of additional resources (for example, electric power) and economies of scale to some firms supplying the Project (e.g. chemical industry).	Positive	High
Minimize adverse impact to current and future industries	Operation of Project should be conducted within a framework that does not significantly impact on the economic performance of current or growing industries such as tourism.	On balance Negative	Moderate
Maintenance of environmental values and ecosystems	Desire for Project to be operated to maintain the health and vitality of Tasmania's ecosystems and natural landscapes and continue to support the development of industries that depend on nature.	Negative	High

Schedule 1.2
Phase: Operation
Issue: Community Attitudes to Social and Economic Impacts
Impact level: Regional

Community Values	Community Attitudes	Impact	Significance of Impact
Contribution to social capital of region	Demonstration of the best way for the regional community to productively and efficiently capture the short and long term social benefits associated with a complex industrial enterprise covering community services, cultural development, increased permanent and diverse employment opportunities, education, training and infrastructure	Positive	High
	Demonstration of effective strategies and tactics to minimise the negative social impacts of operating a large complex industrial enterprise	Negative	Moderate
	Demonstration of effective strategies to increase harmony between opponents and supporters of the Project.	On balance Positive	Moderate
Increased economic activity	Broad support for economic benefits the operation of Project would deliver, including: <ul style="list-style-type: none"> • additional opportunities for employment of diversity of skilled people; • additional regional economic activity in retail and service sectors and regional firms supplying goods and services; • incentives to provide enhanced levels of community, educational, training and cultural and recreation services; • create opportunities for additional industries to be developed because of economies of scale developed in a number of industries supporting the Project and production of green power for Tasmanian grid. 	Positive	High
Minimise adverse impacts on current industries such as tourism	Recognition that operation of Project could reduce the demand for regional tourism due to reduction in attractiveness of region, particularly West Tamar as tourism destination.	Negative	Moderate
Maintenance of community health	Concern that operation of Project will adversely impact on community health due to: <ul style="list-style-type: none"> • uncertainties of impact of odour, emissions and marine discharge; • uncertainties on impact on business that depend on natural resources (e.g. fish) if clean and green image of region adversely impacted by Project. 	Negative	Moderate

Schedule 1.3
Phase: Operation
Issue: Community Attitudes to Social and Economic Impacts
Impact level: Local

Community Values	Community Attitudes	Impact	Significance of Impact to Community
Changes in local “way of life” with focus on George Town	<p>Wide recognition within local community that continuing operation of Project will generate a diverse array of social trade-offs.</p> <p>Positive social impacts cited include:</p> <ul style="list-style-type: none"> • benefits of continuous and expanded direct employment opportunities for approximately 300 persons; • strengthens the economic case for enhancement of community services, recreational facilities, education and training, health and safety, and public transport; • deepens the social structure due to upskilling and employment of broader range of people, diversity of skills base; • increase in health of people because of increased average income, and • reduction in number of persons on welfare. <p>Negative social impacts of concern include:</p> <ul style="list-style-type: none"> • continuing conflict between supporters and opponents of Project; • probable increase in cost of rental accommodation, houses, residential land and other accommodation; • reduced attractiveness of area to tourism and recreation, particularly boating and fishing; • people with strong views on negative impacts of Project leaving area and/or changing employment. 	<p>Positive</p> <p>Positive</p> <p>Negative</p>	<p>High</p> <p>High</p> <p>Low</p>
Changes in “way of life” with focus on people impacted immediately to west of project site and communities dependent on tourism and natural resources	Potential for operation of Project to adversely impact on the lifestyles of people in immediate area and viability of businesses dependent on tourism, fishing and “clean and green image” of region. The adverse impacts could be generated through loss of visual amenity (e.g. stack plume) and potential emission to air, aquatic and marine environment, potential “tainting” of ecosystems used in food production (e.g. seafood) and general loss of attractiveness of area to tourists and of purchases of products marketed with a “clean and green” image.	Negative	High
Increased employment opportunities	<p>Broad community support for benefits flowing from 292 additional jobs associated with operation of Project.</p> <p>Strong recognition of the benefits which would flow from additional employment including:</p> <ul style="list-style-type: none"> • increase in average income; 	<p>Positive</p> <p>Positive</p>	<p>High</p> <p>High</p>

	<ul style="list-style-type: none"> • upskilling of workforce; • opportunities to significantly reduce unemployment rates in local community; • create additional incentives for enhanced provision of community and cultural services; • increased employment in retail, service sectors and industries supporting operation of mill. 		
increasing the value of production from bell bay industrial estate	<p>Recognition and support for economic and community benefits of manufacturing and exporting pulp compared to exporting lower valued woodchips.</p> <p>Community attracted to opportunities to upskill local community and benefits flowing from employment of a more diverse range of skills.</p> <p>Opportunities for additional businesses in Bell Bay Industrial Estate due to additional water supply infrastructure and production of surplus “green” power.</p>	Positive	Moderate
		Positive	Moderate
		Positive	Moderate
maintenance of community health	<p>Considerable concern in community that operation of Project could adversely impact on community health due to:</p> <ul style="list-style-type: none"> • uncertainties of impact of emissions and odour; • increased traffic fumes; • increased traffic accidents; • negative impacts on lifestyle, business and property values. 	Negative	High
maintenance of landscape amenity	<p>Concern that operation of Project will reduce the landscape amenity due to uncertain impacts of:</p> <ul style="list-style-type: none"> • odour and emissions; • noise and lighting; • changed visual outlook; • reduced demand for tourism and recreation services due to reduction in attractiveness of local area. 	Negative	Moderate in George Town. High in communities dependent on landscape values and natural values for life style and economic welfare.

Schedule 2.1
Phase: Construction
Issue: Community Attitudes to Social and Economic Impacts
Impact level: Regional

Community Values	Community Attitudes	Impact	Significance of Impact to Community
Contribution to social capital of region	Demonstration by governments and Gunns of how to efficiently capture for the regional community the benefits of construction phase in areas such as education, training, infrastructure, business development and recreation facilities.	Positive	High
	Demonstration of effective strategies to minimise the adverse impacts on regional tourism and other businesses of the expected spill over of demand for accommodation from George Town area to fill accommodation gap and other community services.	On balance Negative	High
Increased economic activity	Recognition that construction phase will: <ul style="list-style-type: none"> • generate additional and diverse employment opportunities; • provide additional business activity for construction, retail and service and transport industries; • provide rationale for expanding community services in Launceston region. Recognition that economic benefits have to be captured in parallel with social benefits if productive outcomes are to be achieved during construction phase.	Positive	Moderate
			On balance Positive
Potential reduction in tourism	Recognition that the increased economic activity and employment during construction phase could adversely impact on tourism industry due to disruption to “peace and quiet” of lower Tamar Valley, competition for accommodation and perception by some tourists that Tamar is “no longer clean and green”.	On balance Negative	Moderate
Maintenance of community health	Desire for construction activities not to adversely impact community health by Gunns taking steps to maintain effective environmental standards.	Neutral	Low
Maintenance of landscape amenity	Desire that construction activities do not adversely impact on the attractiveness of region to support businesses dependent on environmental values of region.	Negative	Moderate

Schedule 2.2
Phase: Construction
Issue: Community Attitudes to Social and Economic Impacts
Impact level: State

Community Values	Community Attitudes	Impact	Significance of Impact
Improve the economic performance of Tasmania	Support for opportunities the operation of the Project would bring to Tasmania in areas such as: <ul style="list-style-type: none"> • benefits of increased, upskilled and diversified employment; • increasing the gross state product through value adding; • diversifying the industrial and manufacturing base for Tasmania; • increasing the competitiveness of Tasmanian industries; • additional tax revenue; • creating opportunities for additional business opportunities due to availability of additional resources (for example, electric power) and economies of scale to some firms supplying the Project (e.g. chemical industry). 	Positive	High
Minimize adverse impact on current and future industries	Operation of Project should be conducted within a framework that does not significantly impact on the economic performance of current or growing industries such as tourism.	On balance Negative	Moderate

Schedule 3.3
Phase: Construction
Issue: Community Attitudes to Social and Economic Impacts
Impact level: Local

Community Values	Community Attitudes	Impact	Significance of Impact to Community
Changes in local "way of life" (George Town)	<p>Wide recognition within local community that construction of Project will generate a diverse array of social trade-offs.</p> <p>Positive social impacts cited include:</p> <ul style="list-style-type: none"> • benefits associated with increased locally based employment including reductions in welfare services and payments; • significantly increased likelihood of improved public transport providing the community with access to regionally based services; • potentially improved road and rail infrastructure; • George Town Municipality becoming more financially viable due to population increases and improved infrastructure; • deepening of the social profile of George Town due to upskilling and employment of broader diversity of people in Industrial Estate. <p>Negative social impacts of concern include:</p> <ul style="list-style-type: none"> • potential loss of "peace and quiet", particularly by longer term permanent residents, and "friendly atmosphere and people"; • potential for "boom or bust" impacts associated with employment of up to 3,000 people during construction reducing to 300 persons during operational phase; • increased competition for access to community and recreational services if services are not expanded to adequately support construction workers; • disruption to local tourist traffic. 	<p>On balance positive</p> <p>Positive</p> <p>Negative</p>	<p>High</p> <p>High</p> <p>Moderate</p>
Changes in "way of life". (Community west of Tamar River in vicinity of Project)	Noise, dust and visual impacts associated with construction activities could generate loss of attractiveness of area to tourists and visitors – area directly to west of proposed Project site. Adverse impact on current residents' life styles, business viability and land values.	Negative	High
Increasing competition for access to community services	<p>High recognition and expectation that construction phase if resourced by a higher proportion of families than planned, could drive significantly increased demand for community services such as child care facilities, schools, training facilities, public health and safety and recreation facilities.</p> <p>Strong concern that enhanced services will not be supplied in parallel with ramping up of construction phase</p>	<p>On balance Positive</p> <p>Negative</p>	<p>High</p> <p>Low</p>

	<p>leading to social tensions.</p> <p>Concern that George Town Municipality will not be able to resource their community service responsibilities and consequently capture and productively deliver the social benefits targeted by Project.</p>	Negative	Low
Maintenance of community cohesion with primarily male construction workforce	<p>Implementation of effective strategic and tactical approaches to productively manage the potentially socially adverse consequences of up to 3,000 persons, mainly male, working on construction of Project and integrating recreational and cultural time in local and regional communities.</p> <p>Concerns at the effectiveness of actions to be implemented by governments and Gunns to effectively integrate within the local community the social, emotional and cultural “needs” of a diverse and concentrated construction work force.</p>	<p>On balance Positive</p> <p>On balance Positive</p>	<p>High</p> <p>High</p>
Equitable access to housing and accommodation	<p>Demonstration of effective management of accommodation gap. While proposal to construct accommodation for 800 persons, construction phase will directly employ up to 2,900 persons.</p> <p>Demonstration of how the remaining work force will be accommodated without major disruption to business dependent non-accommodation section of tourism industry.</p> <p>Significant potential to crowd-out access (availability and affordability) of local people to housing and other accommodation. Private rental market is very tight and already long waiting lists (over 40) for public housing in George Town.</p>	<p>On balance Negative</p> <p>Negative</p> <p>Negative</p>	<p>High</p> <p>High</p> <p>High</p>
Increased direct employment opportunities for up to 3,000 persons	<p>Potential to significantly:</p> <ul style="list-style-type: none"> • reduce relatively high unemployment levels (currently 7.9% in George Town); • increase average incomes due to higher wages in construction industry compared with employment profile for Tasmania; • increase economic values through activities associated with construction activities and provision of support services by Tasmanian firms. 	Positive	High
broaden industrial base	Supplement and broaden the already diverse industrial base of Bell Bay Industrial Estate (consisting of 30 businesses comprising mainly manufacturing, processing, energy and transport industries on 2,000 hectares) representing 20% of Tasmania’s output.	Positive	Moderate
Maintenance of community health	Concern, during construction, of impact on community health due to: dust, traffic fumes, noise, decreased road safety, decrease in social cohesion within community.	Negative	Moderate
Maintenance of landscape amenity	Concern, during construction, of impact of: increased traffic on local “peace and quiet”, construction (noise and visual impacts) on amenity of local community, particularly land owners and residences immediately to west of Project site, perceived loss of “natural landscape”.	Negative	Generally Low but High for residents to immediate west of Project site.

Annex II

Analysis of RPDC public submissions on the DIIS

As part of the assessment process for the Project, the RPDC called for public submissions on the DIIS. More than 790 submissions were received from individuals, local groups, NGOs, businesses, political parties and the Tasmanian government.

Approximately 90 of these submissions were a pro forma response which was produced by the State Parliamentary Offices of The Greens. For the purposes of this analysis, these submissions constitute one single submission.

These submissions, while not constituting a highly structured survey, do constitute a reasonably constructive community consultation process. They give a reasonable indication of support and opposition to the Project, as well as an indication of the social issues that the Tasmanian public is concerned about with regards to the Project.

However, it should be noted that a public submissions process is not a random survey. To respond to a call for public submissions requires a respondent to expend time and effort on a submission; this, in itself, generally requires an interest and an opinion, meaning that it is likely that most respondents are in fact interested parties and therefore cannot be considered neutral. Any inferences drawn from an analysis of public submissions that are applied to a broader demographic dataset are therefore highly speculative.

While each submission could not be addressed individually, the information provided in these submissions was invaluable in terms of providing the results of a public consultation process.

Methodology

ITS Global assessed each of the 787 submissions individually. They were assessed at first on criteria of whether they were generally positive, negative or neutral.

They were then assessed according to whether their content was concerned with any of 10 different issue areas. They were:

- Economic
- Transport
- Local services
- Local infrastructure
- Population and social structure
- Public Health
- Property values
- Tourism and recreation
- Community values and visual amenity
- Noise impacts
- Forestry (conservation and industry)

The submissions were then assessed by ITS Global as to whether they used a credible, technical argument to comment on any of the issue areas relevant to this review.

Many of the submissions were highly emotive, non-technical and related primarily to conservation issues, making them irrelevant to this Review.

The submissions that were technically based often covered issues that had been adequately assessed in the DIIS and other Contract Material.

However, a rough analysis of the submissions, their disposition towards the project and the issue areas touched on reveals the following findings:

- Of the non-pro forma submissions, 523 of the submissions were generally negative; 94 were neutral and 81 were positive;

- 255 were considered by ITS Global to have a technically credible argument that could be assessed within the scope of this review, however most of these arguments were dealt with in areas of the DIIS;
- 456 of the submissions touched on forestry issues related to conservation, overwhelmingly more than any other issue; of these, 383 were generally negative;
- Public health issues were mentioned by 310 of the submissions, of which most were specifically related to environmental impacts;
- Not more than 15 submissions mentioned any social impact on local services.

The findings of our assessment are summarized in the table below.

Summary of analysis of RPDC public submissions

Assessment	Number of submissions	Negative	Neutral	Positive
<i>Outlook</i>				
Positive	81			
Neutral	94			
Negative	523			
<i>Issue areas</i>				
Economic impacts	255	158	28	69
Impact on property values & demand for land	30	18	5	7
Impact on employment & jobs	93	40	13	40
Impact on population & social structure	80	45	15	20
Impact on local services (e.g. health)	15	4	6	5
Impact on tourism & recreation	107	90	11	6
Impact on infrastructure & services (e.g. water & electricity)	207	166	20	21
Transport Impacts	155	118	18	19
Noise impacts	25	18	4	3
Impacts on visual amenity & community values (e.g. lifestyle)	119	100	8	11
Impacts on public health	310	263	34	13
Flow on impacts on forestry (industry)	24	11	1	12
Flow on impacts on forestry (conservation)	456	383	32	41

Key Points

ITS Global defined a number of key social and economic concerns from the negative submissions within each issue area. Based on the proportion of submissions received covering each of these concerns within each issue area, they were then sorted into high, medium or low concerns.

They are listed according to issue grouping below.

Economic Impacts

- The assessment process ignored a number of economic issues (High concern):
 - The assessment process to date has not assessed a number of economic factors, such as the existence of potential negative impacts and externalities.
 - The assessment process has not incorporated a detailed risk analysis.
 - The assessment of the impact on tourism thus far has been inadequate.
 - The labour supply response has not been accounted for.
 - There has been no economic assessment of environmental impacts.
 - There has been no assessment of the value of intangibles.
- The assertion in the economic impact assessment that the Tasmanian economy performs worse than mainland Australian states is disputed (Low concern).

- The operation of the Project will have a negative economic impact (High concern)
 - The project will adversely affect other business sectors, such as marine industries, aquacultural industries, tourism, and agriculture.
 - The Project will have a broader negative impact on intangible assets, namely the 'Tasmanian brand'.
 - The Project will increase Tasmania's economic dependence on forest and forestry industries.
 - The Project will increase the vulnerability of Tasmania's economy to fluctuations in world pulp markets.
- The Project will increase the monopsony relationship between Forestry Tasmania and Gunns Limited (this was identified as a 'monopoly' and 'duopoly' in various submissions (Moderate concern).
- Tax subsidies for plantations under MIS legislation effectively hand taxpayers' money to Gunns; this means that the Project is a burden to taxpayers (Low concern).
- The increase in employment and wages from the Project will increase consumption and inflationary pressures (Low concern).
- The Project will not be able to compete in a global market when comparing labour costs with South American pulp mills (Low concern)
- The number of forest jobs in Tasmania has steadily been declining, suggesting that it is slowly being phased out of the economy and is a superseded industry. (Low concern)

Property Values And Demand For Land

- The Project will place undue pressure on land use, which means there will be an increase in rental prices and an increase in purchase prices. (High concern)
- The increased demand for wood from the Project will increase the demand for rural property. (Low concern)
- There will be additional land use pressures for rural landholders. (Low concern)
- Dispute of the claim that house prices in Launceston and the rest of Tasmania have increased since the announcement. (Low concern)

Impact On Employment And Jobs²⁵

- The assessment of the Project and any associated commitment from the Proponent has not adequately accounted for the current national skills shortage. (High concern)
- The Project will lead to a loss of employment in other sectors. (Low concern)
- The use of non-unionised labour for the Project and the use of Australian Workplace Agreements mean that employees will be directly exposed to any downturn in international pulp prices. (Low concern)

Population And Social Structure

²⁵ Many of the submissions dealing with the impact on employment and jobs also dealt with this issue in terms of the economy. Specifically, there were the decline of employment in the forestry sector, the labour supply response, and the increased dependence of the Tasmanian economy (and therefore workers) on forest industries. However, there were a number of specific concerns related to employment.

- The operation of the Project and its increased demand for pulpwood will lead to increased conversion of agricultural land to silvicultural land. This, in turn, will lead to the loss of rural communities. (High concern)
- The Project will polarize the community. (Moderate concern)
- The Project will facilitate the departure of a number of professionals, such as doctors, from the area. (Low concern)
- Disadvantaged social sectors could be adversely affected by the construction and operation of the Project. (Moderate concern)
- The increase in population in the area will mean there is a greater demand on natural resources in the area. (Low concern)
- The influx of the worker population during the construction phase will have an adverse affect on the community. (Moderate concern)
- General concerns over intergenerational equity. (Moderate concern)
- Disputes the claim that an ageing population has a negative social and economic impact; cites growth and tourism and services sector as a market response to this shift. (Low concern)
- Contention that the forestry industry is in fact the cause of population decline in rural areas. (Low concern)
- There will be a significant gender imbalance within the local region during construction. (Low concern)

Impact On Services

- The Project's construction will put strain on emergency, welfare, health and social services. (High concern)
- An assessment of health services required for the Project's construction and operation has not been undertaken. (Low concern)

Tourism

- The assessment process has not adequately assessed the impact of the Project on tourism to date. (Moderate concern)
- The assessment process does not properly account for the economic significance of tourism. (Moderate concern)
- The Project – and Industry in general - is incongruent with tourism. (Low concern)
- The Project will have a negative impact on the tourism industry during the construction and operational phases. (High concern)
- Traffic from the Project will have a negative impact on tourism. (High concern)
- The economic value of forest resources is not accounted for in the tourism assessment. (Low concern)

Infrastructure

- The Project will diminish water supply and quality, particularly with regard to the impact of plantations. (High concern)
- The Project will increase the State's financial burden with regard to infrastructure. (Moderate concern)
- The assessment did not adequately detail financial arrangements for infrastructure developments. (Low concern)
- Concerns regarding land use revolve around location of pipeline not impeding new infrastructure developments. (Low concern)
- The assessment assumes there will be no additional government spend on additional infrastructure. (Low concern)
- Contention that the Government should commit to increased funding for infrastructure developments and rail use. (Low concern)
- The Project will place increased pressure on existing infrastructure for waste disposal. (Low concern)

Transport

- The Project will put at risk the safety of bus users, particularly schoolchildren. (High concern)
- The assessment gives no account of the cost of road upgrades that will be required to service the Project; current transport infrastructure funding is inadequate. (High concern)
- Traffic from the Project will potentially damage Heritage-listed buildings in the region. (Low concern)
- Transport emissions from traffic associated with the Project will have negative health effects. (Moderate concern)
- Fog events in combination with increased traffic from the Project will increase risk of road trauma. (Low concern)
- Transport infrastructure funding is currently inadequate to cope with the increased traffic volumes from the Project. (High concern)
- Increased traffic from the Project will increase the incidence of road trauma. (Moderate concern)
- Noise emissions from traffic associated with the Project will negatively impact local amenity. (Moderate concern)
- Heavy vehicle stability is an issue particularly when transporting substances such as caustic soda for use during the Project. (Low concern)
- Alternative transport, namely rail, has not been explicitly mentioned or assessed. (Low concern)

Visual Amenity And Community Values

- There has been a lack of community consultation in the assessment process for the Project thus far. (High concern)
- The impact of effluent from the Project on visual amenity has not been assessed. (High concern)

- Odour and noise from the project will impact upon amenity. (High concern)
- The Project's stack height will affect visual amenity. (Low concern)
- Inversion events in combination with the Project's emissions will have a negative impact on amenity. (Low concern)
- The Project will have a negative effect on community values. (Moderate concern)
- The size of the Project is spatially disproportionate for the area. (Low concern)
- The Rowella Peninsula will be worst affected by the Project in terms of visual amenity. (Low concern)
- There is significant community opposition to the Project (Moderate concern)

Health

- Airborne emissions, dioxin emissions and the marine outfall from the Project will have an adverse health impact. (High concern)
- Bioaccumulation of toxins and the contamination of groundwater will have a long-term negative health impact on the area. (Moderate concern)

Impacts On Forestry

- The increase in use of plantations required by the Project will have a negative impact on communities and agricultural industries. (High concern)
- The wood supply to be used by the Project has not been defined. (Low concern)
- The use of native forests in the wood supply for the Project is economically unsustainable. (Low concern)
- Wood resources have not been valued properly in the assessment of the Project. (Low concern)

Impacts On Forestry (Conservation)²⁶

- Australia has an obligation under Stockholm Convention to protect biodiversity, which should prevent the Project from proceeding. (Low concern)
- The RFA allows greater volumes of wood to be consumed for the Project, i.e. there is no limit set within the legislation. (High concern)
- The forestry code of practice is unsustainable in relation to the project. (Moderate concern)

²⁶ There were a high number of submissions associated with forestry and conservation issues. However, because an environmental assessment is outside the scope of this review, this summary has concentrated on conservation issues relating specifically to public policy.

