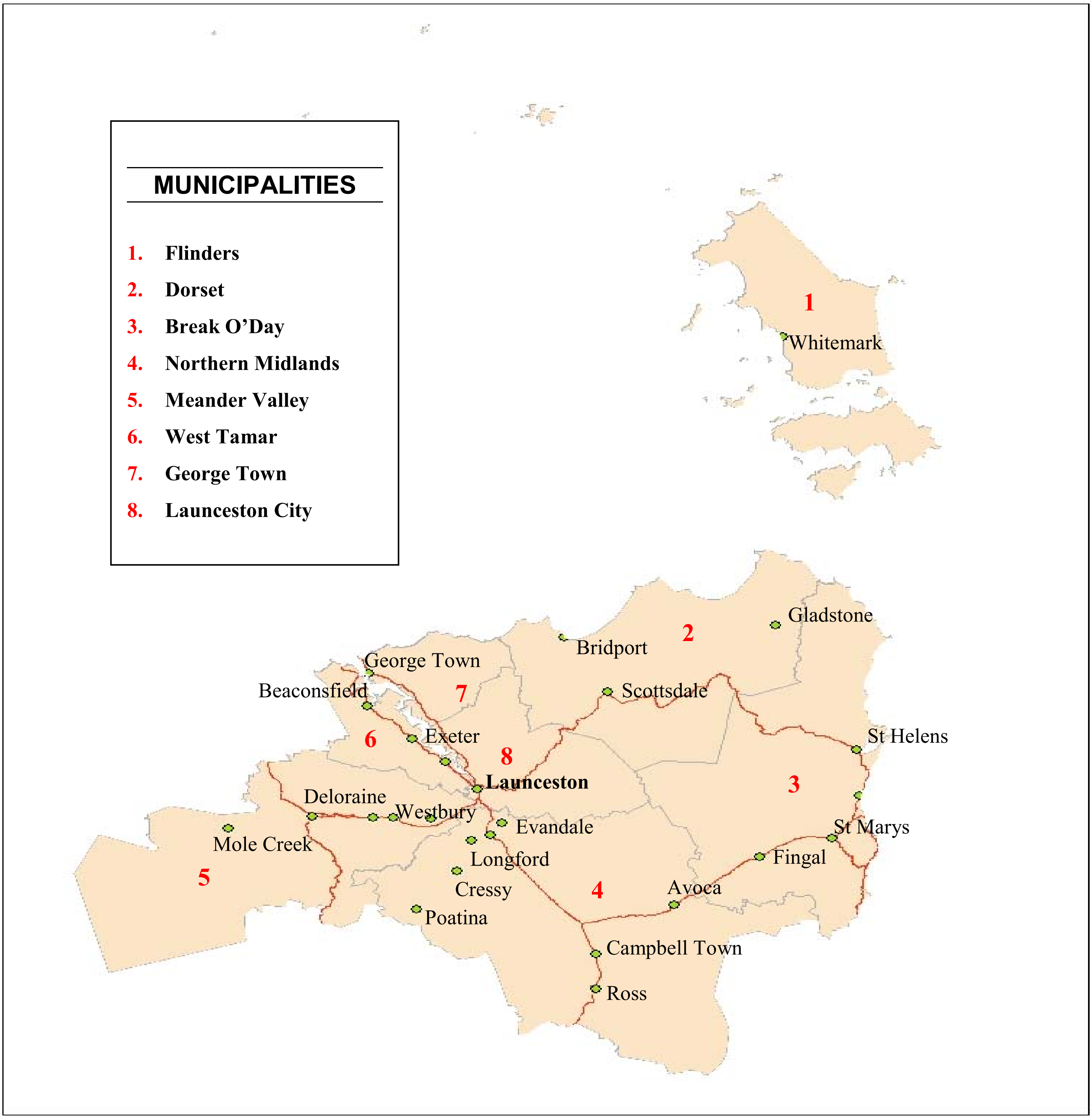
DEPARTMENT OF TRANSPORT AND REGIONAL SERVICES

Tasmania

PROFILES OF NORTHERN TASMANIA'S CORE INDUSTRY SECTORS

- AGRICULTURE
- AQUACULTURE
- EDUCATION AND TRAINING
- FISHING
- FOOD AND BEVERAGE
- FORESTRY AND TIMBER
- INFORMATION TECHNOLOGY
- MANUFACTURING
- TOURISM

Map of Northern Tasmania showing the 8 municipalities that make up the Northern Tasmanian Municipal Organisation



INTRODUCTION

The three main regions of Tasmania are the Northwest, the North and the South. Northern Tasmania accounts for 30% of Tasmania's land mass and covers an area of 20 700 square kilometres. The region has a population of around 133 000 people spread across eight municipal areas, which comprises around 28% of Tasmania's population. The eight municipalities are members of a regional body known as the Northern Tasmanian Regional Development Board (NTRDB).

Northern Tasmania has a strong manufacturing, agriculture and forestry history, and these three industries still form the major part of the region's core economy. Other major industry sectors that form part of the core economy are Food and Beverage, Information Technology, Fishing, Tourism, and Education and Training. Aquaculture is an emerging industry in the region.

The region's core industry sectors have been profiled in this report as a means of providing an information base, and a greater understanding of those industry sectors that drive the economy of the region.

It is these industry sectors that the region must collaboratively work towards sustaining and growing if Northern Tasmania is to continue to have a vibrant and strong regional economy.

THE AGRICULTURE INDUSTRY

INDUSTRY DESCRIPTION

Tasmanian agriculture contributes around 30% to Gross State Product, including downstream processing and manufacturing. Agriculture in Northern Tasmania has been the backbone of the region's economy since white settlement, and remains an important component of the economy today.

Farming practices have changed considerably in the last 10 to 20 years, with a decreasing reliance on traditional commodities, and greater diversification across the sector. Adapting to change, and retaining a vibrant and competitive industry is as challenging today as it has ever been. As with various other industries in Tasmania, agriculture is substantially influenced by issues related to low critical mass, and export costs. It is also an industry that is heavily effected by the influence of globalisation.

The Tasmanian agriculture sector has a number of competitive advantages, largely related to its cool, temperate climate, relatively disease-free status, relatively fertile soils and relatively unpolluted environment. A major emphasis of today's agriculture sector is striking the appropriate balance between commodities and more intensive agriculture practices including niche-marketing opportunities. While there will always be a proportion of the industry focused on commodities, there are many that believe there are opportunities for an expansion in low-volume, high-value production.

Agriculture in this region of the state can be broadly categorised into five major areas:

- Traditional mixed farming enterprises, incorporating a combination of broadacre cropping (including poppies), wool and livestock production
- Dairy
- Fruit and vegetable production
- Viticulture and hops
- Alternative agriculture enterprises.

Poppies are the most significant non-vegetable broadacre crop produced extensively in Northern Tasmania (Figure 1). Barley, oats and wheat are the most important cereal crops grown in the region (Table 1).

Pyrethrum is also a rapidly expanding new crop. Tasmania supplies 30% of the global pyrethrum market, and this activity is set to increase as the industry matures. Currently pyrethrum is only grown to a limited extent in this region, but trials at Symmons Plains near Perth display the crop's potential under centre-pivot irrigation. Lupinis have also been trialed successfully at Symmons Plains, and are increasingly being grown in the region.

Buckwheat is another emerging broadacre crop that adds to the diversity in opportunities for farmers in the region. Brenton Heazlewood, of Heazlewood Seeds at Whitemore is the Tasmanian expert in this field.

Growing vegetables for human consumption is Tasmania's main cropping activity. Apples and pears are the predominant fruit produced in the region, with increasing production in stone fruits and berries. Potatoes are by far the most dominant vegetable grown in Northern Tasmania, followed by peas, onions, carrots, beans and broccoli (Table 1).

Sheep and lambs incorporate the largest livestock numbers in the region, followed by cattle (milk and beef), pigs then chickens for egg production. Wool production has been traditionally strong in the region, and remains so with a particular emphasis on superfine merino wool. Tasmanian superfine wool still regularly commands the highest prices in the world, and this particular type of wool is no longer regarded as a commodity, but rather a niche product that has its own specific marketing requirements.

A large amount of Tasmania's milk is produced in the Northwest of the state, however Northern Tasmania also contributes a significant amount to the industry. In 1999, the region produced around 205 million litres of milk (Tasmanian Dairy Industry Authority), compared with 357 million litres in the Northwest. In that year there were 246 dairy farms in the Northern region, and 478 in the Northwest. There has been considerable dairy development in the far Northeast of the region in recent years, and these developments are closely related to improvements in irrigation capacity and water availability.

Most of Tasmania's grapes are grown in Northern Tasmania. The major areas are the East Tamar/Pipers Brook region, the West Tamar, and Relbia/White Hills, Southeast of Launceston. In 2000, 2 391 tonnes of grapes were produced in these areas, making up 73% of the state's total production (ABS 2001). Viticulture is a dynamic and valuable component of the region's Agriculture sector, which naturally also contributes significantly to the food and beverage sector, and the tourism industry.

A less obvious, yet important industry that also thrives in the region is the hop industry. There are only two hop growing regions in Australia, the Ovens Valley in Northern Victoria, and Tasmania. Around 200 hectares of hops are grown in Victoria, and 670 hectares in Tasmania. The Australian industry has an annual gross value of $16 million, of which Tasmania contributes $12 million. Around 200 people are employed in the hop industry in Northern Tasmania. There are 240 hectares of hops grown in the Scottsdale area, and an 800 tonne per annum capacity pelleting plant.

In addition to more traditional and larger scale farming enterprises, Northern Tasmania also supports an increasing number of intensive alternative farming enterprises.

The diverse range of niche products includes wasabi, ginseng, olives, truffles, herbs (culinary and medicinal), cut flowers, bulbs, deer, goats and Cape Barren geese. While the path to making some of these products commercially viable is often a long and arduous one, this component of the agriculture sector adds value and vibrancy to the industry. Unique products also provide a 'point of difference' to the industry, and fit well with the notion of Tasmania being a source of diverse and interesting quality food products. There may be scope to increase the production of high-value pharmaceutical crops such as Echinacea.

There is also a high degree of interest in the production of essential oils in the region, such as peppermint, fennel, boronia, parsley and lavender. Essential Oils of Tasmania are quietly active in the region, and have a business interest in the Bridestowe Lavender Farm at Nabowla, the largest in the Southern Hemisphere.

FIGURE 1: **THE TASMANIAN POPPY INDUSTRY**

SINCE THE INTRODUCTION OF THE POPPY FARMING IN TASMANIA IN THE LATE 1960S, THE INDUSTRY HAS GROWN INTO A $250 MILLION EXPORT INDUSTRY THAT EMPLOYS SEVERAL HUNDRED PEOPLE STATEWIDE. TASMANIA IS THE WORLD'S LARGEST PRODUCER OF OPIUM ALKALOIDS FOR THE PHARMACEUTICAL MARKET. AROUND 1 200 FARMERS ARE CONTRACTED TO GROW POPPIES IN TASMANIA. THE AREA SOWN IS CURRENTLY CLOSE TO 20 000 HECTARES, WHICH IS EQUAL TO THE AREA SOWN TO POTATOES, PEAS, GREEN BEANS, ONIONS, BRASSICAS AND PYRETHRUM COMBINED. THE AUSTRALIAN POPPY INDUSTRY IS EXCLUSIVE TO TASMANIA, LARGELY DUE TO ITS ISOLATION BEING ADVANTAGEOUS TO NARCOTIC SECURITY. A COOL TEMPERATE CLIMATE AND RELATIVE LACK OF PEST AND DISEASE PROBLEMS, THE FACT THAT THE CROP FITS WELL INTO ROTATION WITH VEGETABLE CROPS IN THE NORTHWEST, AND CEREAL CROPS IN THE MIDLANDS AND SOUTH HAVE PROVEN TASMANIA TO BE AN EXCELLENT LOCATION FOR THE POPPY INDUSTRY. THESE NATURAL ADVANTAGES COMBINED WITH TECHNOLOGICAL DEVELOPMENTS AND SKILLED FARMERS HAVE ENABLED TASMANIA TO CONSISTENTLY PRODUCE THE HIGHEST ALKALOID YIELDS IN THE WORLD. THERE ARE TWO COMPANIES WHO DRIVE THE INDUSTRY, IN REGARD TO PRODUCTION AND PROCESSING: TASMANIAN ALKALOIDS IS BASED AT WESTBURY, AND GLAXO-WELLCOME IS SITUATED AT LATROBE, AND PORT FAIRY IN VICTORIA.

VALUE OF THE AGRICULTURE INDUSTRY TO THE REGION

In 1998/99, the gross value of agriculture production in Northern Tasmania was $248.6 million. This compares to $146.6 million for Southern Tasmania, and $304 million for the Northwest region (ABS 2001). The major contributor to the gross value of production was crops, followed by livestock products, then livestock slaughtering.

Table 1: Major cereal, fruit and vegetable production in Northern Tasmania

Product	Production (Tonnes)
Barley	19 327
Oats	11 057
Wheat	13 368
Apples	4 847
Pears	205
Potatoes	135 661
Green Peas	28 714
Onions	13 527
Carrots	3 833
Beans	2 598
Broccoli	765

Source: ABS 1999

Table 2: Major livestock production in Northern Tasmania

Product	Production
Cattle (beef)	191 000
Cattle (dairy)	85 000
Sheep and Lambs	1 958 200
Pigs	13 300
Chickens for egg production	153 200

Source: ABS 1999

Recent figures released from the Australian Bureau of Statistics have revealed that Tasmania is on track for record agricultural production for the year 2001–02. Cereal production is set to increase for wheat, oats and barley, while sheep, dairy and meat cattle numbers are up. Sheep and lamb numbers have increased by 240 000 to 3.5 million, and beef cattle are up by about 45 000 to 454 751.

ISSUES OF CONSTRAINT AND OPPORTUNITY

Commodities or Cash Crops?

As with most Tasmanian industries, Bass Strait presents a number of constraints on the agriculture industry in terms of retaining a competitive advantage with mainland competitors once freight and logistic considerations are taken into account.

This is obviously not a new scenario, and one that has always been taken into consideration by Tasmanian operators. A majority of Tasmanian agriculture is commodity based. A bulk of the vegetables produced are grown under contract for large processing companies, and most other commodities have no uniqueness to Tasmania, and form part of the national 'pool'.

Tasmanian farmers face a choice about whether they accept the differential that freight costs impose on their business, and factor that into their operation, or whether they can add value to their core business, alleviating the higher associated costs, or better, attracting a premium. Many Tasmanian farmers are achieving this by:

1. Ensuring through good farming practices that the differential caused by costs associated with living on an island are covered by attaining consistently premium prices.
2. Investing in value-adding capabilities and the production of intensive, high-value products.

Such choices may be based on the following broad strategy examples:

- Diversifying an existing business to incorporate higher value commodities e.g. Poppies, Pyrethrum, Vegetables, Prime lambs.
- Producing unique high-value products based on market-driven research.
- Aiming for 'point of difference' such as specific quality assurance endorsement, eco-labelling or organic certification.
- Taking a more pro-active marketing and quality assurance approach and aligning the business with other producers trying to target a specific high-value market, e.g. Island Prime Lamb, Tamar Valley Food Network.

- Embracing 'best practice' techniques that give the product a competitive edge, regardless of whether it is regarded as a commodity or not.

While there is much talk about the potential for Tasmanian niche and high-value agriculture, produced under an over-arching 'clean and green' sentiment, there will not be a major restructuring of the agriculture sector in the short term, and arguably there does not need to be.

There will always be a commodity-based element to Tasmanian agriculture, but there is also scope to encourage new and diverse alternatives into the traditional framework. Enhancing the capacity of the agriculture industry for the future will involve ascertaining opportunities for competitive advantage, while integrating best practice protocols into each sector of the industry.

The clean, green image is one competitive advantage, and the best practice protocols needed to bolster this image include, for example, reduced pesticide use, integrated pest management (IPM), sustainable water usage, soil protection and use of organic practices. Such practices allow the clean, green image to be substantiated, and this is important in a competitive global economy. Increasing the gross agricultural production in Tasmania is intrinsically linked with access to, and sustainable use of water resources.

Water Resources and Agriculture

Tasmania is perceived as having abundant fresh water resources, as the state has 12% of Australia's freshwater in an area of less than 1% of the total Australian land area. However, there are a number of factors inhibiting water availability for greater utilisation, for example for a large-scale increase in agriculture production. These include:

- Uneven spatial distribution of rainfall across the state. For example, the West Coast receives much greater run-off than the East Coast.
- Temporal variations in the timing of rainfall distribution throughout the year, resulting in dry summer periods when demand for water exceeds natural stream-flow.
- The need to allocate water for in-stream environmental requirements.
- Feasibility of transferring water from the source of supply to the point of use. The large distances and terrain mean that in some instances pumping water from remote sources of supply to where it is needed have prohibitive costs.
- Water resources in National Parks and World Heritage areas are not available for development because of their protected status.
- Significant catchment yields are already allocated to Hydro Tasmania for electricity generation. The development of Basslink may further increase use of this allocation.

Water demands for agricultural activities, particularly irrigation, have rapidly increased over the last decade, particularly with the uptake of centre-pivot irrigation technology. The implementation of careful planning leading to the strategic development of purpose built water catchments is integral to further expansion of intensive agriculture in Northern Tasmania. Any large-scale increase in agricultural production will not happen without this.

Dam proposals can be limited by factors such as conflict with other users, environmental and heritage concerns, differences in opinion about site suitability. The implementation of a Water Development Plan for Tasmania is being driven by the Water Development Branch of the Department of Primary Industries, Water and Environment (DPIWE), in consultation with a wide range of stakeholders. www.dpiwe.tas.gov.au/water

As previously mentioned, agriculture is a major component of the economy of the Northern region. Sustainable use of water resources, and future demands on those resources are of paramount importance to the industry, and the region. However, there are other associated problems with increasing irrigation capacity such as soil degradation and salinity, and these issues also need to be carefully considered.

Figure 2 documents what is currently happening in regard to water development proposals relevant to the Agriculture industry in Northern Tasmania.

Water re-use

Another aspect worthy of consideration is the potential to re-use waste water for agricultural purposes. All councils in the region, other than George Town and Launceston City Council, are currently developing water re-use programs at an operational level. Ninety percent of effluent water in Tasmania is categorised as 'class B'. This water is suitable for:

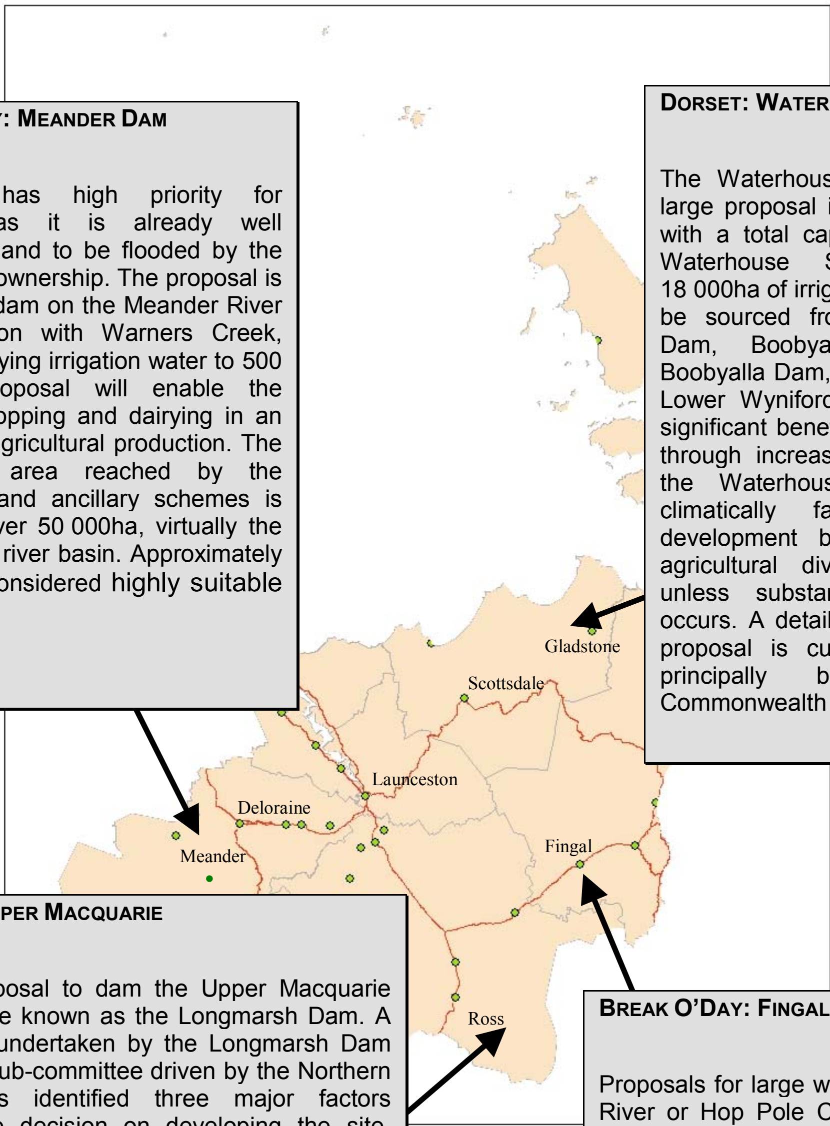
- agriculture food crops not consumed raw
- agriculture crops consumed raw, providing the edible section is separated by peel
- agriculture food crops consumed raw providing there is no direct contact with effluent (trickle irrigation)
- pasture and fodder (dairy and non-dairy, 5-day withholding period)
- industrial processes (open system)
- non-potable municipal irrigation, with restricted access.

The potential for the use of effluent water for agricultural irrigation is unfortunately subject to many limiting factors. Wastewater re-use is undertaken under a very rigorous sustainability framework. Best practice environmental management requires extensive soil, groundwater, irrigation, crop selection, and nutrient testing and reporting. This makes many areas unsuitable, and will also deter many farmers from embracing the concept.

Salinity risk due to the salt content of some effluent water is a problem in salinity sensitive areas, such as the Longford/Cressy area. On the positive side, in suitable areas, and managed properly, water re-use for agricultural purposes can be highly successful. In the South of the State, farmers in the Brighton Municipality have had several record poppy crops irrigated with wastewater, and it has been reported that the water has a near perfect nutrient balance for poppies.

Water re-use is a relatively new concept in Tasmania, and largely still in a trial phase. It will hopefully provide opportunities in the agriculture sector in this region in the future. There is some controversy about how wastewater re-use fits in with the clean, green image, in regard to consumer perception. Conversely, many would argue that the strategy fits perfectly with environmentally sustainable farming practices, and therefore enhances the clean, green image. It may be a matter of how the strategy is promoted and marketed that sorts these problems out.

Figure 2: Major water development proposals aimed at increasing Agriculture productivity in Northern Tasmania



MEANDER VALLEY: MEANDER DAM

This project has high priority for development, as it is already well advanced. The land to be flooded by the dam is in public ownership. The proposal is for a 43 000ML dam on the Meander River near the junction with Warners Creek, capable of supplying irrigation water to 500 farms. The proposal will enable the expansion of cropping and dairying in an area reliant on agricultural production. The total potential area reached by the Meander Dam and ancillary schemes is estimated to cover 50 000ha, virtually the full length of the river basin. Approximately 12 000 ha are considered highly suitable for irrigation.

DORSET: WATERHOUSE

The Waterhouse irrigation scheme is a large proposal involving five storage sites with a total capacity of 113 000ML. The Waterhouse Scheme would service 18 000ha of irrigable land, and water would be sourced from the Tomahawk River Dam, Boobyalla River Dam, Little Boobyalla Dam, Upper Wyniford River and Lower Wyniford River Dams. There are significant benefits for the Northern region through increasing water for irrigation in the Waterhouse area. This area is climatically favourable for irrigation development but there will be limited agricultural diversification in the area unless substantial water development occurs. A detailed feasibility study for the proposal is currently underway, funded principally by the State and Commonwealth Governments.

NORTHERN MIDLANDS: UPPER MACQUARIE

There has been a proposal to dam the Upper Macquarie since the 1850s at a site known as the Longmarsh Dam. A recent feasibility study undertaken by the Longmarsh Dam Steering Committee, a sub-committee driven by the Northern Midlands Council, has identified three major factors contributing to a future decision on developing the site. These are:

- Geotechnical problems associated with the ground structure.
- Significant Flora and Fauna within the site.
- Significant Built Heritage (convict-built ruins).

In light of these issues, another identified site on the Upper Macquarie is currently being investigated. This site is known as Maloney's Hill, and a feasibility study into this option is expected to be completed soon.

BREAK O'DAY: FINGAL VALLEY

Proposals for large water storages on the St Paul's River or Hop Pole Creek have been identified as having strategic value to provide irrigation water to landholders in the Fingal Valley and other parts of the South Esk Catchments. This would enhance the opportunities for cropping and dairy farming in the Fingal Valley.

Seasonal and Casual Labour

Tasmania's diverse agricultural sector has a heavy reliance on its seasonal and casual workers. When considering future expansion of the industry, these labour requirements may not be the first priorities that come to mind, however it is an issue that must be considered carefully.

A study recently conducted by the Department of State Development into current and future casual and seasonal labour requirements estimated that by 2004, there will be a 45% increase in the requirement for casual and seasonal workers. This extrapolates to 3000 extra workers.

A recent forum held in Launceston and Hobart called 'Effective Industry Based Solutions for Casual and Seasonal Labour' highlighted the findings of the Department of State Development's study, and also initiatives that are working to alleviate the projected problems. Such initiatives include:

- Working closely with Centrelink to improve the way potential seasonal labour workers are processed (paperwork requirements have already been reduced by 90%).
- Tasmania has recently been included on the national 'Harvest Trail', which is accessed by seasonal workers nationwide through the Australian Jobsearch website: www.jobsearch.gov.au
- There has also been recognition that the required skilled labour is actually available in Tasmania, however lack of transport facilities is a major limiting factor.

Dairy Developments

There is scope to further develop the dairy industry in the region, particularly in the Fingal Valley and the far Northeast. These developments are subject to the availability of water for irrigation

There has been considerable growth in dairy farming in the Northeast, in particular Evercreech near Mathinna, and Rushy Lagoon near Gladstone. The Department of Primary Industry, Water and the Environment (DPIWE) have looked closely at the feasibility of dairy expansion in the Fingal Valley, and have identified, in theory, the potential for twelve 500–cow dairy farms in that area. There has been a recent resurgence in interest into dairy farming, given a 30% price increase on recent years. Dairy expansion in the Fingal Valley and the far Northeast is likely in the short to medium term.

A campaign to encourage dairy farmers from New Zealand and interstate to Tasmania has recently been launched. It is a joint initiative of the Tasmanian Farmers and Graziers (TFGA) Dairy Council and Bonlac Foods, and involves targeting interested farmers through television and newspaper advertisements across New Zealand and mainland Australia. The main objective is to achieve a critical mass that will ensure the future of the industry. Bonlac aims to increase its milk volume from about 300 megalitres to 500 megalitres.

Low Critical Mass

As a state that predominantly produces low volume in comparison to mainland farmers, continuity of supply, and being able to target certain markets often becomes difficult. While there is a perception that Tasmania's high-quality produce may be ideal for export markets, a closer look at the volumes required to service those markets is often daunting. Therefore, it is obviously important to target markets that can be realistically serviced.

There is a multitude of niche marketing opportunities in Tasmanian agriculture, and many people are taking advantage of such opportunities. Success within niche marketing ventures is often attributed to the relationships that operators form with the recipients of their product, whether they are distributors, marketers, wholesalers or retailers.

Having a good understanding of every component of the supply chain, with the ability to follow the process right through the chain makes a huge difference to the success of businesses that send their product to the mainland and overseas. If the ability to follow the supply chain through is beyond the producer, it is critically important to have trust in the people who take on the product once it has left the farm gate. Tasmanian businesses that successfully export, and target very specific markets, will invariably have formed effective and beneficial networks and relationships beyond the farm gate.

Another strategy in allaying the problems associated with a lack of critical mass is forming industry networks to achieve a coordinated approach to marketing. This is often a strategy employed by small operators, which not only allows the potential for cooperative marketing techniques, but also the transfer of intellectual property, advise, experience and support. These types of initiatives do not have a set recipe for success. The people that drive the initiative will often determine that success, and the dynamics that evolve through the people that make up the network.

An example of such a network in this region is the Tamar Valley Food Network. The network has been facilitated through the Tamar Valley Business Enterprise Centre, who succeeded in receiving a $30,000 Regional Assistance Program grant from the Federal Government. The Tamar Valley Food Network aims to bring together a diverse range of food producers, all with the common goal of marketing high-quality Tasmanian produce to the upper end of domestic and overseas markets.

There is an emphasis on organic and chemical-free produce, however providing the agreed level of quality assurance is adhered to, members are free to utilise their own choice of production technique.

A valuable initiative that was orchestrated by the group in 2001 was a market research visit to Melbourne. Seven members of the network participated, and all found the experience highly rewarding. It was an opportunity to compare their product against others, to establish areas for improvement, to look for new marketing opportunities, and to form relationships with key players outside Tasmania. It is difficult to think of a better way to allow producers to learn about the supply chain, and provide them with the ability to critically appraise their own marketing and production strategies, and the benefits of forming valuable outside relationships.

Marketing
Marketing strategies will play a major role in the way Tasmanian producers add value to commodity-based produce, and also niche products. For example, there is scope to revive the Tasmanian lamb market, which has slumped considerably in the last twenty years. (In 1985/86, Tasmania exported 2659 tonnes of lamb. In 1999/2000, this figure was down to 5 tonnes (TFGA Meat Council)).

Island Prime is a grower-run and owned enterprise established in 1996 to develop a focused approach to exporting quality Tasmanian lamb under the brand name 'Island Prime'. The business has taken on the role of rejuvenating the Tasmanian lamb industry, and has been successfully exporting Tasmanian lamb interstate, largely through Coles Supermarkets. Island Prime has firm commitments to international export, with the brand registered in Japan and the United States.

Island Prime formed an alliance with Blue Ribbon Meats at the beginning of 2000, which was tipped to triple the lamb production in the state. With the decline of Blue Ribbon in 2001, Island Prime has been faced with difficulties in getting its lamb processed in Tasmania. Irrespective of the current circumstances, Island Prime is an example of how commodity-based products can be enhanced by coordinated, focused marketing strategies.

Another example of this approach is **Tasmanian Quality Wool (TQW)**. Established in 1994 by representatives from all sectors of the Tasmanian Wool Industry, TQW is a statewide quality assurance scheme that strives to set Tasmanian wool apart from its competitors, and create a niche market for a traditional commodity. Participants in the scheme must adhere to strict protocols that have been established through extensive consultation with people throughout the supply chain nationally and internationally. It is a cooperative means of aggressively targeting a desired market, and it is a strategy being used more and more in todays agriculture industry.

The Tamar branch of the Tasmanian Farmer and Graziers Association (TFGA) has recently initiated the labelling of Tasmanian beef. The state's beef is the only one in Australia that is certified free of hormone growth promotants and antibiotics, and Tasmanian beef producers see the benefits in providing consumers with this information.

While there is a lot of effort to label Tasmanian beef destined for export markets, particularly Japan, there is little knowledge of the quality of Tasmanian beef in domestic markets, particularly in Tasmania itself. It is expected that the Tasmanian beef labelling initiative will provide stable beef prices, more consumption and processing of Tasmanian beef within domestic markets, and a boost in jobs associated with the Tasmanian beef industry.

Tasmanian farmers may also see the potential benefits in 'eco-labelling', as another marketing tool. An eco-label is a seal or logo that indicates a product meets a set of environmental or social standards. A review of International developments in food labelling indicates that Tasmanian Food Businesses need to be eco-label ready.

Large European supermarket chains, for example, Royal Ahold (4446 outlets in 11 countries), and Delhaize (2112 outlets in 11 countries) are leading the drive for ecolabelling in response to a growing customer demand for products that are safe, healthy and produced with minimal environmental impact. At the same time, retailers are seeking to safeguard their reputation in supplying safe, quality assured foods. Food scares such as 'mad cow's disease' erode consumer confidence in current management practices, and government controls.

When it is considered that some predict that five to ten multi-national retailer chains will dominate global food trading within 5 to 10 years, it is imperative that Tasmanian producers are ecolabel ready, and familiar with the concept, enabling them to meet the requirements of these retailers. 'Ecolabelling for Tasmanian Food Produce' is being driven by Tasmanian Quality Assured and the Department of Primary Industry, Water and the Environment.

Industry Organisations

The Tasmanian Farmers and Graziers Association (TFGA) is the peak farmer representative organisation in Tasmania. It represents 7 000 primary producers and brings together the interests of major agricultural industries in the state. Ninety-five percent of all farmers in Tasmania are TFGA members. This includes people who earn the majority of their income from farming as well as part-time, share and hobby farmers.

The TFGA is divided into separate councils and committees that deal with each of the major commodities. These include Wool, Meat, Dairy, Vegetables, Forestry, Cereals and Seeds, and Poppies.

The organisation plays an active role in supporting the agriculture industry. Its aim is to ensure that the policies and concerns of the agricultural sector are recognised by government, industry and the wider community, and are given a high level of consideration at all levels of the decision-making process. It is one of the few industries in Tasmania to have such a comprehensive industry organisation.

Another organisation that plays an active role in the Agriculture industry in the region is the Tasmanian Agriculture Productivity Group (TAPG). The group sees its role as that of an 'industry firefighter' and has a role in seeking information and keeping members informed of future challenges.

THE AQUACULTURE INDUSTRY

INDUSTRY DESCRIPTION

Tasmania makes an important contribution to Australian aquaculture. In 1999, aquaculture sales in Tasmania were around $151 million (Deloitte 2000). This represents 22% of Australia's total aquaculture production value for the same period of $678 million (ABARE 2001).

Species currently under commercial culture in Tasmania include Atlantic Salmon, Rainbow Trout (marketed as Ocean Trout when grown in salt water), Pacific Oysters, Green and Black-lip Abalone, Blue Mussels, Scallops, and Seahorses. In terms of new species capabilities for Tasmania, research and development resources are being directed toward Striped Trumpeter, Southern Rock Lobster and Greenback Flounder. Eel aquaculture is also being investigated currently by private industry. Research into improving current culture techniques for shellfish and salmon also continues.

Aquaculture occurs statewide, but is predominantly located in the Southern region. This is partly due to site availability and suitability. The Aquaculture Industry in the Northern region of Tasmania is largely based on the production of Shellfish, however all of the above mentioned culture species are produced in the Northern region in varying capacities (Table 3).

VALUE OF THE AQUACULTURE INDUSTRY TO THE REGION

Statewide, the largest contributor to the gross value of aquaculture production is salmonids with 84% of the total, followed by Pacific Oysters with 13.1%. In 1999/2000, 10 906 tonnes of salmonids were produced, with a farm-gate value of $84.8 million. In the same period 3 561 179 dozen Pacific oysters were produced, with a farm-gate value of $13.2 million. Mussel production was 239.2 tonnes, with a farm-gate value of $800 000. Other aquaculture commodities, including seahorses, scallops, abalone and native oysters account for 1.5% of production (ABS 2001). It is difficult to obtain reliable figures for the Northern region, albeit to say that Pacific oysters currently contribute the most to gross aquaculture production in this area.

It is generally accepted that Aquaculture has the ability to contribute significantly to regional development. In addition to direct and indirect employment, aquaculture provides diversity to a region's economic base and creates demand for secondary educational industries and training, extension services, infrastructure and locally produced goods.

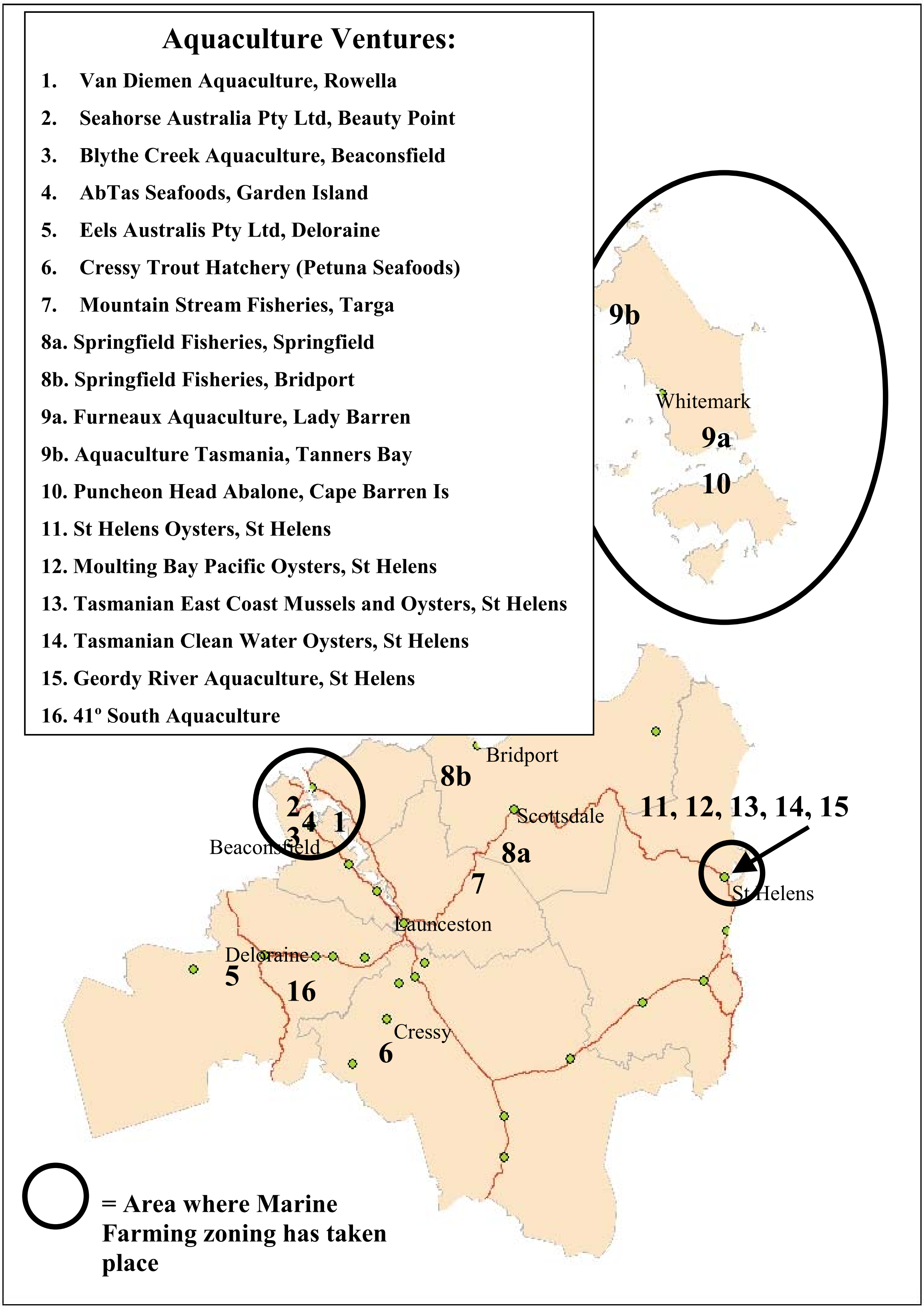
The potential benefits for regional employment are quite clear. According to 1999/2000 Australian Bureau of Statistics (ABS) figures, the Tasmanian Shellfish Industry provided 447 on-farm jobs (246 permanent; 201 casual). In the same period, the salmonid industry employed 250 people statewide on-farm (191 permanent; 59 casual). These figures are far higher when the associated employment is taken into consideration (support industries, processors etc.). It is estimated that the Aquaculture Industry within the Northern region employs 150–200 people, both directly and indirectly. Van Diemen Aquaculture, which has been operating for four years, and is still developing, employs 13 staff directly. Through a contract arrangement with George Town Seafoods for the processing of its product, a further 15 people are indirectly employed.

Table 3: Aquaculture Businesses in Northern Tasmania, producing six main species

Business	Production Strategy	Comments
1. ATLANTIC SALMON		
Van Diemen Aquaculture	Small volumes of salmon initially. Fresh, frozen and value added.	Salt Water
Springfield Fisheries	Smolt produced for Tasmanian marine farms. Also producing pathogen-free eggs for export to Europe and North and South America.	Fresh Water
Blythe Creek Aquaculture	Producing 'out of season' smolt for growout in Tasmanian marine farms.	Fresh Water In R&D phase
41° South Aquaculture	Marketing product as 'Hot Smoked Baby Salmon'. Emphasis on 'ecologically sustainable aquaculture products'	Fresh Water - Only producer of mature Atlantic Salmon grown in fresh water in Tasmania.
Mountain Stream Fisheries	Smolt produced for Tasmanian marine farms	Fresh Water
2. RAINBOW TROUT		
Van Diemen Aquaculture	Fresh, frozen and value added product for domestic and overseas markets.	Salt Water. Marketed as Ocean Trout
Springfield Fisheries	Hatchery production and some whole, smoked fish produced	Fresh Water
Mountain Stream Fisheries	Producing trout fry for Tasmanian marine farms. Some trout grown to market size. Sold fresh and smoked.	Fresh Water
Blythe Creek Aquaculture	Producing trout fry.	Fresh Water In R&D phase.
3. PACIFIC OYSTERS		
St Helens Oysters	Producing sub and inter-tidal oysters. Sold in the half-shell.	
Moulting Bay Pacific Oysters	Producing sub and inter-tidal oysters. Sold in the half-shell.	
Tasmanian East Coast Mussels and Oysters	Producing sub and inter-tidal oysters. Sold in the half-shell. Also producing blue mussels.	

Tasmanian Clean Water Oysters	Producing sub and inter-tidal oysters. Sold in the half-shell.	
Geordy River Aquaculture	Oyster hatchery. Supply spat for Tasmania and South Australia.	
4. ABALONE		
AbTas Seafoods	Situated on Garden Island in the lower Tamar estuary. Tipped to be one of Australia's largest producers of cocktail abalone. Land-based.	Currently under development
Furneaux Aquaculture	Producing greenlip and blacklip abalone	Established business on Flinders Island
Puncheon Bay Abalone	Sea-based. Floating cages, feed derived from drift weed from the strong currents off Cape Barren Island. Novel culture technique.	Aiming to market abalone larger than cocktail, servicing a niche market. Sea based and natural diet further sets product apart.
Aquaculture Tasmania	Well-advanced proposal for land based facility at Tanners Bay on Flinders Island. Looking at cocktail abalone, sea ranching, and abalone pearl production.	Proposal pending finance. Predicted to employ around 25 full-time employees.
5. SEAHORSES		
Seahorse Australia Pty Ltd	Producing seahorses for the aquarium trade, and for Asian medicinal markets.	
6. EELS		
Eels Australis Pty Ltd	Grow-out of juvenile eels under controlled conditions.	In R&D stage. Core business currently on harvest, processing and export of wild eels.

Figure 3: Current Aquaculture Ventures in Northern Tasmania



ISSUES OF CONSTRAINT AND OPPORTUNITY

Irrespective of the forecast projections, and the perceived scope for aquaculture expansion given the increasing exploitation of wild fisheries throughout the world, there are a number of major barriers for the expansion of the Aquaculture industry in Tasmania. Some of these are subject to further research and may be rectified while the industry matures and grows. Others are generic problems that are relevant to other industries (e.g. marketing, problems with the planning and policy environment), and there should be scope for addressing these issues in the short to medium term.

Problems that are largely out of the control of the industry include the following:

Site Availability

Given that 83% of the Australian population live within 50 km of the coastline, there are huge demands on coastal resources, which are managed by State and Territory Governments. Problems often arise related to coastal and estuarine communities over their perceived loss of aesthetic and recreational values, as well as concerns expressed over the possible negative impact of aquaculture on the environment. This has been evident in this region, particularly in the Tamar Estuary, and in the Georges Bay area at St Helens.

The Department of Primary Industry, Water and the Environment (DPIWE), has been involved in the process of zoning coastal areas for aquaculture and other activities since the inception of the *Marine Farming Planning Act 1995*. Since this time, three Marine Farming Zones have been designated in Northern Tasmania. These are the Tamar Estuary, St Georges Bay area (St Helens) and the Furneaux Islands.

Zoning for marine farming must be an on-going process, as situations invariably change over time. For example, the Tamar Estuary, which comprises an area of approximately 10,000 hectares (ha) has been zoned to incorporate three sites suitable for aquaculture development totalling 14.97 ha. The proposed maximum leasable area within these zones is 7.95 ha, and most of this is being utilised currently by three businesses. This extrapolates to 0.08% of the total area of the estuary. There is scope to review the Tamar Estuary Marine Farming Development Plan should there be additional aquaculture ventures proposed in the future, providing they meet the requirements of the state and local authorities, and the general community.

Limited Species

The scope for aquaculture development in Southern Australia is constrained by a limited number of species that can be successfully cultured in large-scale farming ventures. Research into farming high-value species such as Striped Trumpeter and Southern Rock Lobster in Tasmania are being hindered by difficulties associated with larval rearing, and large-scale culture of these species remains doubtful. It can be said that aquaculture opportunities for species other than those outlined above remain limited in Tasmania.

Tasmanians may not have the capability to expand into new species such as Snapper, Kingfish and Barramundi like their mainland counterparts. However, they do have the opportunity to retain a competitive edge in the existing species cultured. It is a matter of applying best practice principles to the accepted capabilities of the industry. The major example of this is the salmonid industry. Tasmanian salmon producers are capable of fetching a higher price for their premium product than anywhere else in the world, and they consistently do so.

The abalone farming industry is one of the more dynamic new aquaculture industries in Tasmania. The strong growth in this sector in recent years suggests Tasmania will become one of the biggest players in this industry.

The state's predominantly disease-free status and relatively un-polluted waters provide great opportunities for a successful Aquaculture Industry. The framework for highly effective marketing strategies is there; it is a matter of getting the right people to drive these strategies. This region boasts two of Australia's best-regarded aquaculture training facilities, in the Australian Maritime College, and the University of Tasmania's School of Aquaculture. Therefore, access to skilled labour should not be an issue of constraint for the Tasmanian industry. Access to healthy broodstock and seedstock for all of Tasmania's aquaculture species is freely available, which is also a significant advantage.

Climate Change

Long-term forecasts suggest that Tasmania's weather is getting warmer. CSIRO scientists have recently suggested that in the next 30 years, the temperature may rise 1.4°C. This is of particular concern for the Atlantic Salmon industry, as this species of fish is already being cultured at the upper end of its temperature tolerance. Prolonged hot summers in the past few years have caused problems, and shown the vulnerability that the industry faces in regard to any rise in summer water temperatures.

Problems that the Aquaculture Industry is facing which can be addressed to improve the growth potential and sustainability of the industry:

Marketing and Logistics

Issues related to marketing and logistics are frequently identified as high-priority areas for improvement in the Aquaculture Industry. Historically, this industry has been relatively fragmented, and has not capitalised on the benefits of coordinated marketing strategies. This situation appears to be improving in the salmonid industry, which is beginning to take a very integrated approach to marketing through the Tasmanian Salmonid Growers Association. This situation is not quite as evident in the shellfish industry. However, there is currently a push for a more cohesive approach to marketing within the shellfish industry, as growers are increasingly becoming aware of the limitations of existing strategies. This push is largely coming from the St Helens Marine Farming Group, but will possibly need the cooperation of shellfish growers statewide.

Figure 4 is a summary of a recent Shellfish marketing forum held in St Helens. Some of the issues raised are not isolated to the shellfish industry alone, and have relevance to several other aquaculture and food industry sectors within the Northern region, and statewide.

FIGURE 4. **MAIN ISSUES RAISED AT THE ST HELENS MARINE FARMERS GROUP'S SHELLFISH MARKETING FORUM, SEPTEMBER, 2001.**

- LACK OF CRITICAL MASS IS A GENERIC PROBLEM THAT TASMANIAN PRODUCERS FACE. COHESION AND A CO-OPERATIVE APPROACH ARE CRITICAL TO ALLAY THIS PROBLEM.
- THE INDUSTRY IS COMMITTED TO A QUALITY ASSURED (QA) PRODUCT, AND RECOGNISE THE IMPORTANCE OF QA PROTOCOLS. HOWEVER QUALITY ASSURANCE DOES NOT AUTOMATICALLY GUARANTEE PREMIUM PRICES. THERE HAS BEEN RESISTANCE TO PAYING MORE FOR TASMANIAN QUALITY ASSURED OYSTERS IN SYDNEY AND MELBOURNE MARKETS.
- THERE ARE PROBLEMS WITH THE COLD CHAIN RIGHT THROUGH THE SUPPLY NETWORK. MONITORING IS EXTREMELY MINIMAL. THIS IS A SERIOUS PROBLEM, AND CAN UNDERMINE THE OBJECTIVES THAT PRODUCER'S WORK HARD TO ACHIEVE. THIS BEING A PREMIUM QUALITY, FRESH AND SAFE PRODUCT.
- BRANDING IS A POWERFUL TOOL THAT IS UNDER-UTILISED IN TASMANIA. THERE IS A GENERAL RECOGNITION THAT TASMANIAN PRODUCERS ARE FORTUNATE IN THAT ONE OF THEIR MOST EFFECTIVE BRANDING OPPORTUNITIES IS SIMPLY THE NAME 'TASMANIA'. HOWEVER, IT IS ALSO RECOGNISED THAT COMPETITION IS FIERCE, AND THE TASMANIAN NAME IS OFTEN NOT ENOUGH IN ITSELF. IN A GLOBAL MARKET PLACE, VIRTUALLY NO PRODUCT IS EXCLUSIVELY TASMANIAN. THE TASMANIAN NAME WILL CONTINUE TO BE AN EFFECTIVE MARKETING TOOL, YET THE REAL WAY TO OBTAIN COMPETITIVE ADVANTAGE IS TO ENSURE A 'POINT OF DIFFERENCE'. VALUE ADDING IS OFTEN AN EFFECTIVE WAY OF DOING THIS. IT IS ALSO IMPORTANT TO NOT OVER-COMPLICATE BRANDING (E.G. MULTIPLE BRANDS ON THE SAME PRODUCTS).
- VALUE ADDING, BRANDING AND AIMING TO SUPPLY THE HIGH END OF MARKETS WITH A CLEAN, GREEN, PREMIUM QUALITY PRODUCT ARE LIKELY TO BE THE CORNERSTONE OF A SUCCESSFUL AND HIGHLY REGARDED TASMANIAN AQUACULTURE INDUSTRY.

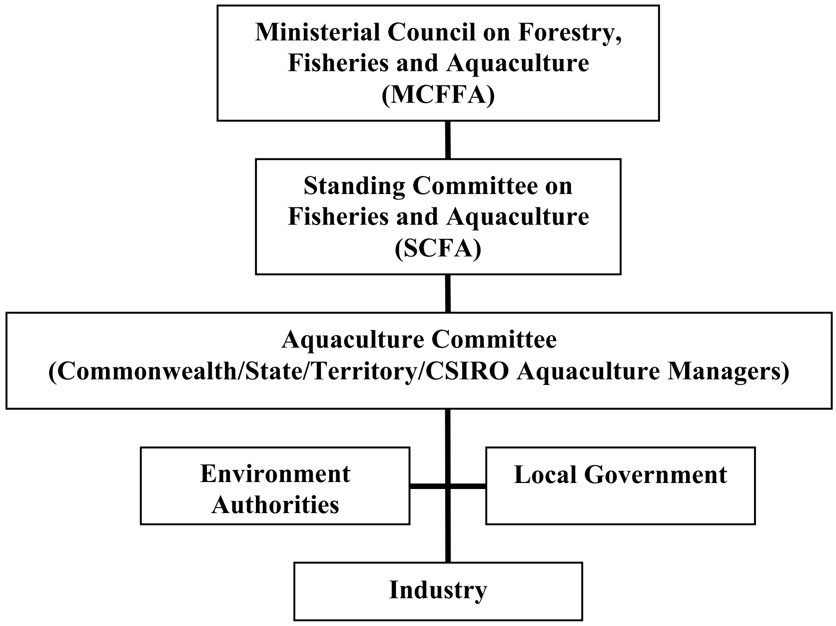
Planning and Regulatory Environment

The scale of planning issues related to aquaculture development has expanded in recent years, due to the community's heightened expectation of being consulted and catered for in the planning process. While industry generally accepts the obligation it must have towards responsible conduct, particularly in relation to environmental protocols, there is a need to make the planning process as streamlined as possible, minimising dis-incentive for future industry development.

There is potential complexity in all tiers of the planning and regulatory processes involved in aquaculture development (Figure 5). Due to the fact that individuals have to deal with multiple authorities, it appears that avoiding problems somewhere throughout the process is almost unavoidable.

A process likely to reduce the complexity of dealing with multiple authorities is the 'one stop shop' approach. This approach can reduce the difficulties in obtaining multiple licenses from various Local, State and Commonwealth Government agencies, and reduce the time and effort required to initiate the process. However, the problems associated with the actual approval and planning process itself, will still inherently lie in the hands of the respective authorities themselves. There appears to be a perception that local government is often responsible for delays and difficulties in the planning process.

Figure 5. Aquaculture Management in Australia



INITIATIVES THAT ARE BEING UNDERTAKEN INTERNALLY AND EXTERNALLY TO ADDRESS RELEVANT ISSUES

Marketing

One approach to marketing that has been suggested by industry representatives in this region, in an effort to allay the problems associated with low critical mass, is the notion of establishing synergies with other gourmet food producers, and taking a 'market basket of goods' approach. This is where a business offers a combination of food products, as a single contract. The concept is currently being researched, and may hold exciting opportunities to market a range of Tasmanian Aquaculture products, together with other food and beverage products such as wild caught seafood, vegetables, cheeses, wine, honey and many others.

Seafood is synonymous with the image of Tasmania. Unfortunately, there are considerable problems with servicing the requirements from Tasmanian restaurateurs for diverse, premium quality fresh seafood. This can have a potentially negative effect on tourism, where there is an expectation of readily available premium seafood. A working group established recently in this region, simply named 'seafood to plate' is working with restaurateurs, commercial fishers, processors and government representatives to try and solve the problem. It has been clearly identified that there is an under supply of fresh seafood in the domestic market, and this situation may hold opportunities for the aquaculture industry. The working group is being convened by Launceston Food consultant and Pipers Brook retail manager, Michele Round.

Another initiative that has the potential to enhance marketing opportunities for the aquaculture industry is eco-labelling. An eco-label is a seal or logo that indicates the product meets a set of environmental or social standards. In an ever increasingly competitive global market, food producers need to be continually monitoring consumer demand, and trying to enhance their product to achieve a competitive edge. Eco-labelling has emerged largely within the large supermarket chains of Europe, where it has been recognised that consumers are concerned about the origin, production method, safety and environmental impacts of the food they are purchasing. The concept is also heavily utilised in Japan and North America. There may be opportunities for the Aquaculture Industry to capitalise on the benefits of eco-labelling, as another valuable marketing tool, particularly for penetrating overseas markets. Given the stringent regulations imposed on aquaculturists in terms of environmental guidelines, the ability to transpose that situation into an eco-label accreditation may be relatively straightforward. This notion is further enhanced by the fact that Tasmanian producers do not currently use antibiotics, probiotics or other drugs and chemicals due to the state's comparatively low disease problems.

Moves to make Tasmanian businesses 'eco-label' ready are being driven by DPIWE and Tasmanian Quality Assured. These bodies are dedicated to ensuring that the Tasmanian Eco-label framework meets the needs of various primary industry sectors including horticulture, wool, dairy, meat production and aquaculture.

Quality Assurance

Given the situation that Tasmanian primary producers will often not be able to compete in terms of quantity, it is widely accepted that the state's competitive edge will lie in striving to be a producer of quality. To achieve this, there must be an integrated quality assurance program, aimed at underpinning an 'across the board' approach to marketing premium quality produce. The other issue of significant importance for the Aquaculture Industry is food safety. Consumer concerns over seafood safety is one of the major impediments to increased domestic consumption of seafood.

Tasmanian Quality Assured (TQA) is an industry lead, partly government funded (DPIWE) organisation that was established in 1997 to coordinate quality assurance for the production and service sectors of Tasmanian primary industry. TQA is the recognised peak body for quality assurance and food safety for Tasmanian primary industries, and provides:

- marketing advantage through the TQA quality mark and certificates of assurance signed by the Tasmanian Premier;
- industry training and co-ordination of audits;
- training and auditing of HACCP food safety programs;
- assistance with quality assurance system development and implementation;
- a 'one-stop shop' for information on quality assurance.

TQA has worked extensively with the Aquaculture Industry, in particular shellfish producers, to develop a comprehensive quality assurance program. In cooperation with industry, TQA has recently developed the Tasmanian Shellfish Quality Management System. This protocol will have relevance to other sectors of the aquaculture industry, and can be tailored to meet the requirements of these sectors.

Planning and Regulatory Environment

Tasmania is the only state/territory that has introduced a complete 'one stop shop' system for processing aquaculture site applications. The DPIWE approve site allocations, licenses and conducts environmental assessments. In an effort to reduce red tape the Department of State Development has developed Tasmania's Aquaculture Business Approvals Package. This program aims to streamline the licence application, assessment and approval process across all government agencies and substantially reduce the paperwork burden for the applicant.

The web address required to access the Business Approvals Package is www.bap.tas.gov.au

THE MANUFACTURING INDUSTRY — INCLUDING MINERAL PROCESSING

INDUSTRY DESCRIPTION

Manufacturing is, and always has been an important industry in Tasmania, and particularly Northern Tasmania. The region prides itself on being a resourceful and innovative community. While Tasmanian manufacturing does not occur to the same scale as other States, the industry contributes a larger proportion to gross state product (15.7%, compared with 13.1% as the national average (ABS, 1999/2000).

The Tasmanian workforce is multi-skilled and flexible, which is a competitive advantage, as it enables the industry to be more flexible, innovative and adaptable. The speed in which a thriving support industry has emerged around the aquaculture industry in the past 15–20 years is a prime example of this. Tasmania now manufactures various products such as nets, sea cages, feeds and feeding technology for the local industry and beyond. Tasmania has a high degree of diversity within the manufacturing sector, with a small amount of larger firms that play a significant role in driving the core economy. Such companies within the Northern region include the following:

Comalco

The Comalco Aluminium Smelter is located at Bell Bay, at the mouth of the Tamar River. This site was chosen due to the availability of competitively priced hydro-electric power and deep-water port facilities.

Electricity is a major raw material, accounting for nearly one third of the total cost of converting alumina to metal, and competitively priced power remains the main reason for smelting aluminium in Tasmania. Comalco at Bell Bay uses a similar volume of power per year as the city of Hobart. As Tasmania's major consumer of electricity, the Bell Bay smelter has helped to support development of Tasmania's hydro-electric industry.

The Bell Bay smelter began production in 1955, and was Australia's first aluminium smelter. It was producing around 12,000 tonnes of aluminium at this time. Today, its production capacity is 142,000 tonnes a year. The smelter directly employs around 600 staff with about 100 full-time contractors working on the site. In addition, it has been estimated the economic benefits generated by the smelter's operations create an additional 1600 direct jobs.

ACL Bearings

Established in Launceston in 1949, ACL Bearings is Australia's sole manufacturer of precision bearings, and the largest manufacturer of powder metallurgy components in the country. ACL (Automotive Components Limited) is a privately owned Australian company, and ACL Bearings is one of Launceston's largest private companies.

ACL Bearings has four plants operating in Launceston, and one in Melbourne. ACL Bearings produces components for GMH, Ford, Toyota and Mitsubishi in Australia, and around half of their production is exported to over 20 countries throughout the world.

ACL Bearings ranks third by market share in all sales of replacement engine bearings in North America. The company also supplies the whitegoods, industrial and agricultural markets with components manufactured to individual customer's specifications and requirements.

ACL Bearings is an important contributor to the region's economy. Annual turnover is $46 million. Twenty million dollars is distributed in salaries to over 470 employees, and $7 million per year is absorbed by local suppliers and contractors.

Tasmanian Electro Metallurgical Company (TEMCO)

TEMCO is a ferro-alloy smelter located at Bell Bay. It is the only producer of ferro-alloys in Australia. TEMCO began production in 1962 as a fully owned subsidiary of BHP. The company was purchased by Billiton Plc in 1998, and is managed as part of Billiton's large manganese interests through Samancor.

Ferro-alloys are used in the manufacture of steel and are an essential component of everyday steel products. TEMCO's annual production is 330 000 tonnes of ferro-alloys, and 330 000 tonnes of sinter. Seventy-five percent of alloy production is exported to more than 50 customers in 14 countries. The other 25% supply the domestic steel market. Each year sales worth approximately $130 million go into markets in Australia, Southeast Asia, the United States and the Middle East.

TEMCO contributes approximately $53 million a year to the Tasmanian economy through wages and the purchase of local goods and services. TEMCO directly employs 280 people, and many others are employed indirectly through associated businesses. In recent years, the company has become involved with community projects such as a joint waste water treatment plant totalling $4 million in conjunction with the George Town Council, and a $700,000 wetlands development.

David Mitchell Ltd

David Mitchell Tasmania has manufactured lime for over 120 years and is the sole supplier of hydrated lime in Tasmania. The company's main product is 'Limil', which is manufactured at a plant employing 26 people near Mole Creek.

Gunns Limited

Gunns Limited is Australia's largest fully integrated hardwood forest products company. With its head office in Launceston, Gunns was established in 1875, and is one of Australia's oldest companies. It owns 175,000 hectares of freehold land and manages in excess of 65,000 hectares of plantations. The company employs over 1000 people and has a turnover in excess of $240 million.

Gunns operates five modern sawmills throughout Tasmania, three veneer factories (one in New Zealand), and four woodchip export ports. Gunns also operates Gunns Plantations Ltd, which offers investment in growing timber plantations to the public, Hinman Wright and Manser, Launceston's largest building firm, and Gunns Mitre 10 hardware and building supplies (six stores in Northern Tasmania). Gunns also exports a wide range of timber products to overseas markets.

Other major manufacturing firms that contribute to the core economy of the region include:

- Tasman Group Services (Longford Meatworks) — meat processing

- J Boag and Son — brewing
- Simplot — vegetable processing
- Auspine — softwood production and processing
- Frenchpine — softwood production and processing
- James Nelson — textiles
- Tasmanian Alkaloids — poppy processing (medicinal opiates)
- Waverley Woollen Mills —blankets and woollen garments

VALUE OF THE MANUFACTURING INDUSTRY TO THE REGION

Manufacturing is the major core industry sector that drives employment in the Northern Tasmanian economy. Around 4 250 people are employed in this sector in the region, and another 2 900 people in the non-core manufacturing sector (DSD estimates). The Manufacturing Industry employs 20 200 people statewide, contributing $745 million in wages and salaries (ABS, 1999/2000). The total turnover of the manufacturing industry in Tasmania is around $5.5 billion, which is 2.5% of the national manufacturing turnover.

The Food and Beverage manufacturing sector employs the highest number of people, followed by wood and paper production, metal products manufacturing, and machinery and equipment manufacturing. The contribution that the wood and paper manufacturing sector makes to the state's total manufacturing production is the highest of any state or territory.

ISSUES OF CONSTRAINT AND OPPORTUNITY

The Tasmanian Manufacturing Industry Council has identified a number of areas where improvements need be made to streamline the industry. In broad terms, the council suggests aiming towards tripling the production of firms with export capability, resulting in a doubling of the employment capacity of the industry. The Manufacturing Industry Council's vision is:

'To expand a profitable manufacturing sector based on a suite of globally leading, competitive, innovative products directed to growth markets outside Tasmania'.

Tasmanian manufacturing businesses must be orientated towards markets outside Tasmania for growth to occur, as the small local market provides few opportunities for growth. To establish a competitive edge within these outside markets, Tasmanian firms need to be geared towards providing quality innovative product, with a point of difference. If we are to learn from example, it is clear to see evidence of the merit of this strategy in looking at Tasmanian manufacturing companies such as Incat and Caterpillar Elphinstone, who have both achieved international recognition for the design and manufacture of products solely produced by those Tasmanian companies.

This emphasis on innovation does not necessarily have to be focused on just the product, but also production techniques, management structure and approaches to marketing and promotion. Innovation in these areas can allow manufacturers to succeed in Tasmania, and overcome problems associated with economies of scale.

Other advantages for Tasmanian manufacturing businesses will lie in the ability to form industry networks that work to build the industry as a whole. This does not mean there will be no competition, it means that the focus of the competition needs to be predominantly focused outside Tasmania. There is great value to be had in aligning like-minded companies, and forming co-operative approaches to strategies such as product development, marketing, transport and innovation.

Promoting Innovation

It is widely accepted in Tasmania, that a competitive Tasmanian manufacturing industry must be highly innovative. While this is also the case in other regions, it is of particular importance to Tasmania due to the state's geographical isolation. Innovation is about turning ideas into great services and products and is one of the key factors that sets leading organisations apart and helps them stay ahead of the field.

In an effort to foster innovation, the Department of State Development devotes resources to a specific division, The Innovation Centre, that helps Tasmania's innovators and entrepreneurs, especially those in small to medium-sized companies and start-ups, to commercialise their intellectual property. The centre's initiatives target businesses and individuals seeking long-term growth through the commercialisation of innovative products, processes and services, and that have the potential to generate employment, investment and exports. www.dsd.tas.gov.au/innovation_centre/

Directions of the Tasmanian Manufacturing Council

The Manufacturing Council has recently put a Draft Industry Development Strategy out for industry comment. This strategy can be found at www.dsd.tas.gov.au/indcouncil/manudevstrat.htm. The broad goals and subsequent suggested strategies include the following:

- To ensure the availability and effective deployment of the skills required to support industry growth:

  provide effective and appropriate training capacity;

  develop effective labour development and employment approaches;

  attract new entrants to the industry;

  develop middle management skills.

- To maintain and develop the capabilities of the industry:

  maintain essential infrastructure and services;

  identify additional opportunities for the local supply of products and services to support existing product sectors;

  implement IT strategies;

  assist small and medium size enterprises to expand sales.

- To strengthen existing industry networks and establish new ones:

provide continued support for existing networks;

seek to establish other networks as appropriate.

- To continue to develop export capacity:

  identify and develop export opportunities in the industries;

  exhibit at trade shows.

- To ensure an effective regulatory environment:

  increase workplace health and safety standards and reduce costs;

  ensure an equitable taxation system that does not adversely affect competitiveness;

  ensure effective industry support programs.

- To stimulate interest in and capability in the areas of innovation and R&D:

  provide a range of pathways to stimulate and develop innovation and R&D.

Onshore natural gas in Tasmania

The Tasmanian Gas Pipeline Project is due to commence in December 2001, and is the most significant infrastructure development to occur in Tasmania in recent years (Figure 7). Tasmania has never had onshore gas, and there is great scope for this project to enhance the growth of the manufacturing industry in this region and throughout the State.

FIGURE 7. **DUKE ENERGY INTERNATIONAL'S TASMANIAN GAS PIPELINE PROJECT**

DUKE ENERGY INTERNATIONAL WAS SELECTED BY THE TASMANIAN GOVERNMENT IN 1998 TO INVESTIGATE THE FEASIBILITY OF BRINGING GAS ASHORE IN TASMANIA. THE FEASIBILITY STUDY WAS COMPLETED IN EARLY 1999, AND DETERMINED THE PROJECT WAS VIABLE PENDING FINALISATION OF COMMERCIAL NEGOTIATIONS WITH INDUSTRIAL GAS USERS. DUKE ENERGY ANNOUNCED IN NOVEMBER 2000 THAT IT HAD SECURED DUKE ENERGY BOARD APPROVAL AND IDENTIFIED THE CUSTOMER BASE TO SUPPORT THE GAS PIPELINE. COMMUNITY CONSULTATION IS ONGOING AND PENDING ENVIRONMENTAL AND LICENSING APPROVALS BY THE TASMANIAN, VICTORIAN AND FEDERAL GOVERNMENTS, CONSTRUCTION IS DUE TO START DURING DECEMBER 2001. DUKE ENERGY WILL BUILD, OWN AND OPERATE THE $400 MILLION PROJECT.

BENEFITS FOR TASMANIA:

- THE GAS PIPELINE WILL STIMULATE THE INDUSTRIAL AND ECONOMIC GROWTH AND CREATE REAL COMPETITION IN THE TASMANIAN ENERGY MARKET, OFFER COMMERCIAL, INDUSTRIAL AND DOMESTIC CONSUMERS GREATER CHOICE AND HELP REDUCE GREENHOUSE EMISSIONS BY DISPLACING OTHER FUELS USED BY INDUSTRY.
- For the first time, there is the prospect of a reticulated supply of natural gas to cities and towns along the pipeline route, as well as the provision of an alternative energy supply for homes and industry. A specialist reticulation company will manage the distribution of gas to homes and businesses.

THE TASMANIAN GAS PIPELINE WILL:

- PROVIDE AN ALTERNATIVE, MORE COMPETITIVELY PRICED ENERGY RESOURCE FOR INDUSTRIAL AND RESIDENTIAL USE;
- REDUCE INDUSTRY COSTS WHICH WILL ENCOURAGE LOCAL BUSINESSES TO EXPAND, AS WELL AS SPUR INVESTMENT FOR NEW INDUSTRIES;
- BOOST EMPLOYMENT AND STIMULATE LOCAL ECONOMIES;
- GIVE HOUSEHOLDS AND BUSINESSES ACCESS TO A RELIABLE, CLEAN ENERGY SOURCE FOR HEATING AND COOKING; AND
- ASSIST THE REDUCTION OF GREENHOUSE GAS EMISSIONS BY DISPLACING ALTERNATIVE FUELS.

What is being manufactured in Northern Tasmania, and by whom?

Table 4. Shows many of the major manufacturing firms in the region with export orientation.

Table 4: Some major manufacturing companies in Northern Tasmania

Product	Company	Export	Comments
Sawn pine products (framing, linings, boards, beams and posts)	**Auspine**	Asia	Largest producer of radiata pine products in Tasmania
DZR brassware for water supply pipelines	**ABB Metering Pty Ltd, Launceston**	New Zealand, Malaysia	
Timber cabinet and wardrobe doors	**Decorative Doors, Launceston**	Europe, New Zealand and Japan	Specialise in Baltic Pine and Oregon
Mechanical locks and accessories	**Jackson Lock Manufacturing, Launceston**	New Zealand	
Tasmanian Oak flooring and mouldings	**Neville Smith Tasmania Pty Ltd, Launceston**	USA	
Masts, rigging and furling systems for sailboats and yachts	**Almasts Australia Pty Ltd, Launceston**	New Zealand, Vietnam	Custom Manufacture
Plastics (PVC building materials, road edge guide posts, noise abatement fencing etc.)	**SVP Industries Pty Ltd, George Town**	China, Indonesia, Japan, New Zealand, Philippines, Singapore, South Africa, USA, Canada, Korea	ISO 9002
Timber doors and windows	**Unique Doors Tasmania Pty Ltd, Launceston**	Japan	
Waterproof jackets, coats and vests	**Southern Cross Country, Hillwood**	USA	
Automotive bearings, bushes etc.	**ACL Bearing Company, Launceston**	Austria, Canada, China, Egypt, Germany, Greece, Holland, Hong Kong, India, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, New Zealand, Pakistan, Poland, Singapore, South Africa, South America, Sweden, Thailand, Turkey, UAE, UK, USA, Zimbabwe	One of Launceston's largest private companies (turnover around $46m p/a)
Steel castings (1 kg to 4000 kg)	**Bradken, Launceston**	Hong Kong, Japan, New Zealand	
Hydroelectric Turbines	**Tamar Designs Pty Ltd, Exeter**	Fiji, New Zealand, PNG	
Thermocouples and temperature sensors	**Temptrol Technologies Pty Ltd, George Town**	New Zealand	

Product	Company	Export	Comments
Emergency vehicle warning lights, sirens and related products.	**Hazard Systems Pty Ltd, Launceston**	Malaysia, New Zealand, UK, USA	Hold the major share of the Australian market
Milk vats, wine tanks, hospital and laboratory equipment, hot water services	**FAME Foley Industries Pty Ltd, Launceston**	Brunei, China, Hong Kong, Indonesia, New Guinea, Singapore, Malaysia	
Recycled paper and plastics	**Statewide Paper Collectors Pty Ltd, Launceston**	Dubai, India, Indonesia, Malaysia, Pakistan	
Tree cultivator	**Ro-Tree Corporation Australia Pty Ltd, Scottsdale**	China, Chile, Malaysia, USA	Substantially reduces soil disturbance and erosion problems.
Animal serum for the pharmaceutical industry	**Selbourne Biological Services Pty Ltd, Longford**	Europe, India, Japan, UK, USA	Other animal products for the vetinary and human therapeutic industry sourced on demand
Active pharmaceutical ingredients and poppy seeds	**Tasmanian Alkaloids Pty Ltd, Westbury**	Canada, Germany, Norway, Sweden, Southeast Asia, Switzerland, USA	Tasmania is the world's largest producer of opium alkaloids for the pharmaceutical market. Export value: $250m/yr
Cable hang gliding simulated flight systems	**Cable Hang Gliding Australia Pty Ltd, Legana**	China, Japan, Malaysia	
High performance kites	**Ground Zero Kites Pty Ltd, St Helens**	Belgium, Canada, France, Germany, New Zealand, Switzerland, UK, USA	
Fishing lures	**Lofty's Lures Pty Ltd, Mole Creek**	Asia, Europe, New Zealand, North America, UK, USA	
Fishing lures	**Tillins Pty Ltd, Blackwall**	Canada, Ireland, Japan, New Zealand, Sweden, UK, USA	
Blankets and rugs	**Waverley Woollen Mills, Launceston**	Hong Kong, Japan, Korea, New Zealand, Sweden, Taiwan, USA	
Service equipment for the airline industry including: aircraft lifts for disabled passengers, stairs, ramps etc.	**Airport Maintenance Services Pty Ltd, Launceston**	USA	One of two such companies in Australia. Recently won a contract with a major American airline.
Aluminium powders, granules, pastes and paints	**Eckart Australia, Bell Bay**	China, Germany, Ireland, Japan, Korea, Malaysia, New Zealand, South Africa, Sweden, Taiwan, Thailand, USA	

THE FORESTRY AND TIMBER INDUSTRY

INDUSTRY DESCRIPTION

Tasmanian native and plantation forests are an important natural resource providing a wide range of products and benefits to the community. The Forestry and Timber Industry in Northern Tasmania consists of both native forest wood production, plantation eucalypt, plantation softwood and the hardwood and softwood processing sector. It is a significant industry in the region. The dominant plantation hardwood species in the region are Tasmanian Blue Gum (*E.globulus*) and Shining Gum (*E.nitens*). The dominant plantation softwood is Radiata Pine. Smaller volumes of specialty timbers are also harvested, including Blackwood, Myrtle, Sassafras and Leatherwood.

A few large private companies and Forestry Tasmania, a government business enterprise, dominate forestry and logging operations. There are quite a number of sawmills operating throughout the region, however there has been a high degree of rationalisation in this sector in the past twenty years. In the 1980s, Tasmania had around 260 sawmills, while today there are about 30. Hardwood mills are generally small scale, while softwood mills are generally larger and more highly integrated with other wood processing facilities.

Value adding is an important component of the industry. Wood is value added in the region by sawmilling, plywood and panel manufacturing, particle board and medium density fibreboard manufacturing, woodchip production and export, production of specialty building products (doors and flooring) and fine furniture making. Smaller private forestry holdings and farm forestry are also an important component of the industry. Tasmania has the highest proportion of private forestry ownership in Australia.

The major players in the Northern Tasmanian Forestry and Timber industry include the following:

Gunns Limited

Gunns Limited is one of Australia's oldest companies. Founded in Launceston in 1875, Gunns Limited has grown to become Australia's largest fully integrated hardwood forest products company, and is the largest producer of eucalypt veneers in the world. It owns 175 000 hectares of freehold land and manages in excess of 65 000 hectares of plantations.

The company operates five modern sawmills throughout Tasmania. These sawmills produce seasoned framing timbers, rough sawn kiln dried hardwood and value added hardwood products such as laminated beams, tongue and groove flooring, mosaic and block parquetry, mouldings and furniture components.

Gunns Limited also operates Tasmania's two veneer factories and a veneer factory in Christchurch, NZ.

In addition to its timber operations Gunns operates six Mitre 10 hardware and building supplies stores around Northern Tasmania.

The group's building contracting company, Hinman Wright and Manser, is Launceston's largest builder, and has constructed many major works across the state in its 100–year existence.

Woodchip production and export is Gunns' major business activity, and it operates four woodchip export ports in Tasmania. Woodchip exports are predicted to account for 65% of the company revenue in 2002. Gunns Plantations Ltd is a wholly-owned subsidiary of Gunns Limited and offers investment in growing timber plantations to the public via the release of an annual prospectus for its Woodlot Projects. In addition to raising funding from the prospectus, Gunns also establishes plantations in its own right (100% funded) and also in joint ventures with several of its major Japanese customers.

The company employs over 1 000 people and has a turnover in excess of $240 million.

Forestry Tasmania

Forestry Tasmania is a State Government enterprise that manages 1.5 million hectares of state forest, employs 586 personnel and has assets worth $842 million. Forestry Tasmania also has a softwood plantation joint venture with Boston-based GMO Renewable Resources LLC. The joint partnership is managed by American multinational, Rayonier Inc. and is 50% owned by Forestry Tasmania. The softwood enterprise produces 750 000 tonnes of radiata pine a year.

Forestry Tasmania produces about 3 million tonnes of wood per year, consisting of sliced veneer logs, peeled veneer logs, sawlogs, pulplogs, woodchips, fuelwood and other forest products. The 1.5 million hectares of public land managed by Forestry Tasmania includes 830 000 hectares that is available for wood production. There are also 70 000 hectares of plantations on state forest comprising 50 000 hectares of softwood and 20 000 hectares of hardwood. The company is expanding its plantations, and expects to have added another 100 000 hectares of plantations and thinned forest by 2010.

Other business operations include the production of around 15 million tree seedlings in the Forestry Tasmania nursery at Perth, and sale of seeds to other forest nurseries. Island Specialty Timbers services the needs of craftsmen, hobbyists, builders, woodturners and small specialist sawmillers with specialty timbers such as Huon Pine, Blackwood and Myrtle logs, burls and feature timbers.

The corporate objectives of Forestry Tasmania are to:

- improve profit performance;
- develop a world competitive hardwood and softwood forest resource which is sustainably managed and meets all statutory environmental standards;
- meet customer requirements and expand the customer base in domestic and international markets;
- enjoy the broad support of the Tasmanian community for State forest management.

Auspine

Auspine Limited is Australia's largest non-government producer of Radiata Pine. At Scottsdale, the Auspine sawmilling and preservative treatment plant was the first in Australia to achieve international accreditation (ISO 9002), and is the sole Tasmanian sawmill to do so. Auspine Scottsdale's woodchipping operations have also gained ISO 9002 accreditation.

The Auspine Scottsdale manufacturing facility is a strong contributor to the ongoing success of Company operations as well as a major employer in Tasmania.

Auspine Tree Farms in Northern Tasmania harvests plantation Radiata Pine under access agreements, and value-adds through manufacturing and preservative treatment. Auspine products are then marketed and distributed throughout Tasmania and to the mainland.

Multimillion dollar expenditure on state-of-the-art technology for large and small diameter logs has upgraded log-sorting, and increased sawing accuracy, optimised sawlog utilisation, further improved quality control, kiln systems, and preservation treatment, while reducing production costs — all of which contributes to an increasingly internationally competitive operation. Auspine at Scottsdale employs 152 permanent staff, and around 20 casual employees.

French Enterprises Pty Ltd

French Enterprises is a private family-owned company primarily involved in the milling of Tasmanian grown Radiata Pine. The company employs around 135 people at its Scottsdale sawmill, producing high-grade softwood timber products for Tasmanian and interstate markets. Supplementary to the milling operation, French Enterprises Pty Ltd has steadily increased its plantation interests. Today, the company owns and manages 473 hectares of private Radiata Pine plantations and has joint venture interests totalling 362 hectares. Three of the joint ventures are with Forestry Tasmania and one with the Dorset Municipal Council. All plantations are managed with a view to producing the highest quality veneer and pruned Radiata Pine sawlogs.

Forest Enterprises Australia

Forest Enterprises was incorporated in 1985 and began establishing its own eucalypt plantations in 1987, then expanded into the management of timber plantations on behalf of others. From 1993, the company has attracted significant investment into plantation development in Tasmania through an annual registered prospectus. The company also manages plantations in New South Wales and Queensland. Forest Enterprises Australia's head office is in Launceston.

Private Forests Tasmania

Private Forests Tasmania is a Tasmanian government authority established under the *Private Forests Act 1994* to promote the development of private forestry in Tasmania.

Responding to the State Minister responsible for forests, the authority has a board of directors each appointed for their practical knowledge, industry experience or technical expertise relevant to private forestry.

The organisation is customer focused. With a broad range of industry experience it has a well-integrated team often more likely to be seen working in the field than the office. Private Forests Tasmania has a hands-on, face-to-face approach to industry support. It is not a large bureaucracy.

Staff skills cover all aspects of modern forestry practice and management. Experience includes active involvement with landcare and vegetation management. The Private

Forests Tasmania team also keeps up with the latest technology including geographic information systems and other forms of electronic mapping.

Today Tasmania's forests cover about 48% of the total area of the state, with private forests making up about 29% of the forest area — much more than in any other Australian state.

The Tasmanian Farmers and Graziers Association (TFGA) also looks after the interests of private forest owners through its TFGA Forestry Division. In particular, this involves farmers who have tracts of remnant bush, are integrating forestry into their management practices (shelter belts, salinity control) or are looking to plant trees on their land as a long-term investment.

Serve-Ag also has a forestry division that deals with farm forestry, forestry consultancy and research.

Starwood Australia

Starwood Australia is Australia's newest and largest medium density fibreboard (MDF) plant. Medium density fibreboard is a high quality engineered timber product offering superior qualities of consistency of finish and density, freedom from knots and natural irregularities, as well as having the characteristics of strength, durability and uniformity not always found in natural timber. It has excellent machinability due to its homogenous consistency. These characteristics make MDF particularly suited for use in flooring, paneling, the manufacture of furniture, cabinets, and mouldings, as well as structural applications.

Starwood produces a wide range of premium fibreboard products from its Bell Bay plant, which is able to produce up to 120 000 tonnes of fibreboard (MDF) per annum. Starwood is unique for it is the only MDF plant in Australia which produces both a 100% pine and a eucalyptus/pine blended MDF. The company has committed itself to a large amount of research to develop the process and the product is equal to the best in the world.

Starwood Australia is situated within close proximity to the Port of Launceston at Bell Bay. The site was selected due to the Port's deep sheltered waters, good rail and road links, and quick turn around for shipping. It is also Tasmania's main import/export distribution centre and provides direct regular services to Southeast Asia, NZ, Melbourne and Sydney. The port is also well positioned in regard to access to the Northeast's forest products. Starwood Australia has also invested in pine plantations in the region, which are managed by Forestry Tasmania.

VALUE OF THE FORESTRY AND TIMBER INDUSTRY TO THE REGION

Statistics regarding the value of the Forestry and Timber industry specific to the Northern region are not readily accessible. However, in terms of employment numbers, export revenue and the industry's utilisation of secondary industries, it is abundantly clear that the industry plays a major part in the region's economy. The industry employs

8 300 people statewide. Wood and paper product manufacturing contributed 23% of total manufacturing in Tasmania in 1999/2000 (ABS).

Tasmanian woodchip production has been increasing steadily in the past few years. In 1999/2000 Tasmania produced 5.1 million tonnes of woodchips, which was more than the rest of Australia put together. In that same year, $303 million in export earnings were received for woodchips and wood products.

It is estimated that the forestry industry contributes about $1 billion each year to the Tasmanian economy. Tasmanian wood and paper product manufacturing is the second largest employment group with:

- 20.3% of total manufacturing employment
- 25.7% of total manufacturing wages and salaries
- 24% of total industry turnover at $942 million.

The Forestry and Timber Industries contribute a proportionally higher amount to the Tasmanian economy than in any other Australian state. How this resource is managed, and how the state can capitalise on it fully through downstream processing and value adding is a hotly debated issue.

Currently, Tasmania's major competitive edge in regard to Forestry lies in the export of woodchips. Many argue that this is not a desirable situation, however, it is a difficult point to argue when the value of the industry, and the level of employment it generates is considered.

ISSUES OF CONSTRAINT AND OPPORTUNITY

Sustainability

The Forestry and Timber Industry, and its position in the Tasmanian economy is an evocative issue, and will invariably continue to be so. From a big picture perspective, there have been major structures put in place to ensure that Tasmania's forest estate remains a sustainable and valuable resource that is properly managed for future generations.

Primarily, the Regional Forest Agreement (RFA) is an agreement between the Commonwealth and State Governments which provides a blueprint for the future management of Australia's forests, and the basis for an internationally competitive and ecologically sustainable forest products industry.

The Regional Forest Agreement for Tasmania was signed in November 1997. It increased the existing conservation reserve system by 17 per cent, bringing the total reserve system to 2.7 million hectares — 40 per cent of Tasmania's total land area. With 29 new parks or state reserves, the RFA meets the reserve criteria as far as is practicable on public land, with 95 per cent of wilderness in reserves. The RFA established a program to protect conservation values on private land.

The Tasmanian RFA laid the foundation for the creation of 550 jobs in plantations, intensive forest management and infrastructure development and was accompanied by a

Commonwealth funding package of $110 million to help develop exports and value adding.

The larger companies and organisation involved in forestry in Tasmania have all pledged a will to operate under best principal guidelines, and ensure the Tasmanian industry remains viable.

Conflict

Tasmania has a very active environmental movement, and the Northern region is no exception. The debate between the Forestry and Timber industry and environmentalists will possibly continue as long as an industry exists. The job of convincing the people of Tasmania that logging is being conducted in a responsible manner, and that frameworks such as the RFA are being adhered to, is a challenging issue for the industry.

As Tasmania has an increasing ideological affinity with the notion of clean and green, and environmentally pristine, it would be expected that the activities of the Forestry and Timber Industry will continue to be scrutinised by environmentalists, and other community groups.

Northern Tourism

There has been concern expressed by Tourism representatives in the region, that the Forestry and Timber industry and the Tourism industry are not complementary to each other in some areas. This is particularly evident in the Pipers River wine region, and parts of the Eastern and Western Tiers. These issues are challenging ones and require effective dialogue between the two industry sectors.

Value Adding

Value adding in the Tasmanian Forestry and Logging Industry is about maximising the returns from the available resource, and ensuring that the highest gain is made from the harvested material. Ways in which timber is value added in the region include:

- particle Board, Medium Density Fibreboard and Hardboard made from softwood or hardwood pulp logs, sawmill residues or thinnings (e.g. Starwood Australia);
- plywood;
- sawmilling (seasoned timbers, kiln dried hardwood, specialty timbers);
- specialty building products such as laminated beams, tongue and groove flooring, mosaic and block parquetry, other specialty flooring (eg Tasmanian Oak, Blackwood), mouldings;
- fine furniture, and furniture components.

Innovation and new technology provide new alternatives for value adding. An example of a value adding opportunity related to the Forestry and Timber industry currently proposed for the Northern region, is the development of a green waste power station at Bell Bay. The $38 million 20MW power station has been given approval, and work is expected to begin soon. The facility would utilise a range of waste products, with forestry waste products being a major contributor. This type of bio-energy infrastructure is new for Australia. Auspine are developing a similar proposal three times the size of the Bell Bay plant in Southeastern South Australia. This type of development meets a number of objectives that fit well with sustainable economic development for Tasmania, these being; value adding within a core industry sector, providing regional employment, displaying innovative initiative and complementing the notion of environmentally sustainable development.

Other opportunities for value adding being embraced in the Forestry and Timber industry in the region involve the utilisation of specialty timbers for which Tasmania has international recognition. Such timbers include Celery Top, Huon and King Billy Pine, Blackwood, Myrtle and Sassafras. The Australian School of Fine Furniture has been strategically located in Launceston, and has an emphasis on the use of Tasmanian timbers. The school appeals to a niche market of craftsmen, several of them from overseas. The Tasmanian Wood Design Centre is another world-class facility located in Launceston, which promotes the state's specialty timbers, and highly skilled craftsmen and artists.

FIGURE 8. **THE TASMANIAN WOOD DESIGN COLLECTION**

IN 1988 AND 1989, THE TASMANIAN FORESTRY COMMISSION, NOW FORESTRY TASMANIA, CONDUCTED THE TASMANIAN WOOD CRAFT COMPETITION. TO AN ORGANISATION MORE COMMONLY ASSOCIATED WITH PRODUCTION FORESTRY, THE MOVE WAS SEEN BY SOME AS UNUSUAL. TO THE COMMISSION HOWEVER, THE MOVE WAS A NATURAL ONE. POSSESSING SOME OF THE FINEST TIMBERS IN THE WORLD AND A GROWING NUMBER OF INTERNATIONAL STANDARD DESIGNER/MAKERS, THE COMMISSION BELIEVED TASMANIA HAD THE RESOURCES TO CARVE OUT A NICHE FOR ITSELF IN THE COMPETITIVE WOOD DESIGN MARKET.

THE COMPETITIONS THEMSELVES EXCEEDED EXPECTATIONS BOTH IN RESPONSE AND IN QUALITY. IN RECOGNITION OF THE POTENTIAL REVEALED, THE COMMISSION SOUGHT TO EXPLORE HOW THE EXCITEMENT AND GAINS SO APPARENT IN THE COMPETITIONS COULD BE HARNESSED AND FURTHER DEVELOPED. IT WAS FROM THIS BEGINNING AND WITH THE SUPPORT OF THE INDUSTRY THAT THE CONCEPT OF THE TASMANIAN WOOD DESIGN COLLECTION EMERGED.

THE COLLECTION

THE TASMANIAN WOOD DESIGN COLLECTION HAS A BOLD AGENDA. SELECTED PIECES ARE PURCHASED FROM THE WOOD DESIGN BIENNIAL (FORMALLY THE GRAND EXHIBITION), HELD EVERY TWO YEARS IN HOBART, TO CREATE A PERMANENT COLLECTION OF TASMANIA'S FINEST WOOD DESIGN. IN A MOVE TARGETED AT INTERNATIONAL RECOGNITION OF TASMANIA AS A FOCUS FOR ALL MATTERS RELATING TO DESIGN IN WOOD, THE BOARD OF THE COLLECTION ARRANGES EXHIBITIONS IN OVERSEAS COUNTRIES. THIS COMMENCED IN 1996 WHEN THE COLLECTION WAS AWARDED THE PRIZE FOR FINE CRAFTSMANSHIP AT THE INTERNATIONAL CONTEMPORARY FURNITURE FAIR IN NEW YORK CITY, AND IN 1998 WITH A TOUR OF GERMANY, SWEDEN AND FINLAND. IN 1999 THE COLLECTION LED A TASMANIAN TRADE MISSION TO CHINA WITH EXHIBITIONS IN FUZHOU AND BEIJING.

A PERMANENT HOME, CONSTRUCTED TO HOUSE THIS COLLECTION OF INTERNATIONAL IMPORTANCE, HAS RECENTLY BEEN COMPLETED, AND IS LOCATED ADJACENT TO THE DESIGN CENTRE OF TASMANIA IN LAUNCESTON'S CITY PARK.

THE FOOD AND BEVERAGE INDUSTRY

INDUSTRY DESCRIPTION

The Food and Beverage industry and the Agriculture and Horticulture industries are obviously inextricably linked. Therefore, for the purposes of this industry profile, the Food and Beverage Industry will focus on businesses that add value to Tasmania's raw primary products through processing, packaging and other marketing strategies.

The Food and Beverage sector in Tasmania deals with a highly diversified range of food products. In the Northern region of the state, meat products, wine, beer, cheese, berries, fruit (apples, pears and stone fruits) and vegetables are the mainstay of the industry.

The food and beverage industry in Northern Tasmania can be broadly broken into four categories:

- a small core group of large multi-nationals;
- a diverse range of smaller operators focused on servicing domestic demand, and/or niche markets in mainland Australia and overseas;
- a range of 'cottage' businesses; and
- the viticulture industry.

The larger players in the Northern region are related to the meat and vegetable industries, and wine and beer production:

Simplot Australia
Simplot Australia has three major vegetable processing facilities in the state; Devonport, Ulverstone and Scottsdale. The Scottsdale facility's main activities are processing potatoes, mostly french fries and gems. The key brands serviced by the Scottsdale plant are Birds Eye and Edgell. A large proportion of the french fries produced for the major fast food outlets including McDonalds, KFC and Hungry Jacks are processed in Scottsdale. Over 100 people are employed at this facility. Tasmania has some of the largest vegetable processing facilities in Australia.

Tasman Group Services Pty Ltd
Formerly owned by SBA Foods, the Longford meatworks are currently owned by Tasman Group Services Pty Ltd. Tasman Group Services also owns the King Island meatworks and Belandra Meats, Victoria's largest meat processing company. The company announced earlier this year that it plans to invest several million dollars upgrading the facilities at Longford and King Island. The Longford meat works is operated by around 210 staff.

Blue Ribbon Products Pty Ltd
Blue Ribbon Meats Pty Ltd was purchased by Victorian-based Perfect Pork in late 2001. The Launceston-based operation at Killafaddy currently trades under the name Blue Ribbon Products Pty Ltd, and the facility's core business is the production of

smallgoods. Beef is also processed at the Killafaddy abattoir. Blue Ribbon Products Pty Ltd currently employs around 120 staff.

J Boag and Son

Established in 1881, J Boag and Son have been brewing beer at its site on the North Esk River in Launceston for 120 years. The company has developed a firm position in the Australian premium beer market, however this is a relatively new situation. Until ten years ago, J Boag and Son's total production was consumed within a 200-kilometre radius of the brewery.

In 1994 the company launched James Boag Premium Lager, at a time when the domestic demand for premium beer had greatly increased. This product was a great success, and was judged Australia's best premium beer in the same year. Subsequently, the Boag's brand has become highly recognised in the Australian market, and has also been received well on international markets.

J Boag and Son is now owned by Philippines-based multi-national, San Miguel, and further growth throughout Asia and Australia is expected.

Boag's places a large degree of emphasis on its committed local workforce. The company employs 64 people in Launceston, and 98 statewide. The average length of service is 20 years.

Pipers Brook Vineyard

Established in 1974, Pipers Brook Vineyard is an award-winning, cool-climate premium winery situated in the Pipers River wine region. It is a small 'pure' wine producing company, and all wines are estate-grown and bottled. While regarded as small in the whole scheme of the Australian wine industry, Pipers Brook is the largest producer of wine in Tasmania, and the most recognised Tasmanian winery. The company is strongly vertically integrated with an acquired depth of skills in site selection, vineyard development and management, winemaking, bottling and marketing.

Under the direction of founder, managing director and winemaker, Dr Andrew Pirie, the winery produces over ten varieties of red, white and sparkling wines under the Pipers Brook Vineyard, Pirie and Ninth Island labels. Pipers Brook Vineyard grapes are sourced entirely from within the Tasmanian appellation. Its wines are available in seventeen countries, and have received numerous high-profile awards. Pipers Brook employs 121 full-time staff, and many part-time employees, and is the largest non-industrial employer in the region.

While these large companies are invaluable to the region in terms of employment, and spin off effects for the other sectors of the economy, there are also many smaller niche businesses that are making a growing contribution to the Food and Beverage Industry. Organic produce and herbs are two examples of these. There is also considerable interest in essential oil production in the region.

Businesses such as Diemen Pepper, who package and market Tasmanian bush tucker, despite their small size, make a valuable contribution to Tasmania's image as a producer of niche foods, in their point of difference and novelty value. Launceston-based Lenah Game Meats, who are exporting possum meat into China, and Tasmanian wallaby throughout mainland Australia are another example of niche food marketing that enhances the states reputation as a provider of diverse, quality food products. Flinders Island Quality Meats is an example of a small, but unique food and beverage business in the region, that is raising the profile of Flinders Island, Tasmania, and Tasmanian produce in key domestic markets.

FIGURE 9. **FLINDERS ISLAND QUALITY MEATS**

JOHN CHAPMAN, A PARTNER IN FLINDERS ISLAND QUALITY MEATS BELIEVES THERE IS NO REASON WHY FLINDERS ISLAND CAN'T DO WITH LAMB, WHAT KING ISLAND HAS DONE WITH BEEF.

THE 100 TONNE/YEAR ABATTOIR IS SUCCESSFULLY SELLING MILK-FED FLINDERS ISLAND LAMB INTO MELBOURNE, SYDNEY AND BRISBANE, AND THE PRODUCT IS TURNING UP ON THE TABLES OF THOSE CITIES' TOP RESTAURANTS. CAPE BARREN GEESE, WALLABY AND PRIME LAMB ARE THEIR OTHER SPECIALITIES.

CHAPMAN SAYS THE SUCCESSFUL MARKETING OF THESE PRODUCTS HAS INVOLVED 'PHYSICALLY GETTING OUT THERE AND SELLING THE PRODUCT'. IT HAS BEEN THE RELATIONSHIPS HE HAS DEVELOPED WITH WHOLESALERS AND RETAILERS, AND KEY CONTACTS LIKE TASMANIAN CHEF AND FOOD PROMOTER JOHN T BAILEY THAT HAVE MADE THE DIFFERENCE. WITH THE SUCCESS OF HIS SMALL RANGE OF PRODUCTS, CHAPMAN HAS BEEN FREQUENTLY ASKED BY MAINLAND BUYERS, 'WHAT ELSE CAN BE SOURCED FROM FLINDERS ISLAND?' HE BELIEVES THIS COULD BE A CATALYST FOR THE DEVELOPMENT OF A BRAND MARKETING CAMPAIGN FOR THE ISLAND THAT COULD INCLUDE OTHER PRODUCE SUCH AS WOOL, BEEF, GARFISH, VEGETABLES AND MUTTONBIRDS.

Viticulture

Northern Tasmania has one of Tasmania's most prominent wine regions, and produces the greatest volume of Tasmanian wine. The wine growing areas are concentrated in four main areas; the West Tamar, the East Tamar, Relbia, and Pipers River. However these areas are increasingly being marketed under the umbrella of the Tamar Valley Wine Region, and a successful wine route has been established.

The region lays claim to the oldest established winery in Tasmania (Providence Vineyard), however the industry has only really developed in the past 20–25 years. There has been steady growth in the industry in this time, and today there are over twenty wineries. The region's wine industry continues to evolve into a mature, recognisable and sophisticated Australian wine region, and is a valuable contributor to the economy as an industry in its own right, but also in the contribution it makes to the Tourism Industry, and also the Food and Beverage industry. There is a critical synergy between these three sectors.

As the wine industry in the Tamar Valley has developed, there has been an increasing amount of investment from outside companies such as Kreglinger (Australia) Pty Ltd, Samuel Smith and Son, Hardys and Taltarni.

Tasmania's cool climate is ideal for a range of varieties, Pinot Noir, Riesling and Chardonnay being some of the state's signature wines. The vintage variation is greater in Tasmanian wine regions than in any other Australian areas, and this point of difference together with an increase in recognition will ensure the Tasmanian wine industry continues to grow.

VALUE OF THE FOOD AND BEVERAGE INDUSTRY TO THE REGION

The Tasmanian Industry Audits, conducted in 1999, estimated the turnover of the Tasmanian Food Industry to be in the order of $1.7 billion per annum. The Food Industry Council of Tasmania (FICT) was established in response to the Audits as a partnership body between the State Government and industry, to develop future strategies to develop and streamline the Tasmanian Food and Beverage Industry.

FICT has declared in their 'Tasmanian Food Industry Strategy (2000)' that doubling the annual turnover of the food industry to $3.4 billion by the year 2010 would be an achievable objective. This growth is projected to come from:

- increased volume;
- better quality;
- Pricing;
- value adding.

The importance of this industry is not purely related to the economic value of the industry itself, but also its role in creating a favourable perception of the state as a producer of fine quality, premium produce. The industry has a clear synergy with tourism, as Tasmanian food, wine and beer, are often a large focus of the Tasmanian visitor experience. Tasmania being perceived as a leader in the field of Food and Beverage also augurs well for other industries within the State.

ISSUES OF CONSTRAINT AND OPPORTUNITY

The Food Industry Council of Tasmania has developed a Tasmanian Food Industry Strategy to meet the unique characteristics, constraints and opportunities of the Tasmanian food industry. Eight strategies have been proposed, addressing four major areas: marketing and communication; quality, safety and environment; business and government facilitation; and trade barriers and constraints. They cover both fresh and processed foods and address Tasmanian, Australian and International markets. These strategies are:

1. Improve the awareness of and responsiveness to the consumer, markets and external opportunities.
2. Develop and promote Tasmania's distinctive and unique 'island' qualities as a food producer.
3. Ensure consistent and sustainable high product quality and safety.
4. Develop a culture of and commitment to success and excellence and create strategic networks and alliances.
5. Identify and address constraints to profitability, growth and international competitiveness.
6. Increase the value-added component of Tasmanian food production.
7. Encourage long-term sustainability of resource use, including water.

8. Ensure adequate allocation of resources by industry and government, and monitor and evaluate progress and ensure feedback.

Image, perception and brand recognition are powerful tools in today's marketplace. Tasmania is fortunate in already having the basis of a strong brand image. Research demonstrates that consumers buy many products that are Tasmanian, rather than for the brand name, particularly in the food and beverage sector.

There is a widespread perception that Tasmania is a producer of high quality, gourmet foods, and this is an excellent platform from which to enhance and further develop the industry. This reputation must not be treated with complacency, as it provides a valuable competitive edge in an environment forever challenging in regard to low output volume, and an inhibitive reliance on sea and air freight.

An example of 'perception versus reality' that is currently being addressed, involves Tasmanian seafood availability. The perception by visitors to the state, is that they are likely to be able to experience a wide variety of fresh, high quality local seafood. The reality appears to be that these visitors are often disappointed, as Tasmanian restaurateurs have difficulty accessing a good range of fresh seafood, largely due to the heavy reliance on export. It is also highly unlikely that visitors are able to purchase freshly caught seafood directly from fishermen, such as rock lobster while travelling around, despite having a perception that they may have been able to. A working group called 'Seafood to Plate', is an industry-driven initiative, based in Launceston that is in the early stages of trying to address these problems.

The success of the Tasmanian Food and Beverage sector is intrinsically linked with supplying fresh, high-quality produce, which has been produced and processed in a safe, clean environment, and marketed accordingly. However it is increasingly being recognised that the clean, green image that Tasmania actively promotes is at risk of becoming tired, and that there is increasing pressure to have the ability to substantiate these claims in a global marketplace.

Tasmania is in a good position to adopt best practice protocols on a broad scale into the food industry, as a valuable way of gaining a competitive edge in an increasingly competitive market. Providing best practice sustainable practices and quality assurance are adhered to, the brand 'Tasmania' will continue to be a distinct marketing advantage. There is still a surprising amount of Tasmanian food and beverage produce that does not carry the word Tasmania on its label. More industry collaboration on marketing and related issues would be beneficial, as it is vital in this low-volume environment that competitive energies are focused outside the state. There is also a need for better integration between regional and state bodies.

There is a common thread that runs through the successful food and beverage businesses in the region. This is the ability to network effectively, and consolidate sound relationships with key retail, wholesale, distribution and support organisation individuals within and outside Tasmania. The Tasmanian Gourmet Sauce Company at Evandale is one example of such a business.

Figure 10: **The Tasmanian Gourmet Sauce Company**

Tim and Julie Barbour started the Tasmanian Gourmet Sauce Company at Evandale ten years ago as a hobby. Today the business is thriving, with a very strong following around Australia, with plans to export to the US this year.

The Barbours produce fruit and savoury sauces, jams, chutneys and mustards, all with a distinctly Tasmanian flavour. They have developed 23 product lines, and are presently developing another four. Awarded the best-combined stall at Hobart's Taste of Tasmania in 2002, for the second time. Tasmanian Gourmet Sauces has been exponentially growing since its beginnings. Some of the major things that Tim Barbour attributes to the success of the company are:

- Highly tuned personal service
- Strict quality assurance.
- Concentrating on products with greatest market acceptance
- Top quality Tasmanian ingredients and subsequent Tasmanian branding
- Collaboration between local fruit growers and distributors
- Building strong relationships with retailers and wholesalers
- Choosing markets that are highly complimentary and suitable for the product.

Genetically Modified Organisms (GMOs)

The stance that Tasmania should take on the issue of GMOs has been, and continues to be a hotly debated issue. It is an issue that requires intensive debate, as it has important implications for the Food and Beverage and Agriculture sectors.

The major concerns about GMOs are that they are inconsistent with the clean, green image that Tasmania strives for, and may jeopardise this marketing advantage. Food safety is another concern, given that there is a lack of scientific evidence to allay these fears. A resistance to GMOs from Tasmania's major export markets is another primary consideration.

Conversely, there are those who see great risk in Tasmania embracing a 'GMO free' status. This is predominantly about the state retaining a competitive edge in markets where producers in other areas are using GMO technology advantageously. For example, there has been concern expressed from the poppy industry that the inability to remain at the cutting edge of poppy genetics may jeopardise the lucrative Tasmanian industry. There is also concern that a GMO ban would limit agriculture research capability, and investment opportunities.

For the moment, Tasmania has taken the strongest action of any Australian State and placed a 12-month moratorium on GMOs. This has recently been extended for a further two years. This means that there is to be no commercial release of GM crops, and no further genetically engineered crop trials, except for the poppy industry, which has been granted some exemptions.

In the process of making its decision, the Government requested a recommended policy position from the Food Industry Council of Tasmania. The following is a summary of its recommendations.

- An appropriate definition of what is a GMO needs to be clarified and articulated. This definition is to exclude traditional biotechnologies such as selective breeding, traditional fermentation and natural recombination, and any technique that does not involve the removal of genes and insertion of new or novel genes into an organism.
- It is recommended that GMOs involving the transfer of DNA from animals to plant be prohibited in food production in Tasmania for a period of three (3) years.
- A moratorium on the use of all other GMOs excluding processing aids, enzymes and fermentation products in food production in Tasmania is appropriate at this stage. This moratorium should not be set for any period of time, but be subject to constant review.
- Appropriately contained research for GMOs should continue but with no releases into the open environment. Scientific levels of containment should be provided that do not compromise the state's clean and green marketing image.
- Research must continue into Tasmania's main export markets and the reactions of these markets to GM and GM-free produce, and international trends. This research is to be used in reviewing the State's need to protect the quality and purity of its food produce by the imposition of the moratorium.
- The Tasmanian Government should ensure that a labelling regime be imposed similar to that in the European Union for GM food; that does not include labelling of products where GM processing aids, enzymes, and fermentation products have been used.

Food and Beverage and the Tourism Industry

Tourism Tasmania and the Food Industry Council of Tasmania are currently completing a Food and Wine Tourism Strategy. The strategy aims to add value to both industries. Food and wine are clearly very important elements of the visitor experience; this is evidenced in a fifty percent growth in visitation to Tasmanian wineries in the past five years. Research indicates that a substantial proportion of interstate and international visitors to Tasmania are seeking food and wine experiences as a complementary component of their overall visit to the state. There is enormous potential to leverage Tasmanian food, wine and beer consumption and exposure through tourism. At a recent Wine and Food Tourism workshop organised by the Department of State Development, broad agreement was reached on the importance of the following key issues in developing a Wine and Food Tourism Strategy:

- The value of pursuing the development of wine and food tourism under the Brand Tasmania umbrella.
- The importance of developing regional stories that add value to the wine and food tourism experience.
- The merit in linking wine and food tourism experiences to the arts to provide a broader cultural experience.
- The importance of yield improvement for businesses engaged in the wine and food tourism sector.
- The importance of skill development to support the further growth of wine and food tourism.

The workshop participants also considered key issues and priorities for the three wine and food tourism regions; Tamar Valley, Freycinet and Southeast Tasmania. The Food and Wine Tourism Strategy will be finalised and distributed in March 2002.

Regional Promotion

The local showcase of food and beverage produce in Southern Tasmania is the Taste of Tasmania, in the North it is the Tamar Valley Festival of the Senses. Festivale is held over a weekend, and features over 73 food and wine stalls. Last year this event attracted around 46,000 people, and an increasing number of these are visitors from interstate and overseas.

This year the Tamar Valley Festival of the Senses will feature an inaugural Farmers Market, with a predominant emphasis on the promotion of regional food and beverage producers. The event aims to promote the diversity and quality of the region's food and network growers and producers. The Farmers Market will be held four times a year to showcase the region's distinct seasonality.

THE INFORMATION TECHNOLOGY INDUSTRY

INDUSTRY DESCRIPTION

Information Technology (IT) is a dynamic and broad industry that is rapidly changing. It is an industry where research and industry development are operating concurrently at a level far greater than any other Tasmanian industry.

Northern Tasmania currently has a number of strategic advantages, which will potentially allow the region to play an active role in Tasmania's aspirations to be at the cutting edge of e-commerce capabilities. Three of these advantages are firstly, the linkages between research and industry through the University of Tasmania School of Applied Computing in Launceston, and the Tasmanian Electronic Commerce Centre (TECC). Secondly, Telstra have positioned their national e-lab in Launceston. And thirdly, Tasmania Business Online is recognised as a national pilot in regard to e-commerce development in regional areas, and is headquartered in Launceston.

Further, with the opportunity to lay optic fibre in the Duke Energy natural gas pipeline across Bass Strait, Tasmania looks likely to have one of the best infrastructures for high speed data transmission in Australia, and one of the best in the world. At a recent Regional Broadband Forum held in Launceston, it was suggested that if the inclusion of optic fibre does occur, Tasmania would become one of the best greenfield sites for broadband research and technology in the world.

The IT industry has enormous scope to play a significant role in Tasmania's economic development in various ways. However, the term IT covers a broad range of related industries, and includes the service infrastructure around these industries. The information Technology Association of America defines IT as 'the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware.' The Australian Bureau of Statistics states that 'IT refers to the services and technologies which enable information to be accessed, stored, processed, transformed, manipulated and disseminated'.

For the purpose of this regional profile, the industry needs to be separated into three broad components:

1. As an industry in its own right, including businesses such as web-site developers, designers and software developers.
2. The contact (or 'call') centre sector.
3. As a tool or mechanism for increasing efficiency, and improving or eliminating constraints generic to the Tasmanian economy. For example, online marketing and promotion, commerce, procurement and supply chain management.

Some Important IT Businesses in the Region

Murchison Productions

Launceston firm, Murchison Productions has been an incorporated company in Tasmania for over ten years. The company has clients Australia wide and has offices in Launceston and Melbourne and a representative in Canberra. In Launceston, Murchison has fourteen primary people concentrating on e-commerce solutions for clients. More than 50% of the company's income is derived from outside of Tasmania.

The company specialises in software development and web enablement. They provide analysis, design, project management and implementation. Murchison also offers content management, customer relationship management, marketing online and secure e-commerce. One of Murchison Production's successful local projects has been online services for *The Examiner* newspaper, which began in 1996. Murchison has worked closely with *The Examiner* to develop a suite of value-added information services that include Travelways, property, autoguide, local information and news. *The Examiner* was the first Tasmanian newspaper to establish this type of service, and the concepts have been taken on by Rural Press and provided to their 160 regional and rural newspapers across Australia. *www.murchison.com.au*

WA Cromarty

WA Cromarty and Co. Pty Ltd is a Tasmanian-owned company, employing approximately 20 full-time and 2 part-time staff. They have been operating as a specialist process control and instrument engineer company in Tasmania since 1988. In that time the company has successfully implemented large control and monitoring system projects for major Tasmanian, national and international clients.

Recently WA Cromarty expanded its focus to include the Industrial IT area, and the company has received accreditation as a Microsoft Certified Solution Provider.

In 1998, the company opened an office in Brisbane to provide local support for their Queensland-based clients, and to further develop the business in this region. WA Cromarty's major IT capabilities include:

- Microsoft Solution Provider
- Management Reporting
- Telemetry
- Citect (Driver Development)
- IT equipment sales.

www.wacco.com.au

Autech Research

Launceston's Autech Research has been a leading developer of innovative software solutions for the building and construction industry for over ten years. Recognising the importance of colour in the urban environment, Autech has pioneered new ways of using technology to show colour in the architectural paint and products markets.

Autech's award-winning computer software systems have proven to increase customer service and market share for leading client companies in the paint, building and construction industries both locally and overseas.

Autech Research has successfully developed and commercialised breakthrough technology for the painting industry. The most striking example of this is the Computer Painter, the world's first Interactive CD Paint Brochure. This new concept allows architects, decorators, painting contractors etc., an affordable CD computer program, containing a range of paint colours, capable of applying those colours over any photographs or plans. It solves one of the biggest hurdles that has faced paint manufactures and paint buyers. That being the uncertainty of 'What will my house look like in your colours?' The product is basically taking the concept of colour chips and sample pots into the new world of virtual reality, and it is working.

Autech's commitment to excellence and innovation involves ongoing research and development to continue providing cutting edge solutions in the area of colour and technology to its wide client base. Strategic alliances with global colour leaders such as Creanova Inc. and the Duha Group have been forged to ensure new standards of excellence in the delivery of next generation colour technologies.

www.autech.com.au

Tas Access

Tas Access is the largest Tasmanian-based Internet Service Provider (ISP) and provides local call Internet access to 98% of the state's population.

The company's customer base is not heavily concentrated in one region but closely reflects the state's population distribution. Tas Access has been committed to making the Internet available to as many Tasmanians as possible for a local phone call. The company was the first ISP to have local call access available in all three regions of the state and since that time it has added servers in Smithton, Queenstown and Scamander.

Tas Access also provides a full range of Internet-related services, ranging from simple dial-up access through to Virtual Web and E-mail servers to Web page authoring and application hosting. Since early 1997, Tas Access has been providing members of the University of Tasmania with modem access to the University's Intranet and access to the Internet from their home.

'We are determined to provide excellence of service to all Tasmanians and the facilitation of economic and personal development through the increasing opportunities for communication provided by the Internet.' *Tas Access*

www.tassie.net.au

Launceston Contact Centre Sector

The Tasmanian Labor Government, and the former Liberal Government have been dedicated to establishing a significant contact Centre Industry in Tasmania for several years. The industry was seen as an opportunity for job creation in a potential growth industry that fits well for the State's yearning to develop its IT industry, while promoting environmentally friendly industry growth.

Launceston attracted Ansett, Centrelink and Westpac to establish Contact Centres in its new Technopark, and this has resulted in the creation of more than 1200 new jobs. Telstra recently announced that it will be moving its call centre to a green field site in Launceston's Technopark, and expanding considerably. This is a welcome move given the demise of Ansett.

Initiatives that are helping to make Tasmanian IT 'cutting edge'

Intelligent Island

Intelligent Island is a $40 million program focused on strategic investment in Tasmania to create higher, long-term sustainable growth of the State's Information, Computer and Technology (ICT) industries. The program is funded by the Commonwealth Government from the partial sale of Telstra, and is being jointly developed with the Tasmanian Government.

The Intelligent Island program's vision is:

'To promote employment growth and wealth creation throughout the Tasmanian economy by accelerating the growth of the State's information and communications technology industries'.

The program's goals are:

- to ensure Tasmania's full participation in the information economy through innovation and entrepreneurial behaviour;
- to significantly grow in terms of employment and financial turnover;
- to be externally focused and achieve most of its profit from sources outside Tasmania;
- to underpin innovation and growth in non-ICT enterprises, and
- to produce a wide range of world-class products and services.

The Intelligent Island board has a business plan, which has divided the program into seven initiatives that are directed at particular challenges faced by the local ICT industry. These seven initiatives are:

- **Incubator:** Intellinc, Tasmania's technology incubator, will nurture people with great ideas and help them start-up internationally successful firms through the provision of equity and business development assistance.
- **Centre of Excellence**: the centre will provide a significant research base capable of producing ideas that can be commercialised. The centre's work will also assist with the formation of clusters through the attraction of ICT firms.
- **Investment Attraction**: is aimed at attracting strategic partners who can contribute to the development of Tasmania's ICT industries, including the formation of clusters.
- **Skills Development**: will help ensure Tasmania's ICT skills base is able to meet the requirements of a rapidly growing industry, as well as stimulate further industry growth.
- **Enterprise Development**: is designed to address the availability of capital at various stages of an enterprise's development.
- **Telecommunications**: involves a study into current infrastructure - whether it inhibits ICT development, and ways industry can take advantage of emerging technologies.
- **Marketing**: together with Investment Attraction will promote Tasmania as a natural destination for ICT investment, and build upon the State's internationally recognised clean, green image.

www.intelligentisland.tas.gov.au

Tasmanian Electronic Commerce Centre Pty Ltd (TECC)

The Tasmanian Government and the University of Tasmania jointly established the non-profit Tasmanian Electronic Commerce Centre Pty Ltd.

The TECC is playing a fundamental role in the development of a mature, outward-looking approach to Tasmanian business' participation in the online economy. Supported by the Commonwealth, through the Department of Communications, Information Technology and the Arts 'Networking the Nation' program, the TECC is leading the way and setting the standard for e-commerce development in Australia's regional areas.

According to TECC, Tasmanian businesses have shown a very keen desire to embrace the new world of e-business, and the opportunities it provides to transcend the obstacles (such as Tasmania's isolation and small population) that have, in the past, proven to be an impediment to development. Tasmanians have shown their capacity for innovation and competitiveness by demonstrating an enthusiastic uptake for the new technologies and business practices — proportionately greater than in other Australian regional areas.

The TECC has invested in the following initiatives that stand to make a significant contribution to Tasmania's economy:

Tasmania Business Online (TBO)

TBO is a business-to-business (B2B) e-commerce company, wholly owned by a Tasmanian company, ECEnable, which in turn exists through substantial investment by the Tasmanian partners of KPMG, the Tasmanian Electronic Commerce Centre Pty Ltd (TECC), m2m Corporation and Ariba Inc. m2m is an internationally recognised on-line trading platform provider. Ariba Inc. is a provider of B2B solutions and services to more than 20 'Fortune 100' businesses.

TBO is leading the way in regard to enabling regional businesses to gain maximum benefit from e-commerce. Their aim is to free Tasmanian business of the isolation imposed by Bass Strait, and support Tasmanian businesses in their quest to create a long-term competitive equity by overcoming geographical isolation.

- *What is business-to-business e-commerce?*

TBO facilitates business-to-business e-commerce by providing an e-commerce trading platform that enables businesses to deal directly with one another, electronically and instantly, and in no way impeded by physical isolation.

- *The TBO Offer*

Tasmania Business Online is the provider of an e-marketplace for Tasmanian business. TBO offers low-cost access to a proven business-to-business environment facilitating online trading and the delivery of industry-specific information for all Tasmanian organisations and businesses — regardless of size.

The TBO trading centre is market neutral, rather than biased toward either suppliers or buyers. This means that market forces and the interaction of suppliers and buyers determine commercial outcomes. TBO is forging strategic alliances with other e-commerce marketplaces. This practice extends the reach of Tasmanian businesses and exposes local products and services to a national and international audience. It also brings TBO clients the latest in e-commerce developments.

- *The TBO Advantage*

The aggregation of Tasmanian businesses to a single point of electronic interaction offers several key advantages:

- Reduction in set up and infrastructure costs for individual businesses that wish to be involved in e-trading by producing a standardised platform, eliminating the need to duplicate effort.
- Simplified business transaction processes through the sourcing of suppliers and buyers at a single destination.
- Interaction with new buyers/suppliers, without altering work practices, by using a standardised interface for business-to-business transactions.
- A single source for industry specific information through the aggregation of Tasmanian business.
- Competition is based directly on service and price through a market neutral business community.
- A secure environment, offering similar security to ATMs.

- *TBO Marketplace*

The TBO marketplace has two elements:

- **The Business Community Centre**: can be seen as a facility for pre-transactional information and content. The Centre allows for secure membership communications and the circulation of up to the minute industry-specific news.
- **The Trading Centre:** is a complete virtual trading platform for electronically buying and selling goods and services. Users can source goods and services through electronic catalogues, compare prices, raise purchase orders, track their orders, and be given immediate details of stock availability and delivery through Advanced Shipping Notices (ASN).

- *Benefits*

Tasmania Business Online ensures that Tasmanian businesses and organisations gain maximum benefit from electronic commerce - the same business opportunities as interstate capital city based enterprises, but without the costs. TBO is creating an e-commerce community that represents the future direction of business.

- *Benefits to industry and business groups*

TBO gives these sectors access to:

- A Business Community Centre that allows efficient and instantaneous membership communication.
- Customisation and branding of online membership environment.
- Advertising to potential members in a highly targeted environment.
- On-line membership management that provides greater efficiencies in administration costs.
- On-line publishing with archival and retrieval features for creating electronic industry/group/members libraries.

Tasmania Logistics Online (TLO)

The Tasmanian economy faces many challenges; not least of which is the additional cost businesses face as a result of the expanse of water that separates the island from the mainland. Most organisations operating within Tasmania are faced with transporting goods to and from the mainland at some stage. Any improvements in the logistics of this transport is beneficial to their operation, the corollary being the delivery of an overall improvement in the Tasmanian economy.

Based on the demonstrated industry demand, the Board of the TECC felt that it would be beneficial for a statewide virtual logistics project to be established. This approach has delivered great benefits to the State and offers the ability for such a model to be implemented in other states, broadly offering:

- management and administration savings as a result of reduced paper-based documentation;
- increased efficiencies in the supply chain, and
- flow on benefits to the Tasmanian economy accruing through greater port efficiency, quicker turnaround times for freight forwarders and better information availability for exporters.

Tasmania Logistics Online caters for intrastate, interstate, and international logistics, with key functional requirements being:

- online Quotations, Bookings, and Confirmations;
- online documentation exchange;
- status maintenance (consignment through to delivery);
- asset tracking (containers, vehicles), and
- logistics Alarms (budget logistics time against actual time).

Overall, the TECC believes that this project could fundamentally change the way logistics are managed in Tasmania; it is a project that has potential to make a positive impact on every sector in the State. Participants in the TLO project include:

Transport participants:

- Toll Holdings
- Patricks
- Tasrail
- Statewide Refrigerated Transport

Customer Participants:

- Cornwall Coal
- Boyer Paper Mill
- Australian Cement Holdings
- Classic Foods

Technology Partners:

- Virtual Logistics Online
- Tasmanian Logistics Online

Telstra Broadband e-Lab

The Broadband e-Lab (B-eLab) is the first major Telstra research facility to be located outside the major centres of Melbourne and Sydney. The Broadband e-Lab is home to the Launceston Broadband Project. A first for Australia, the Lab is a test site for new broadband applications, ensuring that we are all prepared to seize new opportunities of the information age.

A joint initiative of the Commonwealth Government and Telstra — each contributing \$15 million over five years from 1999–2000 — the Launceston Broadband Project comprises the B-eLab and:

- highspeed Internet access for more than 2 500 homes and businesses in Launceston
- \$5 million TECC Business Development Fund to foster high-tech businesses

An example of the types of projects that the B-eLab is working on is the recent launch of Multimedia Information Kiosks, which have been located in 16 locations throughout Launceston. The trial of the Multimedia Information Kiosks is the first of its type in Australia. The devices serve a purpose as information portals for local businesses, service providers and tourism operators, providing things like maps, public directories, travel timetables and guides for restaurants, entertainment and other location-based services. People using the devices are able to send e-mail messages as well as images and video clips. The units are equipped with a card reader, pin pad and printer, presenting the potential for bill payment and online ticket purchasing.

Four Tasmanian IT businesses have been awarded grants from the \$5 million Business Development Fund managed by the Tasmanian Electronic Commerce Centre. Two of these businesses are Launceston based. EduArt Multimedia has been awarded \$130,000 for the development of interactive educational puzzles, which have a distinctive Tasmanian flavour and will be exported internationally. 3D Telework has been awarded \$200,000 for three projects, the major one being the creation of a 3D virtual university campus based on Launceston's Australian Maritime College. Both companies will be working closely with the B-eLab to develop and trial these projects.

Tasmanian Communities Online (TCO)

Tasmanian Communities Online has been funded through the Federal Government's Networking the Nation project. The focus of TCO is to provide Internet access to people living in regional areas. In Tasmania, this constitutes anywhere outside the Hobart/Glenorchy/Clarence metropolitan area. The project has been very successful, and there are currently 64 online access centres spread throughout Tasmania. It is estimated that 345,000 regional Tasmanians have easy access to Online Access Centres. This represents about 75% of the Tasmanian population.

VALUE OF THE IT INDUSTRY TO THE REGION

The developing information economy, where wealth is created through information-based goods and services present major opportunities for Tasmania. It provides the state with new avenues for commercial activity, a chance to overcome constraints related to geographic isolation, and the opportunity for the community to be involved in new and improved information-related services. Substantial funds, principally the \$40 million Intelligent Island Program and funds managed by the Tasmanian Electronic Commerce Centre allow Tasmania to further pursue some of the opportunities presented by the information economy. If managed appropriately, these funds provide an opportunity to invigorate the Tasmanian economy.

Information regarding the value of the IT industry to the region, and the state as a whole is scarce. The local IT industry is characterised both by its complexity and infancy. Consequently, the industry has generally escaped close statistical scrutiny.

According to Department of State Development estimates, the IT sector in the Northern region appears to lack critical mass. The number of people employed in the IT industry in this region is around the order of 100 people, despite the TECC; the University of Tasmania's School of Applied Computing and the Telstra Research Laboratory being located in Launceston. There are around 290 Tasmanian IT companies according to the IT Industry Council of Tasmania, and a majority of these businesses are clearly centered in Hobart. For example, there are 20 web site developers in the North, compared with 70 in the South, and there are 15 custom software developers in the North compared to 42 in the South.

The most recent ABS figures relating to business use of IT in Tasmania are from 2000. Table 5 summarises this information, and provides comparisons with the national average. However it is worth noting that IT is a rapidly developing dynamic sector, and the current situation is likely to be different.

Table 5: Comparison of business use of IT, and business use of Internet commerce between Tasmania and the rest of the country. Source: ABS 2000

Business use of IT	Tasmania	Australia
Number of registered businesses	12,000	641,000
Proportion of businesses that use computers	70%	76%
Proportion of designated IT staff	11%	17%
Businesses with Internet access	42% (Lowest in Australia in 2000)	56%
Businesses with own website or home page	13%	16%
Business use of Internet Commerce		
Internet business active	38%	46%
Internet commerce active	5%	6%
Selling related activities	27%	28%
Buying related activities	13%	24%
Banking	41%	36%

ISSUES OF CONSTRAINT AND OPPORTUNITY

Electronic commerce is a global phenomenon that is fast emerging as a key lever for business growth. Small and medium-sized enterprises can become more competitive by operating more efficiently. This is highly relevant to a small regional economy such as Tasmania's.

While the Tasmanian economy is threatened as national and multinational organisations increasingly centralise services in mainland capitals, information technology and telecommunications enable such services to be as easily located in regional areas such as Tasmania. With a fully digitalised telecommunications network, Tasmania is considered to have the best regional telecommunications infrastructure in the country at the moment.

In its 1999 audit of the Information Technology, Communications and Advanced Technology, the State Government identified that the Tasmanian IT industry was highly fragmented, and required a more cohesive body to develop strategies, lobby government and pool resources. Consequently, the IT Industry Council was established. The council has developed an evolving Industry Development Plan that strives to provide a clear direction for the Tasmanian IT industry for the next decade. The vision for the industry is:

'A dynamic, innovative and high profile information technology industry that inspires and enables Tasmanians'.

The five goals proposed by the plan are:

1. Create a flexible and diverse IT skilled workforce to meet challenging industry needs.
2. Enable industries and all members of the community to pursue opportunities provided by new technologies.
3. Develop an environment that is supportive of innovation and entrepreneurship in the IT industry.
4. Develop infrastructures, particularly telecommunications.
5. Enhance access to local, national and international markets.

The Tasmanian IT Industry Development Plan can be accessed from the IT Industry Council's website: *www.theloop.com.au* . This site has been established to provide a comprehensive central hub for the industry that enables networking, promotion, knowledge sharing and as a conduit between government and industry representatives for constructive policy development.

There are a variety of programs available to assist existing IT businesses in Tasmania. The Tasmanian Government's **IT Industry Development Program** provides Tasmanian IT firms with financial assistance to increase technical skill and business management capability of the IT industry in Tasmania, facilitate networking and promote the capability of Tasmanian IT firms. The program consists of three sub programs:

- IT Business Development
- IT Technical Skills Training, and
- IT Industry Demonstration.

Further information is available at *www.dsd.tas.gov.au/ist* or any Business Tasmania office.

Business Tasmania's Enterprise Development Program aims to enhance competitiveness and growth among Tasmanian enterprises by providing assistance with strategic and business planning.
Further information is available at *www.bt.tas.gov.au*

There are also a number of Federal Government Programs available. Most Tasmanian IT firms are by nature innovative, it is probably worth looking at assistance for commercialising innovation. Some of these programs also provide assistance to innovative firms to help manage their growth.

Further information on all AusIndustry Programs is available at *www.ausindustry.gov.au* .

One of the biggest challenges facing the Tasmanian IT industry, is the issue of not just keeping on top of technology as it develops, but to be at the forefront of that technology, and in a position to be competent in a highly competitive global industry sector.

Northern Tasmania is well positioned to take advantage of excellent IT infrastructure, particularly at a research and development level, aimed particularly at regional uptake and development of IT. It will be important for the region to promote itself as a strategically important place for IT development, with an emphasis on 'regional IT capability'. More participation in the industry from the private sector should be a priority — enabling the gap between 'research' and 'development' to be bridged.

A highly functional skill base is integral to a successful IT industry in the region, as the industry further develops. IT skills shortages have been identified as an area of concern, both in Tasmania, and nationally. To maintain a competitive advantage internationally, people must be trained strategically, rather than simply users of IT. There is on-going consultation between government and industry in relation to this issue. In general, Tasmania has the facilities and resources to provide excellent training for the IT industry. These include:

- The University of Tasmania (Hobart, Launceston, and Burnie) provides IT-related tertiary education through the School of Information Systems, the School of Computing, and the School of Engineering.
- TAFE Tasmania provides a range of IT related vocational courses across the state, and offers courses (such as Design and Multimedia) that give students a broad range of skills within an IT context.
- The DSD skills response unit identifies skill shortages and bottlenecks in Tasmanian industries. This includes the IT industry. It facilitates the development of strategies to overcome constraints to business growth.
- $5 million Intelligent Island Skills Development Fund.
- Information Technology and Telecommunications Industry Training Advisory Board (IT & T ITAB).
- Vocational Education and Training (VET) in schools program.

THE EDUCATION AND TRAINING INDUSTRY

INDUSTRY DESCRIPTION

The education and training capabilities of Northern Tasmania are one of the region's most valuable assets. These capabilities extend far beyond the requirements of the region's population of 133 000 people, and attract a diverse group of people from around Australia and the World. Launceston, as the region's main centre is regarded as one of the best equipped 'learning communities' in regional Australia.

The education and training industry covers a diverse range of vocational and skill training, some highly specialised. There are several Research and Development facilities in the region, covering a number of key Tasmanian core industry sectors. Table 6 shows the main post-secondary education and training facilities in the region, and the diversity that exists.

Table 6: Key facilities of the major education, training and research bodies in the region

UNIVERSITY OF TASMANIA
• School of Aquaculture • School of Computing • School of Education • School of Nursing • School of Visual and Performing Arts • School of Architecture and Urban Design • Riawunna (Aboriginal Studies)
AUSTRALIAN MARITIME COLLEGE
• Faculty of Maritime Transport and Engineering (L'ton) • Faculty of Fisheries and Marine Environment (Beauty Point)
AMC SEARCH
• A subsidiary of the Australian Maritime College, AMC Search provides maritime training consultancy and research services using the internationally renowned resources of the College.
TAFE TASMANIA
• Drysdale Institute (Tourism and Hospitality training) • Hollybank (Forest industry training) • Adult Education • Industry Training

Key Teaching Areas:
- Automotive and Electrical
- Business
- Community Services and Health
- Construction and Textiles
- General Education

- Hairdressing and Beauty
- IT, Design and Multimedia
- Metals and Engineering
- Natural Resources
- Tourism and Hospitality

AUSTRALIAN SCHOOL OF FINE FURNITURE
• School offers a two-year Diploma course, covering the following syllabus areas: Materials and Tools, Making, Design, Business Administration and Marketing. The school is a self-supporting, not for profit institution. • The course is pitched primarily at those who aspire to establish their own businesses as designer-makers of fine furniture. There is considerable emphasis on Tasmanian specialty timbers.
AUSTRALASIAN FURNISHING RESEARCH AND DEVELOPMENT INSTITUTE LTD
• Furntech is an independent, not-for-profit technical organisation providing standards, testing, product accreditation and research for buyers and sellers of furniture in Australia and New Zealand. • Institute provides facilities for assessing furniture strength, durability and ergonomic qualities. Coating and fabric testing facilities, testing of upholstery for flammability. • Also provides consulting services on product development or specifications and timber seasoning and processing technology.
DEPARTMENT OF PRIMARY INDUSTRIES WATER AND THE ENVIRONMENT's MOUNT PLEASANT LABORATORIES
• Mount Pleasant Laboratories are principally involved in Agriculture and animal health research, in partnership with the Tasmanian Institute of Agriculture Research (TIAR). • The Fish Health Unit at Mount Pleasant is an important facility utilised by the Tasmanian Aquaculture and Fisheries Institute (TAFI), Inland Fisheries Service, DPIWE and the Aquaculture industry.
TELSTRA B eLABORATORY
• The first of its kind in Australia, the Telstra B eLab is researching Broadband Internet, and associated technology development. • The B eLab is facilitating the Federal Government's 5 year Launceston Broadband Project, which has specific relevance to enhancing regional area's uptake of Information Technology.
TASMANIAN ALKALOIDS
• Recently upgraded facilities at Westbury have furthered Tasmanian Alkaloid's Agricultural and Chemical research and development capabilities.

University of Tasmania (Launceston Campus)
The Launceston campus is located around 10 minutes from the city centre, and around 4000 students attend courses there. Additionally, at the beginning of 2002, the School of Visual and Performing Arts took up residence in the new Academy of Arts buildings at Inveresk, providing a greater civic linkage for the university.

The University of Tasmania, Launceston campus has a strong national reputation in aquaculture and has developed degree programs in e-commerce and the information economy. Programs in health sciences have been developed in response to the emerging employment opportunities in the rapidly growing health sector. Interpretation, heritage, wilderness and business management are the core themes for tourism studies centred in Launceston.

The University reports that 'a culture of innovation and creativity drives studies in education, design and the arts'. The University, at Launceston, is also starting a Degree course in Entrepreneurship supported by the Department of State Development and Business North.

Northern Tasmania's regional economy has a great deal to potentially gain through having a University. These gains are reliant on good working relationships and linkages between the university, government and private industry. The University is demonstrating its commitment to the region through new programs and appointments in areas such as environmental studies and tourism that are consistent with the industry profile of the region. The University of Tasmania has identified four theme areas of research focus and strength:

- Antarctic and Southern Ocean
- National and State Development
- Natural Environment and Wilderness
- Population and Community Studies.

The University provides consultancy services, and is involved in various research collaborations. These include:

- Centre for Ore Deposit Research
- Centre for Research and Learning in Regional Australia
- Tasmanian Institute for Agricultural Research
- Tasmanian Aquaculture and Fisheries Institute
- Co-operative Research Centre (CRC) for Forestry
- CRC for Aquaculture (finfish aquaculture development)
- CRC for Antarctic Research

These research partnerships form important linkages between research and industry development in the region.

The University of Tasmania has recently signed a memorandum of understanding with the Launceston City Council, which will form the basis of a plan for future areas of activity and cooperation.

TAFE Tasmania

- Offers a wide range of vocational courses and industry-based training programs.
- Launceston has the highest uptake of adult education courses in Australia.
- TAFE operates a number of campuses in Northern Tasmania, including Launceston City Campus, Wellington Square Campus, Alanvale Campus and the Drysdale Campus. TAFE also operates a number of Adult Education Centres in the region. In partnership with industry, TAFE Tasmania has established a centre of excellence in interactive multi-media technology.
- TAFE in the northern region (TAFE North) has reported a large growth in enrolments in recent years, and are tipped to reach 26,000 in 2002.

Australian Maritime College

- The AMC is Australia's only national institution of higher education established to provide education and training for people in the maritime industries.
- AMC Search Ltd is a subsidiary that exists to provide training, consultancy and research.
- The College has two campuses-one in Launceston (Newnham), the other at Beauty Point at the mouth of the Tamar River.

Enticing international students to the region has become a strategic objective of the Maritime College, the university, and state and private school sector. Their success in this endeavour is increasing the City's cultural diversity.

VALUE OF THE INDUSTRY TO THE REGION

It is not possible to accurately put a dollar value on the Education and Training industry in the region, albeit to say that it is an important contributor to the region's economy. There is enough diversity and critical mass in the sector to consider it one of the region's competitive assets.

Vocational Training

The most important 'value' that the Education and Training industry imposes on the region, is the provision of services to enable a flexible, multi-skilled workforce that is complementary to the region's core industry sectors.

One way of ensuring this occurs, is to have an active dialogue between education and training providers, and industry representatives. In Tasmania, this function is facilitated by the Tasmanian Industry Training Advisory Boards (ITAB). These advisory boards cover 15 industry sectors, which reflect the economic profile of the state. The Boards play an important role in the development of competency standards and curriculum, and in developing plans for the implementation of Vocational Education and Training (VET) relevant to industry training needs. For information on the ITABs: *www.opcet.tas.gov.au/itab/*.

The VET program operates through secondary schools and TAFE colleges, and provides a wide range of skill training and courses comensurate with the requirements expressed by the 15 Industry Training Advisory Boards.

The Skills Response Unit is a division of the Department of State Development, which works to identify skill shortages and bottlenecks in Tasmanian industries. The unit works in collaboration with the Office of Post Compulsory Education and Training (OPCET), TAFE Tasmania, training providers, Industry Training Advisory Boards and employee representative bodies to ensure the skill requirements of existing and new industries are met. The objectives of the Skills Response Unit are to:

- Identify skills shortages
- Facilitate innovative solutions to business growth constraints
- Maximise training outcomes
- Maximise job opportunities for Tasmanians

Fostering an innovative workforce

It is widely accepted that in order to be competitive, Tasmania must focus strongly on innovative practices across a broad range of its core industry sectors. In an effort to encourage and develop innovative thought, the Department of State Development's Innovation Centre, together with the Launceston College has established an Enterprise Learning Centre program that embeds entrepreneurial studies in the senior secondary curriculum. Its key role is the development of innovation and entrepreneurship skills in senior secondary students through strategic linkages with industry players in the local community.

A number of other senior secondary colleges will be introducing this program from 2002.

Graduating students can continue on this pathway by enrolling in the Entrepreneurship major at the University of Tasmania, available through the Bachelor of Commerce, and the Science/Commerce degrees.

ISSUES OF CONSTRAINT AND OPPORTUNITY

Learning Communities National Project

Launceston and the surrounding region are currently participating in a national project on Learning Communities. The project is being driven by the Australian National Training Authority, and has ten communities across Australia participating. Each community is preparing a case study on how they are developing as a learning community. This is seen as an opportunity for the Launceston region to identify its key strengths in relation to Education capabilities, and what the region's aspirations are as a 'learning community'. As discussed, the region has a wide variety of education and research facilities, however these facilities must be effectively integrated to achieve the community's goals in relation to socio-economic development.

Capitalising on education infrastructure through partnerships

In regard to economic development, it is essential to have education, training and research geared at a level that is consistent with the most viable and successful industry sectors in the region. Partnerships with the University of Tasmania and other research bodies in the areas of Forestry, Agriculture, Aquaculture, Fishing, Information Technology, Tourism, and Education and Training currently exist. As areas of competitive advantage and development opportunities change, the linkages with education facilities must also be flexible enough to reflect these changes.

In terms of major initiatives that have specific community outreach outcomes the University Department of Rural Health (UDRH) has developed a network of rural hospital and community-based learning environments dedicated to rural health teaching, learning and research. A network of Rural Health Teaching Sites (RHTS) is being established to provide opportunities for education and health in rural communities. Current RHTS locations in Northern Tasmania include Scottsdale, Flinders Island and St Marys.

VET training — a coordinated approach

There are a number of stakeholders that play an active role in the implementation of Tasmania's VET program. To ensure that the program runs effectively, it is critical that there are clear communication pathways between each of the major stakeholders, and a cooperative framework. It has been identified that improvements within this cooperative framework need to be made.

The main stakeholders are:

- The Office of Post-Compulsory Education and Training (OPCET)
- Industry Training Advisory Board(s)
- VET Development Officers at secondary schools
- TAFE Tasmania
- Department of State Development (DSD)

The main roles that the above listed stakeholders need to tackle cooperatively are:

1. To decide what training programs are needed, in-line with industry requirements.

2. To ensure that VET training specific to certain industries is made available in the areas those industries are predominantly based. For example, a VET course relevant to the Dairy industry will be more suitably located in Scottsdale than Campbell Town.

3. To ensure that there is an effective conduit between VET training providers and the industries that they are providing training for.

Efforts to improve the coordination of these groups are currently underway, and are being driven by OPCET.

Outward focus

The Education and Training environment must primarily provide for the requirements of the local regional community, and its subsequent economic sustainability. However, opportunities exist to make our education and training facilities 'exportable', through a reputation for best practice protocols. There are a number of examples of this currently happening in the region. The Australian Maritime College, the University of Tasmania's School of Aquaculture and the Australian School of Fine Furniture offer world class training that attracts students from many different countries. These facilities are offering education and training that has a 'point of difference', and in doing so enhance the region's capabilities and strengths. Encouraging students from a wide range of backgrounds enhances the vibrancy of the local population, and provides exposure to new networks and different thought processes. By providing education facilities that stand out and have a reputation for excellence, the whole region gains the benefit of exposure and promotion.

The Department of State Development's International Education Unit actively promotes the Tasmanian Education sector overseas. www.studyintasmania.tas.gov.au

Private sector

The Northern region is serviced by a strong private school sector including not only the church affiliated institutions, but also alternative schools such as the Rudolph Steiner School and Launceston Preparatory School based on Paideia philosophy. The Mt Arthur Centre seeks to develop awareness of new ways of being by enhancing parenting and communication skills, arts and crafts, and nature activities.

Private sector businesses in the field of education and training, are performing well in the region, and display the potential for capitalising on a vibrant 'learning infrastructure'.

EduArt Multimedia is an innovative Launceston firm, that specialises in multimedia learning systems, producing quality educational CD-ROMs and Internet sites. The company creates multimedia products tailored to the needs of the publishing industry, CD-ROMs for teacher use in the classroom and student research and study. EduArt also produces commercial tourism CD-ROMs, such as the series, 'Impressions of Tasmania'. EduArt's major clients include:

- Cambridge University Press
- Dennis Harding Productions
- The Queen Victoria Museum and Art Gallery
- Department of Education, Employment and Training Victoria
- The Tasmanian Department of Education
- Renaissance Learning Australia

EduArt currently export their products to New Zealand, the United Kingdom and the United States. www.eduart.com.au

Global Learning Communities has its international head office in Launceston, and other offices in the United States and New Zealand. The firm is an independent educational organisation committee that supply and design high quality educational resources for students, schools, businesses, teachers and principals. www.vision.net.au/~globallearning/

Launceston Church Grammar School, the oldest continually operating school in the country, was recently included in a list of the top 10 private schools in Australia by *The Australian* newspaper. www.lcgs.tas.edu.au

THE FISHING INDUSTRY

INDUSTRY DESCRIPTION

Comparatively, Australia does not have a very high volume commercial fishery, largely due to low nutrient run-off and lack of deep oceanic upwellings. Tasmania, having good access to the continental shelf, and the South Tasman Rise, has one of the most productive fisheries in Australia. The industry is a valuable contributor to the state's economy. The wild fisheries of Tasmania have long been exploited, mainly for rock lobster, fish and abalone. Management plans for the fisheries of Tasmania's main commercial species have been developed, and Tasmania has a good reputation for sustainable fisheries management. Inshore fisheries management falls under the jurisdiction of the State Government's Department of Primary Industries, Water and the Environment (DPIWE).

The fishing industry in Northern Tasmania is mainly based at St Helens, where around 50 fishing vessels operate. Fishing boats also operate out of Launceston, Georgetown, Beauty Point and Bridport. Scallops were a primary fishery in the region, particularly in the 1970/80s when peak production was at around 12 000 tonnes per year. Due to overfishing the fishery collapsed and was closed in 1987 for eight years. The fishery is stringently managed now, and re-opens for limited periods dependent on stock levels. While still a valuable resource, the fishery is only operating at around 4% of its former capacity.

Rock lobster and abalone form the mainstay of the Tasmanian fishery today, and are the most valuable components of the industry statewide, and also in the Northern region. Giant crabs are another important species fished from St Helens.

Proximity to the South Tasman Rise provides a substantial deep-water trawl fishery off St Helens where the main species include orange roughy, dory, blue grenadier and trevalla. There are a range of other fish species commercially sought in the Northern region, including snapper, tuna, trumpeter, Australian salmon, trevally, mackerel, flathead, shark, morwong, wrasse, cod, garfish and flounder. Many fishers have diversified operations, and it is common for rock lobster fishers to also take commercial quantities of fish by gillnet or longline. As well as rock lobster, abalone, fish and scallops, there are also a number of smaller, more specialised fisheries such as native oysters, clams, squid, octopus, seaweed and urchins (for roe).

The only inland fish species that is taken commercially are eels. The short-finned eel forms the basis of a commercial fishery in Tasmania with an annual catch in the region of 45 tonnes. This is a limited entry fishery comprising of 12 commercial fishing licences with some 30 fishers seasonally employed in the industry. The catch is largely exported as frozen product to Europe, and live product to Asia with some value added product (mainly smoked) destined for the local domestic market. One company, Eels Australis Pty Ltd near Deloraine, dominates eel exporting and processing in Tasmania. The eel fishery is managed by the Inland Fishery Service.

Seafood processing in the region predominantly occurs at St Helens. Processing also occurs on Flinders Island, Georgetown, Beauty Point and Launceston. The following is a list of the main players:

- Tasmanian Oceanic, St Helens
- Galaxy Fishing Co., St Helens
- Salty Seas, St Helens
- Suncoast Fisheries, St Helens
- Tasmanian Seafoods Pty Ltd, St Helens
- Petuna Seafoods, Launceston
- George Town Seafoods, Georgetown
- Tashimi Fish, Launceston
- Adelaide Bay Seafoods Pty Ltd, Beauty Point

A majority of Tasmanian seafood products are sold through distribution networks in Melbourne and Sydney, and exported mainly to Southeast Asia. Seafood Processing in Tasmania mainly involves traditional methods such as freezing, filleting, and various types of packaging. It is generally conceded that there is scope for more value adding within the sector. Premium prices are attained for live export of some products, particularly rock lobster and abalone. Potential exists for niche marketing opportunities for live fish export. For example, there has been increased activity in the export of live wrasse into Asian markets in recent years.

VALUE OF THE FISHING INDUSTRY TO THE REGION

Once again there is little regional delineation in fisheries statistics for the Tasmanian fishing industry. The Australian Bureau of Agricultural and Resource Economics (ABARE) estimated the value of the Tasmanian fishing industry in 1999–2000 was \$159 million (wild-caught). Including aquaculture, the value was \$258 million. Tasmania ranks third in Australia in total value of fisheries production (including aquaculture). Western Australia has the greatest value fishery (\$767.6 million), followed by South Australia (\$401.6 million).

In Tasmania, Abalone is by far the greatest value single species, and in 1999–2000 was valued at \$99.5 million. The annual catch of around 2 500 tonnes constitutes nearly half the total Australian landing, and around 25% of the world supply of wild-caught abalone. Abalone is an important component of the Tasmanian fishing industry, and also one of the state's most valuable primary products.

Tasmania is the second largest producer of oysters (4 748 tonnes/pa) behind New South Wales (5 584 tonnes/pa). This comes primarily from aquaculture production of the Pacific oyster. There is a small industry based on the highly-valued native 'flat' oyster.

The rock lobster fishery was worth \$45.5 million in 1999–2000. Tasmania is the third largest producer of rock lobster behind Western Australia and South Australia. The southern giant crab is the third most valuable species to the Tasmanian fishing industry, and in 1999-2000 this fishery was valued at \$1.9 million.

Wrasse, Australian salmon and striped trumpeter were the most valuable fish species in 1999–2000 according to ABARE. The total value of fish caught was \$5.3 million.

There are around 850 commercial fishing boats operating in Tasmanian marine waters, employing about 1 600 people. When processing is included, the number of people directly employed in the Tasmanian Fishing Industry is around 2 000.

Table 7 gives the value of many of the important species targeted in Tasmania.

Table 7: Tasmanian fisheries production. ***Sources:*** ABARE, DPIWE

Species	***Tonnes***	***$'000***
Crustaceans		
Rock lobster	1 466	45 680
Giant crab	75	1 921
Other	3	33
Total	**1 544**	**47 634**
Molluscs		
Abalone	2 565	99 513
Octopus	65	265
Scallop	423	5 280
Other	503	1 035
Total	**3 556**	**106 093**
Fish (a)		
Australian salmon	346	572
Cod	9	8
Garfish	91	356
Banded morwong	29	288
Jackass morwong	12	17
Elephant shark	17	17
Bastard trumpeter	36	98
Striped trumpeter	86	508
School whiting	25	34
Wrasse	85	598
Shark	146	521
Other	3 953	2 360
Total	**4 835**	**5 377**
Total wildcaught	**9 935**	**159 104**
Aquaculture (b)		
Salmonids (c)	10 907	84 845
Oysters	4 748	13 176
Other (d)	239	1 837
Total	**15 894**	**99 858**
Total production	**25 829**	**258 962**

(a) Excludes shark from the Commonwealth southern shark fishery; includes jack mackerel.

(b) Excludes hatchery production.

(c) Includes Atlantic salmon and ocean trout, weight in HOGG (head on, gilled and gutted).

(d) Includes mussels, scallops, native oysters and abalone.

ISSUES OF CONSTRAINT AND OPPORTUNITY

Management

Tasmania is a progressive manager of its wild fishery. Fishery management plans have been developed for the five main fisheries, abalone, rock lobster, giant crab, scalefish and scallop. Management plans for the commercial dive and octopus fisheries are currently being developed.

Management plans often involve placing restrictions on the commercial and recreational aspects of a fishery to ensure that these activities do not have a negative effect on its long-term sustainability. These restrictions have historically involved limiting license access to specific fisheries and placing quotas on each license. While in the short term these restrictions can be seen to be a constraint to the industry, and have resulted in a rationalisation of industry participants, the long-term benefit is the sustainability of the resource. This is increasingly becoming acknowledged as a major competitive advantage of the Tasmanian fishing industry. Many other countries have exploited their marine resources to a much greater extent, and the worldwide demand for wild caught seafood is growing.

A prime example of the advantages of careful resource management is the Tasmanian abalone industry. A quota management system, with industry support, was introduced in 1985, and a total allowable catch (TAC) was set. In 1997, the TAC was increased by 20% in recognition of the health of the stock under the quota management system. Both the abalone and rock lobster fisheries have recently gained exemptions under the *Environment Protection and Biodiversity Conservation Act*. Only catches from fisheries that can demonstrate they are being managed in an ecologically sustainable way may be exempted from the export controls of the Act, which is designed to protect Australian native wildlife. This status has positive ramifications for future marketing strategies centred around a clean, green, environmentally sustainable framework.

The Tasmanian marine fishery is managed by the DPIWE under the *Living Marine Resources Management Act 1995*. Within this department is the Tasmanian Aquaculture and Fisheries Institute (TAFI) which provides high-level scientific input for the management of specified fisheries. Each specified fishery is monitored on an ongoing basis to ensure that management plans are effective, and that amendments to the plans are made if and when necessary. This process invariably involves close liaison with a number of industry groups.

Fishing Industry Groups

The Tasmanian Fishing Industry Council (TFIC) is the peak representative body for the commercial fishing industry in Tasmania. The interests of all commercial fishermen, marine farmers and seafood processors in Tasmania are represented by TFIC. The TFIC works directly with the State Government on policy development.

The TFIC has a number of affiliated groups, specific to certain industry sectors. They include the following:

- The Tasmanian Abalone Council

- The Tasmanian Rock Lobster Fisherman's Association
- The Tasmanian Rock Lobster Fisherman's Association
- The Tasmanian Aquaculture Council
- The Tasmanian Fishing Industry Training Board

These groups dedicate themselves to improving each industry sector through activities such as research and development, trade and trade relations, policy development and reform and government liaison.

Basslink

The Tasmanian Fishing Industry Council has expressed serious concerns about the potential deleterious effects upon the marine environment from the proposed Basslink project, which will link Tasmania to the National electricity grid via an undersea cable across Bass Strait. Their concerns are based on the proposed use of a High Voltage Direct Current (HVDC) monopole system with marine electrodes. This system has been problematic in the Northern Hemisphere, and consequently TFIC sent their executive officer to Sweden and Denmark in 2000 to obtain more information. TFIC is currently lobbying the State Government and the developers of Basslink over this issue.

Logistics and Marketing

Being a highly perishable food item, the Tasmania fishing industry has a high reliance on airfreight for getting fresh seafood to designated markets. The recent collapse of Ansett has put added pressure on the industry, and this is currently seen as a major constraint to maintaining and growing marketing activity.

Due to the industry's emphasis on interstate and overseas markets, there have been concerns expressed about the availability of fresh Tasmanian seafood in the local market. With a growing tourist market, and a more sophisticated restaurant trade, the perception of visitors having access to a wide range of Tasmanian seafood as part of the visitor experience is often not met. A major reason cited for this is the constraints of dealing with the paperwork and red tape associated with small shipments.

As with many other Tasmanian primary products, seafood has the advantage of being marketed under the Tasmanian brand, and the associated 'clean, green' sentiments. However a large proportion of Tasmanian seafood enters the market with little or no identification of its origin.

There is scope for the Tasmanian fishing industry to capitalise more on its good reputation as an effective and responsible manager of its fisheries. For example, in Western Australia in 2000, the Western rock lobster was certified as ecologically sustainable by the Marine Stewardship Council. It was one of the first fisheries in the world to attain this status. The Marine Stewardship Council is an international, non-governmental body that has developed a third party, independent standard that facilitates the assessment of marine resource sustainability. This allows marine products from certified fisheries to carry an on-pack logo to ensure consumers that the product conforms to the latest international norms of sustainability and best practice. This is becoming increasingly important as consumers demand more information about the products they buy.

There are many opportunities to add value to Tasmanian seafood, and this will involve concentrated marketing efforts by individual processors and distributors, and collective research by the industry's various research bodies. This may involve building on the existing reputation of Tasmanian salmon, ocean trout, oysters and scallops with a range of other Tasmanian seafoods. There are also opportunities to market some by-catch, and less exploited species.

St Helens Barway

As the major fishing centre in the Northern region, and Tasmania's second largest port behind Hobart, St Helens is a valuable contributor to the state's fishing industry. The St Helens fishing industry faces a major infrastructure constraint, which has contributed to a significant decline in the St Helens fishing fleet with the recent loss of nine major fishing vessels.

The problem is the extreme navigational difficulties associated with the St Helens Barway, and the channel and Georges Bay navigation markers. The Georges and Moulting Bay estuaries at St Helens cover an area of approximately 1788 ha. This estuary system joins the Tasman Sea at the Eastern boundary of Georges Bay through a relatively shallow and narrow opening over a continually changing sandbar known as the St Helens Barway.

The barway has become particularly hazardous in recent years due to a build-up of silt, and the ability to use the barway has become increasingly difficult. This has a direct effect on the efficiency of the St Helens fishing fleet. A result of this, together with the effects of greater operational costs and introduced quota systems, the St Helens fishing industry is in decline. This is an issue of great concern to the St Helens community, and accordingly the re-development of the barway is a high priority issue. The state of the barway does not just affect the fishing industry and its associated industries. Tourism is also greatly affected, through loss of visitation from passing recreational boats and yachts, and the game fishing industry which forms a major part of the St Helens tourism.

Marine and Safety Tasmania currently manage the area, and the State Government is being lobbied for their assistance.

Recreational Fishing

While not seemingly the core element of the Tasmanian Fishing Industry, the recreational fishing sector is a valuable contributor to the state's economy. One in four Tasmanians fish at least occasionally in marine waters. It is estimated that together these people spend well over $50 million each year on fishing. Around 32 000 visitors in 2000–2001 went sea or trout fishing during their holiday. The value of this market is around $50 million (DPIWE 2001).

The predominant current along Tasmania's East Coast is the Eastern Australian Current, which is the same convergence of warm and cold water that provides places like Merimbula and Bermagui with their renowned gamefishing for species such as tuna, marlin and shark. Game fishing in Tasmania is less recognised, but arguably of a similar standard to places such as Bermagui. The marketing of Tasmanian gamefishing has largely been driven from St Helens, which has branded itself the 'gamefishing capital of Tasmania'. There is scope to develop the industry further.

Trout are the main reason people come to Tasmania to fish. Tasmania has one of the best regarded wild brown trout fisheries in the world. The fish are not endemic, but come from one pure strain of trout introduced from England in the 1800s. Northern Tasmania has an extensive system of highly productive trout streams, and is the gateway to the lakes of the Central Highlands. Trout fishing is an important element to the region's tourism industry. Saltwater flyfishing and gamefishing will further enhance the region's excellent reputation in the fishing tourism market.

THE TOURISM INDUSTRY

INDUSTRY DESCRIPTION

In economic and social terms, tourism is becoming increasingly significant for Australia, both in a national and regional sense, generating close to $17 billion per annum in export revenue. Tourism employs over 1 000 000 people, mainly young Australians, in thousands of small, diverse and dispersed enterprises, over 80% of which are small or micro-businesses.

Tourism is a stimulant for regional communities driving broader economic, social and environmental benefits, in terms of enhancing the number and scope of job opportunities, new and improved services and facilities, and social and cultural benefits. Recent scoping work done by the Cooperative Research Centre for Sustainable Tourism (CRC Tourism), demonstrated a strong relationship statistically between the regions of highest growth in Australia and tourism visitation and development of accommodation infrastructure.

Like many other Australian regional areas, Tasmania has embraced tourism as a means of invigorating the state's economy. Many local councils have recognised the value of tourism in creating jobs in regional areas. However, attracting tourists to some regional areas, particularly those without an attraction such as Cradle Mountain or Freycinet takes a lot of coordinated and committed action. Those involved in regional tourism development must be realistic in their approach, as tourism can be a valuable stimulant for small regional economies, however it is not a panacea.

Northern Tasmania has a diverse range of tourist attractions that include a large and distinct food and wine region; six of Tasmania's nineteen National Parks; some of Australia's best preserved early-European settlement heritage; an extensive and unique coastline including the Furneaux Islands; mountain ranges forming the boundary of Tasmania's famous World Heritage Areas and Ben Lomond, the State's main snow-skiing resort.

Reliable and up-to-date Tasmanian tourism statistics are not freely available. Tourism Tasmania conducted a Tasmanian Visitor Survey in 2000 which gives an indication of how tourists move around the state, and what their main activities are whilst in Tasmania. Table 8 shows Tasmania's 10 most popular sites in that year.

Table 8. Tasmania's top 10 visited sites in 2000 **Source:** Tourism Tasmania

Top 10 visited sites	Popularity of site (%)
Hobart Waterfront/Salamanca Place	59.3
Port Arthur Historic Site	39.0
Mt Wellington	29.3
Cataract Gorge	28.9
Cradle Mountain	25.2
Lake St Clair	21.6
Coles Bay/Freycinet Peninsula	19.7
Gordon River	17.9
Hobart Botanical Gardens	16.8
Mt Field National Park	13.9

The survey also tells us that the average length of stay in Tasmania is 9.3 nights. People tended to stay in Hobart for the longest period (4.5 nights). Launceston attracted people for an average stay of 3.4 nights, and other areas generally had people for 1 to 2 nights. The only site in Table 8 that is found within the Northern region, as defined by municipal boundaries, is the Cataract Gorge in Launceston. Of course, the region is invariably visited on the way to, or back from these most popular sites, or Tasmanian 'icons'. Of the 510 700 visitors to Tasmania in 2000, around 45% of them arrived in Northern Tasmania either by boat in Devonport and Georgetown, or by air in Launceston.

With an increasing emphasis on tourism as a means of stimulating local economies and providing a means of employment in regional areas, it has been widely accepted that regions must have a broad strategy to work under, which enables all operators to potentially benefit from increased market share. The tourism industry in the Northern region has been traditionally fragmented, and efforts to create an integrated and focused approach to regional tourism are on-going.

Tourism in the region is overseen by a range of administrative bodies. Tourism Council Tasmania is Tasmania's peak tourism organisation, and is made up of private industry representatives. The council has a representative on the board of Tourism Tasmania. These two bodies work closely together on policy formation and industry development. Together they have developed a three-year strategic plan for the Tasmanian Tourism Industry. The primary focus of the plan is acknowledging the fact that Tasmania's tourism appeal is well known with more than 18% of Australians having a preference for a Tasmanian holiday but fewer than 3% actually visit. The strategic plan 'Tourism 21 — The Conversion Challenge' aims to focus on converting the recognised consumer desire to visit Tasmania into actual holidays, and to realise the Tourism Industry's vision:

'To ensure tourism achieves its full potential as a strategic growth industry and becomes a cornerstone of the Tasmanian economy generating income, employment and investment for the benefit of all Tasmanians'.

The strategic plan for Tasmanian Tourism has five key strategies with related priorities that government and industry need to implement to meet the customer conversion challenge. In brief, they are:

- know our customer, their holiday needs and desires;
- create holiday experiences to match our customer needs;
- connect with and convert our customers to visit Tasmania now;
- satisfy our customers with exceptional holiday experiences, and
- commitment to Brand Tasmania, partnerships and performance to project a unique brand and point of difference.

Specific to the Northern region is Gateway Tasmania, which is the peak tourism association for the region. Gateway is funded by nine councils in the region, Tourism Tasmania, the Port of Launceston Authority and Australian Pacific Airport Corporation (APAC) who own the Launceston Airport. Gateway's charter is to market the region to visitors, and represent the interests of tourism operators around Northern Tasmania. Gateway also manages the Tasmanian Visitor Information Centre in Launceston.

There are around 700 tourism operators in the Northern region. The composition of Tasmania's tourism industry is around 70% accomodation based, and around 30% attraction based. Comparitively, New Zealand's tourism industry is the opposite — around 70% attraction based, and around 30% accomodation based.

Launceston and Deloraine are the most visited towns in the region. Table 9 shows visitation to towns and cities in the region in 2000.

Table 9. Visitation to Northern regional towns and cities

Town or City	Visitors in 2000
Launceston	278 100
Deloraine	132 800
St Helens	106 000
Campbell Town	100 000
Ross	92 900
Scottsdale	79 600
George Town	70 800
Evandale	67 300
Longford	61 000
Bridport	39 000
Beaconsfield	37 200

Source: 'Tasmanian Visitor Survey — 2000 Data Card' Tourism Tasmania

VALUE OF THE INDUSTRY TO THE REGION

Tourism provides around 5 000 jobs in Northern Tasmania. However, tourism also provides a relatively low return in respect to gross product per person. Salaries in the tourism industry are typically low, and the industry relies on a lot of part-time and casual labour.

Figures relating to the value of the tourism industry to Tasmania's economy are slightly dated. In 1998, Tourism Tasmania estimated that the industry was worth around $900 million, which equated to around $710 million to gross state product. Of this 55.2% was generated form interstate visitors, 10.2% by overseas visitors and 34.5% by intrastate visitors. Most interstate visitors came from Victoria and New South Wales, and most international visitors came from the United States, the United Kingdom and Continental Europe. While attracting visitors from interstate and overseas is of primary interest to Tasmanian tourism operators, the importance of the local intrastate market must also be recognised.

In 1998, the industry generated employment for an estimated 18 300 people, 10.3% of total employment in the state. It is assumed that the tourism industry has grown sufficiently in the past four years to reflect a rise in these estimates. For example, in 1998 Tasmanian visitor numbers were 505 100 and in 2000 they were 510 700. In 2000, expenditure per visitor was estimated to be around $1080.

ISSUES OF CONSTRAINT AND OPPORTUNITY

Regional Coordination

Most of the eight councils in Northern Tasmania have identified tourism as a significant opportunity for economic development. Several councils have appointed Tourism Development Officers, and are creating their own tourism development plans. It is widely recognised that there must be a high degree of collaboration amongst the councils while developing these plans. Visitors do not recognise municipal boundaries, and the region must be marketed and promoted as a whole, ensuring a range of municipalities gain the benefits of visitation.

Partnerships between bordering municipalities are currently being developed. For example, the Dorset and Break O'Day councils are jointly utilising a website to promote the Northeast area. The two councils are also working closely with George Town council and West Tamar Council.

Gateway Tasmania, as the region's peak tourism body, has an important role to play in regional tourism coordination. A regional tourism strategy for Northern Tasmania is currently being developed. Gateway, Tourism Tasmania, council tourism officers and regional tourism associations are working collaboratively to achieve that strategy.

Attraction or Experience?

Northern Tasmania has a wide range of valuable experiences to offer the visitor, however it does not possess the highly recognised 'icons' such as Port Arthur, Salamanca, Cradle Mountain and Freycinet. The major attractions in the region are Launceston and the Cataract Gorge, and the Tamar Valley particularly the wine route. Recent developments are helping to build a critical mass that will help retain visitors in the region for longer. Some of these include:

- Seahorse World at Beauty Point.
- The new Queen Victoria Museum and Art Gallery at Inveresk.
- New and improved facilities on the Tamar Valley wine route.
- Scottsdale's Forestry Interpretation Centre.
- Developments along Launceston's riverfront.
- Upgrading of Clarendon and Woolmers Estate.
- The Bay of Fires Lodge near Ansons Bay.
- Great Western Tiers Visitor centre in Deloraine (to open late September 2002).
- St Helens Visitor Centre (in progress)

Tourism is obviously not all about attractions, but also on the history, environment and experiences that can be conveyed to the visitor. There are many opportunities to improve the exposure to several of the region's valuable experiences through designated trails that have a number of specified, branded themes. These themes might promote and enhance such things as significant natural features (e.g Great Western Tiers, Northeast coast and Bass Strait Islands), food and wine (e.g. Tamar Valley), and history and heritage (e.g. Woolmers, Clarendon, Ross, Evandale etc.). Such trails may also include activities such as golf, fishing, horseriding and cycling.

Once again, it is critical that this approach is undertaken in a coordinated way, as these trails will invariably cover several municipal boundaries. Significant progress has been made recently in trail development between the eight regional councils and Tourism Tasmania.

It is unlikely that there will be much change in the fact that visitors will primarily choose to stay in the major towns such as Launceston, Deloraine and St Helens. Launceston attracts around 52% of the region's visitors for overnight stays. There is great scope for regions outside Launceston to capitalise on the short trip (e.g. 1 day and/or night) market, as their core tourism business activities, acknowledging that many visitors will choose Launceston as their primary base while in the region.

Further tourism product development in Northern Tasmania will help to improve the length of time that visitors choose to stay in the region.

Activity-based Tourism

As mentioned earlier, Tasmania's tourism industry is heavily based on accommodation rather than activity-based tourism. The Northern region has a lot to offer in regard to activities such as fishing, golf, hiking and bushwalking, horseriding, canoeing and kayaking to name a few. The region's fishing is well renowned, predominantly the wild brown trout fishery, and increasingly game fishing off St Helens.

Tasmania is rated by independent cycling authorities like Bicycle USA and the Lonely Planet's recently published 'Guide to Cycling Australia' as the best region for cycling in Australia. Tourism Tasmania data shows that in 2001 about 14 000 visitors came to the state for cycling holidays. This was almost double the figure for 1997. Regional tourism practitioners need to be aware of these trends, as they search for new and novel ways of growing their visitor market.

Tasmania's natural environment sets it apart from the other States and Territories and is an important element of its image as a tourist destination. Tourism Tasmania suggests that around 70% of visitors to Tasmania participate in some sort of nature-based tourism. All municipal regions within Northern Tasmania have opportunities to participate in this form of tourism.

Visitor Access

Despite the uncertain times surrounding the demise of Ansett in 2001 and 2002, visitor numbers into the Launceston Airport are currently exceeding those before the collapse. This capacity is being met by two carriers, Qantas and VirginBlue. Airfares are comparatively cheap, and this has also had a positive impact on visitor numbers.

The State Government has recently announced that in September 2002 the Bass Strait crossing will be serviced by two monohull ships. This will mean a ship will both arrive and depart Devonport every day. This is a major development for the Tasmanian tourism industry, and will provide a range of opportunities for tourism operators in the Northern region. Marketing and promotion will play an important role in capitalising on this increased and more consistent flow of visitors, as will a coordinated regional approach. Such an approach may be a 'Go East' type campaign that directs visitors to Launceston, the Tamar Valley and the Northeast. These types of initiatives need to be developed now, to take advantage of the introduction of the Bass Strait monohulls.

Public Liability Insurance

The escalating costs of public liability insurance are of major concern to Tasmanian tourism operators. A bulk of Tasmanian operators are small, and therefore less likely to cope with this increased business cost. Areas such as Flinders Island, where tourism is seen as a considerable opportunity for economic development, are finding this issue to be a significant constraint. This is mainly due to the small size of most operators.

Debate over how to resolve this issue has steadily increased recently, however there does not appear to be any solutions for the immediate future. New Zealand operates under a different system to Australia, largely due to their strong emphasis on adventure-based tourism. The New Zealand model is currently being investigated by the State Government, however it is likely that this issue largely falls under the jurisdiction of the Federal Government, and will involve legislation changes.

Seasonality

Another significant problem for Tasmanian tourism operators is the large fluctuation in visitor numbers from winter to summer. This is largely due to Tasmania's southern location and perception by people outside Tasmania that the state's winter weather is worse than it actually is. Changing people's awareness in regard to their perceptions about the weather is part of Tourism Tasmania's promotional activities. However, changing people's attitudes is challenging. Tasmania has more distinct seasons than many other areas of Australia, and this should be promoted as a positive attribute.

Another way of allaying the effects of seasonality is to organise events in the off-season. With the development of York Park as Tasmania's premier AFL venue, the region has a catalyst to attract interstate and intrastate visitors during the winter months. The Launceston City Council recently held the inaugural Tamar Valley Farmers Market which aims to showcase the produce of the Tamar Valley and Northern region. The markets will be held four times a year, to emphasise the availability of seasonal produce.

While it is not expected that the markets themselves will attract many visitors from interstate, being combined with events such as AFL football may provide this potential. Events such as Agfest, the Deloraine Art and Craft Festival, the Derby River Derby and Festivale have a significant impact on intrastate tourism.

Food and Wine and the Tourism Industry

Tourism Tasmania and the Food Industry Council of Tasmania are currently completing a Food and Wine Tourism Strategy. The strategy aims to add value to both tourism and the food and beverage sector. Food and wine are clearly very important elements of the visitor experience; this is evidenced in a fifty percent growth in visitation to Tasmanian wineries in the past five years. Research indicates that a substantial proportion of interstate and international visitors to Tasmania are seeking food and wine experiences as a complementary component of their overall visit to the state. There is enormous potential to leverage Tasmanian food, wine and beer consumption and exposure through tourism. At a recent Wine and Food Tourism workshop organised by the Department of State Development, broad agreement was reached on the importance of the following key issues in developing a Wine and Food Tourism Strategy:

- The value of pursuing the development of wine and food tourism under the Brand Tasmania umbrella.
- The importance of developing regional stories that add value to the wine and food tourism experience.
- The merit in linking wine and food tourism experiences to the arts to provide a broader cultural experience.
- The importance of yield improvement for businesses engaged in the wine and food tourism sector.
- The importance of skill development to support the further growth of wine and food tourism.

The workshop participants also considered key issues and priorities for the three wine and food tourism regions: Tamar Valley, Freycinet and Southeastern Tasmania. The Food and Wine Tourism Strategy will be finalised and distributed in March 2002.