

Resource, Forest Industry and Employee Catchment Analysis for the SEQ RFA Region.

Prepared for

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EXECUTIVE SUMMARY

The objective of this report was to identify communities which were reliant on forest industry activity in the SEQ RFA region and to identify significant relationships between specific areas of forest resource and communities dependent on that resource. The identification of resource dependent communities and the flow-on effects to other communities were identified through (a) the location of timber processing industries with a crown hardwood allocation, (b) the location of forest contractors, (c) the location of other forest related industries including apiarists and graziers, (d) the residential location of employees, (e) the use of schools by employees, (f) employee household expenditure and (g) industry expenditure.

In identifying forest dependent communities and the flow on effects to other communities, primary data was collected through the use of industry and employee surveys and through the use of existing mailing lists and databases held by DPI-Forestry and the Department of Natural Resources. Industry surveys were distributed to all forest industries in the region, which for the purpose of this report were defined as (a) timber processing industries, (b) forest contractors, (c) apiarists, (d) holders of state grazing permits and (e) holders of special or term leases. With the exception of special or term lease holders, employee surveys were distributed to all forest industries who had also received an industry survey. The industry surveys provided a description of the specific forest industry (ie., number of employees, years in operation, use of forest areas) and information on the town location of the industry, industry clients and from which towns specific goods and services were purchased. The employee surveys obtained information which allowed the development of a social profile of forest industry employees (ie., age, sex, education, housing tenure, family size, marital status) and information on the residential location of employees and detailed information on the towns from which they purchased household goods and services.

In identifying the relationship between areas from which crown hardwood resource was obtained and forest dependent communities, 17 Town Resource Clusters (TRCs) were defined. The TRCs represented clusters or groupings of towns which (a) consisted of timber processing industries which obtained their crown hardwood resource from similar geographic areas or sawmill allocation zones, (b) included the majority of towns in which employees of timber processing industries located within the TRC were resident and (c) included towns in addition to resident employee towns, which were used by employees when obtaining household goods and services. The identification of the 17 TRCs was particularly significant in so far as it established a direct relationship between the sawmill allocation zone from which the resource was drawn and towns and communities that were dependent upon that resource and which may be affected if there was a change in the use of, or access to the hardwood resource within the sawmill allocation zone. In addition, it is suggested that the TRCs not only allow the identification of towns and communities likely to be affected by a change in resource, but they can also be used concurrently with environmental and ecological criteria in establishing appropriate forest reserves and management controls.

For illustrative purposes the following description provides summary information in relation to the Maryborough TRC, however the same information is also available for all other TRCs. Across all 17 TRCs the Maryborough TRC, in which the town of

Maryborough is located, had five timber processing industries including a timber salvage industry. All timber processing industries within this TRC obtained their resource from the Maryborough sawmill allocation zone. This TRC also had the highest number of timber processing industry (timber mill) employees, with 203 timber processing industry employees and 609 family dependents. Within this TRC, the town of Maryborough had 75% of all resident employees and Tiaro 9% of all resident employees. The 203 employees within this TRC had an estimated annual income of \$4.8 million and an estimated annual household expenditure of \$3.7 million. Eighty-one percent of employee household expenditure (\$3 million annually) occurred within the town of Maryborough, with the town of Hervey Bay also attracting a further 10% of annual household expenditure (\$360,000 annually). Ten percent of all apiarists and 22% of all holders of state grazing permits were estimated to be located within the Maryborough TRC. Eighty-eight percent of all expenditure by forest industries within this TRC, was constrained to towns with this TRC, with the town of Maryborough attracting 66% of all forest industry expenditure.

In undertaking an analysis of the income of timber processing industry employees and their household expenditure, it was found that within the SEQ RFA region timber processing industries (sawmills) generated \$20 million in employee annual income and \$15 million in annual household expenditure which was distributed through local communities and towns within the SEQ RFA region. Including timber harvesting, transport and processing industry employees, these industries generated an estimated \$24 million in annual employee income and \$18 million in annual household expenditure. When the high levels of local expenditure by forest industries within the region are considered along with the high levels of local household expenditure by forest industry employees, forest industries clearly provide a significant contribution to local and regional economies within the SEQ RFA region. A summary of timber processing industry employee and industry characteristics is given in Table A.

Table A. Summary of Town Resource Cluster (TRC) Characteristics: Timber Processing Industries

TRCs	Number of Timber Processing Industries	Location of Timber Processing Industries	Main Locations of Industry Expenditure	Total Number of Industry Employees	Main Residential Location of Employees	Estimated Annual Household Expenditure	Main Locations for Household Expenditure	Percent Household Expenditure Within TRC
Rockhampton	2	Rockhampton Dingo	Rockhampton Dingo	36	Rockhampton Dingo	\$649,000	Rockhampton Blackwater	98.6%
Gladstone	2	Benaraby Builyan	Gladstone Builyan	21	Builyan	\$379,000	Gladstone Monto Builyan	72.3%
Monto	2	Monto Mulgildie	Monto Biloela	35	Monto Mulgildie	\$631,000	Monto	87.6%
Bundaberg	2	Bundaberg Thabeban	Bundaberg Childers	70	Bundaberg	\$1,300,000	Bundaberg	97.4%
Maryborough	4	Maryborough Brooweena North Aramara Tiaro	Maryborough	203	Maryborough Tiaro Hervey Bay	\$3,700,000	Maryborough	95.3%
Mudubbera	2	Eidsvold Mundubbera	Mundubbera Brisbane	77	Eidsvold Mundubbera	\$1,400,000	Eidsvold Mundubbera	78.5%
Gympie	2	Gympie Nth Deep Creek	Gympie	74	Gympie	\$1,300,000	Gympie	90.9%
Wondai	1	Wondai	Kingaroy Murgon Wondai	26	Wondai Kingaroy	\$500,000	Wondai Kingaroy Murgon	93.3%
Cooroy	2	Cooroy Yandina	Nambour Cooroy	96	Cooroy Yandina	\$1,700,000	Cooroy Nambour Maroochydore Noosa	92.0%
Blackbutt	3	Blackbutt Linville	Brisbane Blackbutt Kingaroy Nanango	18	Linville Moore Blackbutt	\$324,000	Toogoolawah Kilcoy Ipswich	54.3%
Woodford	5	Conondale Eudlo Peachester Woodford Caboolture	Caboolture Kilcoy Woodford Brisbane	61	Caboolture Kilcoy Woodford	\$1,100,000	Caboolture Woodford	80.0%
Gatton	2	Gatton Laidley	Gatton Toowoomba Brisbane	31	Gatton Toowoomba Brisbane	\$600,000	Gatton Toowoomba Laidley	92.6%
Brisbane	2	Fernvale Brisbane	Brisbane	11	Brisbane	\$200,000	Brisbane Ipswich	81.0%

Source: EBC (1998)

1. INTRODUCTION

This report provides an analysis of the results of industry surveys conducted as part of the Social Assessment for the South East Queensland RFA region. The purpose of this report is to identify communities which are reliant on forest industry activity in the region and to identify significant relationships between specific areas of forest resource in the South East Queensland region and communities dependent on that resource.

2. METHODOLOGY

The methods used in the collection of data for this report include: mail surveys of timber processing industries, timber industry contractors, timber industry employees, apiarists, graziers with Stock Grazing Permits and other forest users with special and term leases; secondary data from the Australian Bureau of Resource Economics (ABARE, 1998) and information on timber processing industries and their allocations from the Department of Primary Industries. Employment and expenditure catchment analysis has also been undertaken to assist in determining the relationship between forest resource and towns and communities dependent upon specific resource areas within the South East Queensland RFA region.

Throughout this report the term “Forest Industry” refers to all timber processing, timber contracting, grazing and apiarist businesses. The term “Timber Processing Industry” refers to all industries who have a crown hardwood allocation and those timber salvage businesses that obtained their resource from timber mills with a crown hardwood allocation.

Two questionnaires were used in order to obtain information on forest industries. One questionnaire referred to as the “Forest Contractor and Forest User Businesses” questionnaire sought information specifically from the forest industry or business. A second questionnaire referred to as the “Forest and Timber Industries Employees” questionnaire sought information from the employees of forest industries and businesses. Forest Industry questionnaires were distributed to timber processing industries, forest industry contractors, apiarists and holders of special grazing permits, special and term leases. Forest and Timber Industry employee questionnaires were distributed to employees of timber processing industries, forest industry contractors, apiarists and holders of special grazing permits.

Questionnaires were distributed to timber processing industries through a mail out and through interview or direct contact with management at specific mills throughout the SEQ RFA region. Questionnaires were distributed to forest contractors through mail out and through the distribution of questionnaires by each mill to their contractors. Questionnaires were mailed to all holders of stock grazing permits, special and term leases and to all apiarists.

When questionnaires were mailed to each industry, postal addresses were obtained from existing databases. DPI-Forestry provided databases of forest users including hardwood sawmills with a crown allocation, apiary permits and stock grazing permits. The Department of Natural Resources supplied a database of holders of grazing, special and term leases. In addition, Workplace Health and Safety data on the number of registered work place employees in hardwood sawmills was accessed in an attempt to gain an indicative number of mill employees for the purpose of survey administration.

The number of surveys distributed and the response rate is given in Table 2.1. It should be noted in relation to Table 2.1 that for several forest industries and their employees, the number of surveys administered was in excess of the actual number of industries and employees. For instance, and in relation to forest contractors, no formal record or database of the number and location of forest contractors exists and as such questionnaires were distributed to contractors through sawmills and through information provided by industry representative bodies. In an attempt to reach as many forest contractors as possible surveys were also distributed to contractors who may have worked adjacent to the SEQ region or been primarily reliant on the softwood resource.

Table 2.1. Sample Size and Response Rates for Industry Surveys

Sample group	Number of Surveys Administered	Response Rate
Forest Industries		
Timber processing industries	40	32 (80.00%)
Forest contractors	150	44 (29.33%)
Graziers (<i>SGP and special lease</i>)	562	99 (17.61%)
Apiarists	221	87 (39.37%)
Total Industries	973	262 (26.93%)
Forest Industry Employees		
Timber processing industry	878	352 (40.10%)
Forest contractors	300	207 (69.00%)
Graziers (<i>SGP</i>)	620	15 (2.40%)
Apiarists	442	29 (6.56%)
Total Employees	2,240	603 (26.92%)

Note: Timber processing industries include all timber mills with a crown hardwood allocation and four salvage mills who are dependent on the supply of wood from mills with a crown hardwood allocation. Forest contractors include all harvesting, roading and transport contractors. The number of survey administered to forest contractors and forest contractor employees is approximate as in addition to a direct mail out questionnaires were also distributed by the timber processing industries to their contractors.

Source: EBC (1998)

The forest industry surveys do not represent a census of these industries and in some instances core information has not been provided through the survey method. In the case of timber processing industries, phone interviews and other secondary data were used to obtain this information. For forest contractors, graziers and apiarists, the ability to generalise from the sample will be dependent upon the size of the sample. As such, where analyses for these industry groups are based on survey data some caution should be used in the interpretation of these analyses.

Three core problems with the use of mailing lists are (a) that mailing lists may not necessarily include all contractors and forest industries, (b) the postal address reported on the mailing list may well be different from the actual business location of the contractor or forest industry and (c) the postal address may be incorrect. These factors may contribute to lower response rates associated with mail surveys (standard response rate of approximately 10%). However, consultation with industry in the development of mailing lists used in this analysis is likely to have assisted in making the mailing lists as comprehensive as possible.

Information on employment levels for forest contracting, apiarist and grazing businesses was derived from survey research and was used to identify the mean employment size of each business. In addition, while existing databases identify the postal address for forest contracting, apiarist and grazing businesses, it has been assumed that these locations are the same as or in close proximity to the location of the business.

3. TOWN RESOURCE CLUSTERS

Town Resource Clusters represent clusters or groupings of towns and communities which (a) consist of timber processing industries which draw their hardwood resource from similar geographic areas, (b) include the majority of towns and communities at which employees of timber processing industries reside and (c) include towns and communities in addition to resident employee towns, which are used by employees when accessing goods and services.

Within the South East Queensland RFA Region 14 Sawmill Allocation Zones (SAZs), as administered by DPI-F, were identified from which each of the timber processing industries had a crown allocation. Table 3.1 shows the relationship between the town location of the timber processing industry and the dependency on hardwood resource drawn from each of the 14 Sawmill Allocation Zones. For instance, and in relation to Table 3.1, 100% of the resource drawn from the Brisbane SAZ is used by timber processing industries within Woodford. However, industries within the town of Woodford are only 39.2% reliant on resource from the Brisbane SAZ, with industries within Woodford also drawing 60.8% of their resource from the Kilcoy-Woodford SAZ.

Further examination of Table 3.1 also shows that only five towns have timber processing industries which are dependent upon resource drawn from multiple SAZs, with the majority of industries dependent upon resource from a single SAZ.

Figure 1 shows the location of the 14 SAZs and the towns dependent upon resource from each of these zones. It is clear from an inspection of Figure 1 and Table 3.1 that there are specific town catchments associated with each of the SAZs. That is, the majority of towns in which timber processing industries are located, are located in close proximity to the SAZ from which they draw their resource.

Table 3.1. Relationship Between Timber Processing Town and Sawmill Allocation Zone

Sawmill Allocation Zone	Percent Mill	Percent Resource
Brisbane		
Woodford	39.2	100.0
Boonah-Warwick		
Beaudesert	100.0	87.6
Boonah	100.0	8.1
Killarney	100.0	6.3
Builyan-Gladstone		
Builyan	100.0	61.0
Rockhampton	100.0	38.5
Benaraby	100.0	0.5
Bundaberg		
Bundaberg	100.0	97.9
Thabeban	100.0	2.1
Eidsvold-Monto		
Eidsvold	100.0	62.8
Monto	100.0	28.7
Mulgildie	100.0	8.5
Gatton-Toogoolawah		
Gatton	100.0	45.8
Ravensbourne	100.0	38.2
Esk	100.0	11.9
Fernvale	100.0	2.1
Laidley	100.0	2.1

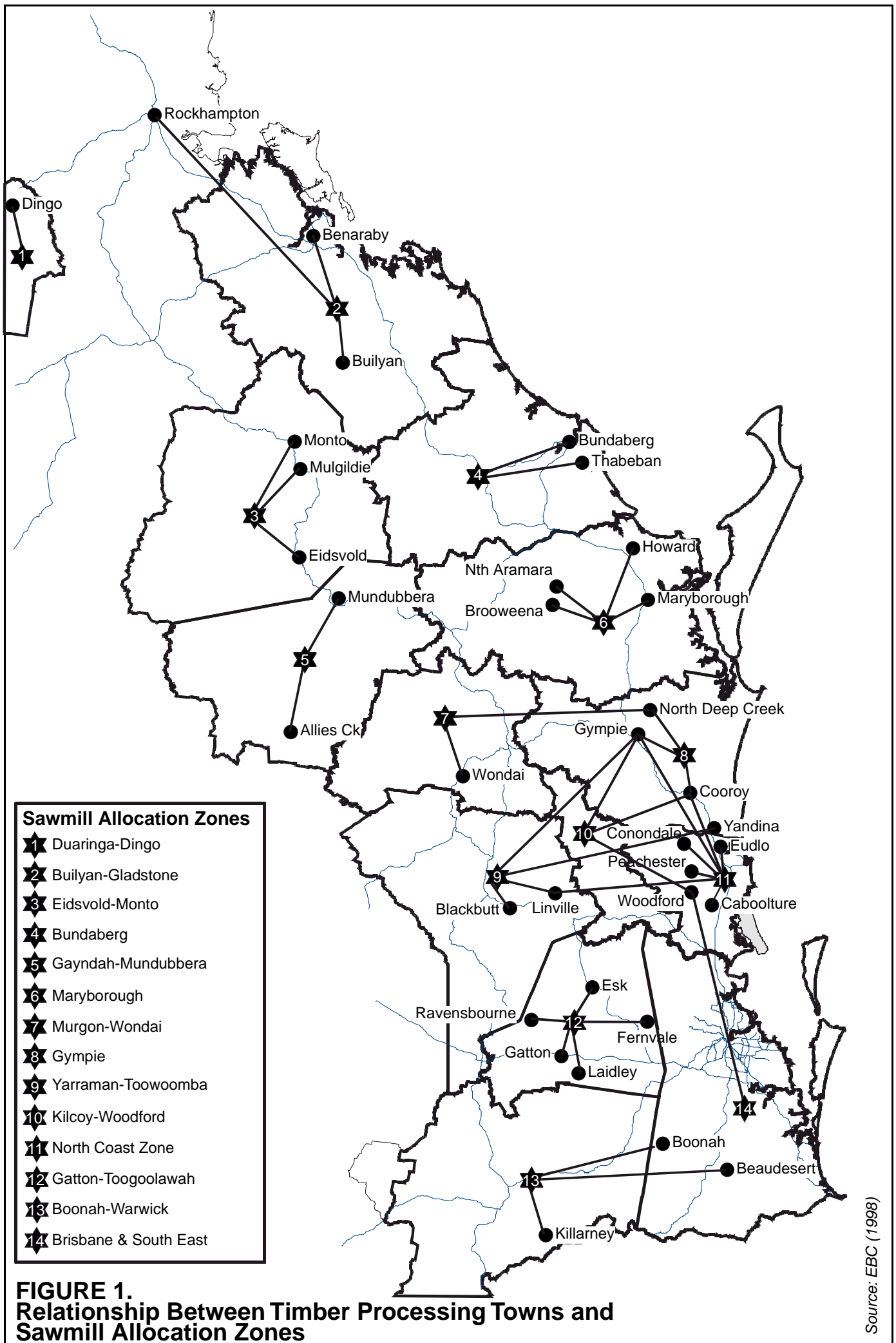
Continued...

Table 3.1. Relationship Between Timber Processing Town and Sawmill Allocation Zone (Continued)

Gayndah-Mundubbera		
Allies Creek	100.0	57.9
Mundubbera	100.0	42.1
Gympie		
Cooroy	47.3	89.9
North Deep Creek	76.3	8.0
Gympie	7.5	1.9
Kilcoy-Woodford		
Cooroy	39.4	63.2
Woodford	60.8	28.0
Gympie	41.4	8.8
Maryborough		
Maryborough	100.0	78.4
Brooweena	100.0	17.6
North Aramara	100.0	2.9
Howard	100.0	0.6
Murgon-Wondai		
Wondai	100.0	87.4
North Deep Creek	23.7	12.6
North Coast Zone		
Cooroy	13.1	32.7
Caboolture	100.0	17.6
Linville	44.1	11.2
Peachester	100.0	10.9
Gympie	32.3	10.6
Eudlo	100.0	9.4
Conondale	100.0	7.5
Yarraman-Toowoomba		
Linville	56.0	54.7
Gympie	18.8	23.6
Yandina	100.0	17.6
Blackbutt	100.0	4.1
Duaranga-Dingo		
Dingo	100.0	100.0

Source: *Based on information provided by DPI-Forestry*

Prepared by: *EBC (1998)*



Using the industry town to resource catchments identified in Figure 1, clusters or groupings of towns were identified which were linked to similar resource locations and which also contained towns in which employees were resident and from which employees purchased the majority of their goods and services. The distribution of Town Resource Clusters (TRCs) across the SEQ RFA region is shown in Figure 2. Figures 3 to 18 also show each of the TRCs in greater detail and the dependency of TRCs on resource from Sawmill Allocation Zones.

Table 3.2 shows the relationship between the Sawmill Allocation Zone and timber processing industries within each TRC. For instance within the Duaringa-Dingo (D-D) Sawmill Allocation Zone, 100% of that resource is allocated to timber industries within the Rockhampton TRC. Similarly, 87.4% of the allocation of resource from the Murgon-Wondai Sawmill Allocation Zone is to timber industries within the Wondai TRC, with 12.6% of the allocation to industries in the Gympie TRC.

As is evident in Table 3.2 there is a clear relationship between the Sawmill Allocation Zone and the TRC. The percentages shown in Table 3.2 may be used as 'likelihood estimates', which identify the likelihood of change to a TRC from some change in resource within the sawmill allocation zone. For instance, there is a 100% likelihood that a change in access to resource within the Duaringa-Dingo (D-D) Sawmill Allocation Zone will directly affect the Rockhampton TRC and a 0.0% likelihood that it would affect other TRCs within the SEQ RFA region.

As a further example, and using the values in Table 3.2 as likelihood of affect estimates, it is also clear that a change in resource access within the North Coast Zone (NCZ) has the potential to affect four TRCs, with the greatest affect probably occurring within the Woodford TRC (45.4).

Table 3.2. Relationship Between Location of Timber Industry and Resource Drawn from Sawmill Allocation Zone

TRCs	Sawmill Allocation Zones													
	D-D	B-G	BBG	E-M	G-M	MBR	M-W	GYM	NCZ	Y-T	K-W	B-W	G-T	BNE
Rockhampton	100.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gladstone	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bundaberg	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monto	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mundubbera	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryborough	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wondai	0.0	0.0	0.0	0.0	0.0	0.0	87.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cooroy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.9	32.7	17.6	63.2	0.0	0.0	0.0
Woodford	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.4	0.0	0.0	0.0	0.0	100.0
Blackbutt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	58.8	28.0	0.0	0.0	0.0
Gympie	0.0	0.0	0.0	0.0	0.0	0.0	12.6	9.9	10.6	23.6	8.8	0.0	0.0	0.0
Beaudesert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.6	0.0	0.0
Gatton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Boonah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
Killamey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: D-D is Duaringa-Dingo, B-G is Builyan-Gladstone, BBG is Bundaberg, E-M is Eidsvold-Monto, G-M is Gayndah-Mundubbera, MBR is Maryborough, M-W is Murgon-Wondai, GYM is Gympie, NCZ is North Coast Zone, Y-T is Yarraman-Toowoomba, K-W is Kilcoy-Woodford, B-W is Boonah-Warwick, G-T is Gatton-Toogoolawah and BNE is Brisbane.

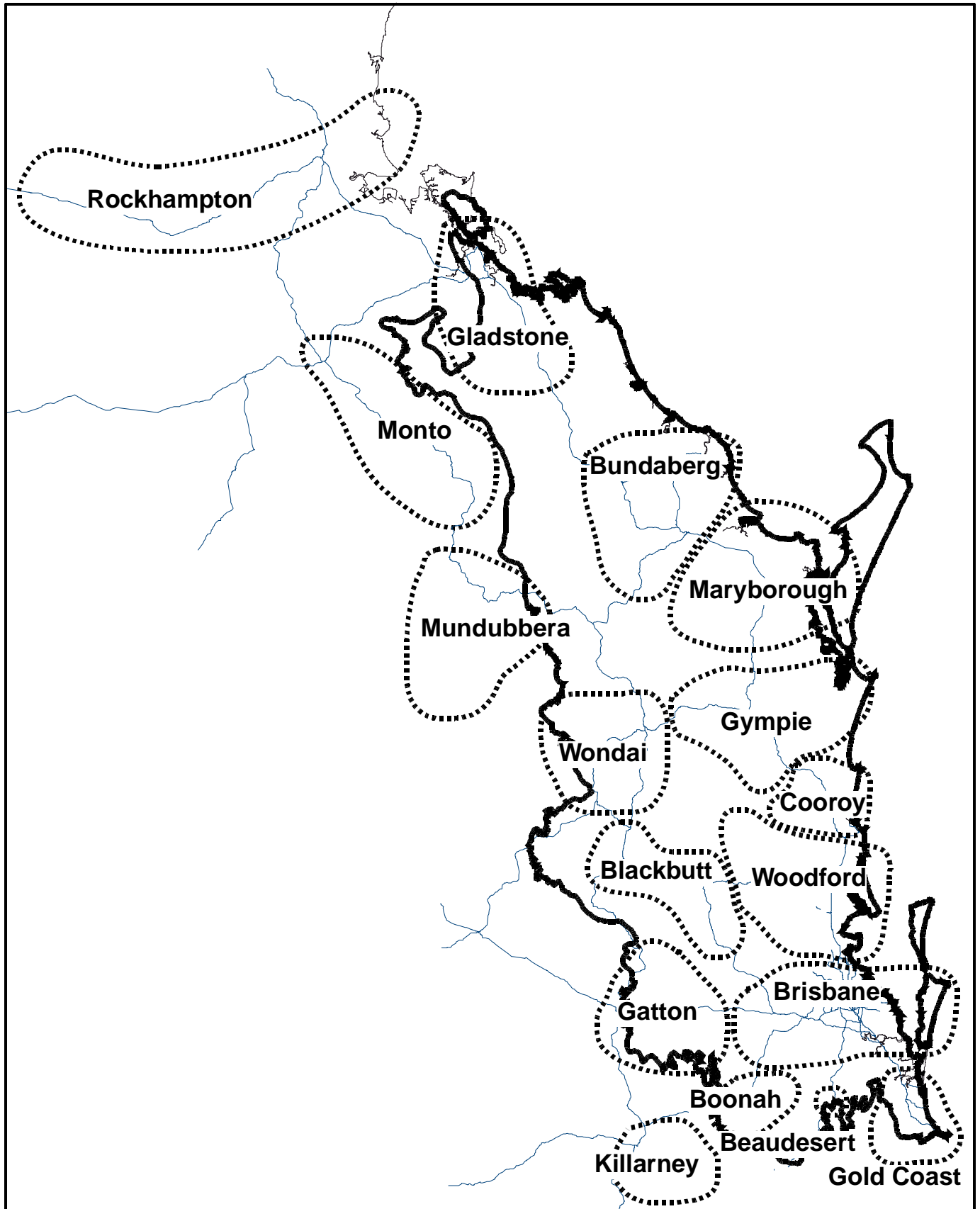
Source: EBC (1998)

Survey research which identified the timber industry employees town of residence showed that 67.6% of timber industry employees lived within the same town in which the industry was located and that other industry employees often lived in close proximity to the industry town. Information about the town location of the industry and the town in which employees were located were also used to establish the extent of the Town Resource Clusters (TRCs) identified in Figure 2 and Figures 3 to 18. Table 3.3 shows that when timber processing industries located within each of the TRCs are examined in all but one instance over 85% of industry employees are located within the same TRC as the industry.

Table 3.3. Percentage of Industry Employees Resident in Towns within TRCs

Town Resource Cluster	Percent
Rockhampton	100.0
Gladstone	100.0
Monto	100.0
Bundaberg	100.0
Maryborough	100.0
Gympie	100.0
Gatton	100.0
Killarney	100.0
Boonah	100.0
Beaudesert	100.0
Gold Coast	100.0
Wondai	96.4
Blackbutt	91.4
Mundubbera	89.1
Cooroy	88.0
Woodford	86.7
Brisbane	40.0

Source: EBC (1998).



Note: Figure 2 shows the approximate distribution of TRCs throughout the SEQ RFA region. Detailed information in relation to the exact location of TRCs is shown in Figures 3 to 18.

Source: EBC (1998)

FIGURE 2.
Location of Town Resource Clusters (TRCs)

In further developing and refining the TRCs and the boundaries of each TRC, the relationship between the employees town of residence and those towns from which household goods and services were purchased was examined. The survey of forest industry employees identified 26 household goods and services and each employee was asked to indicate the main town and other towns from which they purchased these goods and services.

Table 3.4 shows the percentage of all household goods and services purchased by forest industry employees from within the TRC in which they were resident. In all cases over 50% of household goods and services are purchased from towns within the TRC in which forest industry employees reside. In the case of Blackbutt, Mundubbera and the Gold Coast there is some 'seepage' to towns within adjacent TRCs.

Table 3.4. Percentage of all Goods and Services Purchased by Forest Industry Employees from within the TRC in which the Employee is Resident

Town Resource Cluster	Percent of Household Goods & Service From Within the TRC
Bundaberg	97.1
Maryborough	95.3
Wondai	93.3
Gatton	92.6
Cooroy	92.0
Gympie	90.9
Beaudesert	89.8
Brisbane	81.0
Woodford	80.0
Monto	76.4
Gladstone	72.1
Rockhampton	62.1
Blackbutt	54.3
Mundubbera	50.7
Gold Coast	50.0
Killarney	*
Boonah	*

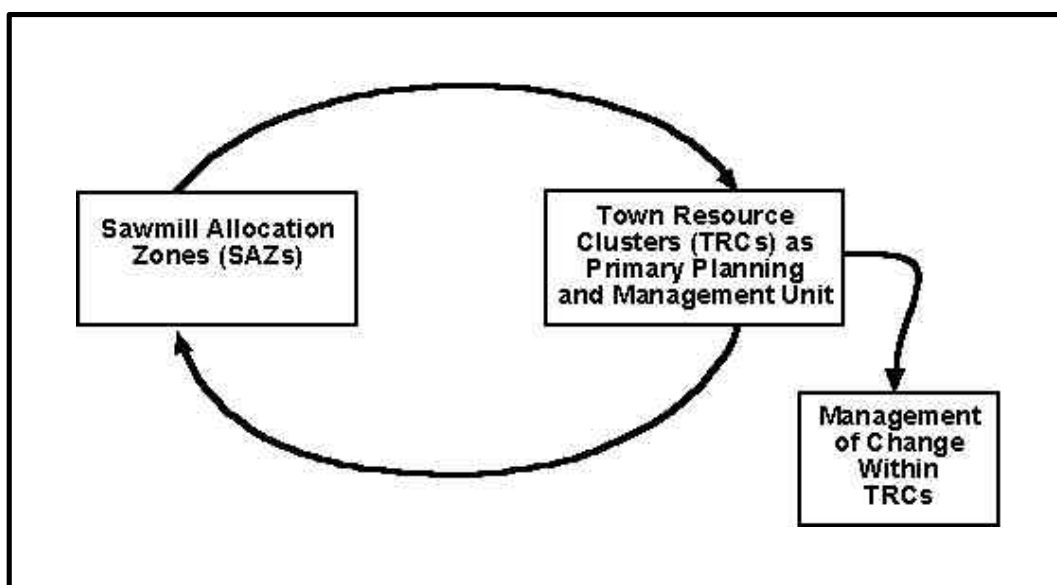
Note: * *Insufficient information available.*

Source: *EBC (1998).*

Each of the 17 TRCs were defined in such a way that the relationship between each TRC and specific Sawmill Allocation Zones would be optimised. That is, if there was a change in the availability of the resource within a specific Sawmill Allocation Zone, there would be a high degree of certainty that any corresponding social changes would be located within identified and associated TRCs. Each TRC was defined so that it was 'maximally constrained', meaning that the social and economic networks existing amongst towns within the TRC occurred primarily within the TRC and did not effect other towns in other TRCs. Where a TRC was not maximally constrained, it was often the case that towns near the boundary of the TRC would be linked to towns near the boundary of adjacent TRCs. For example, and in the case of the Blackbutt TRC, the Woodford and Brisbane TRCs, which are adjacent to Blackbutt, attracted significant levels of employee household expenditure in addition to that occurring within the Blackbutt TRC.

The use of Town Resource Clusters (TRCs) in the analysis of any potential changes in towns and communities as a consequence of a change in the status or access to resource is highly significant. As a very strong relationship has been found between the use of Sawmill Allocation Zones and TRCs, any change in the Sawmill Allocation Zone has the potential to affect specific TRCs. From the perspective of identifying social impacts and managing any social change as a consequence of a change in the status of the resource, the TRCs play a central and significant role. From a social perspective, issues of sustainability in the management of natural resources require not only the management of the resource itself but also equal and concurrent consideration to the management of resource dependent communities. While the Sawmill Allocation Zone may be an administrative or management unit for the management of the natural resource, the TRC is the parallel management unit when issues of managing social change are to be considered.

The linkage between areas of resource and TRCs have generally been considered in terms of a top down management process, with core ecological and environmental criteria identifying those areas of resource which should be placed in reserve or which might have special management controls applied to them. Potential social and community impacts are then considered as a consequence of such a top down process. However, it should be emphasised that while ecological and environmental criteria are obviously important in the development of a reserve system, the model which has been identified in this report also enables social criteria to be used in the establishment of reserves. This approach permits the identification of those areas of resource which if placed in reserve would have minimal social impacts associated with them.



4. Location of Timber Processing Industries and Employees

4.1, Location of Timber Processing Industries

Table 4.1 shows that timber processing industries that have a crown hardwood allocation are based in 35 towns throughout the South East Queensland RFA region. In addition to those timber processing industries with a crown hardwood allocation there were four timber salvage industries located at Tiaro, Gympie, Eidsvold and Jandowae. While these timber salvage industries do not have a crown allocation they are nevertheless dependent upon the allocations used by other timber processing industries and have therefore been included in the following analyses.

4.2. Location of Timber Processing Industry Employees

Table 4.1 shows that across the SEQ RFA region, there are 872 timber processing industry employees and that approximately 510 (58.5%) employees are estimated to be dependent upon the processing of crown hardwood within these industries.

Within the SEQ RFA region, the Maryborough TRC has the greatest concentration of timber processing industry employees, with 205 employees employed by industries within this TRC. Employees within the Maryborough TRC also have a high dependence on the crown hardwood allocation, with 73% of all employees dependent upon the crown native hardwood resource. It is also clear from Table 4.1, that timber processing industries within Maryborough generate the highest levels of employment within the TRC, although the timber salvage industry at Tiaro also generates significant levels of employment. It should also be noted in relation to Table 3.2, that all timber processing industries within the Maryborough TRC are solely dependent upon the Maryborough Sawmill Allocation Zone, with 75% of the resource drawn from this allocation zone being processed within Maryborough (Table 3.1). As the Maryborough TRC has the highest levels of industry employment and is wholly dependent upon crown resource drawn from the Maryborough allocation zone, any significant change in the availability of resource from this zone may affect employment within the Maryborough TRC.

The relationships discussed in the context of the Maryborough TRC and its dependence on resource from the Maryborough Sawmill Allocation Zone may be applied to other TRCs identified in Table 4.1. For instance, there are 92 employees within the Cooroy TRC, with the majority employed by industries in Cooroy. In addition Table 3.1 shows that 96% of employees within Cooroy are dependent upon the crown native hardwood allocation. Table 3.1 shows that industries within Cooroy are primarily dependent upon resource drawn from the Gympie and Kilcoy-Woodford Sawmill Allocation Zones and that therefore any change in resource availability from these zones may have a significant impact within the Cooroy TRC and in particular industries based in Cooroy.

Table 4.1. Timber Processing Industries and Employment

Town Resource Cluster	Percent Private Resource	Percent Crown Resource	Total Employment	Crown Hardwood Employees ¹
Beaudesert				
Beaudesert	76.21	23.79	24	6
Total			24	6
Blackbutt				
Linville	24.89	75.11	14	11
Blackbutt	37.06	62.94	4	3
Total			18	14
Boonah				
Boonah	ND	ND	10	ND
Total			10	ND
Brisbane				
Fernvale	98.03	1.97	10	1
Total			10	1
Bundaberg				
Bundaberg	55.83	44.17	50	22
Thabeban	97.34	2.66	18	1
Total			68	23
Cooroy				
Cooroy	2.82	97.18	83	81
Yandina	81.61	18.39	9	2
Total			92	83
Gatton				
Gatton	78.69	21.31	13	3
Laidley	98.25	1.75	12	1
Ravensbourne	46.95	53.05	5	3
Total			30	7
Gladstone				
Benarby	88.13	11.87	2	1
Builyan	26.97	73.03	19	14
Total			21	15
Gympie				
Gympie	37.75	62.25	25	16
North Deep Creek	64.13	35.87	31	11
Total			56	27
Killarney				
Killarney	73.69	26.31	24	6
Total			24	6
Maryborough				
Maryborough	61.04	38.96	116	45
Tiaro	ND	ND	63	ND
Brooweena	47.10	52.90	16	8
Howard	94.23	5.77	6	1
North Aramara	72.28	27.72	4	1
Total			205	55
Monto				
Monto	39.73	60.27	23	14
Mulgildie	58.08	41.92	12	5
Total			35	19
Mundubbera				
Eidsvold	25.42	74.58	35 ²	18
Mundubbera	56.12	43.88	28	12
Allies Creek	48.20	51.80	22	11
Total			85	41
Rockhampton				
Rockhampton	37.48	62.52	23	14
Dingo	26.34	73.66	10	7
Total			33	21

Continued...

Table 4.1. Timber Processing Industries and Employment (Continued)

Town Resource Cluster	Percent Private Resource	Percent Crown Resource	Total Employment	Crown Hardwood Employees ¹
Wondai				
Wondai	72.78	27.22	28	7
Total			28	7
Woodford				
Woodford	31.47	68.53	22	15
Caboolture	0.00	100.00	13	13
Eudlo	35.89	64.11	12	8
Peachester	43.63	56.37	9	5
Conondale	4.10	95.90	4	4
Total			60	45
Jandowae ³	ND	ND	22	ND
TABLE TOTAL			821	370

Note: ¹The proportion of crown hardwood resource to the total resource processed by an industry is used to estimate the number of employees involved in the processing of crown hardwood resource. Caution should be used when interpreting this estimate, as there are a number of other factors in addition to timber volumes, which determine the number of employees within any timber processing industry. In addition the totals in this column do not include any salvage industries as the proportion of private and crown resource is not available for salvage industries.

²Includes 11 employees from a timber salvage industry in Eidsvold

³Jandowae, which has a timber salvage industry, is not within the SEQ RFA Region
Rows in italics indicate a timber salvage industry.

ND indicates that no data is currently available.

Source: Based on information provided by DPI-Forestry as at November, 1998.

Prepared by: EBC (1998)

Table 4.1 shows the location of timber processing industries within TRCs and towns and the number of employees within each industry, however, the town location of the industry is not necessarily the residential location of industry employees. Table 4.2 shows the number of employees of timber processing industries who are resident within specific towns in each TRC. In addition, Table 4.2 shows the number of family dependents of timber industry employees within each town. The number of family dependents includes the timber industry employee as is derived using a family dependents multiplier of 3.00, which was obtained from an analysis of the timber industry employees survey.

The Maryborough TRC has the highest number of resident employees, with the town of Maryborough estimated as having 152 timber processing industry employees. Other TRCs with a significant number of resident timber industry employees include Cooroy (96), Mundubbera (77) and Bundaberg (70). While Maryborough is the town with the highest number of forest industry employees, towns such as Gympie (54) and Eidsvold (33) also have a significant number of timber industry employees. As indicated in Table 3.2, the majority of timber industries within each TRC have employees who are resident within the same TRC in which the industry is located. As such, knowing the source of the hardwood resource for specific TRCs (Table 3.1) provides an indication of the extent to which a change in the availability of that resource may impact on specific towns within the TRC in which timber industry employees are located.

Table 4.2. Town Location of Timber Processing Industry Employees

Town Resource Cluster	Number of Employees	Percentage Employees	Family Dependents
Rockhampton			
Rockhampton	22	61.1	66
Dingo	10	27.8	30
Broadsound Range	2	5.5	6
North Rockhampton	2	5.5	6
Total	36	100.0	108
Gladstone			
Builyan	16	84.2	48
Nagoorin	2	10.5	6
Bernarby	2	10.5	6
Many Peaks	1	5.3	3
Total	21	100.0	57
Monto			
Monto	32	91.4	96
Mulgildie	3	8.6	9
Total	35	100.0	105
Mundubbera			
Eidsvold	33	42.9	99
Mundubbera	28	36.4	84
Allies Creek	6	7.8	18
Binjour	5	6.5	15
Gayndah	3	3.9	9
Mongorobily	2	2.6	6
Total	77	100.0	231
Bundaberg			
Bundaberg	68	97.1	204
Biggenden	2	2.9	6
Total	70	100.0	210
Maryborough			
Maryborough	152	74.9	456
Tiaro	19	9.4	57
Hervey Bay	11	5.4	33
Aramara	7	3.4	21
Howard	6	2.9	18
Brooweena	4	2.0	12
Tinana	4	2.0	12
Total	203	100.0	609
Gympie			
Gympie	54	72.3	162
Imbil	7	9.4	21
Kandanga	4	5.4	12
Amamoor	2	2.7	6
Chatsworth	2	2.7	6
Curra	2	2.7	6
Woolooga	2	2.7	6
Cinnabar	1	1.3	3
Total	74	100.0	228
Wondai			
Wondai	20	76.9	60
Kingaroy	6	23.1	18
Total	26	100.0	78
Blackbutt			
Linville	7	38.9	21
Moore	4	22.2	12
Blackbutt	4	22.2	12
Kilcoy	2	11.1	6
Esk	1	5.5	3
Total	18	100.0	54
Cooroy			
Cooroy	26	27.1	78
Yandina	18	18.7	54
Pomona	9	9.4	27

Table 4.2. Town Location of Timber Processing Industry Employees (continued)

Town Resource Cluster	Number of Employees	Percentage Employees	Family Dependents
Tewantin	8	8.3	24
Noosa	7	7.3	21
Kenilworth	6	6.2	18
Nambour	4	4.2	12
Cooran	3	3.1	9
Maroochydore	3	3.1	9
Belli Park	2	2.1	6
Eumundi	2	2.1	6
Flaxton	2	2.1	6
North Arm	2	2.1	6
Palmwoods	2	2.1	6
Ridgewood	2	2.1	6
Total	96	100.0	288
Woodford			
Caboolture	16	26.2	48
Kilcoy	11	18.0	33
Woodford	11	18.0	33
Beerwah	4	6.6	12
Conondale	4	6.6	12
Eudlo	4	6.6	12
Glass House Mountain	4	6.6	12
Caloundra	2	3.3	6
Kallangur	1	1.6	3
Landsborough	1	1.6	3
Peachester	1	1.6	3
Redcliffe	1	1.6	3
Villeneuve	1	1.6	3
Total	61	100.0	183
Brisbane			
Brisbane	5	45.5	15
Fernvale	4	36.4	12
Lowood	2	18.2	6
Total	11	100.0	33
Gatton			
Gatton	12	38.7	36
Laidley	7	22.5	21
Ravensbourne	5	16.1	15
Forest Hill	2	6.4	6
Plainland	2	6.4	6
Murgon	1	3.2	3
Thornton	1	3.2	3
Toowoomba	1	3.2	3
Total	31	100.0	135
Killarney			
Cottonvale	2	7.7	6
Killarney	24	92.3	72
Total	26	100.0	78
Boonah			
Boonah	10	100.0	30
Total	10	100.0	30
Beaudesert			
Beaudesert	24	100.0	72
Total	24	100.0	72
Gold Coast			
Broadbeach	1	100.0	3
Total	1	100.0	3
Jandowae	22	100.0	66
TABLE TOTAL	842	100.0	2,568

Note: *The number of family dependents includes the employee. Based on a family dependents multiplier of 3.00 derived from survey research (n=316).*

5. Timber Contracting Industries and Employees

Table 5.1 shows the relationship between the TRC in which the contractor is located and the TRC in which the industry client of the contractor is located. The high percentages in the diagonal of Table 5.1 suggest that timber industry contractors are located within the same or adjacent TRC's in which their industry clients are also located. For instance, 50% of contractors within the Gympie TRC undertake contracting work for industries within the Gympie TRC. The remaining 50% of contractors within the Gympie TRC undertake work for industries within the adjacent TRCs of Wondai and Cooroy.

The information presented in Table 5.1 indicates that if there is a change in the level of activity of timber processing industries within a TRC which is likely to affect the employment of industry contractors, it is likely that it is those contractors within the same TRC as the industry client that are most likely to be affected.

Table 5.1. Relationship Between Timber Contracting Industry and Industry Client

TRC's Industry Client	TRCs (Location of Contractor Industry)												
	Rockhampton	Gladstone	Monto	Bundaberg	Maryborough	Gympie	Wondai	Blackbutt	Cooroy	Woodford	Brisbane	Gatton	Gold Coast
Rockhampton	100.0	20.0	33.3	0.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gladstone	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monto	0.0	20.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mundubbera	0.0	0.0	0.0	100.0	20.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0
Bundaberg	0.0	20.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryborough	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gympie	0.0	0.0	0.0	0.0	6.7	50.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0
Wondai	0.0	20.0	33.3	0.0	0.0	16.7	80.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackbutt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	18.5	0.0	0.0	0.0
Cooroy	0.0	0.0	0.0	0.0	0.0	33.3	0.0	11.1	50.0	14.8	0.0	0.0	0.0
Woodford	0.0	0.0	0.0	0.0	13.3	0.0	0.0	11.1	25.0	37.0	0.0	0.0	0.0
Brisbane	0.0	0.0	0.0	0.0	6.7	0.0	20.0	22.2	25.0	11.1	75.0	0.0	0.0
Gatton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	3.7	0.0	100.0	0.0
Boonah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Beaudesert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	25.0	0.0	50.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Based on a survey of contractors within the SEQ RFA region.

Source: EBC (1998)

Table 5.2 also shows that those contractors who work in logging areas or State Forests are likely to work in those logging areas or State Forests which are in close proximity to the TRC in which the contractor is located. For instance, 83% of the logging areas or state forests used by contractors within the Gympie TRC are located within Gympie Sawmill Allocation Zone. Similarly, 75% of logging areas or State Forests used by contractors within the Rockhampton TRC are located in the Duinga-Dingo Sawmill Allocation Zone. The findings presented in Table 5.2 suggest that if there is any change in access to or the availability of resource within a specific Sawmill Allocation Zone, then this is most likely to affect those contractors in towns in close proximity to the specific allocation zone.

Table 5.2. Use of Resource by Timber Contracting Industries Located Within TRCs

SAZ's	Town Resource Clusters									
	Rock-hampton	Glad-stone	Mary-borough	Gympie	Wondai	Black-butt	Cooroy	Wood-ford	Brisbane	Gatton
Duaranga-Dingo	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Builyan-Gladstone	12.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bundaberg	0.0	0.0	4.5	0.0	0.0	16.7	4.3	0.0	0.0	0.0
Eidsvold-Monto	12.5	0.0	9.1	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Gayndah-Mundubbera	0.0	0.0	9.1	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Maryborough	0.0	0.0	4.5	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Murgon-Wondai	0.0	0.0	9.1	0.0	18.8	8.3	4.3	0.0	0.0	12.5
Gympie	0.0	0.0	31.8	83.3	50.0	25.0	43.5	17.1	0.0	25.0
North Coast Zone	0.0	0.0	9.1	5.6	0.0	8.3	21.7	45.7	0.0	25.0
Yarraman-Toowoomba	0.0	0.0	9.1	0.0	0.0	8.3	0.0	8.6	0.0	12.5
Kilcoy-Woodford	0.0	0.0	13.6	11.1	31.3	16.7	21.7	17.1	0.0	12.5
Gatton-Toogoolawah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	12.5
Brisbane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	100.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Based on a survey of forest industry contractors within the SEQ RFA region.

Values in bold indicate SAZ's adjacent to specific TRCs.

Percentages based on the number of forest areas used.

Sawmill allocation zones ordered in relation to geographic proximity.

Source: EBC (1998).

5.1. Estimating the Population Size of Timber Contracting Industries

All timber processing and contracting industries were asked to indicate the number of sub contractors they had used within the last 12 months and the type of sub contractor they had used. Ninety-percent of timber processing industries had used sub contractors within the last 12 months. Amongst contractors themselves, 39.5% had used subcontractors within the last 12 months. The type of sub contractor used varied considerably and included harvesting and transport subcontractors as well as electricians, maintenance and equipment service sub contractors and mechanics.

Amongst the timber processing industries the median number of sub contractors used was 7.0, while amongst contractors the median number of sub contractors used by each business was 2.0. It was found that amongst contractors, that they had been contracted by an average of 2.2 timber processing industries within the last 12 months. In order to provide some estimate of the number of sub contracting businesses dependent upon timber processing industries, it was assumed that the 41 timber processing and salvage industries reliant on hardwood resource had an average of 7.0 sub contractors, which would identify 287 sub contractors. However, as several of the timber processing industries may have contracted the same sub contractor, the total of 287 sub contractors was divided by 2.2, to provide a more accurate estimate of the number of individual sub contractors used. Through such a process it was estimated that there were 130 sub contractors, who to varying levels, were dependent upon contract work from the 41 timber processing and salvage industries within the SEQ RFA region.

It was also found that amongst the timber processing industries an average of 2.2 harvesting and transport contractors were used within the last year. Across the 41 timber processing and salvage industries this would indicate 41 harvesting and transport contractors who were at some level dependent on contract work from the timber processing and salvage industries (Nos. of Harvesting and Transport Contractors = $(2.19 * 41)/2.2$).

In summary, it was estimated that the 41 timber processing and salvage industries used 130 independent contractors within the last year and that 41 of these contractors (31.5%) were involved in the harvesting and transportation of timber products.

Across all contracting industries, survey research indicated the median number of employees within a contracting business to be 4.0. Using this estimate, the 130 contracting businesses contracted to timber processing and salvage industries had an estimated 520 employees and the 41 harvesting and transport industries had an estimated 164 employees.

It should be noted that in estimating the population size of timber processing contractors and the number of employees within these industries, no attempt has been made to proportion contractors and their employees on the basis of the percentage of private and crown resource accessed by these industries.

6. Location of Apiarists and Graziers¹

Table 6.1 shows the use of forest areas by apiarists who have their business located within specific town resource clusters. For instance, and in relation to Table 6.1, 35.7% of forest areas used by apiarists located within the Bundaberg TRC are located within the Maryborough Sawmill Allocation Zone. Similarly, 35.3% of forest areas used by apiarists located within the Maryborough TRC are located within the Maryborough Sawmill Allocation Zone. As the TRCs and SAZs are each ordered in relation to their approximate geographic proximity, high percentages in the diagonal of Table 6.1 would be expected if there were specific catchments evident between TRCs and Sawmill Allocation Zones. An inspection of Table 6.1 shows that there is some evidence for geographic catchments between TRC and Sawmill Allocation zones, with many apiarists using forest areas in close proximity to the location of their business. Some caution should be used in the interpretation of Table 6.1 as it is based on information derived from a survey of apiarists, where there was a 39% response rate (Table 2.1), and not a complete census of all apiarists.

Table 6.1. Use of Resource by Apiarists Located Within TRCs

SAZ's	Town Resource Clusters								
	Bunda- berg	Mary- borough	Gympie	Wondai	Cooroy	Woodford	Brisbane	Gatton	Killarney
Builyan-Gladstone	0.0	5.9	0.0	0.0	10.0	4.8	0.0	0.0	0.0
Bundaberg	28.6	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eidsvold-Monto	0.0	0.0	6.3	0.0	10.0	0.0	0.0	0.0	0.0
Gayndah-Mundubbera	7.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryborough	35.7	35.3	0.0	0.0	0.0	0.0	5.9	0.0	0.0
Murgon-Wondai	0.0	0.0	12.5	60.0	0.0	0.0	0.0	0.0	0.0
Gympie	7.1	29.4	68.8	0.0	20.0	4.8	5.9	0.0	0.0
North Coast Zone	7.1	5.9	0.0	0.0	20.0	33.3	0.0	0.0	0.0
Yarraman-Toowoomba	0.0	5.9	0.0	0.0	20.0	9.5	0.0	0.0	0.0
Kilcoy-Woodford	14.3	5.9	12.5	40.0	20.0	38.1	29.4	0.0	0.0
Boonah-Warwick	0.0	0.0	0.0	0.0	0.0	0.0	11.8	100.0	100.0
Gatton-Toogoolawah	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
Brisbane	0.0	0.0	0.0	0.0	0.0	9.5	41.2	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Based on a survey of apiarists within the SEQ RFA region.
Percentages based on the number of forest areas used.
Sawmill allocation zones ordered in relation to geographic proximity.

Source: EBC (1998)

Table 6.2 shows that approximately 43% of apiarist businesses are located within the Woodford and Brisbane TRCs. As Table 6.1 shows that the majority of apiarists within the Woodford and Brisbane TRCs use resource in the North Coast, Kilcoy-Woodford and Brisbane zones, any change in access to resource within these zones is likely to have a significant impact on apiarists within the Woodford and Brisbane TRCs.

Table 6.2 also shows that the majority of holders of Stock Grazing Permits are found within the three TRCs of Gympie, Maryborough and Woodford. In the case of special and term lease holders, Table 6.2 shows the majority of lease holders to be located in Monto and Mundubbera.

¹ The term grazier is defined as all those individuals and businesses who are holders of Stock Grazing Permits (SGP)

Table 6.2. Location of Apiarists and Graziers Across TRCs

TRC's	Apiarists		Stock Grazing Permit Holders		Special Lease Holders		Total Permit & Lease Holders	
	Count	%	Count	%	Count	%	Count	%
Rockhampton	2	1.0	1	0.3	3	1.2	4	0.7
Gladstone	1	0.5	1	0.3	27	10.7	28	5.0
Monto	0	0.0	0	0.0	39	15.5	39	6.9
Mundubbera	0	0.0	0	0.0	58	23.0	58	10.3
Bundaberg	10	4.9	30	9.7	34	13.5	64	11.4
Maryborough	21	10.2	67	21.6	15	6.0	82	14.6
Gympie	19	9.2	71	22.9	10	4.0	81	14.4
Wondai	14	6.8	15	4.8	6	2.4	21	3.7
Blackbutt	0	0.0	25	8.1	14	5.6	39	6.9
Cooroy	28	13.6	19	6.1	1	0.4	20	3.6
Woodford	47	22.8	56	18.1	14	5.6	70	12.5
Brisbane	42	20.4	13	4.2	23	9.1	36	6.4
Gatton	5	2.4	2	0.6	7	2.8	9	1.6
Killarney	10	4.9	6	1.9	0	0.0	6	1.1
Boonah	0	0.0	2	0.6	0	0.0	2	0.4
Beaudesert	1	0.5	0	0.0	0	0.0	0	0.0
Gold Coast	6	2.9	2	0.6	1	0.4	3	0.5
Total	206	100.0	310	100.0	252	100.0	562	100.0

Source: DPI-Forestry.

Prepared By: EBC (1998).

Table 6.3 and Figures 3 to 18 show the town location of other forest users within specific TRCs. While Table 6.2 showed the majority of apiarists were located within the Woodford TRC, Table 6.3 indicates that approximately a third of these businesses are located in the town of Caboolture. In the case of Stock Grazing permits, and while Table 6.2 shows the majority of permit holders are located within the Gympie TRC, Table 6.3 suggests the permit holders themselves to be located in or near the town of Gympie.

Table 6.3. Town Location of Apiarists and Graziers Within TRCs

TRC's	Apiarists		Stock Grazing Permit Holders		Special Lease Holders		Total Permit & Lease Holders	
	Count	%	Count	%	Count	%	Count	%
Rockhampton								
Rockhampton	1	50.0	1	100.0	0	0.0	1	25.0
Yeppoon	1	50.0	0	0.0	0	0.0	0	0.0
Many Peaks	0	0.0	0	0.0	1	33.3	1	25.0
Gracemere	0	0.0	0	0.0	1	33.3	1	25.0
Dululu	0	0.0	0	0.0	1	33.3	1	25.0
Total	2	100.0	1	100.0	3	100.0	4	100.0
Gladstone								
Boyne Island	1	100.0	0	0.0	0	0.0	0	0.0
Calliope	0	0.0	1	100.0	3	11.1	4	14.3
Gladstone	0	0.0	0	0.0	7	25.9	7	25.0
Builyan	0	0.0	0	0.0	4	14.8	4	14.3
Ubobo	0	0.0	0	0.0	3	11.1	3	10.7
Lowmead	0	0.0	0	0.0	3	11.1	3	10.7
Bororen	0	0.0	0	0.0	3	11.1	3	10.7
Mount Larcom	0	0.0	0	0.0	2	7.4	2	7.1
Miriam Vale	0	0.0	0	0.0	2	7.4	2	7.1
Total	1	100.0	1	100.0	27	100.0	28	100.0
Monto								
Monto	0	0.0	0	0.0	31	81.6	31	81.5
Biloela	0	0.0	0	0.0	5	13.2	5	13.1
Thangool	0	0.0	0	0.0	1	2.6	1	2.6
Mulgildie	0	0.0	0	0.0	1	2.6	1	2.6
Total	0	0.0	0	0.0	38	100.0	38	100.0

Continued...

Table 6.3. Town Location of Apiarists and Graziers Within TRCs (Continued)

TRC's	Apiarists		Stock Grazing Permit Holders		Special Lease Holders		Total Permit & Lease Holders	
	Count	%	Count	%	Count	%	Count	%
Mundubbera								
Mundubbera	0	0.0	0	0.0	25	43.1	25	43.1
Eidsvold	0	0.0	0	0.0	24	41.4	24	41.4
Gayndah	0	0.0	0	0.0	9	15.5	9	15.5
Total	0	100.0	0	0.0	58	100.0	58	100.0
Bunbedarg								
Kalbar	3	25.0	2	6.7	0	0.0	2	3.1
Childers	2	16.7	7	23.3	0	0.0	7	10.9
Cordalba	2	16.7	2	6.7	0	0.0	2	3.1
Childers	2	16.7	0	0.0	1	2.9	1	1.6
Bundaberg	1	8.3	10	33.3	6	17.6	16	25.0
Biggenden	1	8.3	6	20.0	5	14.7	11	17.2
Gin Gin	1	8.3	3	10.0	13	38.2	16	25.0
Mt Perry	0	0.0	0	0.0	4	11.8	4	6.2
Rosedale	0	0.0	0	0.0	2	5.9	2	3.1
Yandaran	0	0.0	0	0.0	1	2.9	1	1.6
South Kolan	0	0.0	0	0.0	1	2.9	1	1.6
North Bundaberg	0	0.0	0	0.0	1	2.9	1	1.6
Total	12	100.0	30	100.0	34	100.0	64	100.0
Maryborough								
Maryborough	17	81.0	29	43.3	7	46.7	36	43.9
Tinana	2	9.5	2	3.0	0	0.0	2	2.4
Granville	1	4.8	0	0.0	0	0.0	0	0.0
Hervey Bay	1	4.8	0	0.0	0	0.0	0	0.0
Tiaro	0	0.0	9	13.4	0	0.0	9	11.0
Brooweena	0	0.0	6	9.0	4	26.7	10	12.2
Howard	0	0.0	6	9.0	0	0.0	6	7.3
Pialba	0	0.0	4	6.0	0	0.0	4	4.9
Torbanlea	0	0.0	4	6.0	0	0.0	4	4.9
Gundiah	0	0.0	2	3.0	0	0.0	2	2.4
Pilerwa	0	0.0	2	3.0	0	0.0	2	2.4
Bauple	0	0.0	1	1.5	0	0.0	1	1.2
Toogoom	0	0.0	1	1.5	0	0.0	1	1.2
Point Vernon	0	0.0	1	1.5	0	0.0	1	1.2
Urangan	0	0.0	0	0.0	2	13.3	2	2.4
Torquay	0	0.0	0	0.0	1	6.7	1	1.2
Fraser Island	0	0.0	0	0.0	1	6.7	1	1.2
Total	21	100.0	67	100.0	15	100.0	82	100.0
Gympie								
Gympie	14	73.7	37	52.1	1	10.0	38	38.3
Gunalda	3	15.8	5	7.0	1	10.0	6	7.4
Kilkivan	1	5.3	6	8.5	1	10.0	7	7.4
Curra	1	5.3	0	0.0	0	0.0	0	0.0
Kandanga	0	0.0	6	8.5	0	0.0	6	7.4
Imbil	0	0.0	4	5.6	3	30.0	7	7.4
Brooloo	0	0.0	2	2.8	0	0.0	2	2.5
Dagun	0	0.0	2	2.8	0	0.0	2	2.5
Amamoor	0	0.0	2	2.8	0	0.0	2	2.5
Widge	0	0.0	1	1.4	1	10.0	2	2.5
Neerdie	0	0.0	1	1.4	0	0.0	1	1.2
Kin Kin	0	0.0	1	1.4	0	0.0	1	1.2
Woolooga	0	0.0	1	1.4	0	0.0	1	1.2
Miva	0	0.0	1	1.4	0	0.0	1	1.2
Coondoo	0	0.0	1	1.4	0	0.0	1	1.2
Tin Can Bay	0	0.0	1	1.4	0	0.0	1	1.2
Wolvi	0	0.0	0	0.0	1	10.0	1	1.2
Upper Widgee	0	0.0	0	0.0	1	10.0	1	1.2
Glastonbury	0	0.0	0	0.0	1	10.0	1	1.2
Total	19	100.0	71	100.0	10	100.0	81	100.0

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Table 6.3. Town Location of Apiarists and Graziers Within TRCs (Continued)

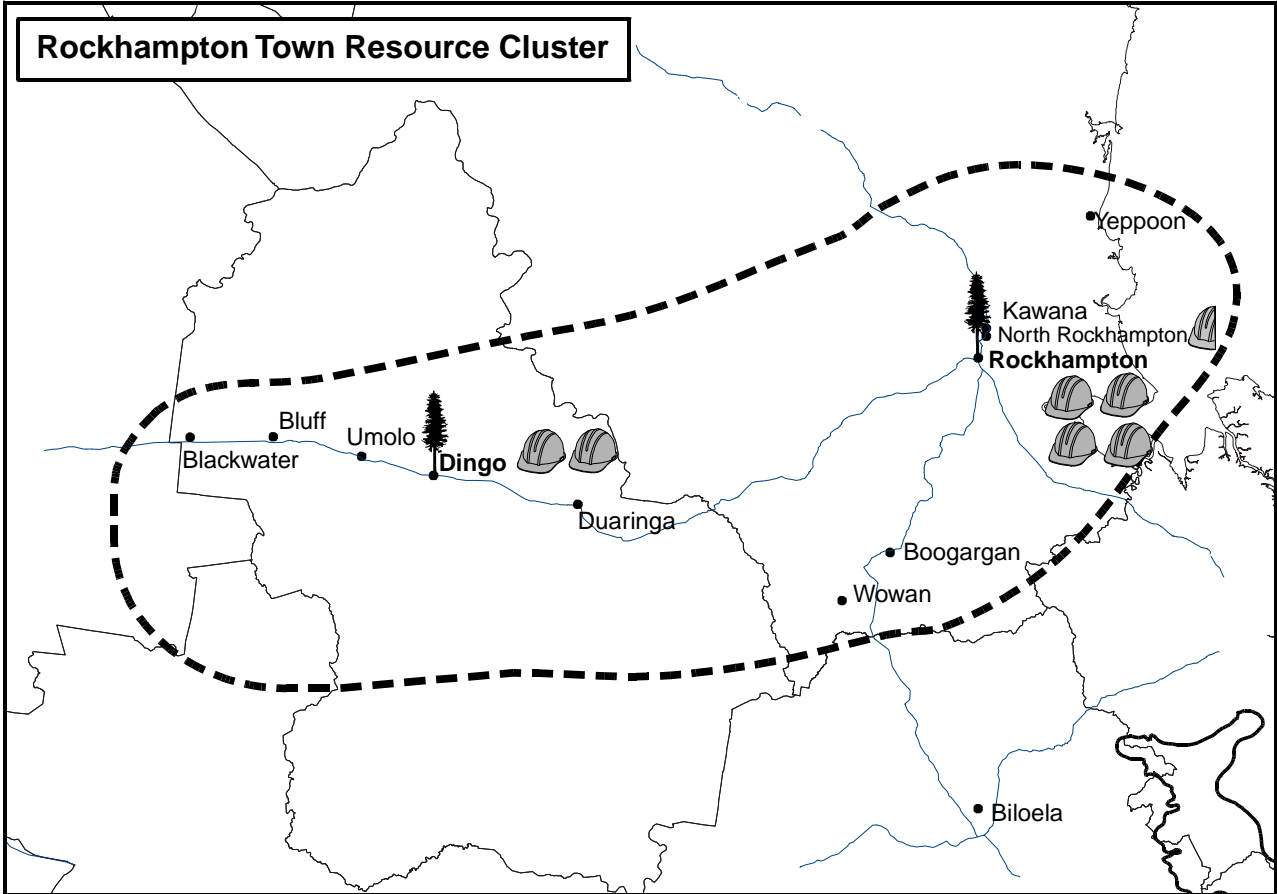
TRC's	Apiarists		Stock Grazing Permit Holders		Special Lease Holders		Total Permit & Lease Holders	
	Count	%	Count	%	Count	%	Count	%
Wondai								
Kingaroy	7	50.0	6	40.0	1	16.7	7	33.3
Goomeri	2	14.3	7	46.7	0	0.0	7	33.3
Murgon	2	14.3	1	6.7	2	33.3	3	14.3
Wondai	2	14.3	1	6.7	0	0.0	1	4.8
Proston	1	7.1	0	0.0	3	50.0	3	14.3
Total	14	100.0	15	100.0	6	100.0	21	100.0
Blackbutt								
Blackbutt	0	0.0	8	32.0	3	21.4	11	28.2
Nanango	0	0.0	7	28.0	2	14.3	9	23.1
Toogoolawah	0	0.0	3	12.0	1	7.1	4	10.3
Moore	0	0.0	3	12.0	0	0.0	3	7.7
Linville	0	0.0	2	8.0	4	28.6	6	15.4
Esk	0	0.0	1	4.0	2	14.3	3	7.7
Benarkin	0	0.0	1	4.0	1	7.1	2	5.1
Somerset Dam	0	0.0	0	0.0	1	7.1	1	2.6
Total	0	0.0	25	100.0	14	100.0	39	100.0
Cooroy								
Nambour	7	25.0	6	31.6	0	0.0	6	30.0
Cooroy	7	25.0	1	5.3	0	0.0	1	5.0
Tewantin	3	10.7	0	0.0	0	0.0	0	0.0
Pomona	2	7.1	1	5.3	0	0.0	1	5.0
Buderim	2	7.1	0	0.0	0	0.0	0	0.0
Yandina	2	7.1	0	0.0	0	0.0	0	0.0
Kenilworth	1	3.6	5	26.3	0	0.0	5	25.0
Bli Bli	1	3.6	0	0.0	0	0.0	0	0.0
Mapleton	1	3.6	0	0.0	0	0.0	0	0.0
Nanango	1	3.6	0	0.0	0	0.0	0	0.0
North Arm	1	3.6	0	0.0	0	0.0	0	0.0
Eumundi	0	0.0	2	10.5	0	0.0	2	10.0
Palmwoods	0	0	1	5.3	1	100.0	2	10.0
Warana	0	0.0	1	5.3	0	0.0	1	5.0
Cooran	0	0.0	1	5.3	0	0.0	1	5.0
Woombye	0	0.0	1	5.3	0	0.0	1	5.0
Total	28	100.0	19	100.0	1	100.0	20	100.0
Woodford								
Caboolture	14	29.8	4	7.3	1	7.1	5	7.2
Deception Bay	5	10.6	1	1.8	0	0.0	1	1.4
Kilcoy	4	8.5	26	47.3	9	64.3	35	50.7
Bray Park	3	6.4	0	0.0	0	0.0	0	0.0
Morayfield	3	6.4	0	0.0	0	0.0	0	0.0
Woodford	2	4.3	8	14.5	0	0.0	8	11.6
Dayboro	1	2.1	3	5.5	0	0.0	3	4.3
Beerurrum	1	2.1	3	5.5	0	0.0	3	4.3
Caloundra	1	2.1	1	1.8	0	0.0	1	1.4
Margate	1	2.1	1	1.8	0	0.0	1	1.4
Beerwah	1	2.1	0	0.0	1	7.1	1	1.4
Beachmere	1	2.1	0	0.0	0	0.0	0	0.0
Brighton	1	2.1	0	0.0	0	0.0	0	0.0
Currimundi	1	2.1	0	0.0	0	0.0	0	0.0
Glasshouse Mtns	1	2.1	0	0.0	0	0.0	0	0.0
Kallangur	1	2.1	0	0.0	0	0.0	0	0.0
Nerang	1	2.1	0	0.0	0	0.0	0	0.0
Ningi	1	2.1	0	0.0	0	0.0	0	0.0
Redcliffe	1	2.1	0	0.0	0	0.0	0	0.0
Samsonvale	1	2.1	0	0.0	0	0.0	0	0.0
Scarborough	1	2.1	0	0.0	0	0.0	0	0.0
Whiteside	1	2.1	0	0.0	0	0.0	0	0.0
Maleny	0	0.0	4	7.3	2	14.3	6	8.7
Woody Point	0	0.0	1	1.8	1	7.1	2	2.9
Bellthorpe	0	0.0	1	1.8	0	0.0	1	1.4
Daguilar	0	0.0	2	3.6	0	0.0	2	2.9
Total	47	100.0	55	100.0	14	100.0	69	100.0

Table 6.3. Town Location of Apiarists and Graziers Within TRCs (Continued)







TRC's	Apiarists		Stock Grazing Permit Holders		Special Lease Holders		Total Permit & Lease Holders	
	Count	%	Count	%	Count	%	Count	%
Brisbane								
Brisbane & Suburbs	17	41.5	6	50.0	18	75.0	24	66.7
Wynnum	2	4.9	0	0.0	0	0.0	0	0.0
Woodridge	1	2.4	0	0.0	0	0.0	0	0.0
Wellington Pt	1	2.4	0	0.0	0	0.0	0	0.0
Springwood	1	2.4	0	0.0	1	4.2	1	2.8
Redbank Plains	0	0.0	1	8.3	0	0.0	1	2.8
Peak Crossing	1	2.4	0	0.0	0	0.0	0	0.0
Pallara	1	2.4	0	0.0	0	0.0	0	0.0
Mt Nebo	3	7.3	0	0.0	0	0.0	0	0.0
Mt Glorious	2	4.9	0	0.0	0	0.0	0	0.0
Luscombe	1	2.4	0	0.0	0	0.0	0	0.0
Lowood	0	0.0	1	8.3	1	4.2	2	5.6
Keperra	1	2.4	0	0.0	0	0.0	0	0.0
Ipswich	3	7.3	0	0.0	1	4.2	1	2.8
Haigslea	1	2.4	0	0.0	0	0.0	0	0.0
Goodna	1	2.4	0	0.0	0	0.0	0	0.0
Geebung	1	2.4	0	0.0	0	0.0	0	0.0
Fernvale	0	0.0	3	25.0	0	0.0	3	8.3
Carseldine	0	0.0	1	8.3	1	4.2	2	5.6
Bundamba	1	2.4	0	0.0	0	0.0	0	0.0
Booval	1	2.4	0	0.0	0	0.0	0	0.0
Bellbird Park	1	2.4	0	0.0	0	0.0	0	0.0
Beenleigh	1	2.4	0	0.0	1	4.2	1	2.8
Albany Creek	0	0.0	0	0.0	1	4.2	1	2.8
Total	41	100.0	12	100.0	24	100.0	36	100.0
Gatton								
Toowoomba	3	60.0	0	0.0	3	42.9	3	33.3
Laidley	1	20.0	1	50.0	0	0.0	1	11.1
Gatton	1	20.0	0	0.0	0	0.0	0	0.0
Crows Nest	0	0.0	1	50.0	1	14.3	2	22.2
Helidon	0	0.0	0	0.0	1	14.3	1	11.1
Haden	0	0.0	0	0.0	1	14.3	1	11.1
Goombungee	0	0.0	0	0.0	1	14.3	1	11.1
Total	5	100.0	2	100.0	7	100.0	9	100.0
Killarney								
Warwick	9	90.0	5	83.3	0	0	5	83.3
Killarney	1	10.0	0	0.0	0	0	0	0.0
Allora	0	0.0	1	16.7	0	0	1	16.7
Total	10	100.0	6	100.0	0	0	6	100.0
Boonah								
Boonah	0	0.0	2	100.0	0	0	2	0.0
Total	0	0.0	2	100.0	0	0	2	100.0
Beaudesert								
Beaudesert	1	100.0	0	0.0	0	0	0	0.0
Total	1	100.0	0	0.0	0	0	0	0.0
Gold Coast								
Nerang	2	33.3	0	0.0	0	0.0	0	0.0
Coomera	1	16.7	0	0.0	0	0.0	0	0.0
Currumbin	1	16.7	0	0.0	0	0.0	0	0.0
Mudgeeraba	1	16.7	0	0.0	0	0.0	0	0.0
Oxenford	1	16.7	0	0.0	0	0.0	0	0.0
Robina	0	0.0	1	50.0	0	0.0	1	33.3
Tallebudgera Valley	0	0.0	1	50.0	0	0.0	1	33.3
Numinbah Valley	0	0.0	0	0.0	1	100.0	1	33.3
Total	6	100.0	2	100.0	1	100.0	3	100.0

Source: DPI-Forestry

Prepared By: EBC (1998).



Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)

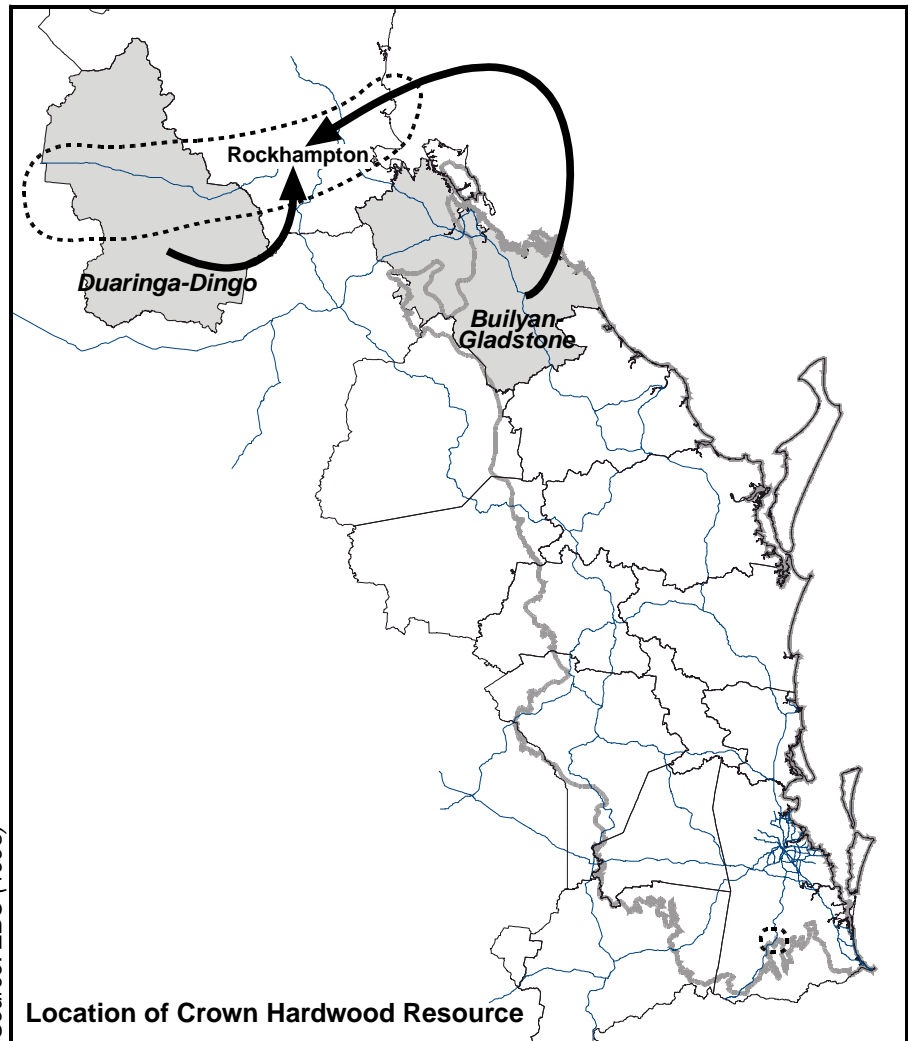
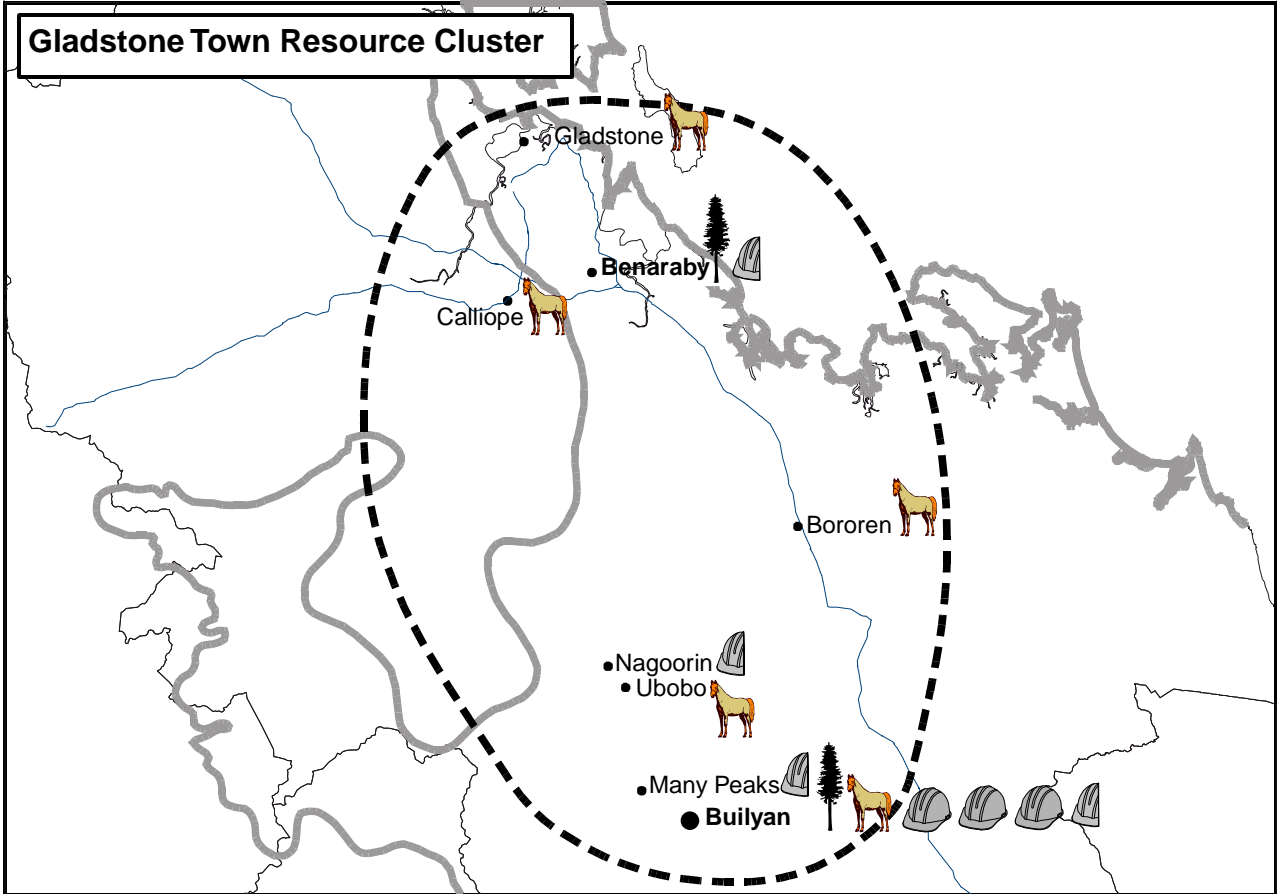






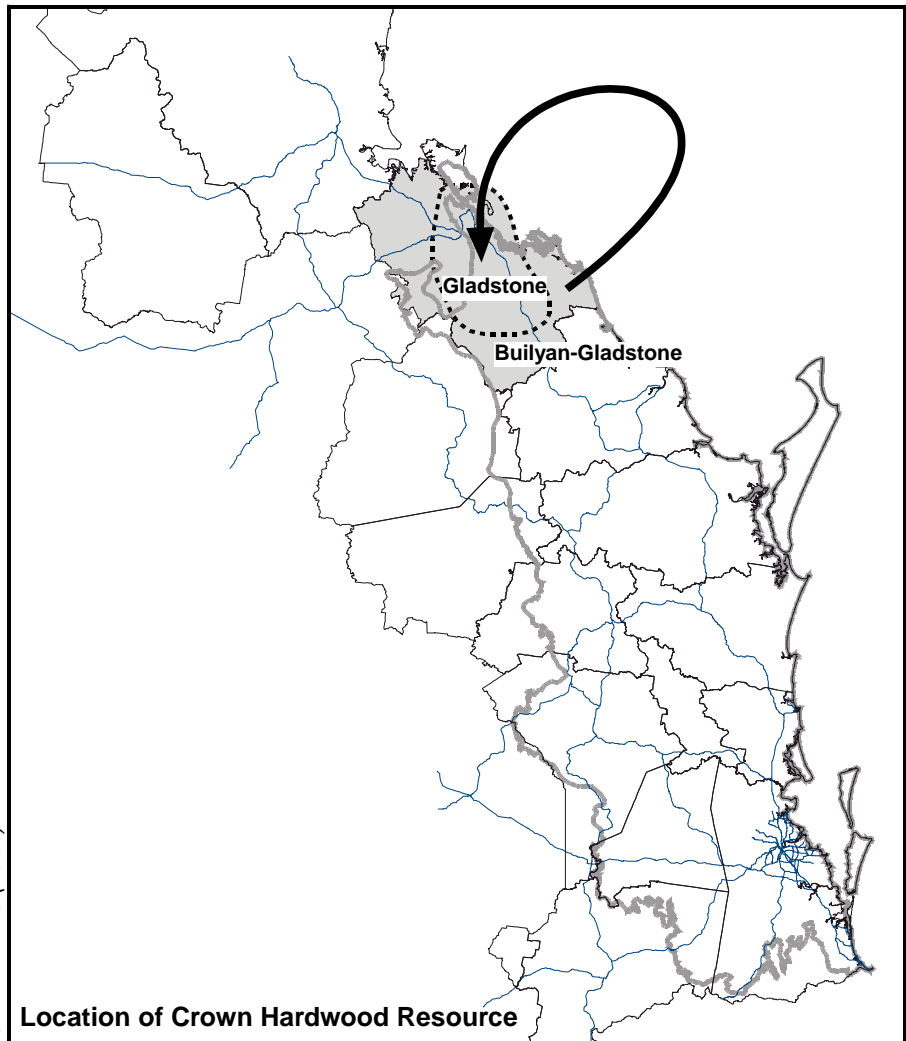


FIGURE 3. Rockhampton TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

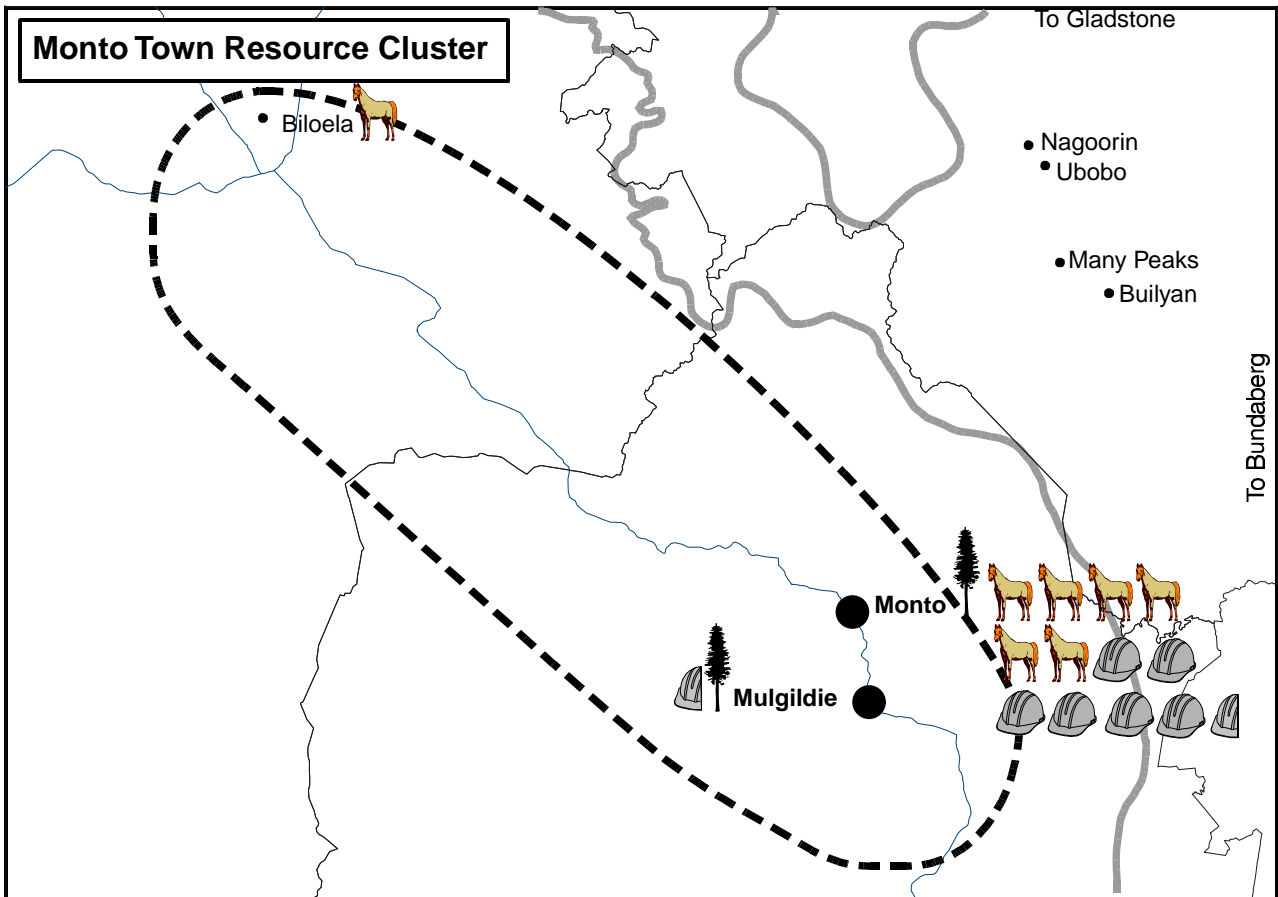
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

Location of Crown Hardwood Resource

FIGURE 4.
Gladstone TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)

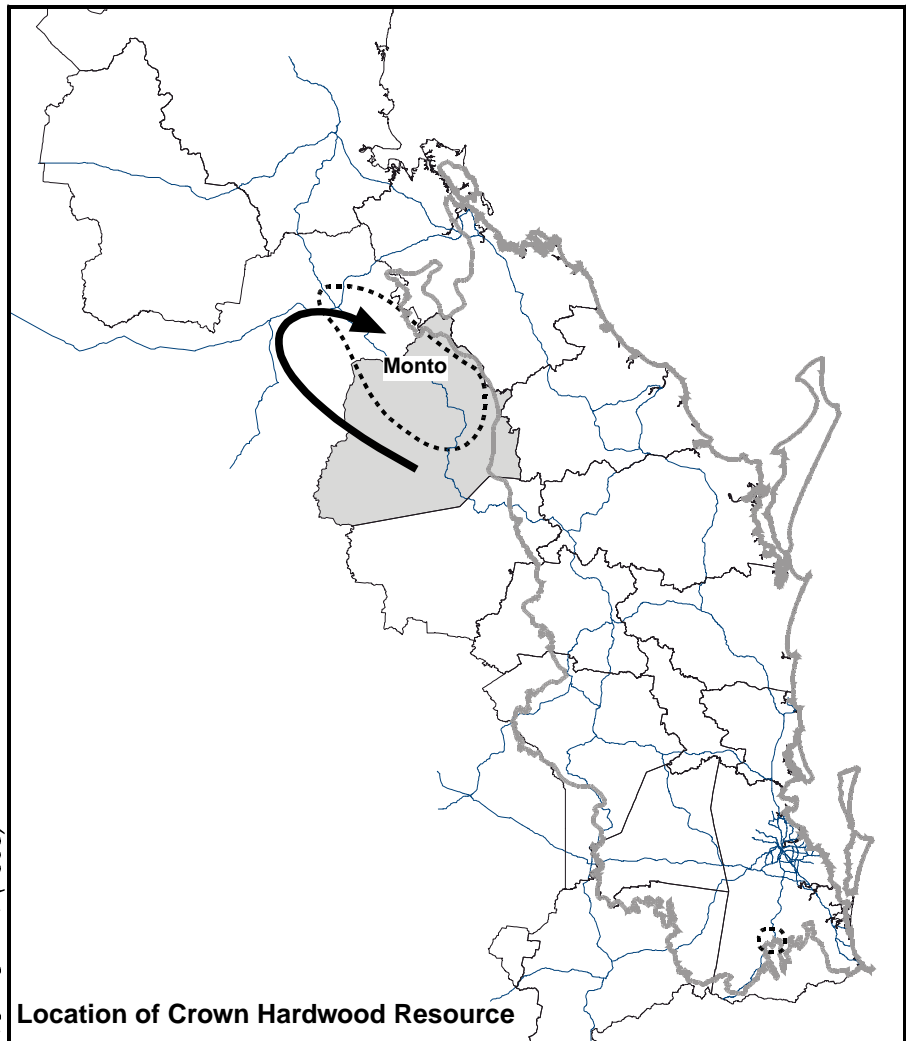
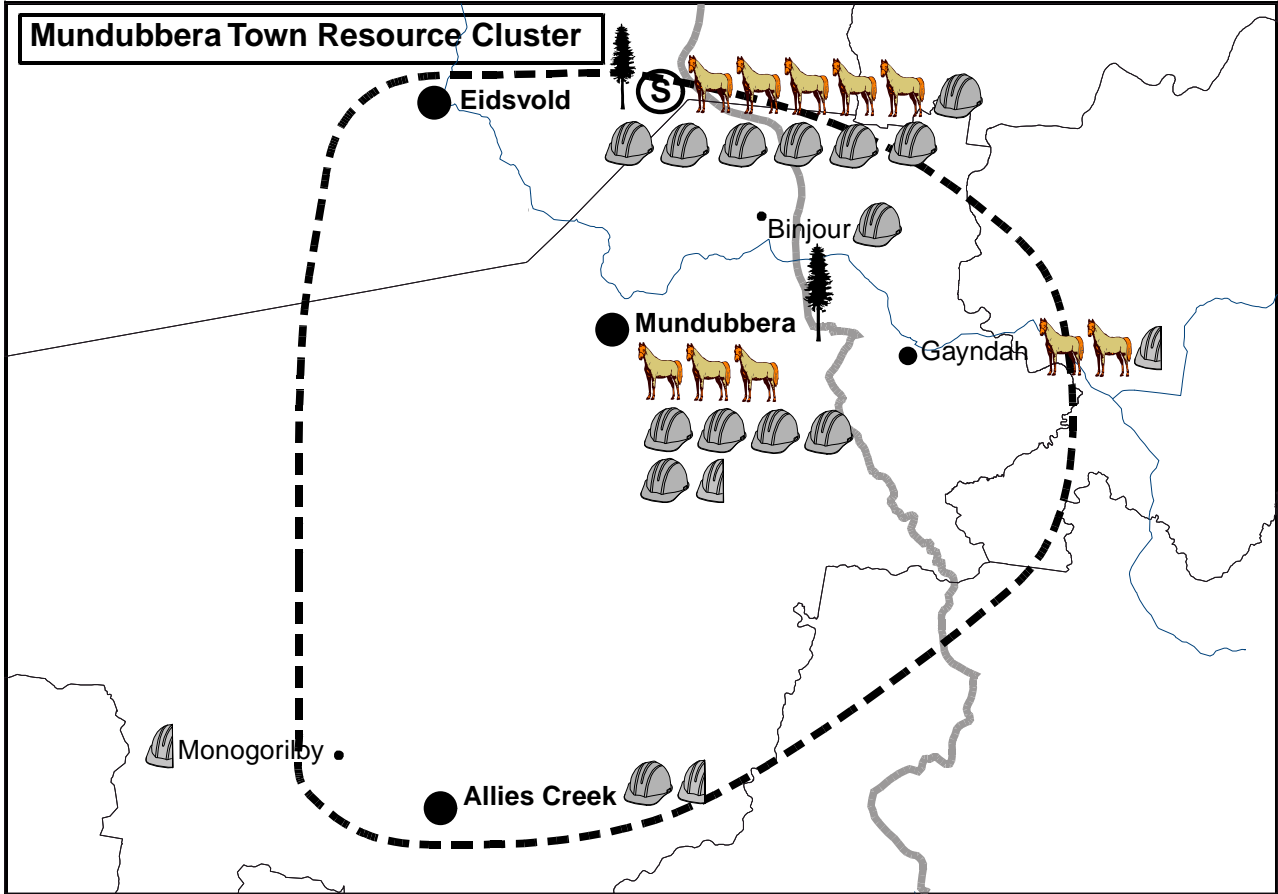






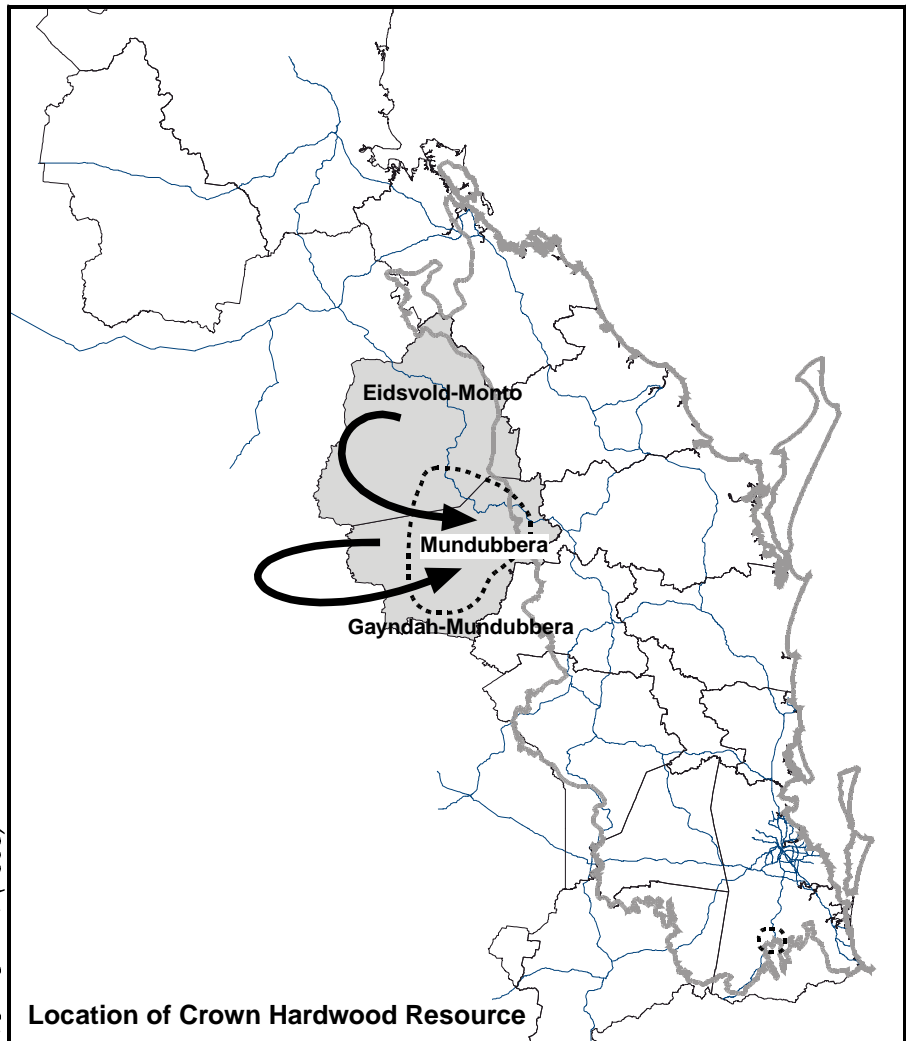


FIGURE 5. Monto TRC: Location of Forest Industries and Crown Hardwood Resource



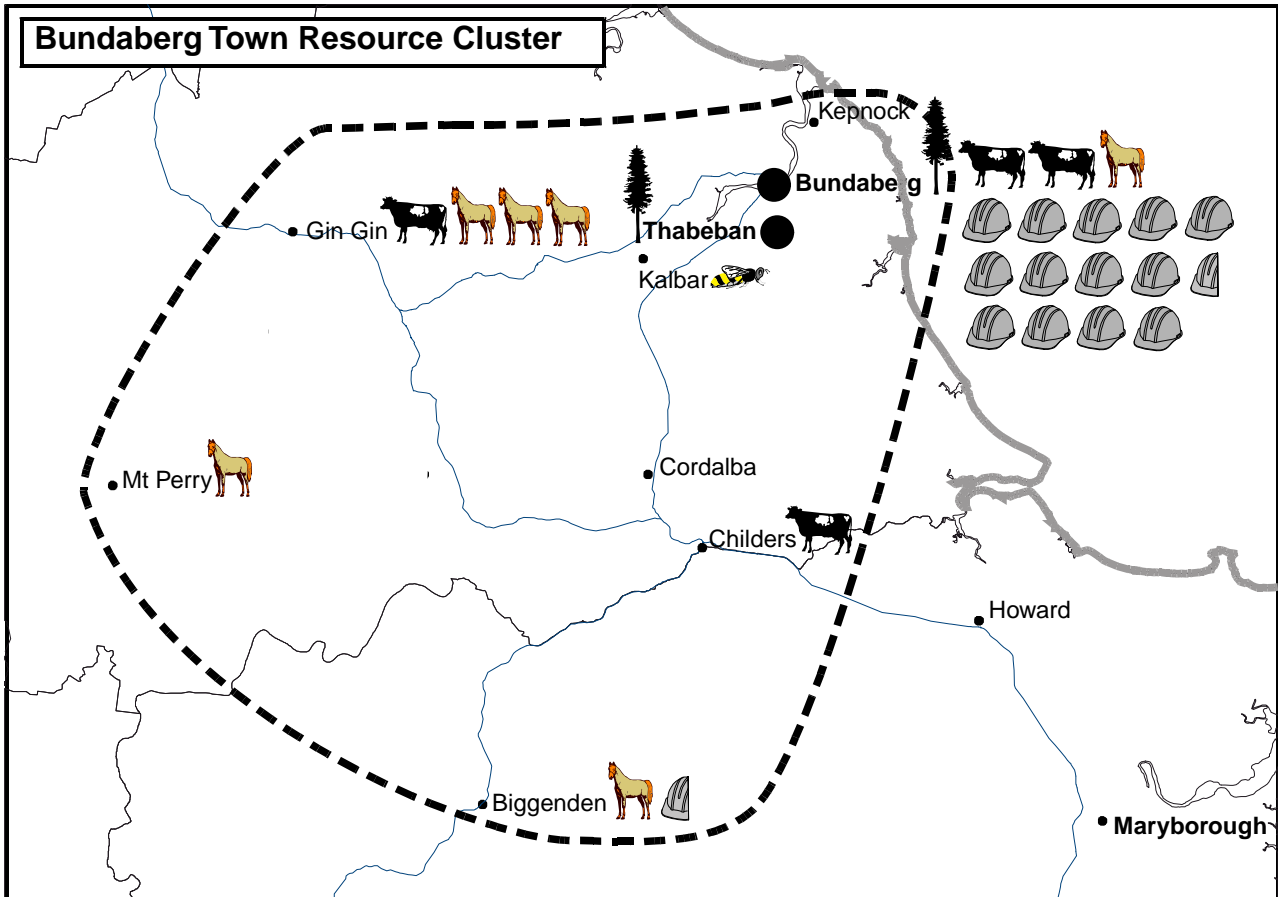
Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing Industry Employees**
(1 hat = 5 employees)








Source: EBC (1998)

FIGURE 6. Mundubbera TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)

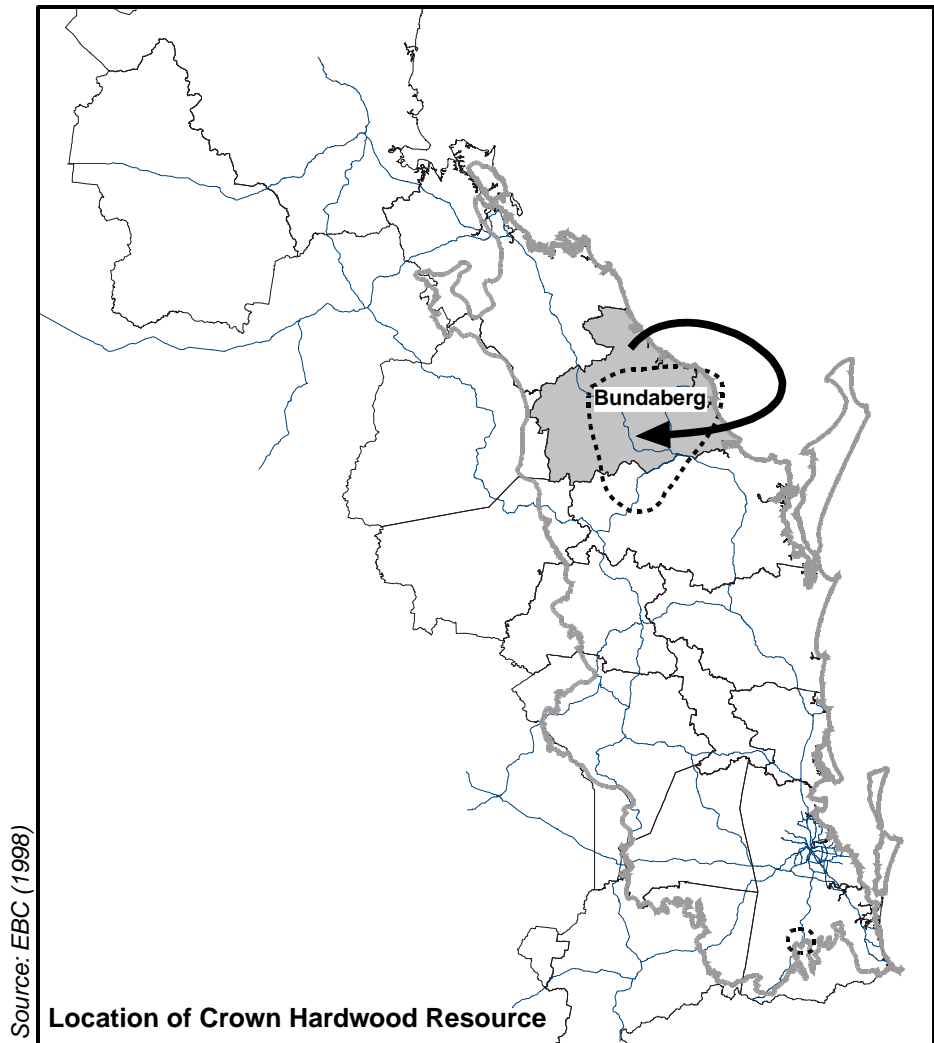
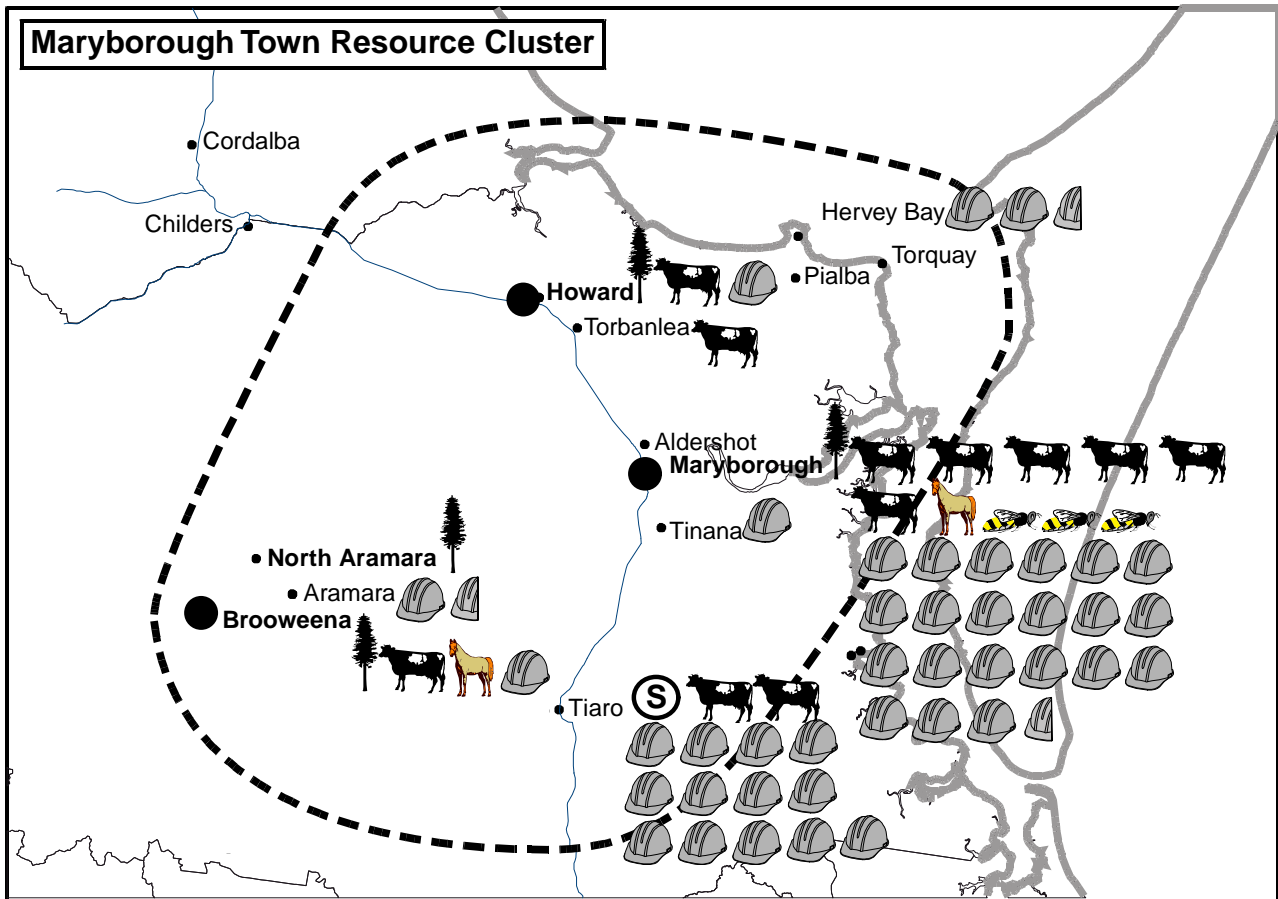








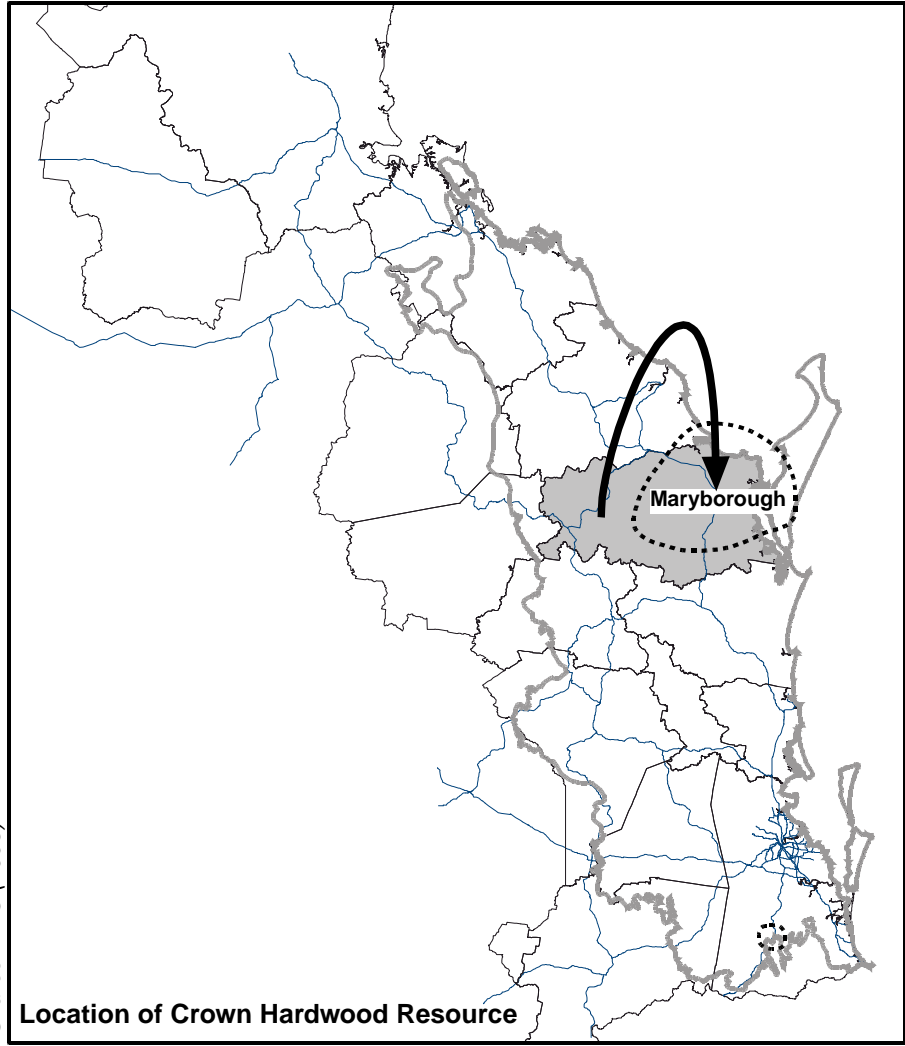
FIGURE 7.
Bundaberg TRC: Industry and Resource Locations

Maryborough Town Resource Cluster



Source: EBC (1998)

-  **Timber Processing Industry (with crown allocation)**
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)

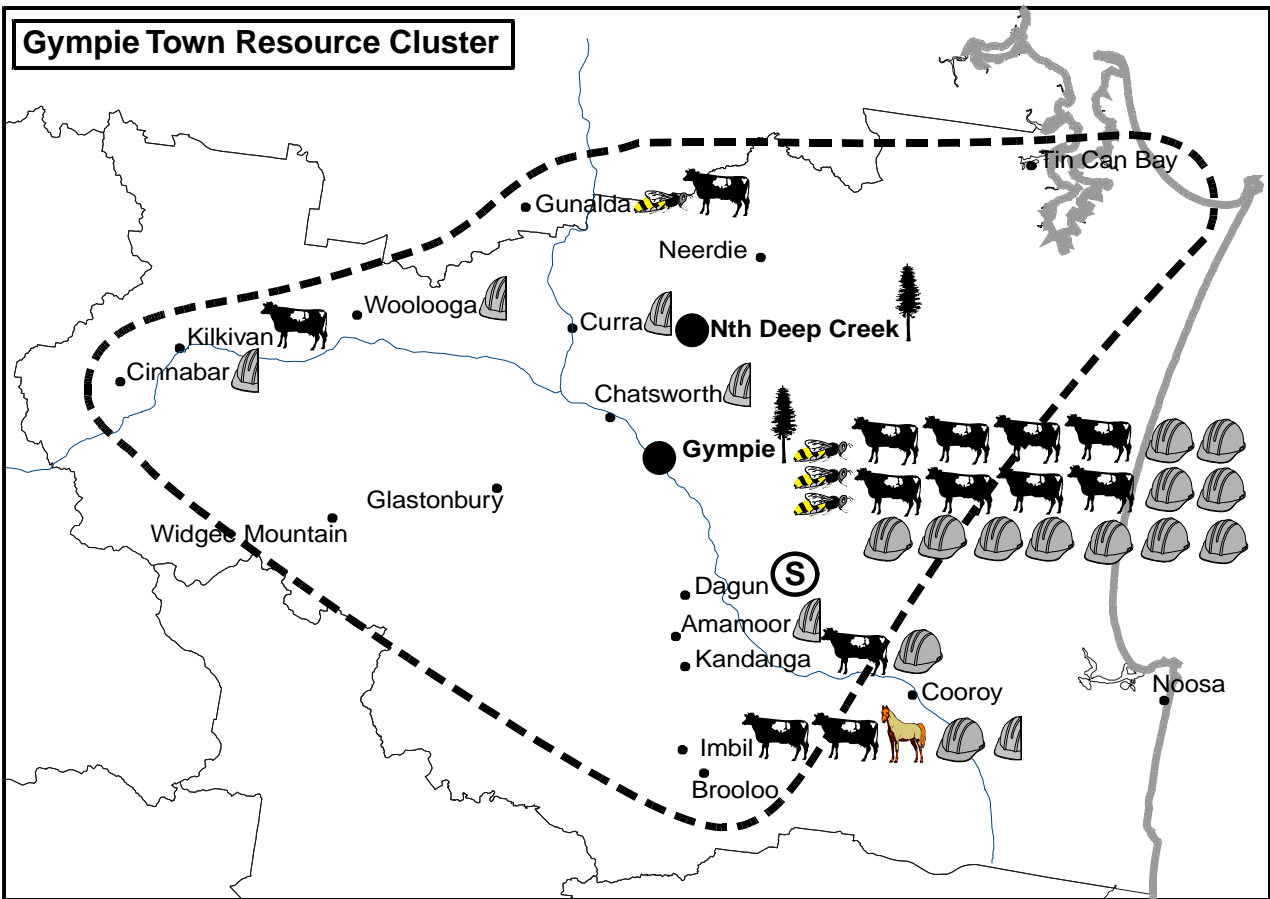


Source: EBC (1998)







Location of Crown Hardwood Resource

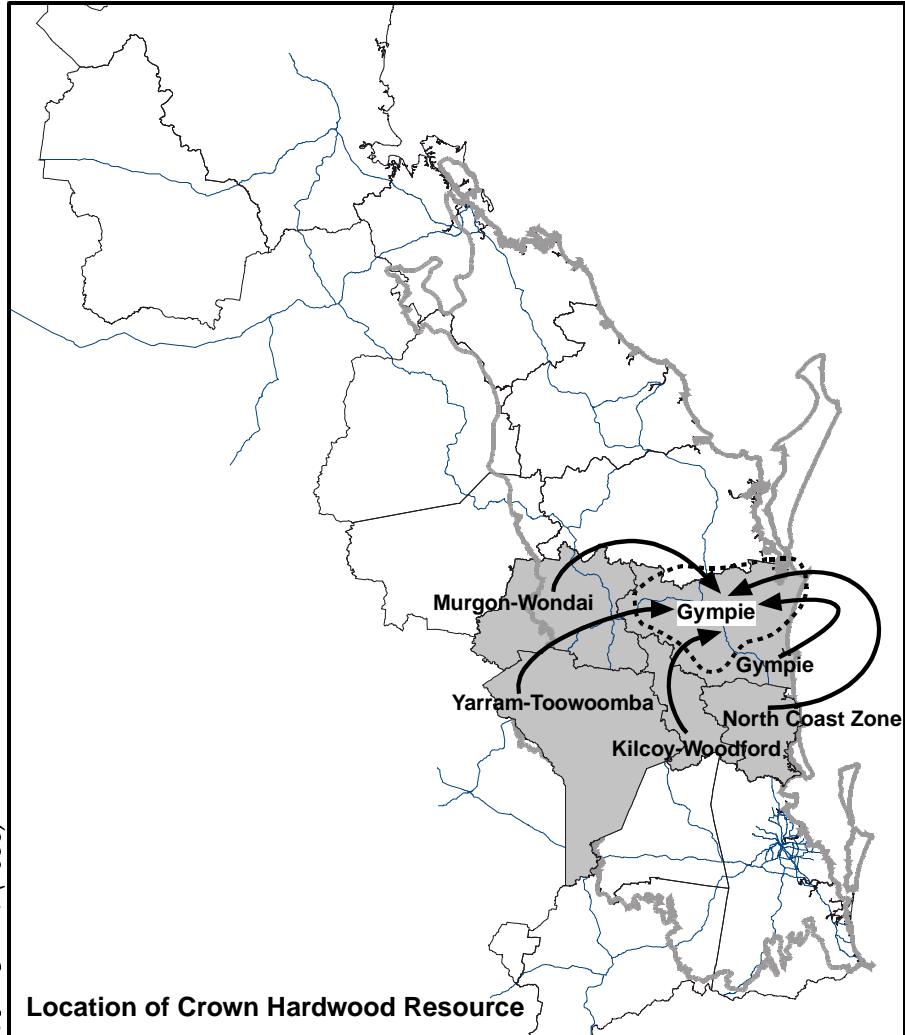
FIGURE 8. Maryborough TRC: Location of Forest Industries and Crown Hardwood Resource

Gympie Town Resource Cluster



Source: EBC (1998)

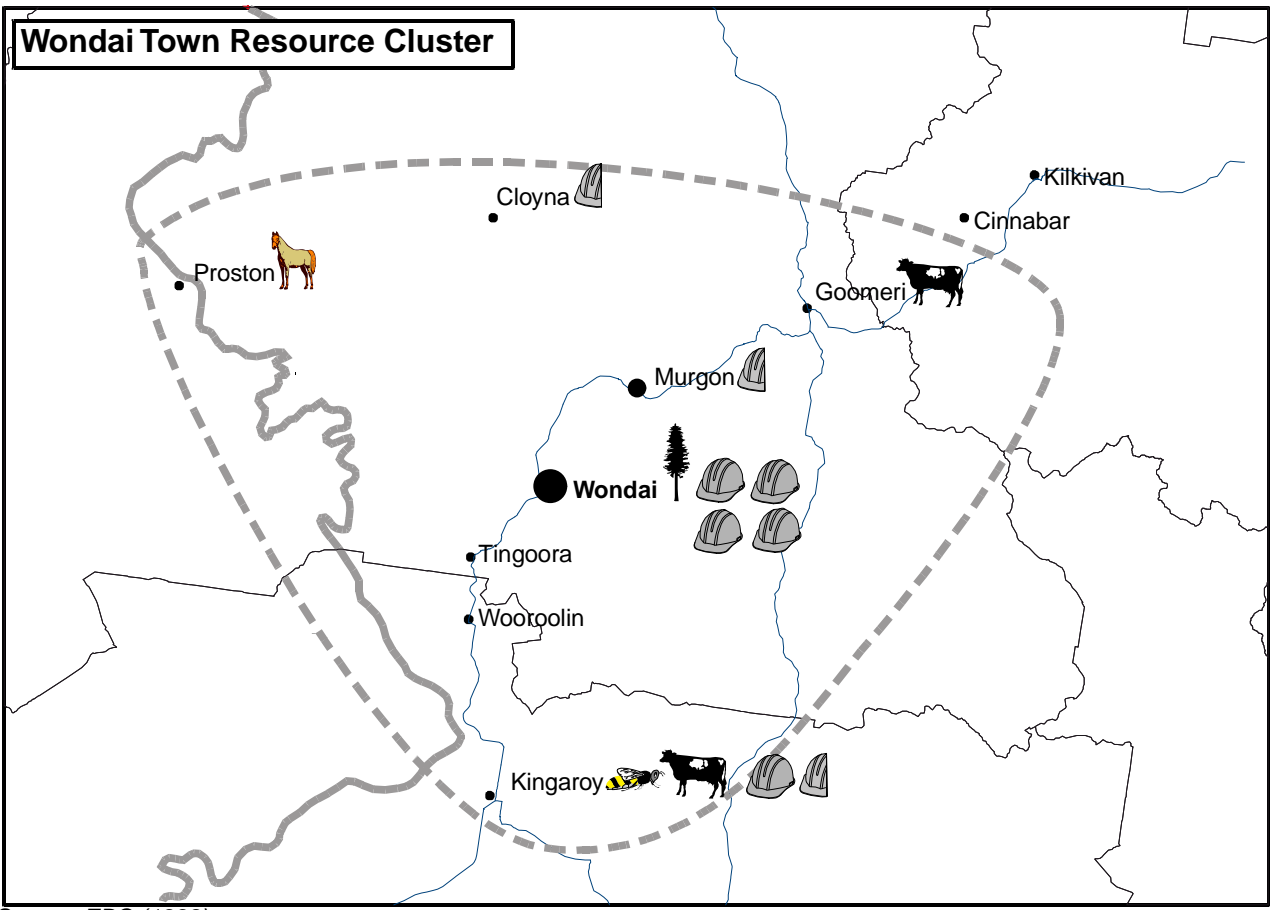
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)








Source: EBC (1998)

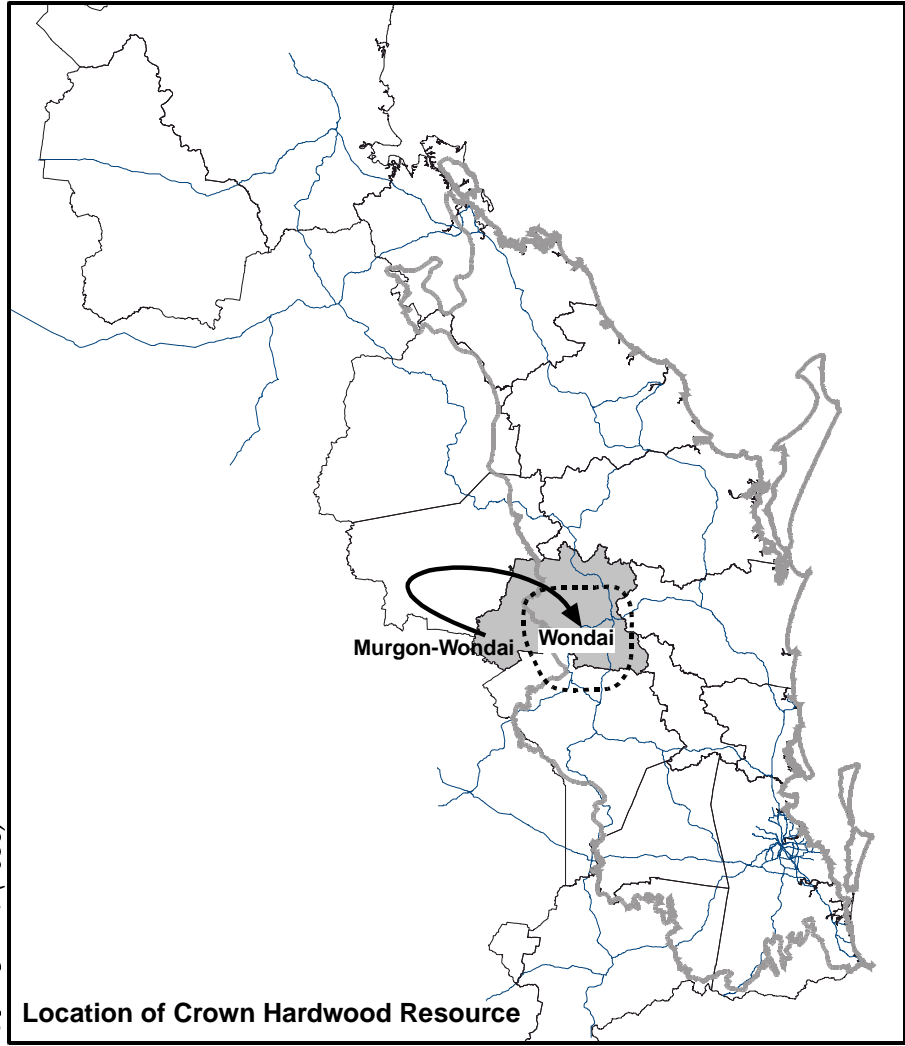
Location of Crown Hardwood Resource

FIGURE 9. Gympie TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

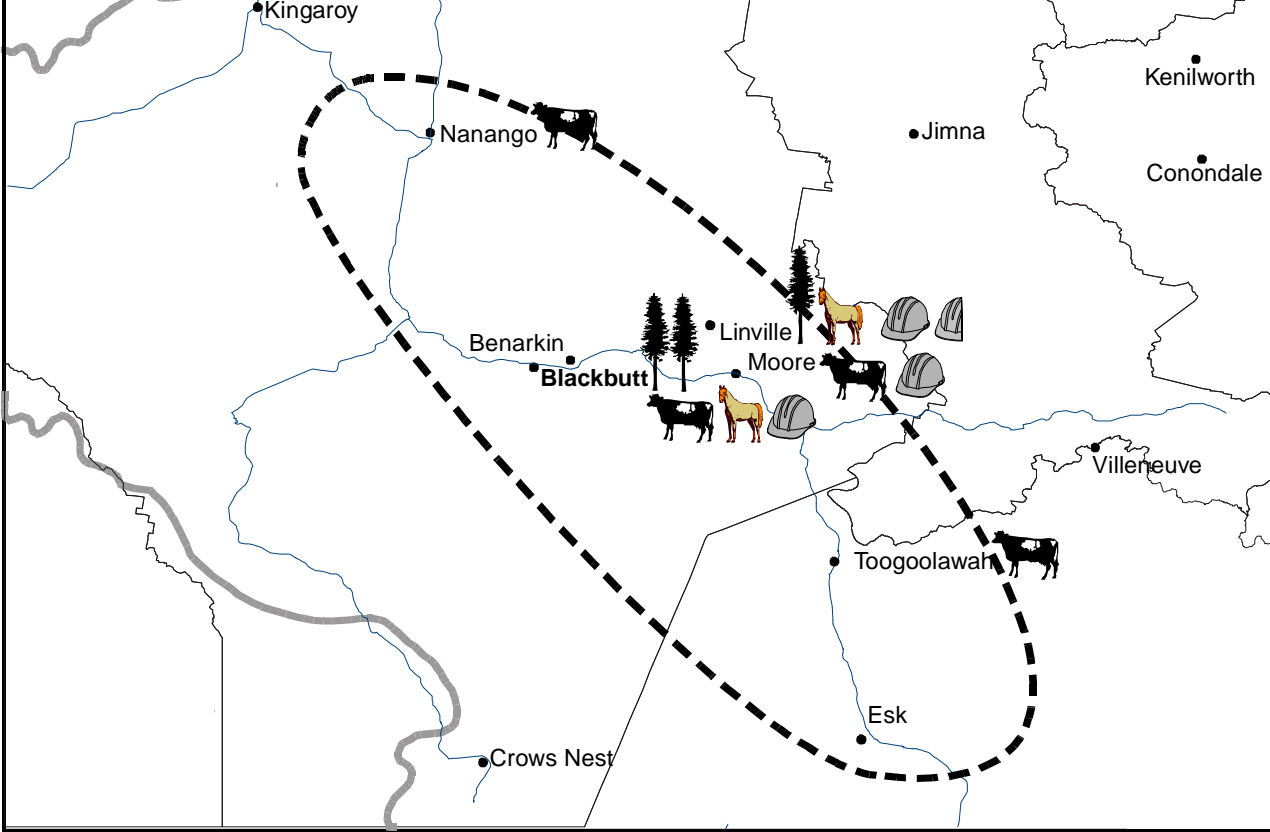
-  **Timber Processing Industry (with crown allocation)**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

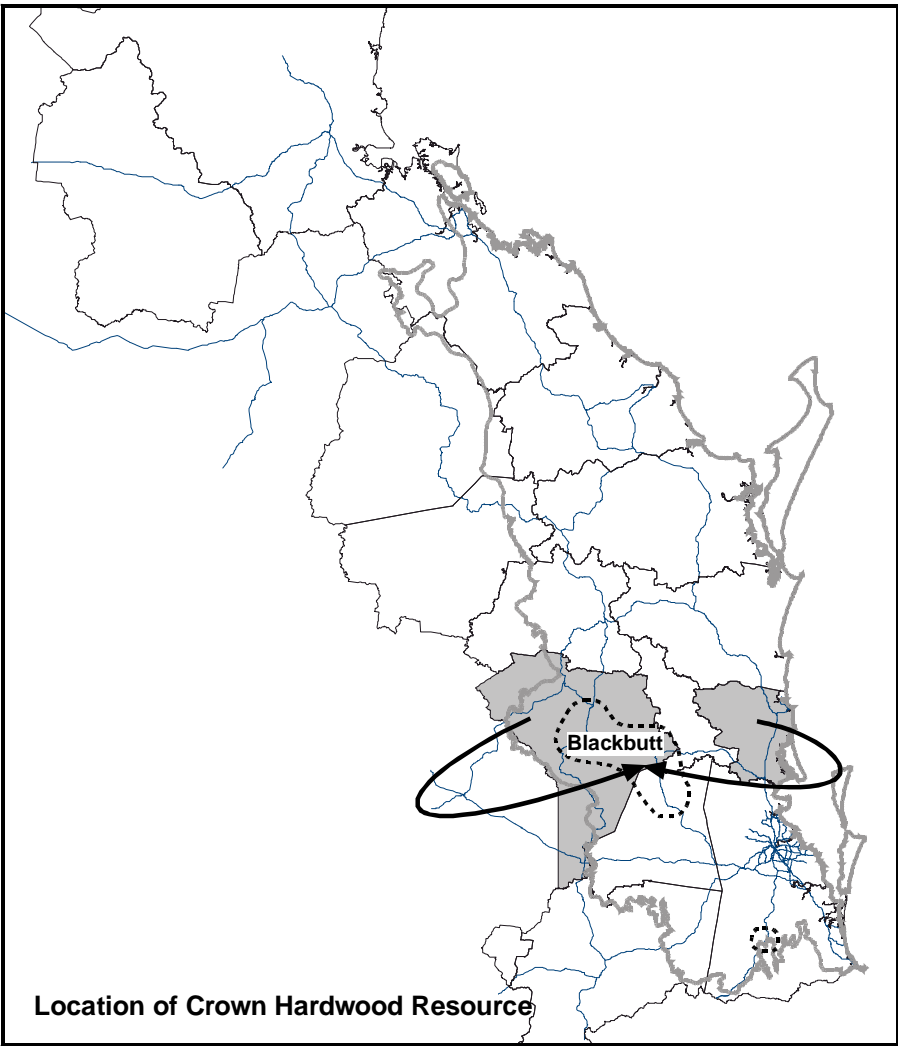
FIGURE 10. Wondai TRC: Location of Forest Industries and Crown Hardwood Resource

Blackbutt Town Resource Cluster



Source: EBC (1998)

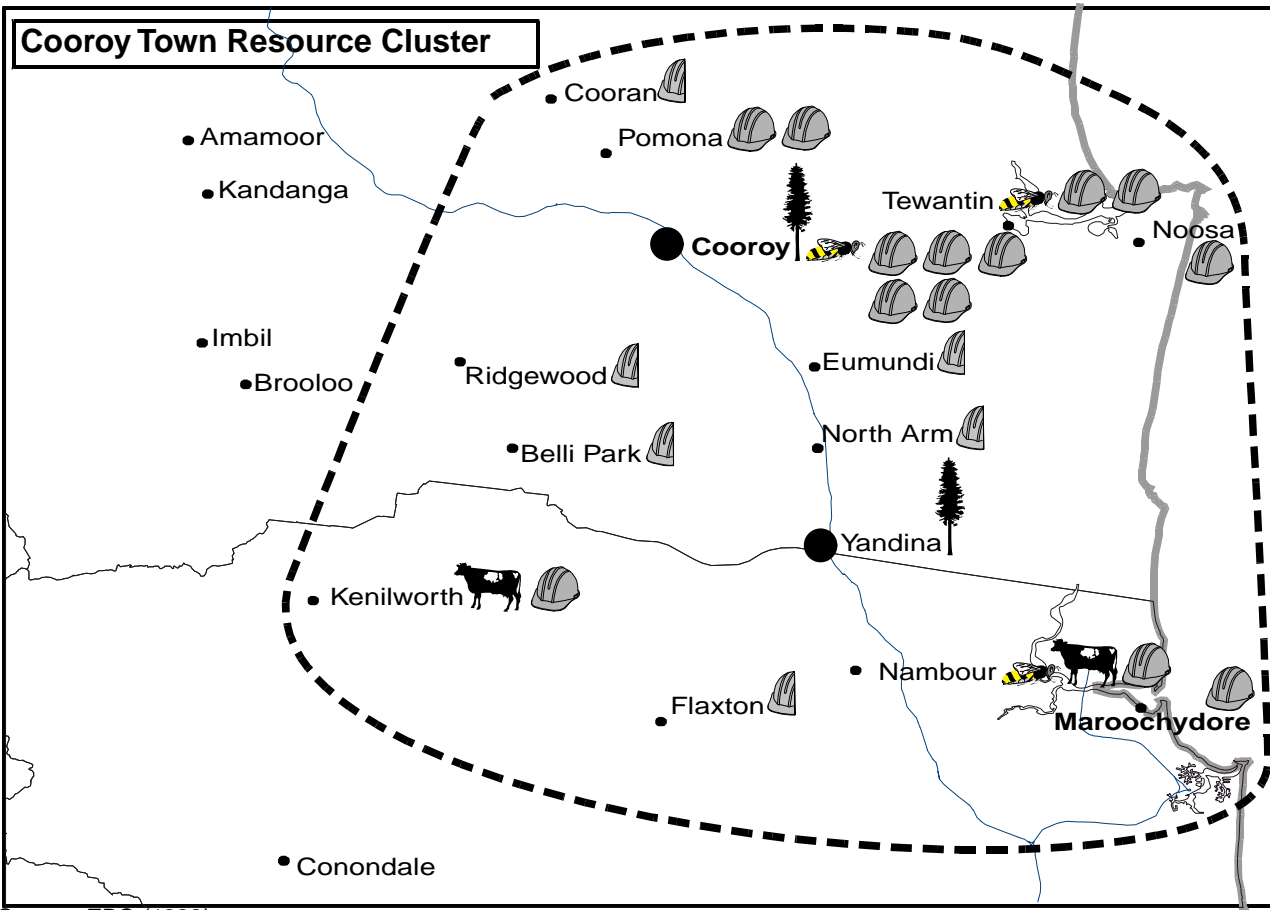
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

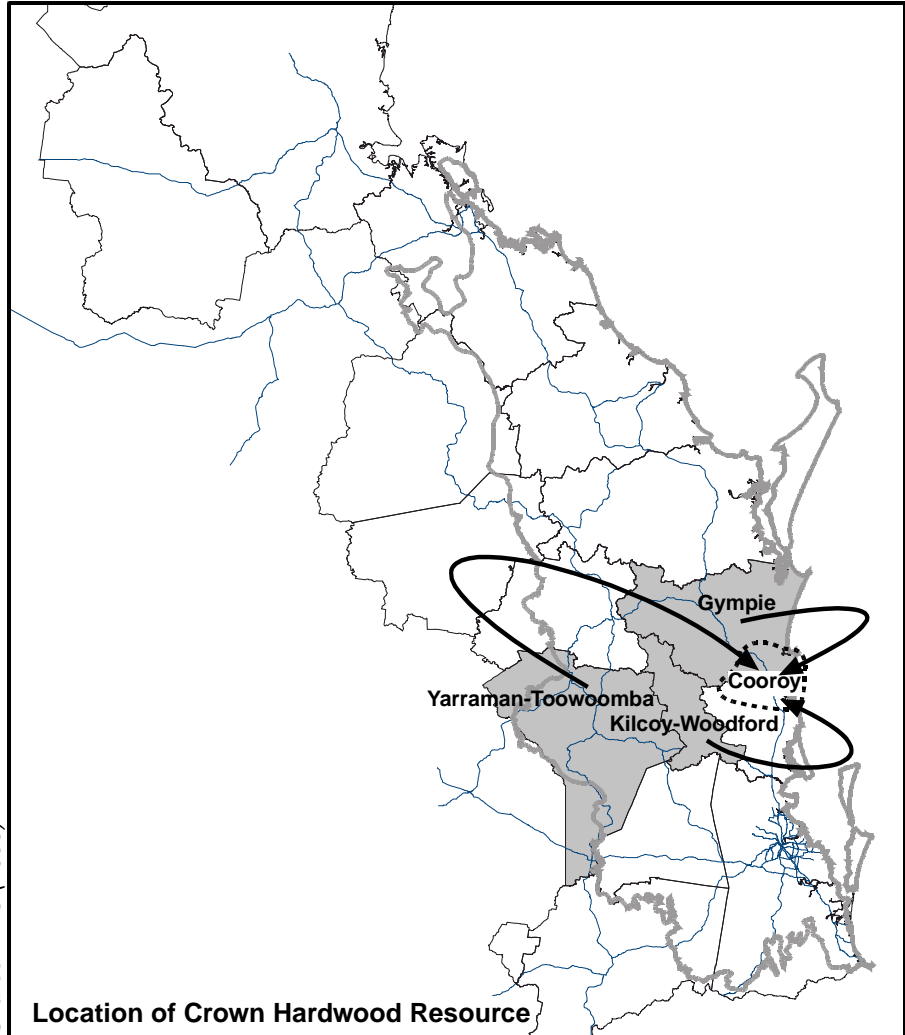
Location of Crown Hardwood Resource

FIGURE 11. Blackbutt TRC: Location of Forest Industries and Crown Hardwood Resource



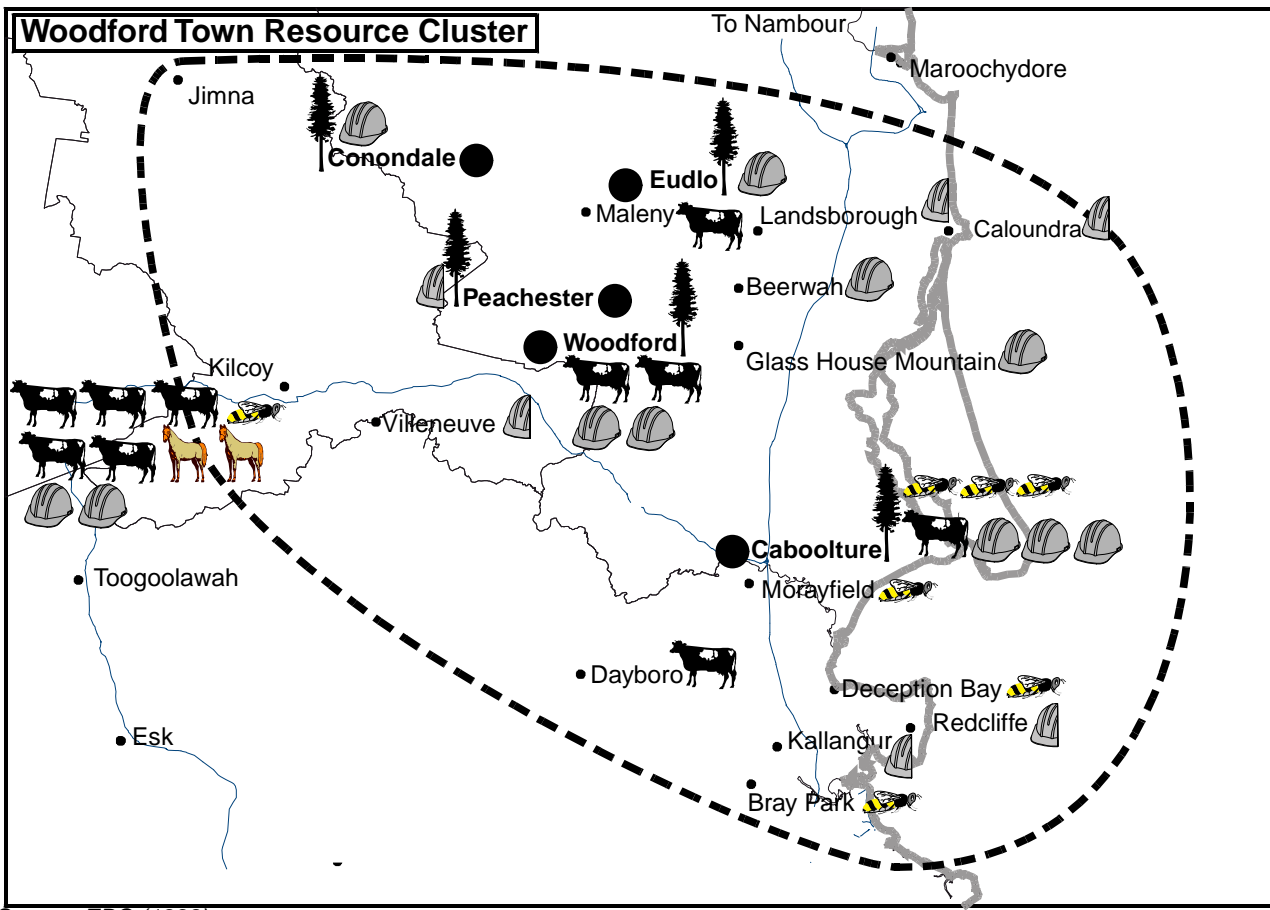
Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









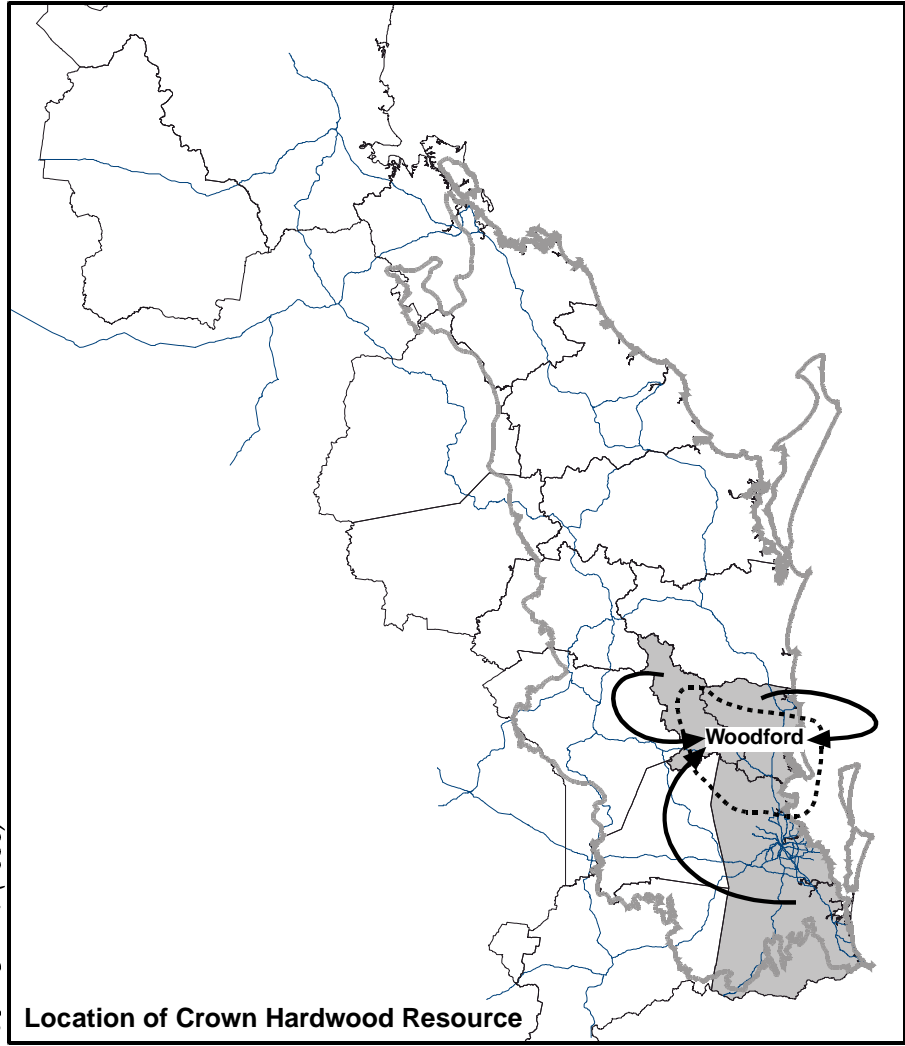
Source: EBC (1998)

FIGURE 12.
Cooroy TRC: Location of Forest Industries and Crown Hardwood Resource



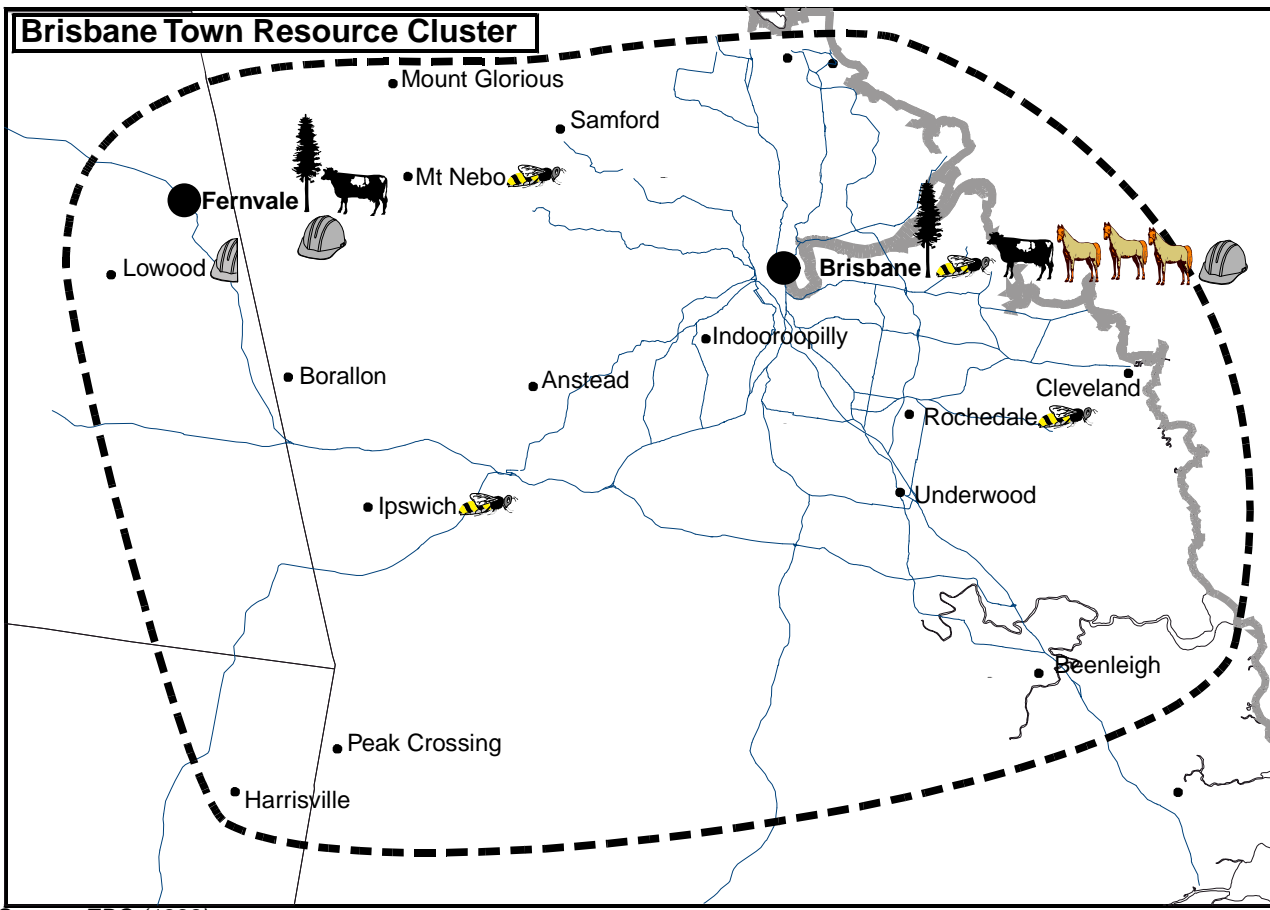
Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









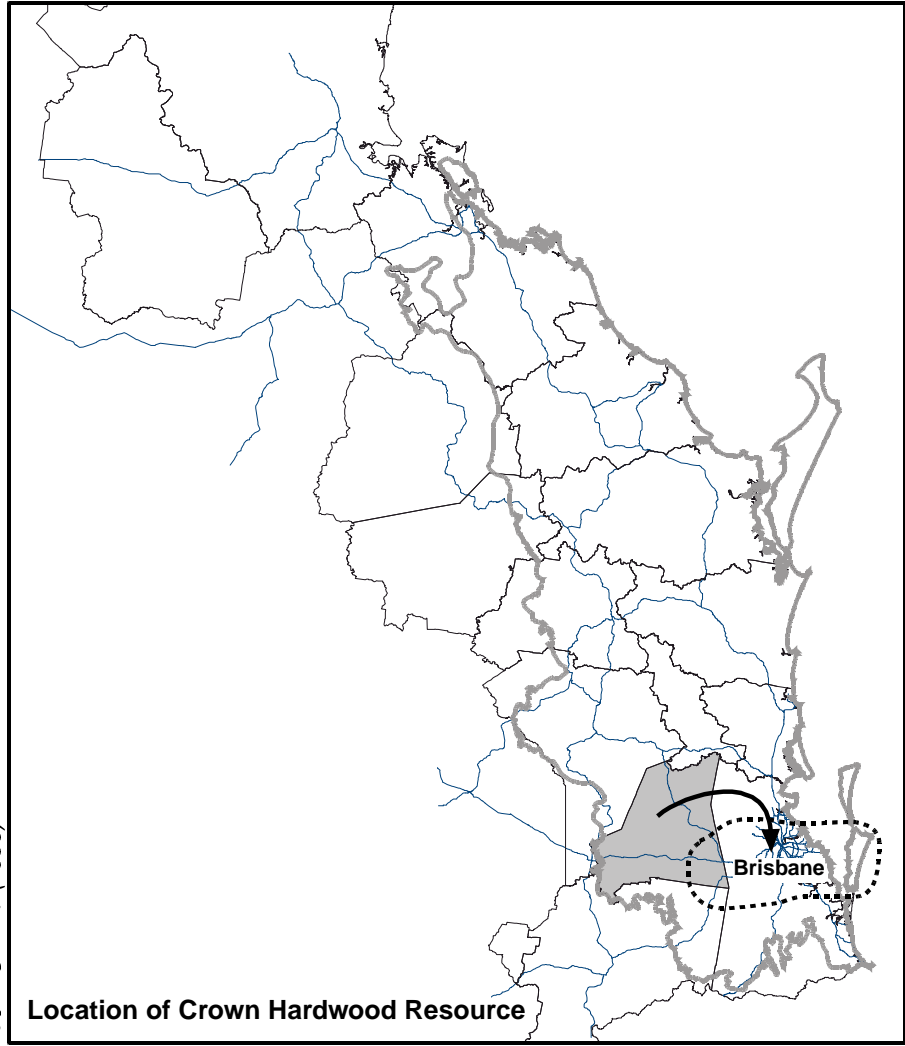
Source: EBC (1998)

FIGURE 13. Woodford TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

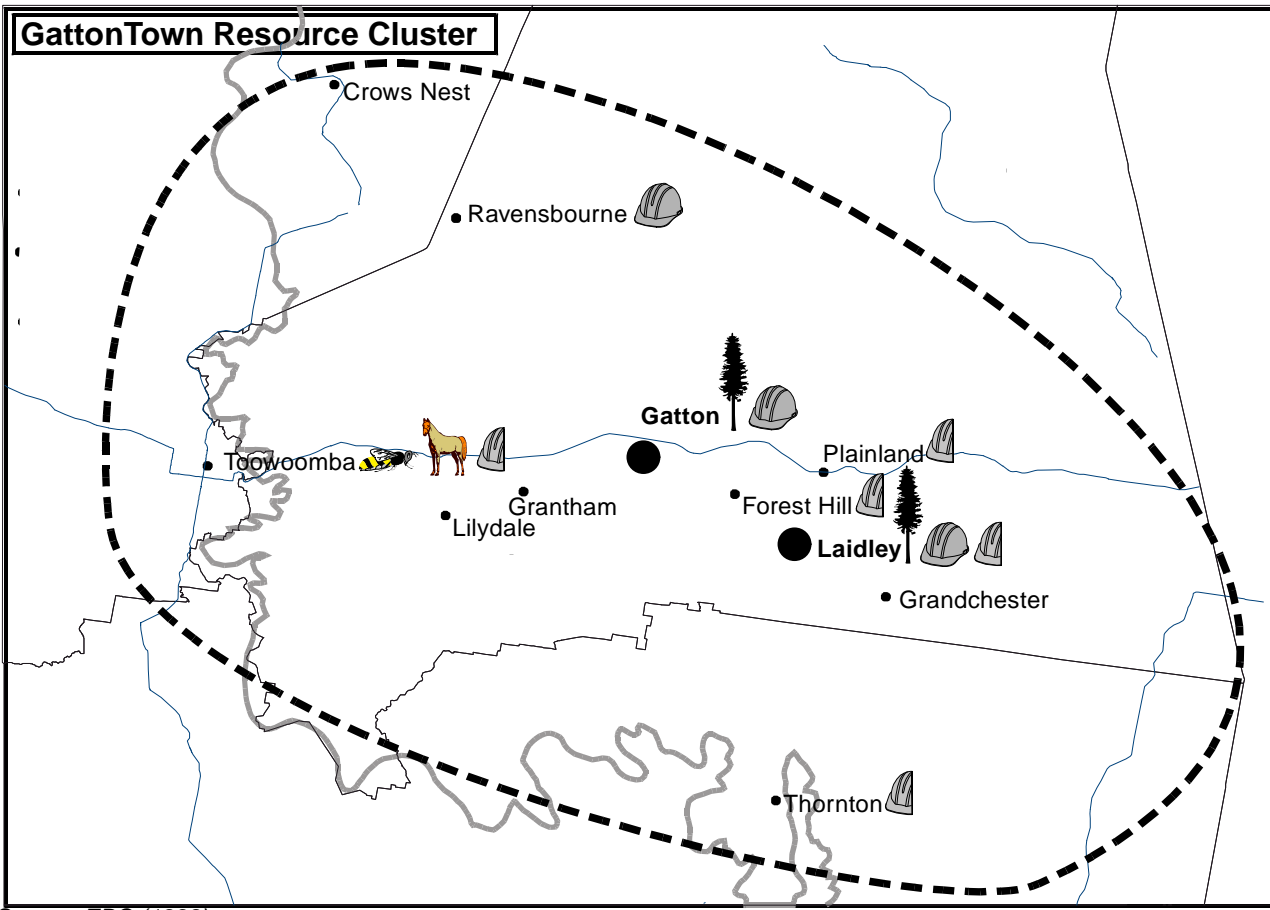
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

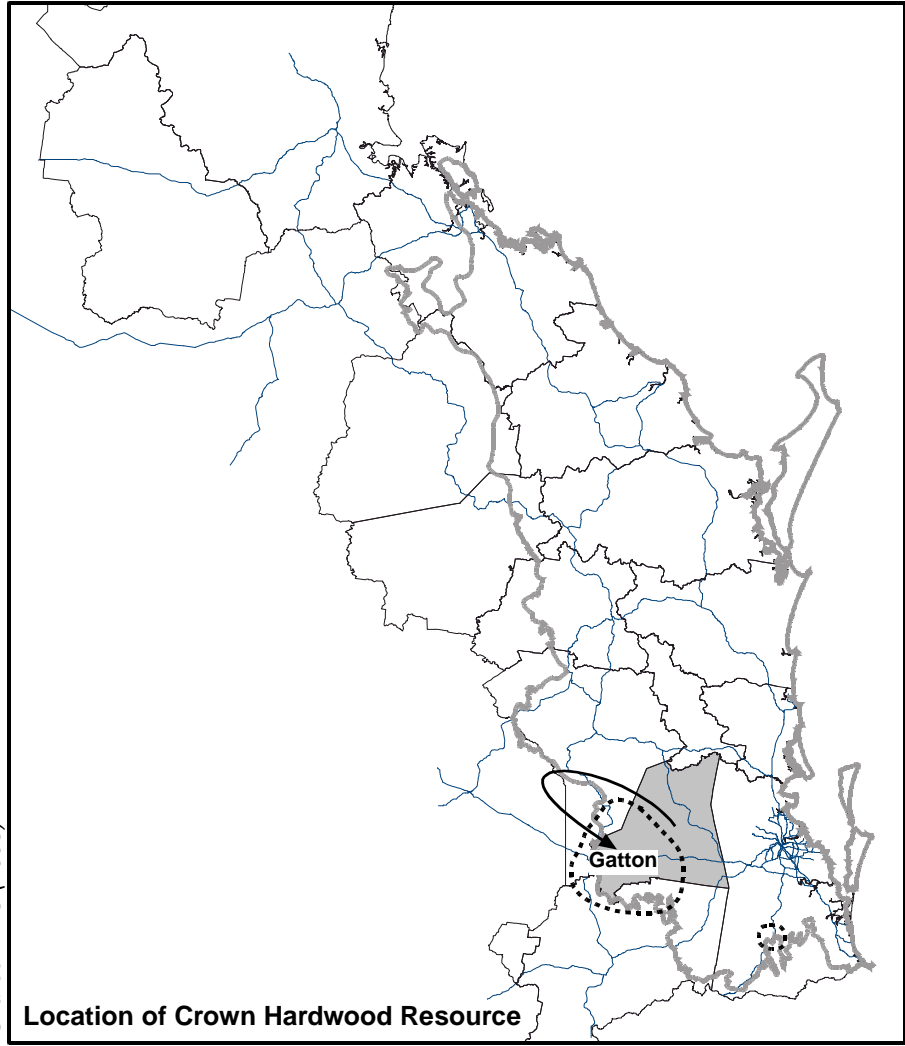
Location of Crown Hardwood Resource

FIGURE 14. Brisbane TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

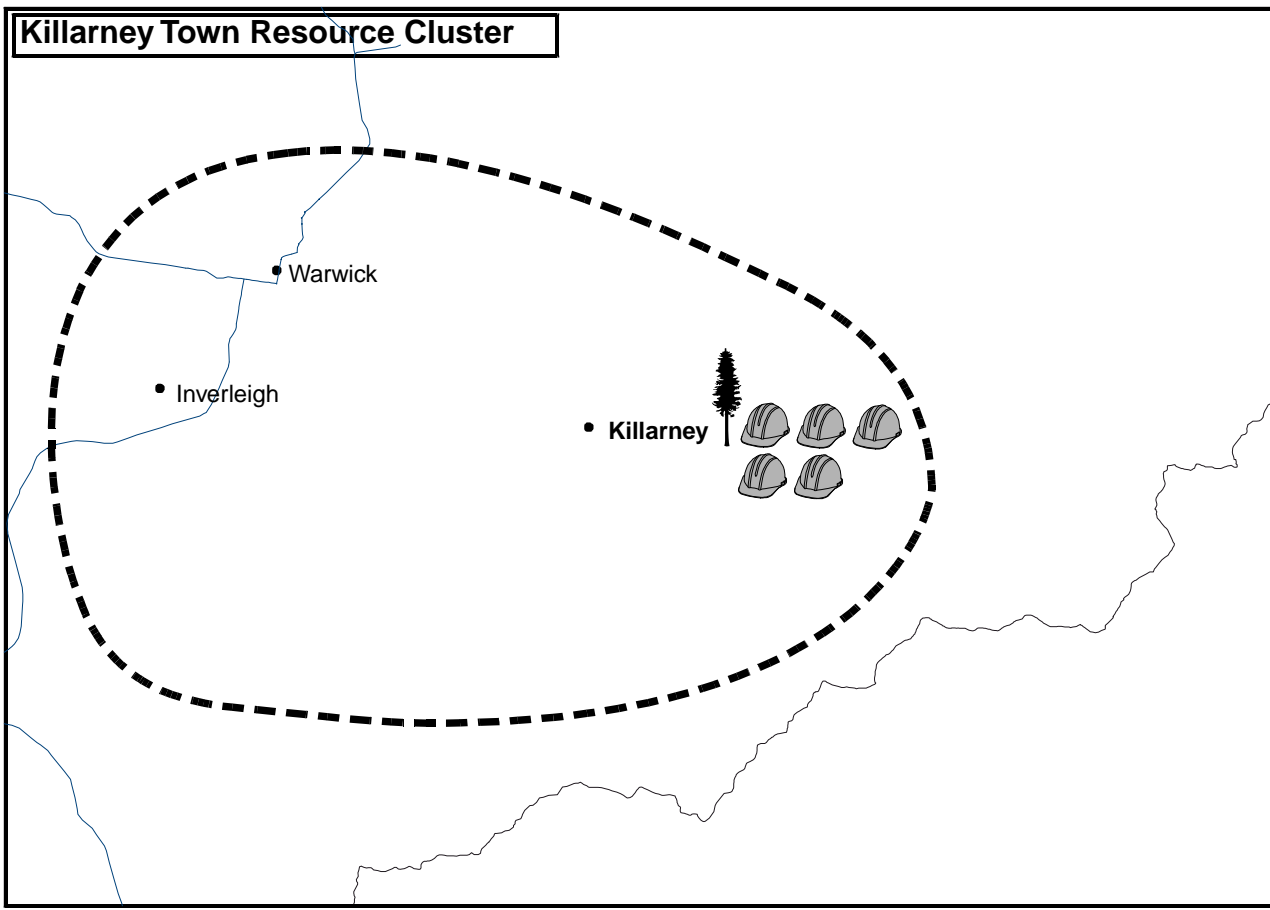
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

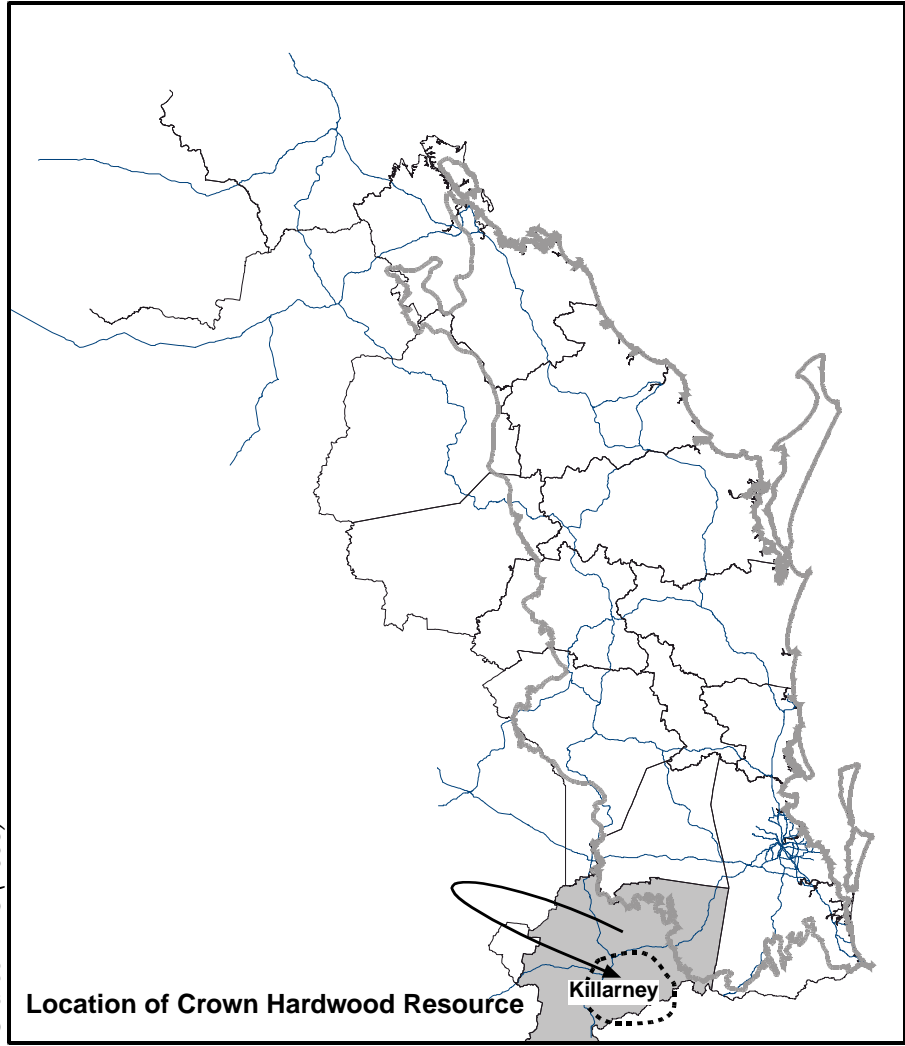
Location of Crown Hardwood Resource

FIGURE 15.
Gatton TRC: Location of Forest Industries and Crown Hardwood Resource



Source: EBC (1998)

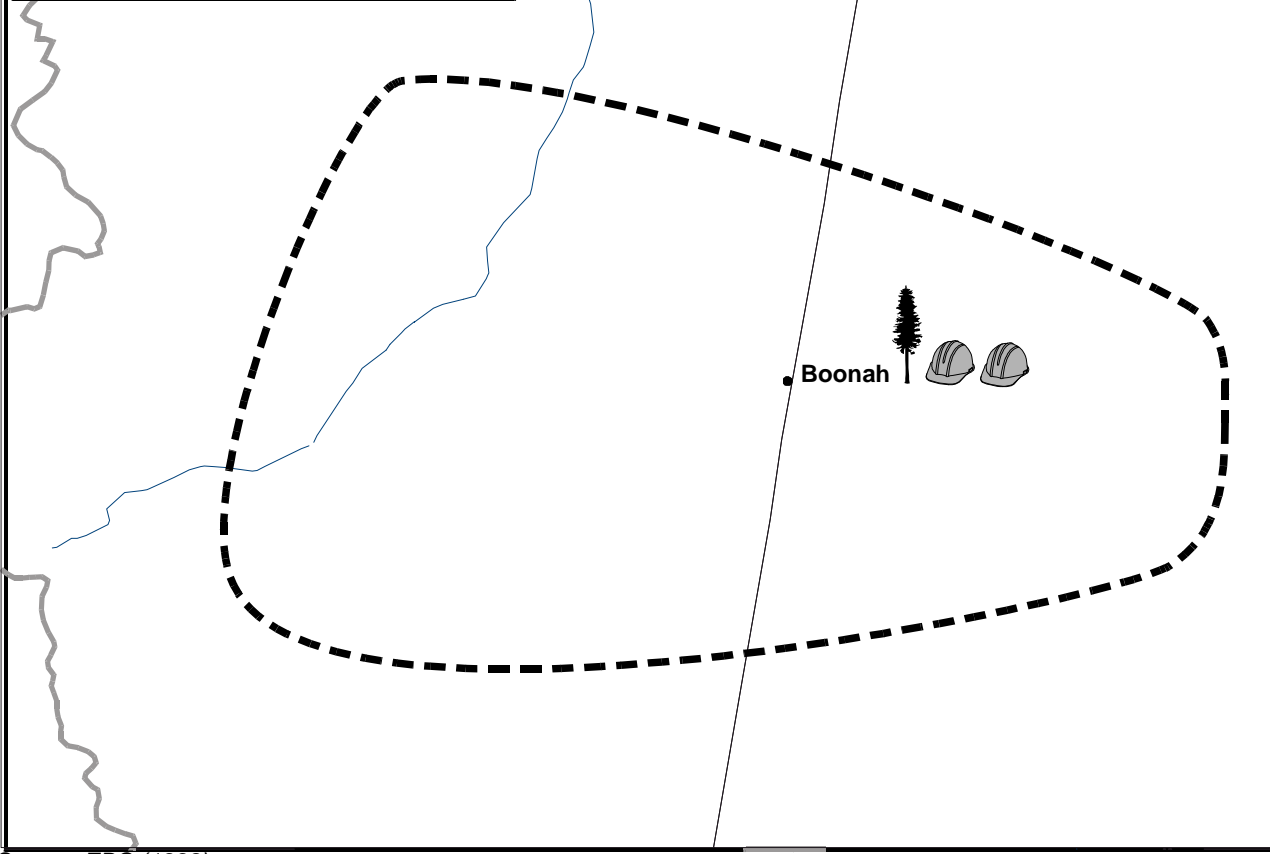
-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)









Source: EBC (1998)

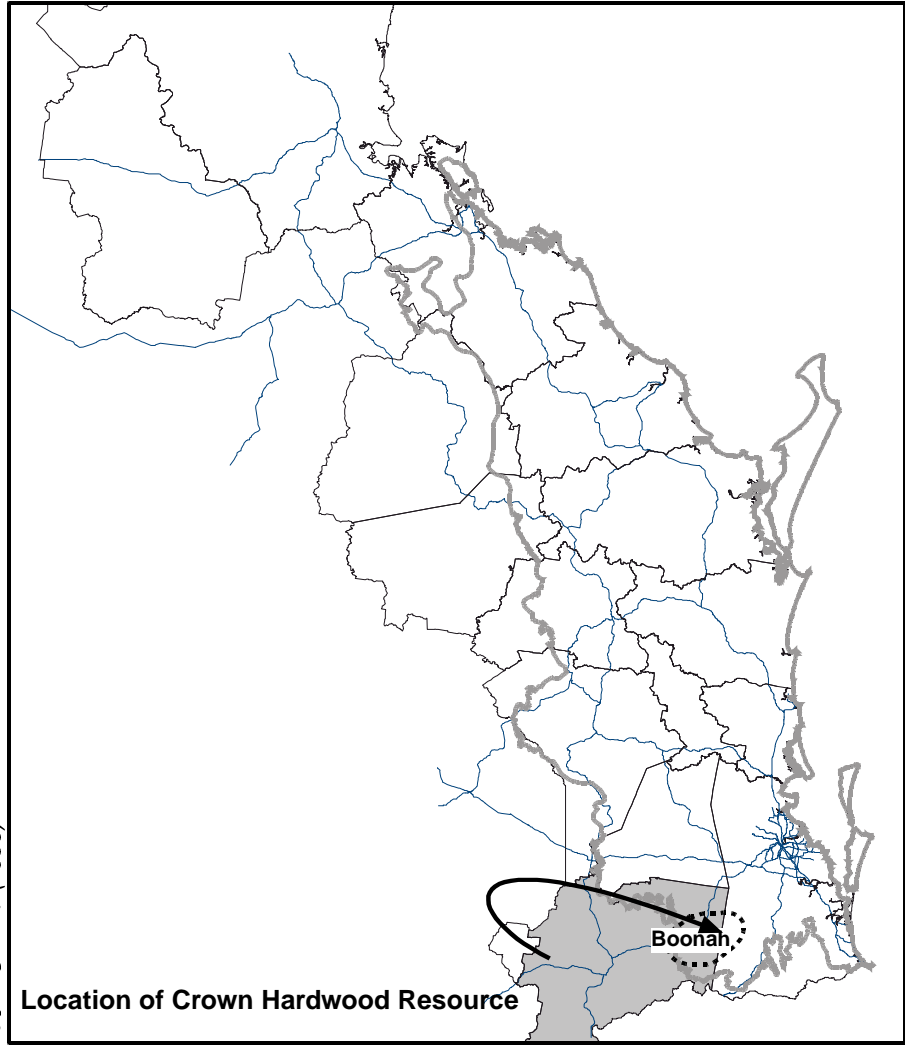
FIGURE 16. Killarney TRC: Location of Forest Industries and Crown Hardwood Resource

Boonah Town Resource Cluster



Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)

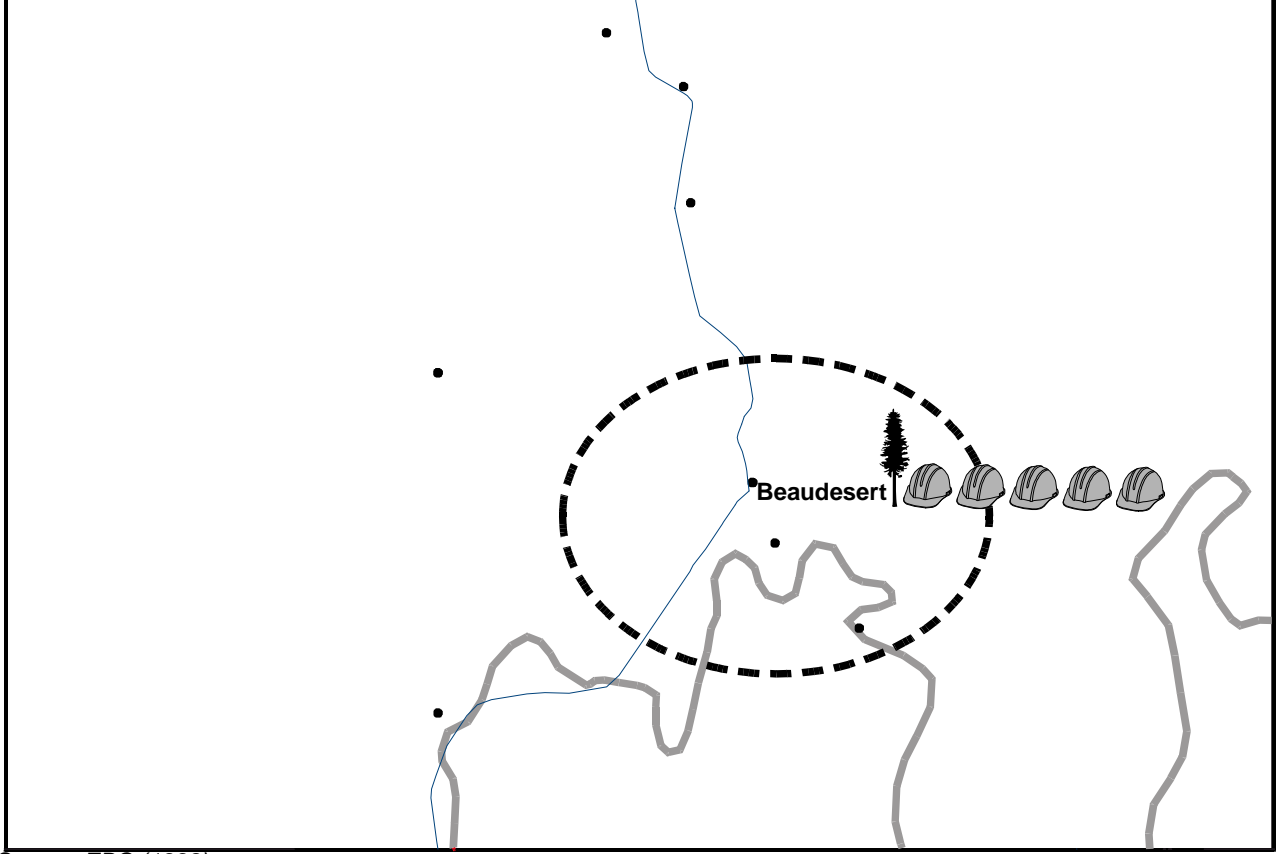


Source: EBC (1998)







Location of Crown Hardwood Resource

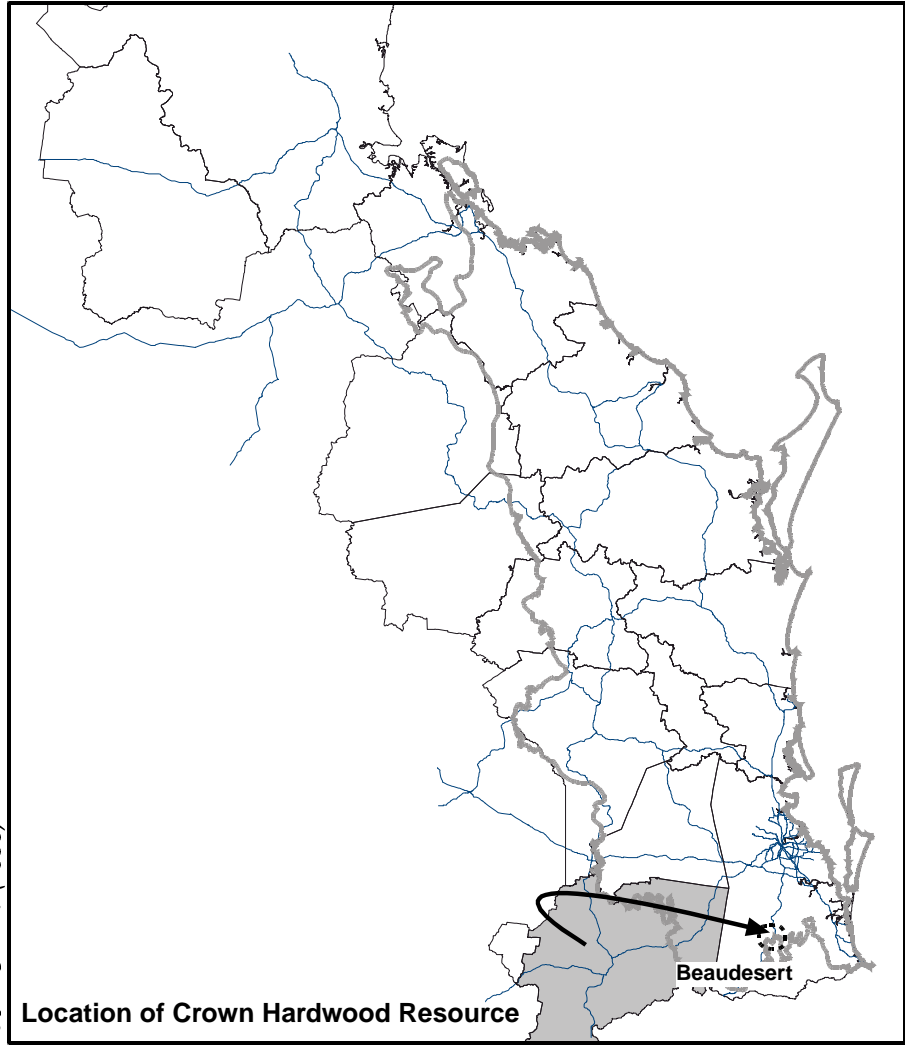
FIGURE 17. Boonah TRC: Location of Forest Industries and Crown Hardwood Resource

Beaudesert Town Resource Cluster



Source: EBC (1998)

-  **Timber Processing Industry** (with crown allocation)
-  **Timber Salvage Processor**
-  **State Grazing Permit Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Special Lease Holder**
(1 = 3-5 permits)
(>1 = 5 permits)
-  **Apiarists**
(1 = 3-5 apiarists)
(>1 = 5 apiarists)
-  **Timber Processing industry Employees**
(1 hat = 5 employees)



Source: EBC (1998)

FIGURE 18. Beaudesert TRC: Location of Forest Industries and Crown Hardwood Resource

7. HOUSEHOLD AND INDUSTRY EXPENDITURE

7.1 Household Expenditure

The following analyses provide a detailed assessment of employee household expenditure patterns for employees within each TRC. Survey research was used to establish the patterns and geographic locations of household expenditure within TRCs. Although the survey is not a complete census of all employees, the data is considered reliable as there was minimal variation in the geographic location of household expenditure for employees resident within specific towns. The TRCs of Killarney, Beaudesert, Boonah and the Gold Coast have no analysis of the geographic location of household expenditure as there was either insufficient survey information on these employees or there were few industry employees resident within these TRCs.

Table 7.1 shows the total annual income for employees of timber processing industries located within each of the 17 TRCs. As might be expected timber processing industries within Maryborough alone generate approximately \$4.8 million each year in employee income and approximately \$3.7 million in annual household expenditure.

Across all timber processing industries within the SEQ RFA region that have a crown allocation, \$19.7 million in employee income is generated with \$15.0 million in annual household expenditure across these employees. If the estimated 164 employees of timber harvesting and transport contractors are also included, the total annual employee income generated by these industries is \$23.6 million. This is clearly a conservative estimate as it is based only on direct employment in the timber processing, harvesting and transport contracting businesses. No attempt has been made to include any further employment and income multipliers to these direct estimates.

In addition, some caution is also required in assuming a direct relationship between levels of employment, income and household expenditure, where it is known that many of the employees of these timber processing industries are not exclusively involved in the processing of the crown hardwood resource (Table 4.1). In this respect Table 7.1 will overestimate the employee income and household expenditure which is directly attributable to the processing of the crown hardwood resource.

Table 7.1. Employee Income and Expenditure Generated by Timber Processing Industries

Town Resource Cluster	Employee Income (\$)	Employee Expenditure (\$)
Beaudesert		
Beaudesert	568,800	432,456
Total	568,800	432,456
Blackbutt		
Linville	331,800	252,266
Blackbutt	94,800	72,076
Total	426,600	324,342
Boonah		
Boonah	237,000	180,190
Total	237,000	180,190
Brisbane		
Fernvale	237,000	180,190
Total	237,000	180,190
Bundaberg		
Bundaberg	1,185,000	900,950
Thabeban	426,600	324,342
Total	1,611,600	1,225,292
Cooroy		
Cooroy	1,967,100	1,495,577
Yandina	213,300	162,171
Total	2,180,400	1,657,748
Gatton		
Gatton	308,100	234,247
Laidley	284,400	216,228
Ravensbourne	118,500	90,095
Total	711,000	540,570
Gladstone		
Benarby	47,400	36,038
Builyan	450,300	342,361
Total	497,700	378,399
Gympie		
Gympie	592,500	450,475
Dagun	260,700	198,209
North Deep Creek	734,700	558,589
Total	1,587,900	1,207,273
Killarney		
Killarney	568,800	432,456
Total	568,800	432,456
Maryborough		
Maryborough	2,749,200	2,090,204
Tiaro	1,493,100	1,135,197
Brooweena	379,200	288,304
Howard	142,200	108,114
North Aramara	94,800	72,076
Total	4,858,500	3,693,895
Monto		
Monto	545,100	414,437
Mulgildie	284,400	216,228
Total	829,500	630,665

Continued...

Table 7.1. Employee Income and Expenditure Generated by Timber Processing Industries (Continued)

Town Resource Cluster	Employee Income (\$)	Employee Expenditure (\$)
Mundubbera		
Eidsvold	829,500	630,665
Mundubbera	663,600	504,532
Allies Creek	521,400	396,418
Total	2,014,500	1,531,615
Rockhampton		
Rockhampton	545,100	414,437
Dingo	237,000	180,190
Total	782,100	594,627
Wondai		
Wondai	663,600	504,532
Total	663,600	504,532
Woodford		
Woodford	521,400	396,418
Caboolture	308,100	234,247
Eudlo	284,400	216,228
Peachester	213,300	162,171
Conondale	94,800	72,076
Total	1,422,000	1,081,140
Jandowae ²	521,400	396,418
TOTAL TIMBER PROCESSING EMPLOYEES	19,717,600	14,991,300
TOTAL HARVESTING AND TRANSPORT EMPLOYEES³	3,886,800	2,955,100
TABLE TOTAL	23,604,400	17,946,400

Note: ¹Includes 11 employees from a timber salvage industry in Eidsvold

²Jandowae, which has a timber salvage industry, is not within the SEQ RFA Region
Rows in italics indicate a timber salvage industry.

³Based on an estimated 164 harvesting and transport contractor employees, with each employee having an annual income of \$23,700.

Source: EBC (1998).

7.2 Industry Expenditure

In the survey of forest industries, all forest industries were asked to identify the town from which they purchased goods and services which were required in the operation of their business. In addition, for each item of expenditure, the respondent indicated whether the item was less than 10% of their total expenditure or greater than 10% of their total expenditure.

Table 7.2 shows for timber processing industries those items of expenditure which were identified by the majority of industries as items of low relative expenditure and those items identified as items of high relative expenditure. Items of high relative expenditure for the majority of timber processing industries included (a) the purchase of plant, machinery and equipment, (b) freight costs associated with the haulage of timber, © the costs of royalties and related levies and (d) harvesting and log cartage costs.

Table 7.2. Timber Processing Industries: Relative Magnitude of Expenditure

	Less Than 10%		Greater Than 10%	
	Count	%	Count	%
Low Relative Expenditure Items				
Printing	23	100.00	0	0.00
Office Supplies	25	96.15	1	3.85
Council Rates	24	96.00	1	4.00
Legal Expenses	21	95.45	1	4.55
Advertising and Marketing	20	95.24	1	4.76
Computing Equipment	19	95.00	1	5.00
Repairs & Maintenance to Building and Office	22	91.67	2	8.33
Accounting	21	91.30	2	8.70
Permit Fees	18	85.71	3	14.29
Insurance	21	84.00	4	16.00
Extensions or Alterations to Buildings	18	81.82	4	18.18
Freight (General Business Freight)	19	76.00	6	24.00
Power (electricity)	18	72.00	7	28.00
Repairs & Maintenance to Vehicles	17	70.83	7	29.17
Banking	16	69.57	7	30.43
New Building or Land Purchases	9	69.23	4	30.77
Vehicle Purchases	14	60.87	9	39.13
Fuel (Petrol, Diesel, Gas)	15	57.69	11	42.31
Repairs and Maintenance to Machinery	13	52.00	12	48.00
High Relative Expenditure Items				
Purchase of Machinery, Plant or Equipment	7	33.33	14	66.67
Freight (Timber Haulage)	8	32.00	17	68.00
Royalties and Related Levies	1	4.17	23	95.83
Harvesting and Log Cartage	1	4.17	23	95.83

Note: No items removed due to low sample size.

Source: EBC (1998).

Table 7.3 identifies the items of relative low and high expenditure amongst timber contracting businesses. The three most commonly reported items of high relative expenditure amongst timber contracting businesses were (a) fuel, including petrol, diesel and gas; (b) repairs and maintenance to machinery and © the purchase of plant, machinery and equipment. In comparison to timber processing industries, timber contracting businesses appear to have significantly more items of high relative expenditure.

Table 7.3. Timber Contracting Businesses: Relative Magnitude of Expenditure

	Less Than 10%		Greater Than 10%	
	Count	%	Count	%
Low Relative Expenditure Items				
Permit Fees	14	93.33	1	6.67
Legal Expenses	25	92.59	2	7.41
Office Supplies	35	92.11	3	7.89
Computing Equipment	17	89.47	2	10.53
Accounting	33	89.19	4	10.81
Repairs & Maintenance to Building and Office	16	88.89	2	11.11
Advertising and Marketing	15	88.24	2	11.76
Printing	21	87.50	3	12.50
Power (electricity)	23	82.14	5	17.86
Council Rates	27	81.82	6	18.18
Extensions or Alterations to Buildings	13	81.25	3	18.75
Freight (General Business Freight)	16	80.00	4	20.00
Insurance	24	64.86	13	35.14
Banking	22	59.46	15	40.54
High Relative Expenditure				
New Building or Land Purchases	5	45.45	6	54.55
Royalties and Related Levies	6	33.33	12	66.67
Freight (Timber Haulage)	5	27.78	13	72.22
Vehicle Purchases	8	26.67	22	73.33
Repairs & Maintenance to Vehicles	10	26.32	28	73.68
Harvesting and Log Cartage	5	23.81	16	76.19
Purchase of Machinery, Plant or Equipment	6	20.69	23	79.31
Repairs and Maintenance to Machinery	7	18.92	30	81.08
Fuel (Petrol, Diesel, Gas)	4	10.26	35	89.74

Note: No items removed due to low sample size.

Source: EBC (1998).

Table 7.4 shows the relative level of expenditure on items amongst apiarist businesses. The most commonly reported items of high relative expenditure amongst these businesses were (a) fuel, including petrol, gas and diesel; (b) vehicle purchases and (c) the purchase of plant, machinery and equipment. While new building or land purchases and extensions or alterations to buildings were also seen as high expenditure items they were not amongst the more commonly purchased items of high expenditure.

Table 7.4. Apiarists: Relative Magnitude of Expenditure

	Less Than 10%		Greater Than 10%	
	Count	%	Count	%
Low Relative Expenditure Items				
Office Supplies	45	91.84	4	8.16
Accounting	54	87.10	8	12.90
Advertising and Marketing	16	84.21	3	15.79
Legal Expenses	26	83.87	5	16.13
Insurance	48	82.76	10	17.24
Printing	18	81.82	4	18.18
Power (electricity)	52	81.25	12	18.75
Computing Equipment	17	80.95	4	19.05
Freight (General Business Freight)	31	79.49	8	20.51
Repairs & Maintenance to Building and Office	18	78.26	5	21.74
Council Rates	45	75.00	15	25.00
Banking	40	70.18	17	29.82
Permit Fees	20	60.61	13	39.39
Repairs and Maintenance to Machinery	36	59.02	25	40.98
High Relative Expenditure				
Repairs & Maintenance to Vehicles	26	39.39	40	60.61
Extensions or Alterations to Buildings	6	33.33	12	66.67
Purchase of Machinery, Plant or Equipment	14	29.79	33	70.21
Vehicle Purchases	12	24.00	38	76.00
New Building or Land Purchases	3	23.08	10	76.92
Fuel (Petrol, Diesel, Gas)	9	13.04	60	86.96

Note: Freight (timber haulage) removed. Source EBC (1998).

Amongst graziers, or holders of Stock Grazing permits, (a) vehicle purchases, (b) purchases of machinery, plant or equipment and © fuel purchases, including petrol, diesel and gas were the most commonly reported items of high expenditure (Table 7.5). Although new building and land purchases were also considered to be items of high relative expenditure only 32% of graziers had purchased these items within the last year.

Table 7.5. Graziers: Relative Magnitude of Expenditure

	Less Than 10%		Greater Than 10%	
	Count	%	Count	%
Low Relative Expenditure Items				
Legal Expenses	43	100.00	0	0.00
Office Supplies	40	100.00	0	0.00
Printing	14	100.00	0	0.00
Accounting	57	95.00	3	5.00
Advertising and Marketing	18	94.74	1	5.26
Permit Fees	16	94.12	1	5.88
Insurance	45	88.24	6	11.76
Power (electricity)	42	87.50	6	12.50
Computing Equipment	14	87.50	2	12.50
Freight (General Business Freight)	32	84.21	6	15.79
Repairs & Maintenance to Building and Office	16	84.21	3	15.79
Extensions or Alterations to Buildings	15	78.95	4	21.05
Banking	40	70.18	17	29.82
Council Rates	40	60.61	26	39.39
Repairs & Maintenance to Vehicles	35	59.32	24	40.68
Repairs and Maintenance to Machinery	33	58.93	23	41.07
High Relative Expenditure				
Fuel (Petrol, Diesel, Gas)	31	49.21	32	50.79
Purchase of Machinery, Plant or Equipment	20	48.78	21	51.22
Vehicle Purchases	21	47.73	23	52.27
New Building or Land Purchases	5	35.71	9	64.29

Note: Freight (timber haulage), harvesting and log cartage, and royalties and related levies removed from the analysis.

Source: EBC (1998).

7.3. Rockhampton TRC: Household and Industry Expenditure

The primary resource catchment for the Rockhampton TRC is the Duaringa-Dingo sawmill allocation zone, with the secondary resource catchment being the Builyan-Gladstone sawmill allocation zone (Table 3.2 and Figure 3)

Table 7.6 shows that the 36 timber processing industry employees resident within the Rockhampton TRC, generate an estimated \$648,700 in employee household expenditure. The majority of employees are resident in Rockhampton (22), with these employees having an annual household expenditure within Rockhampton of \$380,400. Dingo has an estimated 10 timber industry employees, however Blackwater and Rockhampton and the primary locations in which household expenditure occurs for these employees.

When all employees within the Rockhampton TRC are considered, Rockhampton, Blackwater and Dingo are the primary town locations from which household goods and services are purchased (Figure 19). Of particular note in Table 7.6 is that less than 1.5% of employee household expenditure occurs outside of the Rockhampton TRC suggesting that any change in the activity of timber processing industries within this TRC would impact on towns and communities within this TRC with little if any impact occurring outside the TRC.

Table 7.6. Rockhampton TRC: Location of Household Expenditure

	Percentage	Income or Expenditure (\$)
Total Population	97,958	
Total Employed Persons	38,812	
Number of Timber Industry Employees	36	
Estimated Employee Income		853,200
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		648,700
Main Residential Locations of Employees		
Rockhampton (22)		
Rockhampton	95.95	380,400
Dingo (10)		
Blackwater	40.64	73,200
Rockhampton	31.30	56,400
Dingo	26.91	48,500
North Rockhampton (2)		
Rockhampton	100.00	36,000
Town Catchments		
Rockhampton	62.05	402,500
Blackwater	21.39	138,800
Dingo	14.16	91,900
Total	97.60	633,200
TRC Expenditure Patterns		
Rockhampton TRC	98.59	639,600
Outside RFA Boundary & TRCs	0.70	4,500
Maryborough TRC	0.30	2,000
Brisbane TRC	0.30	2,000
Gympie TRC	0.10	1,000
Total	100.00	648,100

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

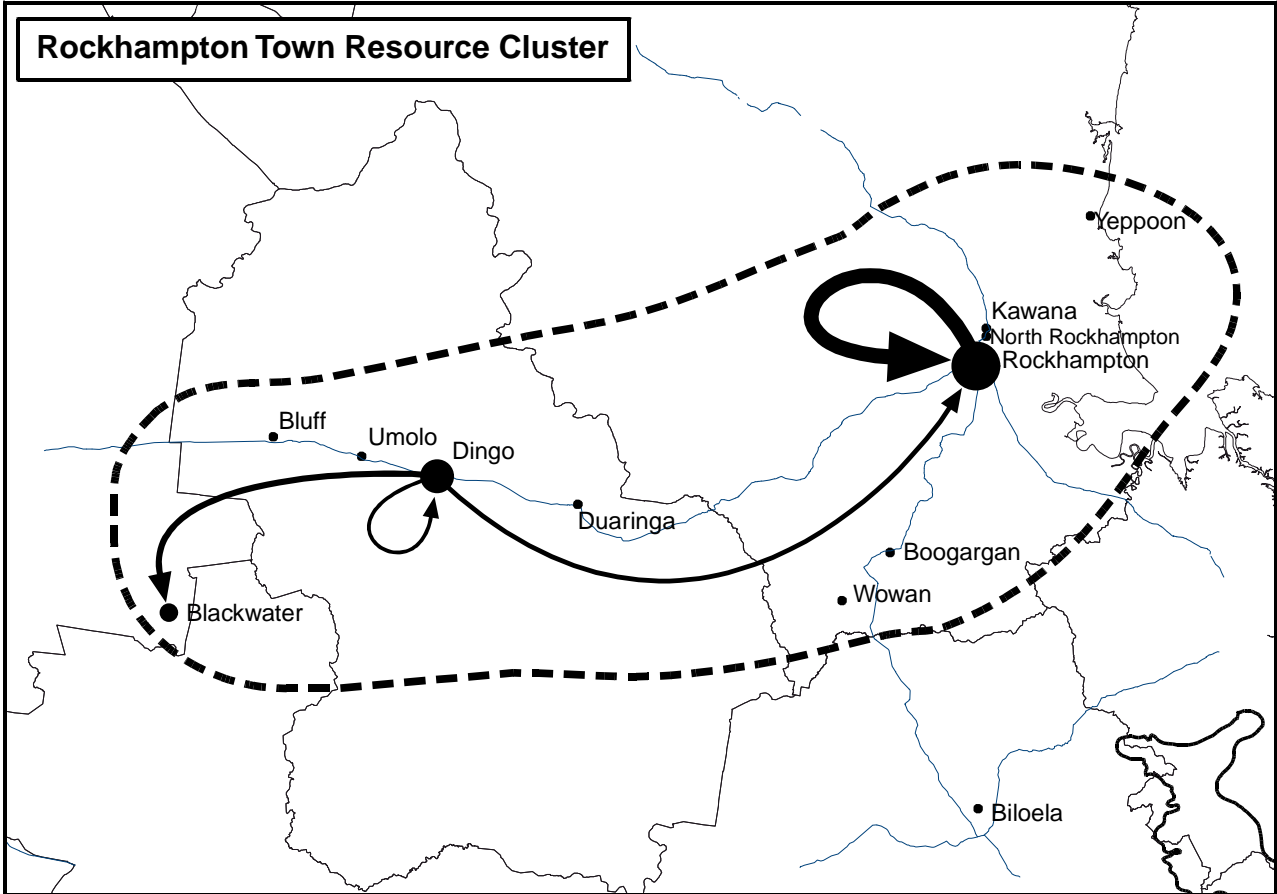
When examining forest industry expenditure within the Rockhampton TRC, 83% of goods and services used by forest industries within this TRC were purchased from towns within the TRC, with the main towns from which items were purchased by all forest industries being Rockhampton, Dingo and Yeppoon. Table 7.7 indicates that there is some expenditure occurring from the Rockhampton TRC to the Brisbane and Maryborough TRCs and in particular the towns of Brisbane and Maryborough. This appears to be particularly the case for timber processing industries and less the case for timber contractors and apiarists. Within the Rockhampton TRC timber processing industries are most likely to purchase items from Rockhampton and Dingo, with Brisbane being the primary location for items purchased outside the TRC.

Table 7.7. Rockhampton TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Rockhampton TRC	82.7			
Brisbane TRC	9.6			
Maryborough TRC	6.7			
Monto TRC	1.0			
Total	100.0			
Town Location of Expenditure				
Rockhampton	28.7			
Dingo	16.5			
Yeppoon	16.5			
North Rockhampton	12.2			
Brisbane	8.7			
Maryborough	6.1			
Blackwater	3.5			
Duaringa	1.7			
Sydney	1.7			
Biloela	0.9			
Bluff	0.9			
Jimna	0.9			
Yerra	0.9			
Duringa	0.9			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Rockhampton TRC	58.8	93.9	100.0	ND
Maryborough TRC	20.6	0.0	0.0	ND
Brisbane TRC	20.6	6.1	0.0	ND
Total	100.0	100.0	100.0	ND
High Expenditure Items				
Rockhampton TRC	87.5	94.4	100.0	ND
Monto TRC	0.0	5.6	0.0	ND
Maryborough TRC	0.0	0.0	0.0	ND
Brisbane TRC	12.5	0.0	0.0	ND
Total	100.0	100.0	100.0	ND
Within Rockhampton TRC				
Low Expenditure Items				
Primary Catchment	Rockhampton	Rockhampton	Yeppoon	ND
Secondary Catchment	Dingo	Rockhampton	Rockhampton	ND
High Expenditure Items				
Primary Catchment	Rockhampton	Dingo	*	ND
Secondary Catchment	Dingo	Rockhampton	*	ND
Outside Rockhampton TRC				
Low Expenditure Items	Brisbane	Brisbane	*	ND
High Expenditure Items	Brisbane			

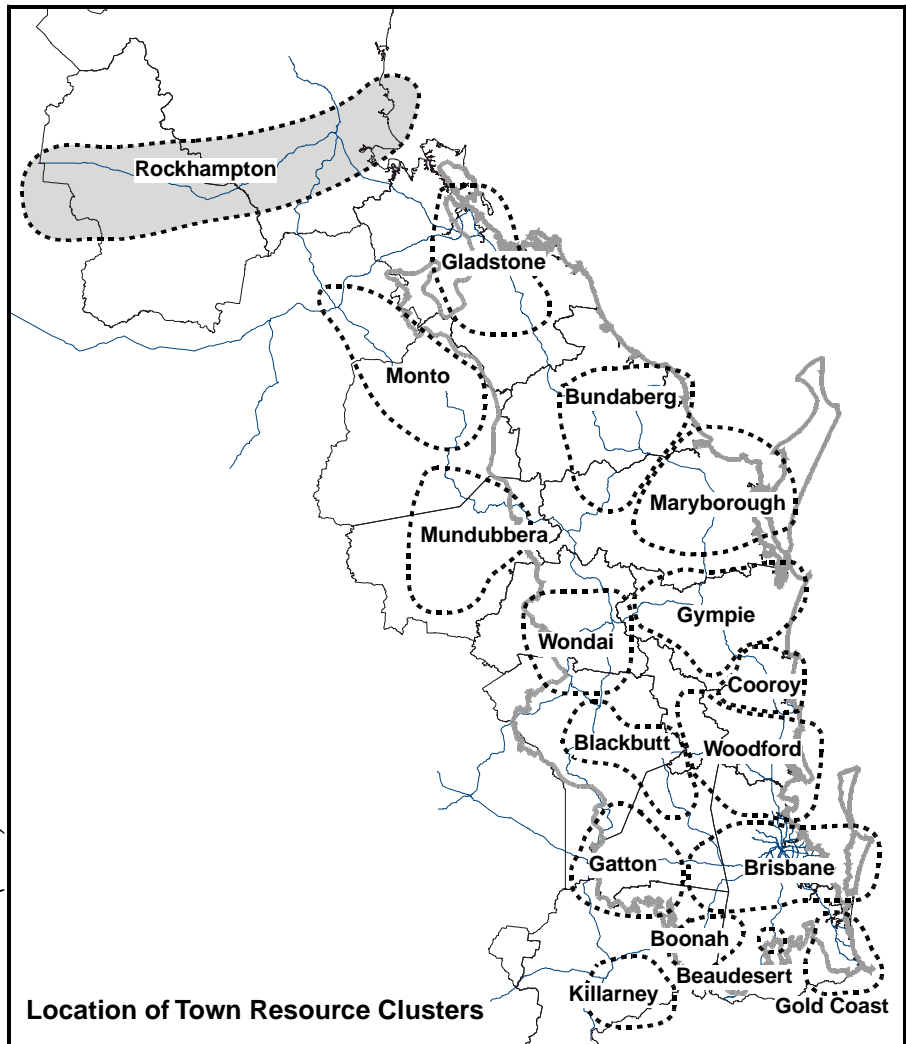
Note: All values in the table are percentages. North Rockhampton has been included within Rockhampton. 'ND' indicates no data or insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

Location of Town Resource Clusters

FIGURE 19. Rockhampton TRC: Employee Household Expenditure Network

7.4. Gladstone TRC: Household and Industry Expenditure

The primary and only resource catchment for the Gladstone TRC is the Builyan-Gladstone sawmill allocation zone (Table 3.2 and Figure 4).

Within the Gladstone TRC there are 21 timber industry employees with an estimated annual income of approximately \$500,000. The estimated total annual household expenditure from these employees is estimated to be \$380,000. As show in Figure 20, Gladstone is clearly the primary location for household expenditure amongst timber industry employees, even for those employees who reside in Builyan. As Builyan is the primary residential location for timber industry employees there is, given the proximity of Builyan to the Monto TRC, significant 'seepage' across to the Monto TRC and in particular to the town of Monto (Figure 20). Table 7.8 shows for instance that 25% of all household expenditure items purchased by employees within Builyan are sourced from Monto. In addition, while 72% of household expenditure occurs within the Gladstone TRC, 23% of this expenditure occurs within the Monto TRC and the town of Monto. Again this suggests that if there was a change to the number of timber industries within Builyan, this would not only affect Builyan itself but also impact on the towns of Gladstone and Monto.

Table 7.8. Gladstone TRC: Location of Household Expenditure

		Percentage	Annual Income or Expenditure (\$)
Total Population	40,250		
Total Employed Persons	17,906		
Number of Timber Industry Employees	21		
Estimated Employee Income			497,700
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)			378,400
Main Residential Locations of Employees			
Builyan (16)			
Gladstone		42.69	123,100
Monto		24.90	71,800
Builyan		20.95	60,400
Nagoorin (2)			
Gladstone		50.00	18,000
Monto		28.57	10,300
Bernarby (2)			
Gympie		70.00	25,200
Bernarby		30.00	10,800
Town Catchments			
Gladstone		44.01	166,500
Monto		23.15	87,600
Builyan		20.69	78,300
Total		87.85	332,400
TRC Expenditure Patterns			
Gladstone TRC		72.29	273,500
Monto TRC		23.15	87,600
Rockhampton TRC		2.96	11,200
Outside RFA Boundary & TRCs		0.49	1,900
Brisbane TRC		0.95	3,600
Bundaberg TRC		0.16	600
Total		100.00	378,400

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Table 7.9 indicates that 80% of all items of expenditure by forest industries occurs within the Gladstone TRC. Gladstone again is the primary location for industry expenditure within this TRC. Interestingly, amongst timber contractors and apiarists there is some industry expenditure occurring to the Rockhampton TRC and in particular the town of Rockhampton. This appears to be the case for low items of expenditure, with Brisbane being the primary source of expenditure for items of high relative expenditure outside the Gladstone TRC.

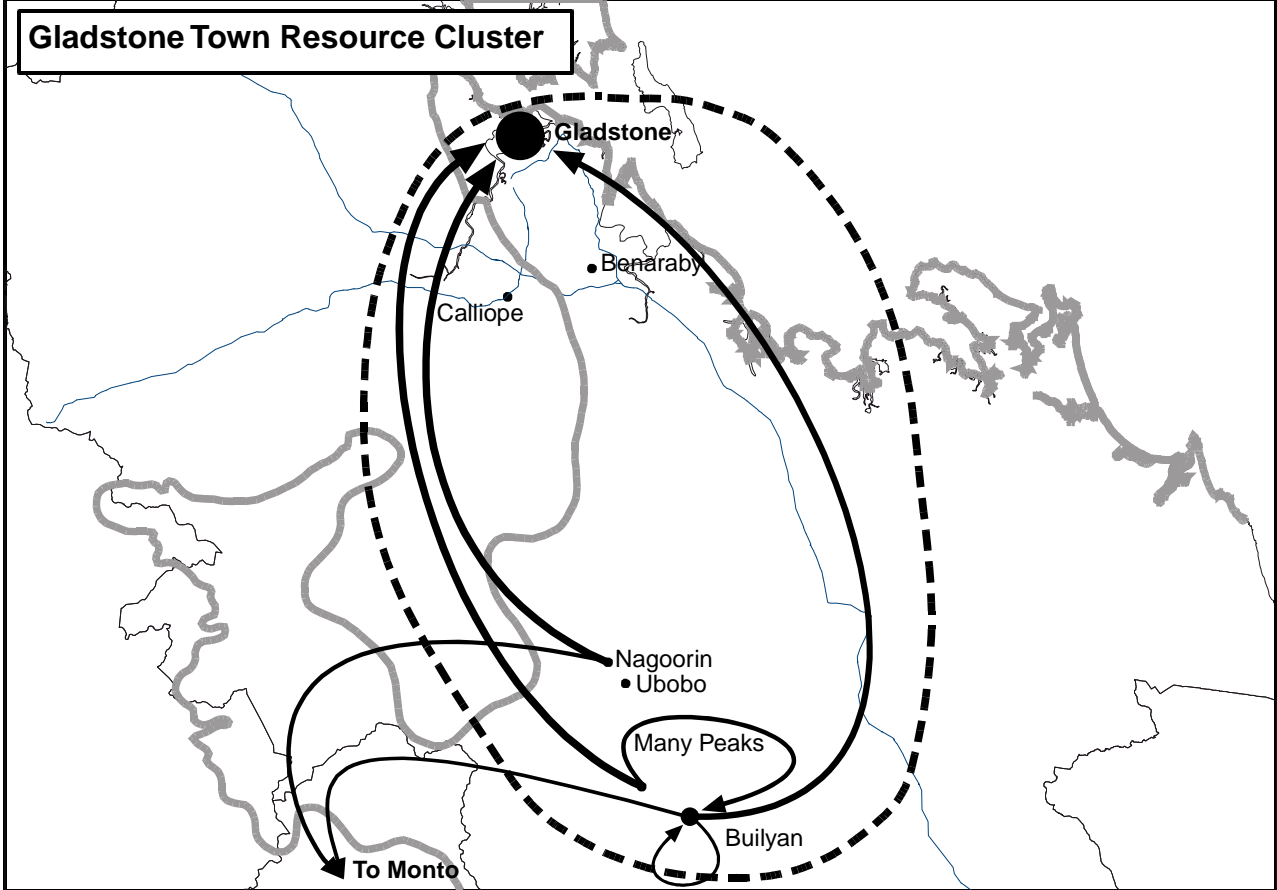
It is clear that if there is any change to the number or operational level of forest industries within the Gladstone TRC, Gladstone and to a lesser extent Builyan will be the primary towns impacted through changes in the level of industry expenditure.

Table 7.9. Gladstone TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Gladstone TRC	79.6			
Rockhampton TRC	8.2			
Cooroy TRC	4.1			
Brisbane TRC	4.1			
Monto TRC	2.0			
Blackbutt TRC	2.0			
Total	100.0			
Town Location of Expenditure				
Gladstone	54.0			
Builyan	18.0			
Rockhampton	8.0			
Calliope	6.0			
Brisbane	4.0			
Esk	2.0			
Monto	2.0			
Nambour	2.0			
Palmwoods	2.0			
Rollingstone	2.0			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Gladstone TRC	ND	90.9	66.7	80.0
Blackbutt TRC	ND	0.0	0.0	6.7
Cooroy TRC	ND	0.0	0.0	13.3
Rockhampton TRC	ND	9.1	33.3	0.0
Total	ND	100.0	100.0	100.0
High Expenditure Items				
Gladstone TRC	ND	70.0	75.0	100.0
Rockhampton TRC	ND	0.0	25.0	0.0
Monto TRC	ND	10.0	0.0	0.0
Brisbane TRC	ND	20.0	0.0	0.0
Total	ND	100.0	100.0	100.0
Within Gladstone TRC				
Low Expenditure Items				
Primary Catchment	ND	Gladstone	Gladstone	Gladstone
Secondary Catchment	ND	Builyan	Calliope	Builyan
High Expenditure Items				
Primary Catchment	ND	Gladstone	Gladstone	Gladstone
Secondary Catchment	ND	Builyan		Builyan
Outside Gladstone TRC				
Low Expenditure Items	ND	Rockhampton	*	*
High Expenditure Items	ND	Brisbane	*	*

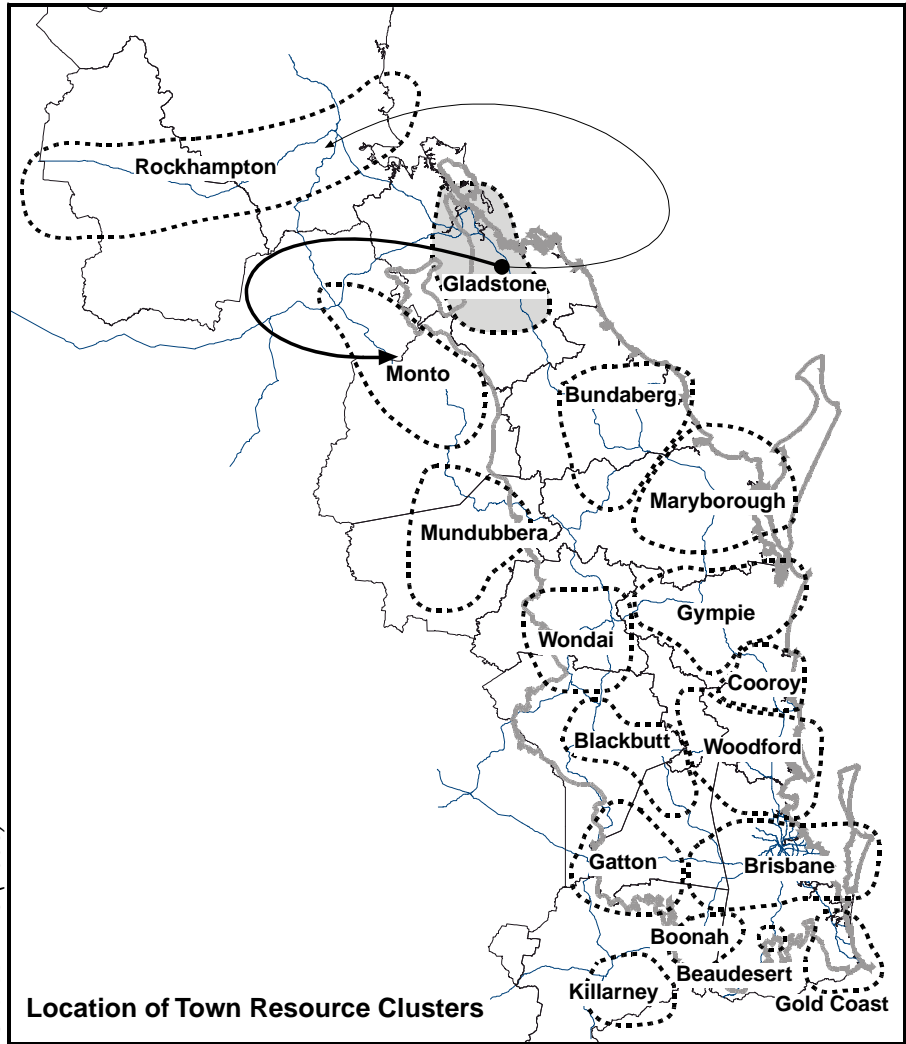
Note: All values in the table are percentages 'ND' indicates no data. '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 20. Gladstone TRC: Employee Household Expenditure Network

7.5. Monto TRC: Household and Industry Expenditure

The primary and only resource catchment for the Monto TRC is the Monto-Eidsvold sawmill allocation zone (Table 3.2 and Figure 5).

Of the estimated 35 timber processing industry employees located within the Monto TRC, 23 reside within Monto and 12 reside within the town of Mulgildie. These employees have an estimated annual income of approximately \$830,000 with approximately \$631,000 in annual household expenditure. The town of Monto is the primary catchment for employee household expenditure within the Monto TRC, with 88% of all items of household expenditure also occurring within this TRC (Figure 21). The town of Bundaberg, which is outside the Monto TRC, is also a source of household expenditure for timber industry employees within the Monto TRC.

Table 7.10. Monto TRC: Location of Household Expenditure

		Percentage	Annual Income or Expenditure (\$)
Total Population	10,457		
Total Employed Persons	4,696		
Number of Timber Industry Employees	35		
Estimated Employee Income			829,500
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)			630,700
Main Residential Locations of Employees			
Monto (23)			
Monto		80.54	464,400
Bundaberg		6.56	37,800
Mulgildie (12)			
Monto		78.43	42,400
Mulgildie		19.61	10,600
Town Catchments			
Monto		76.45	482,100
Bundaberg		5.60	35,300
Total		82.05	517,500
TRC Expenditure Patterns			
Monto TRC		87.64	552,700
Bundaberg TRC		5.60	35,300
Maryborough		1.74	11,000
Brisbane TRC		1.54	9,700
Rockhampton TRC		1.35	8,500
Gladstone TRC		0.77	4,900
Wondai TRC		0.58	3,700
Mundubbera TRC		0.39	2,500
Blackbutt TRC		0.19	1,200
Woodford TRC		0.19	1,200
Total		100.00	630,700

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Seventy-nine percent of all forest industry expenditure occurs within the Monto TRC, with the Brisbane TRC also attracting 12% of expenditure items (Table 7.11). Although the town of Monto attracts approximately 50% of all items of forest industry expenditure, Biloela also attracts an additional 21% of forest industry expenditure. However, Biloela appears particularly significant as a source of expenditure for grazing industries within this TRC, with Biloela being the secondary catchment for high and low expenditure items for the grazing industry within this TRC.

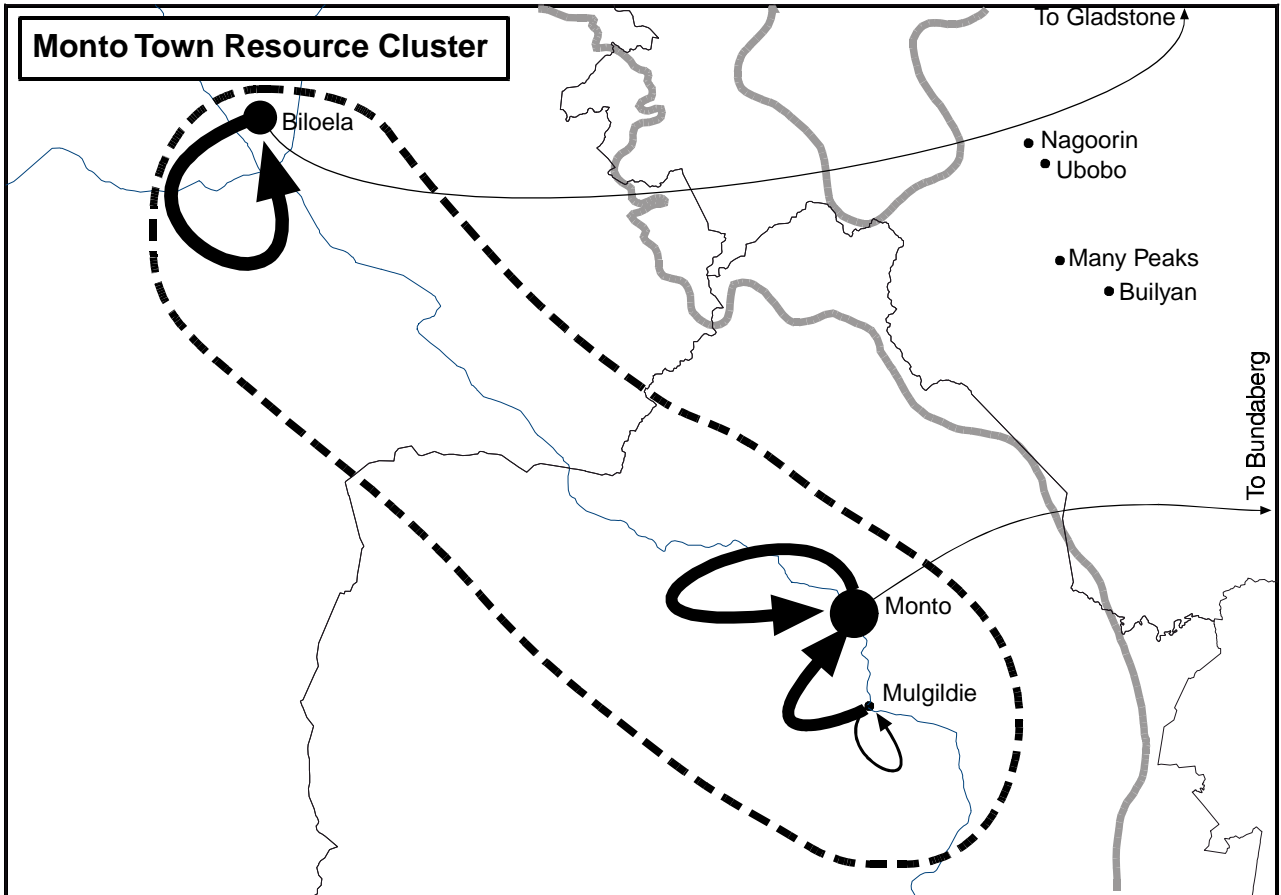
Amongst the timber processing industries within the Monto TRC, Monto and Mulgildie are the primary locations for timber industry expenditure, with some low expenditure items also occurring in Maryborough and some high expenditure items also sourced from Brisbane.

Table 7.11. Monto TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Monto TRC	79.1			
Brisbane TRC	11.6			
Maryborough TRC	4.7			
Rockhampton TRC	3.5			
Gatton TRC	1.2			
Total	100.0			
Town Location of Expenditure				
Monto	51.7			
Biloela	20.7			
Brisbane	11.4			
Mulgildie	5.7			
Maryborough	4.6			
Rockhampton	3.4			
Toowoomba	1.1			
Sydney	1.1			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Rockhampton TRC	0.0	ND	ND	8.3
Monto TRC	70.6	ND	ND	83.3
Maryborough TRC	11.8	ND	ND	0.0
Brisbane TRC	17.6	ND	ND	5.6
Gatton TRC	0.0	ND	ND	2.8
Total	100.0	ND	ND	100.0
High Expenditure Items				
Monto TRC	75.0	ND	ND	100.0
Brisbane TRC	25.0	ND	ND	0.0
Total	100.0	ND	ND	100.0
Within Monto TRC				
Low Expenditure Items				
Primary Catchment	Monto	ND	ND	Monto
Secondary Catchment	Mulgildie	ND	ND	Biloela
High Expenditure Items				
Primary Catchment	Monto	ND	ND	Monto
Secondary Catchment	Mulgildie	ND	ND	Biloela
Outside Monto TRC				
Low Expenditure Items	Brisbane	ND	ND	Brisbane
High Expenditure Items	Brisbane	ND	ND	Brisbane

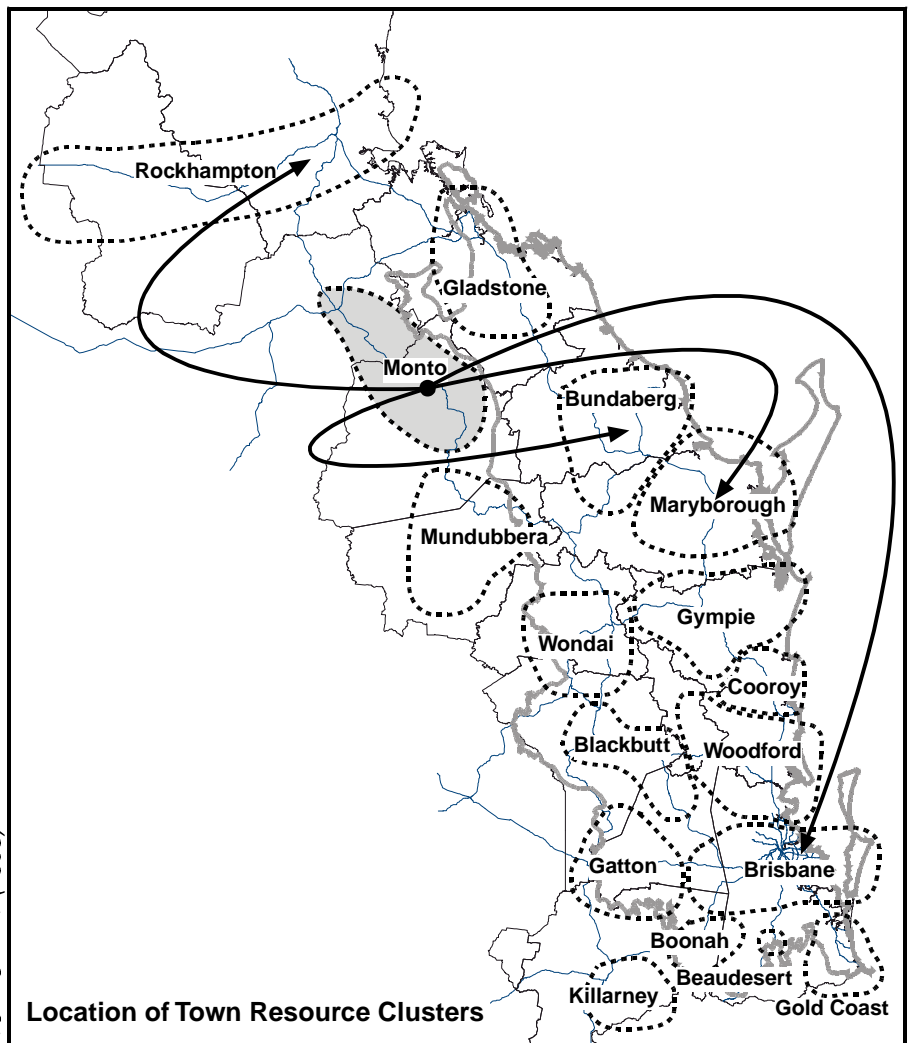
Note: All values in the table are percentages.
 North Rockhampton has been included within Rockhampton
 'ND' indicates no data.
 '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 21.
Monto TRC: Employee Household Expenditure Network

7.6. Mundubbera TRC: Household and Industry Expenditure

The primary and secondary resource catchments for the Mundubbera TRC are Eidsvold-Monto and Gayndah-Mundubbera sawmill allocation zones (Table 3.2 and Figure 6).

The Mundubbera TRC is particularly significant is so far as it has an estimated 77 resident timber industry employees with an estimated annual income amongst these employees of \$1.8 million and an annual household expenditure of \$1.4 million. The main town locations in which timber industry employees are resident within this TRC are Eidsvold (33) and Mundubbera (28), although Allies Creek, Binjour, Gayndah and Monogorilby also have timber industry employees.

As shown in Table 7.12 and Figure 22, Mundubbera and Eidsvold are the primary town locations attracting household expenditure from timber industry employees, with Mundubbera attracting \$700,000 in annual expenditure and Eidsvold attracting an estimated \$264,000 in annual expenditure. Together Mundubbera and Eidsvold account for 70% of all items of household expenditure. Table 7.12 also shows that when the town locations of all employees are examined, Mundubbera is also consistently identified as either the primary or secondary catchment for household expenditure.

Although 79% of all items of household expenditure occur within the Mundubbera TRC, towns within the Bundaberg, Wondai, Monto and Maryborough TRCs also account for 15% of all items of household expenditure. That 4.5% of household expenditure also occurs outside the RFA boundary and other TRCs also indicates some items of household expenditure occurs to towns to the west of the Mundubbera TRC.

Table 7.13 indicates that although forest industries within the Mundubbera TRC source 52% of their items of expenditure from within this TRC and in particular the town of Mundubbera, there is nevertheless considerable industry expenditure sourced to the Brisbane TRC. This is particularly so for many low expenditure items amongst the timber industries within this TRC, with high expenditure items being sourced from Monto and the Monto TRC. In addition, timber industries within the Mundubbera TRC also source equal percentages of low and high expenditure items from the Maryborough TRC.

While Mundubbera is also the primary location for industry expenditure for grazing industries within this TRC, Table 7.13 also shows that Bundaberg and Biloela are also primary locations for industry expenditure for the grazing industry.

Table 7.12. Mundubbera TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	5,484	
Total Employed Persons	2,530	
Number of Timber Industry Employees	77	
Estimated Employee Income		1,824,900
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		1,387,500
Main Residential Locations of Employees		
Eidsvold (33)		
Eidsvold	66.29	394,200
Mundubbera	9.95	59,200
Bundaberg	9.50	56,500
Monto	8.82	52,500
Mundubbera (28)		
Mundubbera	71.84	362,500
Maryborough	5.99	30,200
Chinchilla	5.44	27,400
Bundaberg	5.03	25,400
Allies Creek (6)		
Mundubbera	67.53	73,000
Kingaroy	15.98	17,100
Allies Creek	5.67	6,100
Binjour (5)		
Mundubbera	39.44	35,500
Gayndah	36.62	33,000
Bundaberg	12.68	11,400
Binjour	7.04	6,300
Gayndah (3)		
Gayndah	51.56	27,900
Mundubbera	39.06	21,100
Bundaberg	6.25	3,400
Monogorilby (2)		
Mundubbera	59.74	21,500
Dalby	29.57	10,700
Jandowae	7.80	2,800
Town Catchments		
Mundubbera	50.46	700,000
Eidsvold	19.02	263,900
Gayndah	7.22	100,200
Bundaberg	5.93	82,300
Total	82.63	1,146,500
TRC Expenditure Patterns		
Mundubbera TRC	78.53	1,089,600
Bundaberg TRC	5.99	83,100
Outside RFA Boundary & TRCs	4.53	62,900
Wondai TRC	3.36	46,600
Maryborough TRC	3.18	44,100
Monto TRC	2.63	36,500
Gympie TRC	0.67	9,300
Brisbane TRC	0.55	7,600
Gatton TRC	0.18	2,500
Blackbutt TRC	0.12	1,700
Gold Coast TRC	0.06	800
Woodford TRC	0.06	800
Rockhampton TRC	0.06	800
Cooroy	0.06	800
Total	100.00	1,387,500

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Table 7.13. Mundubbera TRC: Forest Industry Expenditure

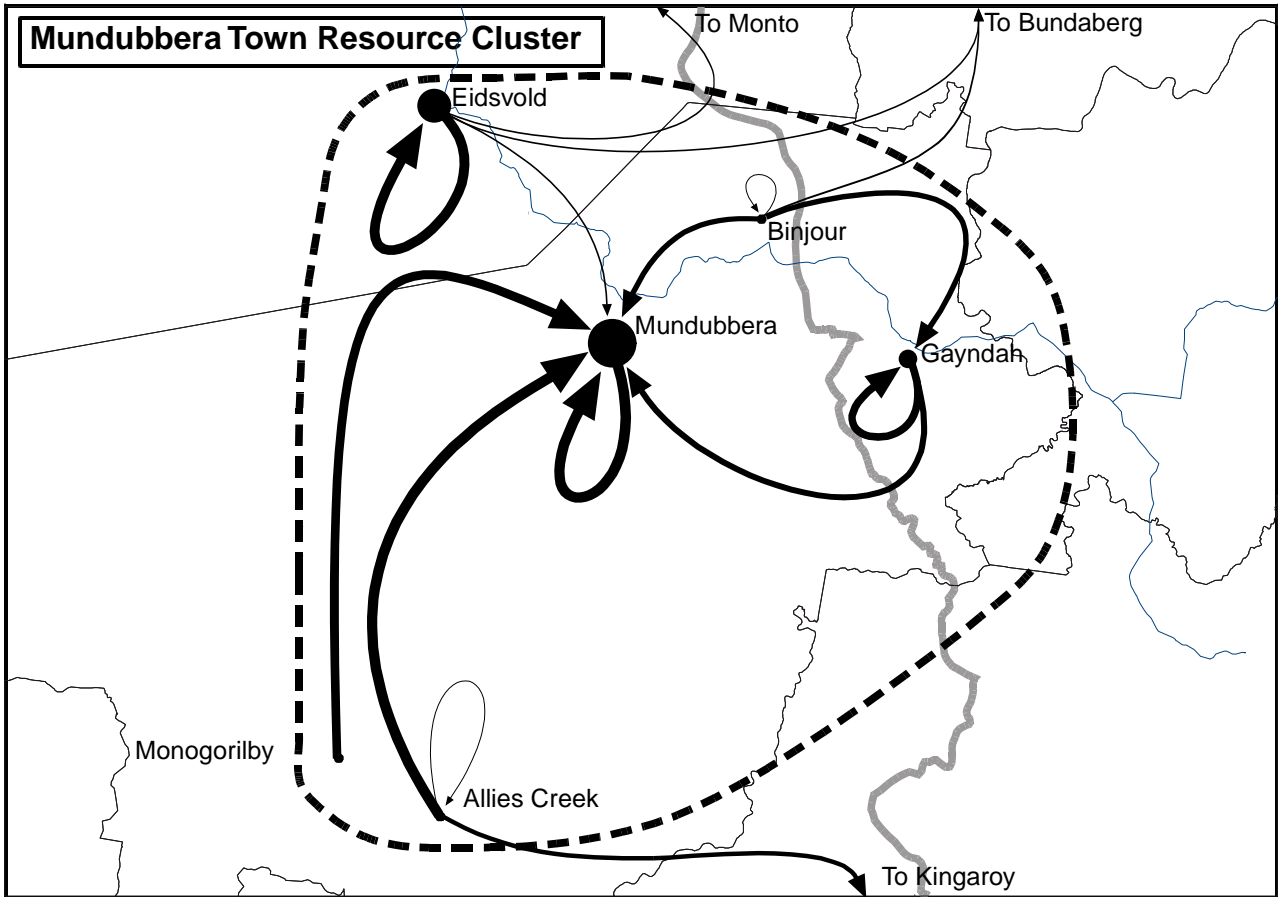
All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Mundubbera TRC	51.6			
Brisbane TRC	25.0			
Maryborough TRC	9.4			
Monto TRC	6.3			
Wondai TRC	4.7			
Bundaberg TRC	1.6			
Gympie TRC	1.6			
Total	100.0			
Town Location of Expenditure				
Mundubbera	36.4			
Brisbane	24.2			
Maryborough	9.1			
Allies Creek	7.6			
Gayndah	4.5			
Monto	4.5			
Biloela	1.5			
Bundaberg	1.5			
Dalby	1.5			
Eidsvold	1.5			
Goomeri	1.5			
Gympie	1.5			
Jandowae	1.5			
Kingaroy	1.5			
Murgon	1.5			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Monto TRC	0.00	ND	ND	6.7
Mundubbera TRC	41.7	ND	ND	73.3
Maryborough TRC	13.9	ND	ND	0.0
Wondai TRC	2.8	ND	ND	13.3
Brisbane TRC	41.7	ND	ND	0.0
Bundaberg TRC	0.0	ND	ND	6.7
Total	100.0	ND	ND	100.0
High Expenditure Items				
Monto TRC	25.0	ND	ND	20.0
Mundubbera TRC	50.0	ND	ND	60.0
Maryborough TRC	12.5	ND	ND	0.0
Brisbane TRC	12.5	ND	ND	0.0
Gympie TRC	0.0	ND	ND	20.0
Total	100.0	ND	ND	100.0
Within Mundubbera TRC				
Low Expenditure Items				
Primary Catchment	Mundubbera	ND	ND	Mundubbera
Secondary Catchment	Allies Creek	ND	ND	Gayndah
High Expenditure Items				
Primary Catchment	Mundubbera	ND	ND	Mundubbera
Secondary Catchment	Allies Creek	ND	ND	*
Outside Mundubbera TRC				
Low Expenditure Items	Brisbane	ND	ND	Bundaberg
High Expenditure Items	Monto	ND	ND	Biloela

Note: All values in the table are percentages.

'ND' indicates no data.

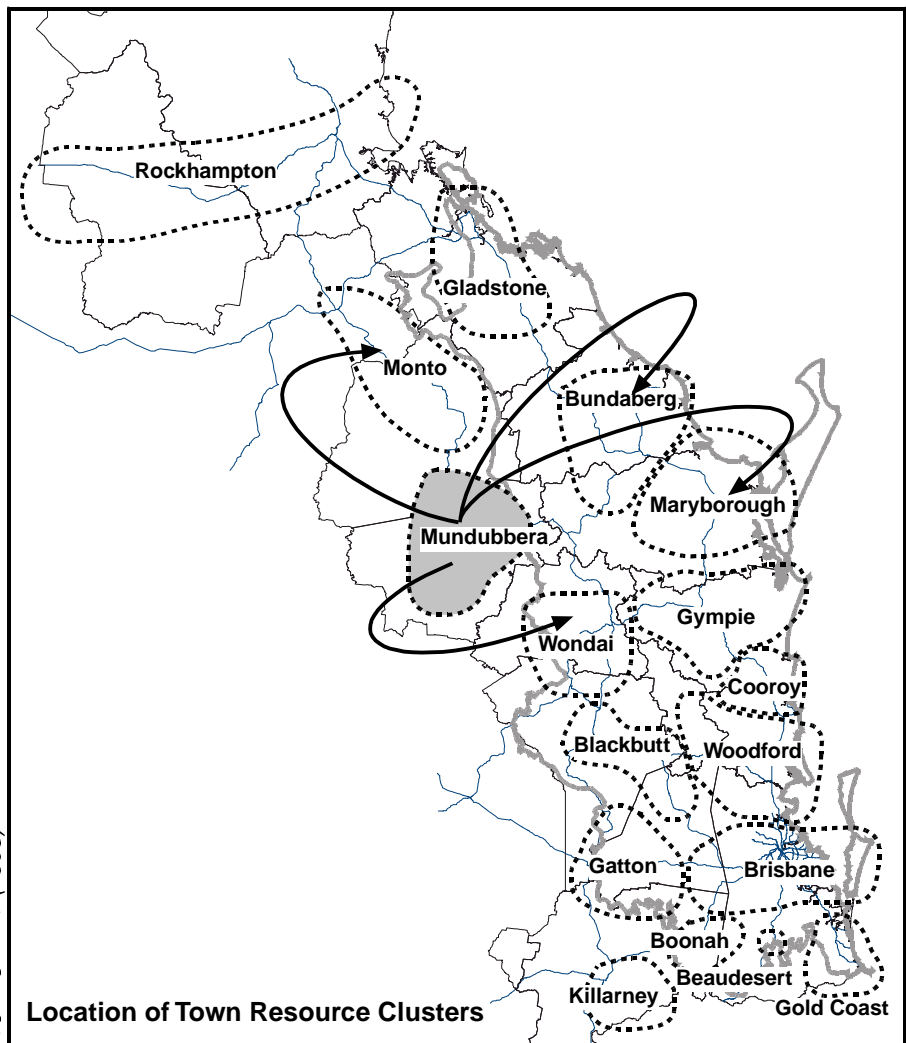
'*' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 22.
Mundubbera TRC: Employee Household Expenditure Network

7.7 Bundaberg TRC: Household and Industry Expenditure

The primary and only resource catchment for the Bundaberg TRC is the Bundaberg sawmill allocation zone (Table 3.2 and Figure 7).

Table 7.14 shows that the Bundaberg TRC has an estimated 70 timber industry employees, with an estimated employee income of \$1.7 million an estimated annual household expenditure amongst these employees of \$1.3 million. It is also estimated that 68, or 98% of timber industry employees reside in the town of Bundaberg, with these employees also expending \$1.2 million annually within the town of Bundaberg (Figure 23). Table 7.14 also indicates very little household expenditure is sourced outside the Bundaberg TRC, with 97% of all expenditure occurring within this TRC.

Table 7.14. Bundaberg TRC: Location of Household Expenditure

		Percentage	Annual Income or Expenditure (\$)
Total Population	72,077		
Total Employed Persons	25,930		
Number of Timber Industry Employees	70		
Estimated Employee Income			1,659,000
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)			1,261,300
Main Residential Locations of Employees			
Bundaberg (68)			
Bundaberg		97.93	1,199,900
Biggenden (2)			
Biggenden		64.13	23,100
Bundaberg		27.17	9,800
Town Catchments			
Bundaberg		82.93	1,046,000
Total		82.93	1,046,000
TRC Expenditure Patterns			
Bundaberg TRC		97.39	1,228,400
Rockhampton TRC		0.90	11,400
Maryborough TRC		0.63	8,000
Outside RFA Boundary & TRCs		0.36	4,600
Brisbane TRC		0.27	3,400
Gladstone TRC		0.18	2,300
Cooroy TRC		0.18	2,300
Gatton TRC		0.09	1,100
Total		100.00	1,261,300

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Although over 97% of all employee household expenditure occurred within the Bundaberg TRC (Table 7.14), only 76% of all items of forest industry expenditure were found to be sourced from within the Bundaberg TRC. Towns within the Brisbane, Maryborough and Boonah TRCs were also found to attract 21% of industry expenditure.

Within the Bundaberg TRC, and across all forest industries, Bundaberg, Childers and Biggenden were the primary locations for forest industry expenditure. Bundaberg was the primary location for low and high expenditure items within the timber industry, while Bundaberg and Childers were the main locations for expenditure within the apiarist and grazing industries. Outside this TRC, Brisbane

was the main town from which high expenditure items were sourced within the timber industry, with Boonah and Maryborough also a source of industry expenditure outside the TRC for the apiarist and grazing industries.

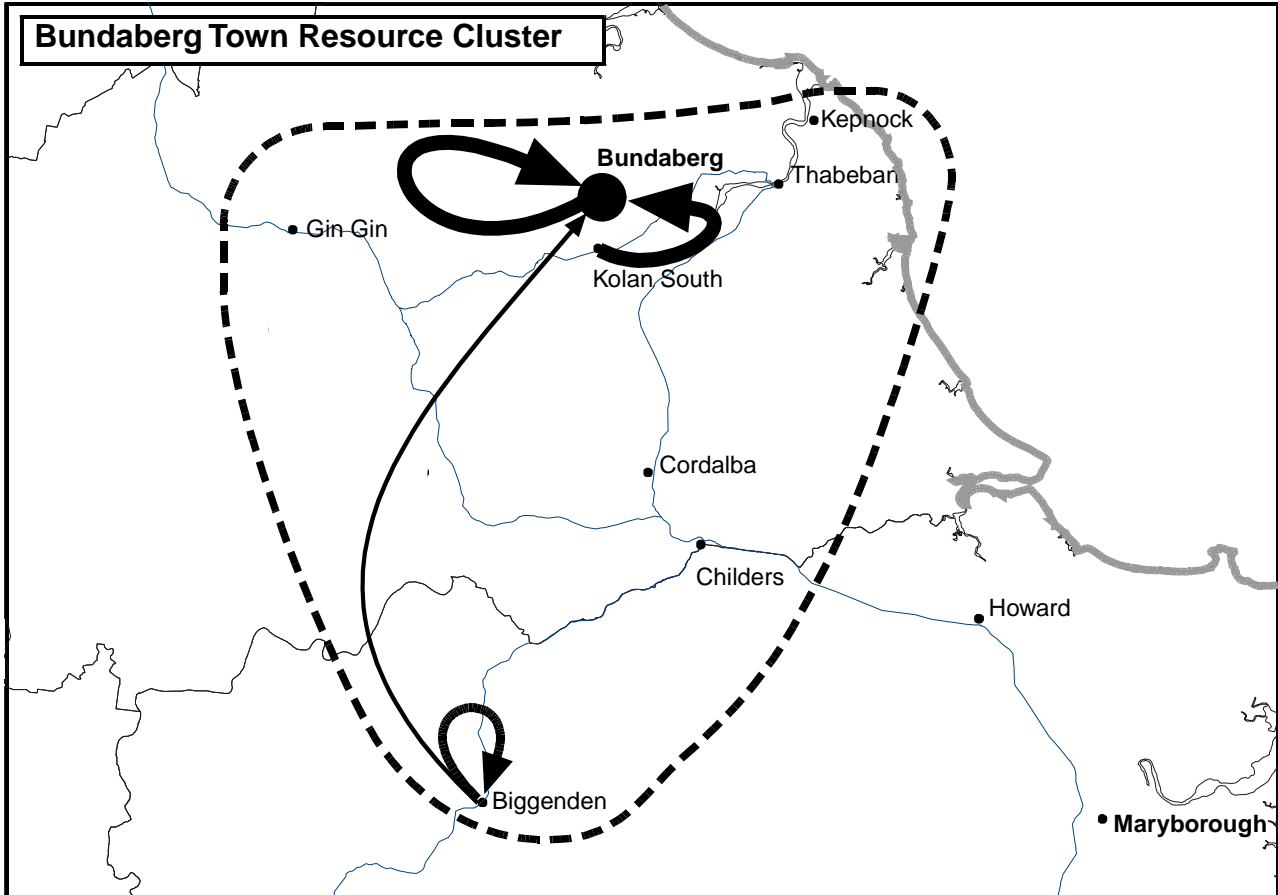
Table 7.15. Bundaberg TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Bundaberg TRC	76.0			
Brisbane TRC	8.2			
Maryborough TRC	6.6			
Boonah TRC	6.0			
Gympie TRC	1.1			
Gatton TRC	1.1			
Rockhampton TRC	0.5			
Gladstone TRC	0.5			
Total	100.0			
Town Location of Expenditure				
Bundaberg	39.0			
Childers	20.3			
Biggenden	12.5			
Brisbane	7.3			
Maryborough	5.7			
Boonah	5.2			
Dunmore	2.1			
Gin Gin	2.1			
Gympie	1.0			
Toowoomba	1.0			
Other (less than 0.5%)	3.5			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Bundaberg TRC	100.0	100.0	65.5	89.5
Brisbane TRC	0.0	0.0	17.2	1.8
Boonah TRC	0.0	0.0	12.1	0.0
Maryborough TRC	0.0	0.0	0.0	8.8
Rockhampton TRC	0.0	0.0	1.7	0.0
Gladstone TRC	0.0	0.0	1.7	0.0
Gatton TRC	0.0	0.0	1.7	0.0
Total	100.0	0.0	100.0	100.0
High Expenditure Items				
Bundaberg TRC	75.0	100.0	50.0	80.0
Brisbane TRC	25.0	0.0	10.7	0.0
Maryborough TRC	0.0	0.0	14.3	20.0
Boonah TRC	0.0	0.0	14.3	0.0
Gympie TRC	0.0	0.0	7.1	0.0
Gatton TRC	0.0	0.0	3.6	0.0
Total	100.0	ND	ND	100.0
Within Bundaberg TRC				
Low Expenditure Items				
Primary Catchment	Bundaberg	ND	Bundaberg	Childers
Secondary Catchment	Bundaberg	ND	Childers	Bundaberg
High Expenditure Items				
Primary Catchment	Bundaberg	ND	Bundaberg	Bundaberg
Secondary Catchment	Bundaberg	ND	Childers	Childers
Outside Bundaberg TRC				
Low Expenditure Items	*	ND	Brisbane	Maryborough
High Expenditure Items	Brisbane	ND	Boonah	*

Note: All values in the table are percentages.

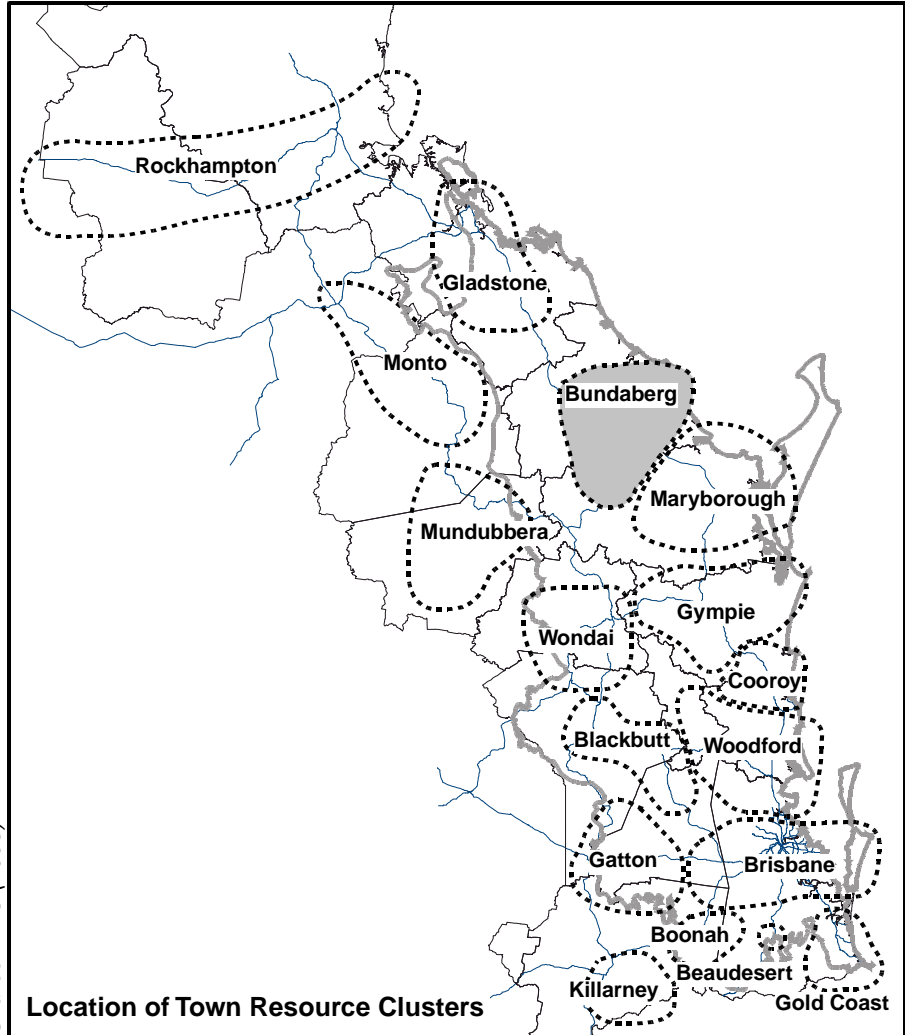
'ND' indicates no data, '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 23. Bundaberg TRC: Employee Household Expenditure Network

7.8 Maryborough TRC: Household and Industry Expenditure

The primary and only resource catchment for the Maryborough TRC is the Maryborough sawmill allocation zone (Table 3.2 and Figure 8).

The Maryborough TRC is the TRC with the highest number of timber industry employees. The 203 employees within this TRC have an estimated annual income of \$4.8 million and an estimated annual household expenditure of \$3.7 million. Of the seven towns with resident timber industry employees Maryborough has 151 or 74.4% of all employees. Other town locations in which timber industry employees are resident include the towns of Tiaro (19), Hervey Bay (11), Aramara (7), Howard (6), Brooweena (4) and Tinana (4). Of note is that across all towns in which employees are resident, the town of Maryborough is either the primary or secondary catchment of employee household expenditure (Figure 24).

Table 7.16 also shows that 81% of all household goods and services are purchased within the town of Maryborough with an estimated value of approximately \$3 million. A further 10% of items were purchased from the town of Hervey Bay, with these items have an estimated expenditure value of \$360,000.

Ninety five percent of the household expenditure by timber industry employees was found to occur within the Maryborough TRC, with an additional 2% of this expenditure sourced within the Brisbane and Gympie TRCs. As such the significant level of household expenditure by timber industry employees within the Maryborough TRC occurs within the Maryborough TRC and within the local economy.

While Table 7.16 shows that 95% of all household expenditure by timber industry employees occurs within the Maryborough TRC, Table 7.17 also shows that forest industries located within this TRC also source 88% of their goods and services from within the Maryborough TRC. Sixty-six percent of industry expenditure within this TRC occurs within the town of Maryborough and a further 10% occurs within the town of Hervey Bay. While Maryborough and Hervey Bay are the primary town locations for forest industry expenditure within this TRC, Brisbane was found to be the primary location for both low and high items of industry expenditure outside the Maryborough TRC.

Although the Brisbane TRC was one of the main locations of industry expenditure outside the Maryborough TRC for all forest industries, the timber processing and contracting industries within the Maryborough TRC were also found to source several items of industry expenditure from Gympie within the Gympie TRC.

Table 7.16. Maryborough TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	69,900	
Total Employed Persons	21,723	
Number of Timber Industry Employees	203	
Estimated Employee Income		4,811,100
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		3,657,900
Main Residential Locations of Employees		
Maryborough (151)		
Maryborough	87.35	2,376,700
Hervey Bay	7.42	201,900
Tiaro (19)		
Maryborough	70.00	239,700
Tiaro	30.00	102,709
Hervey Bay (11)		
Hervey Bay	53.32	105,700
Maryborough	34.72	68,800
Aramara (7)		
Maryborough	87.83	110,800
Howard (6)		
Maryborough	80.00	86,500
Howard	20.00	21,600
Brooweena (4)		
Maryborough	80.36	57,900
Brooweena	16.67	12,000
Tinana (4)		
Maryborough	100.00	72,100
Town Catchments		
Maryborough	80.77	2,954,500
Hervey Bay	9.80	358,500
Total	90.57	3,313,000
TRC Expenditure Patterns		
Maryborough TRC	95.34	3,500,600
Brisbane TRC	1.30	47,600
Gympie TRC	1.08	39,500
Bundaberg TRC	0.80	29,300
Outside RFA Boundary & TRCs	0.44	16,100
Cooroy TRC	0.17	6,200
Woodford TRC	0.17	6,200
Munduberra TRC	0.09	3,300
Wondai TRC	0.08	2,900
Monto TRC	0.06	2,200
Gatton TRC	0.05	1,800
Gold Coast TRC	0.03	1,100
Rockhampton TRC	0.03	1,100
Total	100.00	3,657,900

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Table 7.17. Maryborough TRC: Forest Industry Expenditure

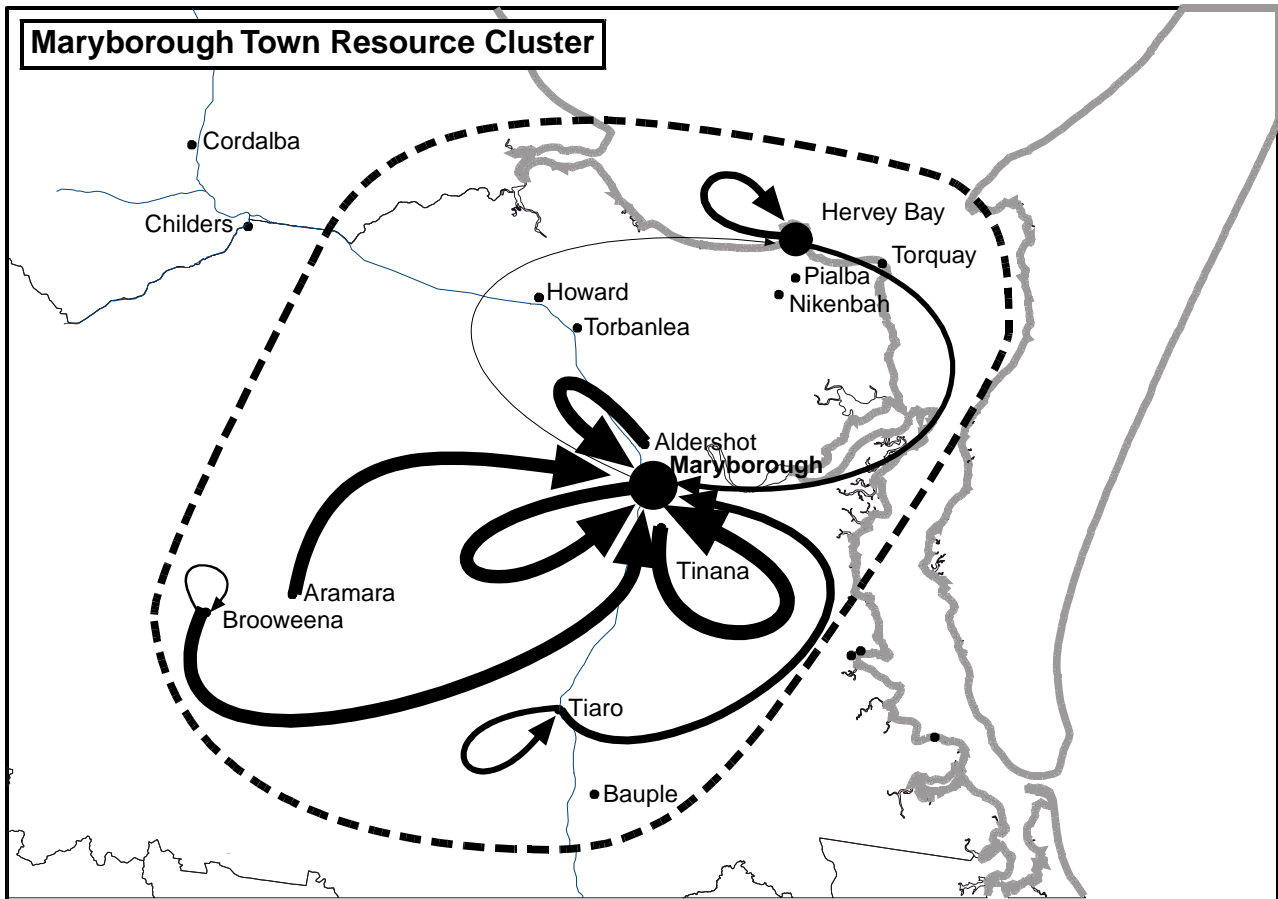
All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Maryborough TRC	88.0			
Brisbane TRC	6.1			
Gympie TRC	3.3			
Bundaberg TRC	0.8			
Other (less than 0.5%)	2.1			
Total	100.0			
Town Location of Expenditure				
Maryborough	65.9			
Hervey Bay	9.9			
Brisbane	5.8			
Gympie	3.1			
Tiaro	2.4			
Woocoo Shire	2.4			
Howard	2.2			
Pialba	1.4			
Brooweena	1.2			
Interstate	1.2			
Bundaberg	0.7			
Torbanlea	0.5			
Other (less than 0.5%)	2.7			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Maryborough TRC	83.0	90.9	94.9	92.0
Brisbane TRC	8.9	4.5	3.4	2.3
Gympie TRC	6.3	4.5	0.0	1.1
Bundaberg TRC	0.9	0.0	0.0	1.1
Wondai TRC	0.0	0.0	1.7	0.0
Mundubbera TRC	0.0	0.0	0.0	1.1
Cooroy TRC	0.0	0.0	0.0	1.1
Gold Coast TRC	0.0	0.0	0.0	1.1
Gatton TRC	0.9	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Maryborough TRC	76.5	80.0	81.8	96.2
Gympie TRC	11.8	0.0	4.5	0.0
Rockhampton TRC	0.0	4.0	0.0	0.0
Woodford TRC	0.0	4.0	0.0	0.0
Bundaberg TRC	0.0	0.0	0.0	3.8
Brisbane TRC	11.8	12.0	13.6	0.0
Total	100.0	100.0	100.0	100.0
Within Maryborough TRC				
Low Expenditure Items				
Primary Catchment	Maryborough	Maryborough	Maryborough	Maryborough
Secondary Catchment	Hervey Bay	Hervey Bay	Hervey Bay	Hervey Bay
High Expenditure Items				
Primary Catchment	Maryborough	Maryborough	Maryborough	Maryborough
Secondary Catchment	*	*	Hervey Bay	*
Outside Maryborough TRC				
Low Expenditure Items	Brisbane	Brisbane	Brisbane	Brisbane
High Expenditure Items	Brisbane	Brisbane	Brisbane	*

Note: All values in the table are percentages.

'ND' indicates no data, '*' indicates insufficient data.

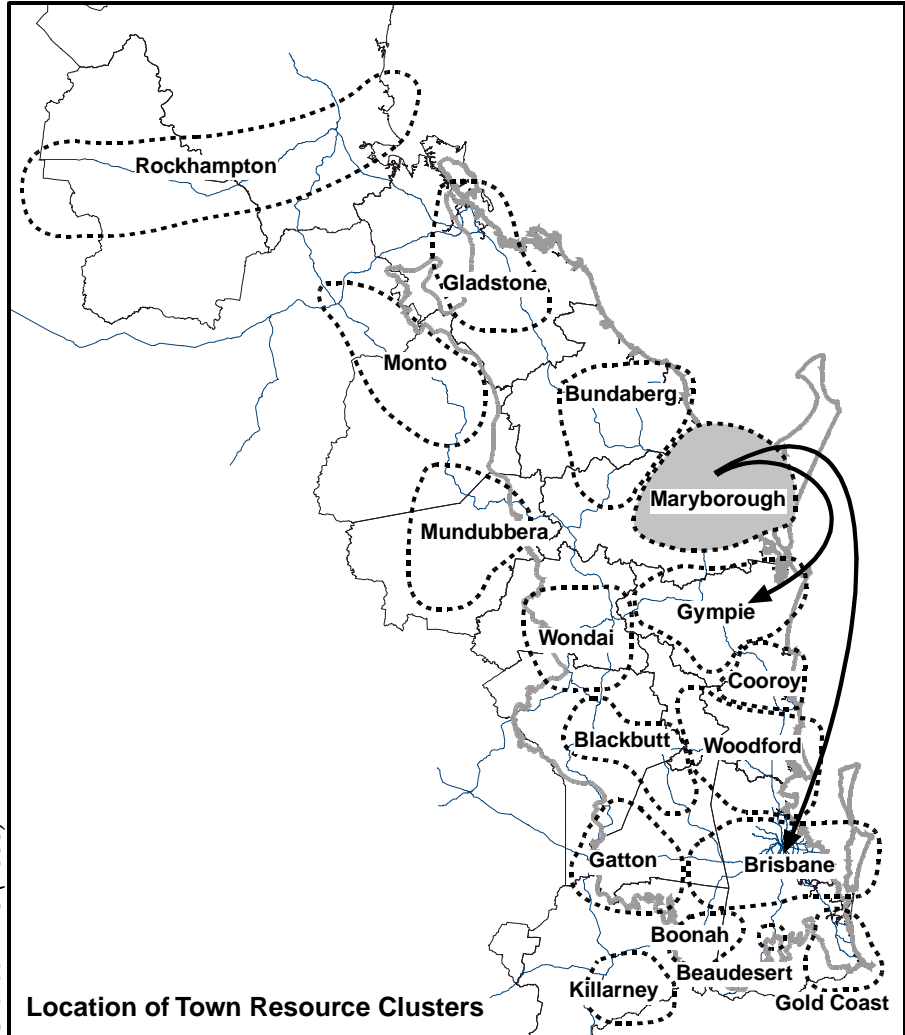
Source: EBC (1998).

Maryborough Town Resource Cluster



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

Location of Town Resource Clusters

FIGURE 24. Maryborough TRC: Employee Household Expenditure Network

7.9 Gympie TRC: Household and Industry Expenditure

The Gympie TRC is dependent upon resource drawn from five sawmill allocation, all of which are in close proximity to the Gympie TRC. However the Kilcoy-Woodford and North Coast timber allocation zones are the primary source of crown hardwood resource (Figure 9).

Within the Gympie TRC, there were an estimated 74 timber industry employees, with 54 or 73% of these employees resident within the town of Gympie. The 74 timber industry employees within the Gympie TRC were estimated to have an annual income of \$2 million with an estimated annual household expenditure of \$1.3 million. The town of Gympie was clearly the primary location for which household goods and services were purchased by these employees with employees having an estimated expenditure of \$1.1 million annually within the town of Gympie. As shown in Figure 25 and Table 7.18, across all town locations in which industry employees reside, Gympie was either the primary or secondary catchment for household expenditure by employees within these towns.

While 91% of household goods and services were purchased from within the Gympie TRC, there was some limited expenditure to the Cooroy, Wondai and Brisbane TRCs. Although this expenditure is minor, much of this expenditure occurs from towns on the border of the Gympie TRC into towns which are located on the border of the Wondai and Cooroy TRCs.

Table 7.19 shows the location of industry expenditure for forest industries located within the Gympie TRC. Although 81% of all industry expenditure items are sourced from within the Gympie TRC, 8% of expenditure also occurs to the Wondai TRC and 3% each to the Maryborough and Brisbane TRCs. Although Gympie and Kilkivan are the primary locations for industry expenditure within the Gympie TRC, the towns of Murgon and Greenview within the Wondai TRC attract industry expenditure as do the towns of Maryborough and Nambour within the Maryborough and Cooroy TRCs.

While Gympie is the primary location for low and high items of industry expenditure within the Gympie TRC for timber processing and contracting industries, Gympie and to a lesser extent Kilkivan are the primary and secondary locations for industry expenditure amongst apiarists and graziers within this TRC (Table 7.19)

Table 7.18. Gympie TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	37,055	
Total Employed Persons	13,108	
Number of Timber Industry Employees	74	
Estimated Employee Income		2,020,200
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		1,333,400
Main Residential Locations of Employees		
Gympie (54)		
Gympie	93.52	910,000
Imbil (7)		
Gympie	40.94	51,600
Imbil	34.23	43,200
Cooroy	8.72	11,000
Amamoor (2)		
Gympie	67.86	24,500
Amamoor	17.86	6,400
Curra (2)		
Gympie	60.00	21,600
Curra	40.00	14,400
Chatsworth (2)		
Gympie	86.67	31,200
Cinnabar (2)		
Gympie	38.46	13,900
Wondai	25.64	9,200
Kilkivan	20.51	7,400
Kandanga (2)		
Gympie	43.75	15,800
Kandanga	32.81	11,800
Woolooga (2)		
Gympie	66.67	24,000
Woolooga	17.24	6,200
Town Catchments		
Gympie	82.45	1,099,400
Imbil	4.04	53,900
Total	86.49	1,153,300
TRC Expenditure Patterns		
Gympie TRC	90.87	1,211,700
Cooroy TRC	4.45	59,300
Wondai TRC	1.58	21,000
Brisbane TRC	1.29	17,200
Maryborough TRC	1.11	14,800
Outside RFA Boundary & TRCs	0.35	4,700
Gold Coast TRC	0.23	3,100
Rockhampton TRC	0.06	800
Woodford TRC	0.06	800
Total	100.00	1,333,400

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Table 7.19. Gympie TRC: Forest Industry Expenditure

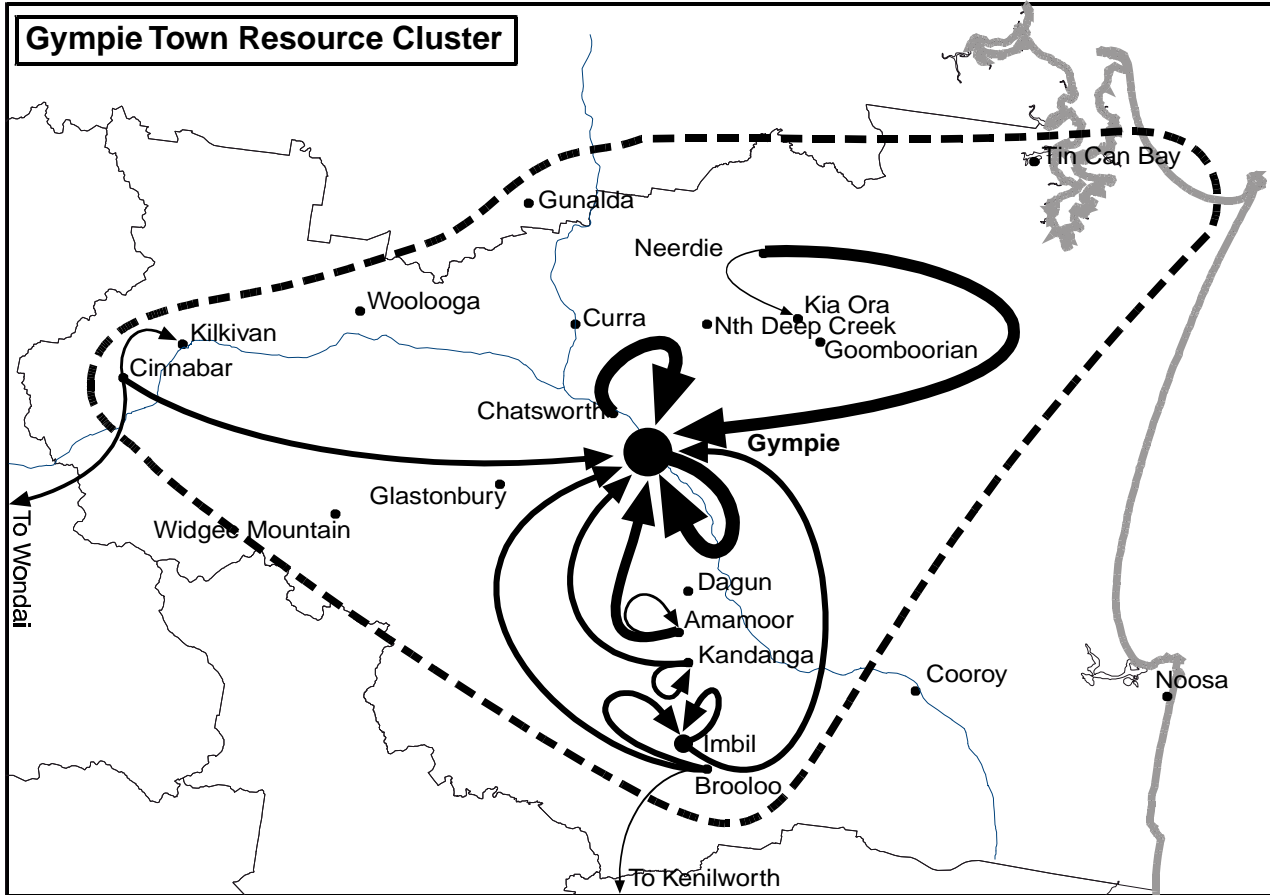
All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Gympie TRC	81.6			
Wondai TRC	7.8			
Maryborough TRC	3.4			
Brisbane TRC	2.9			
Cooroy TRC	2.3			
Gladstone TRC	0.6			
Other (less than 0.5%)	1.5			
Total	100.0			
Town Location of Expenditure				
Gympie	72.2			
Kilkivan	5.6			
Greenview	5.0			
Brisbane	2.8			
Maryborough	2.8			
Nambour	1.4			
Murgon	1.1			
Gunalda	0.8			
Imbil	0.8			
Other (less than 0.6%)	8.1			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Gympie TRC	58.50	100.0	93.2	86.6
Wondai TRC	28.30	0.0	4.5	2.8
Cooroy TRC	5.70	0.0	2.3	1.4
Maryborough TRC	1.90	0.0	0.0	6.3
Brisbane TRC	3.80	0.0	0.0	0.7
Bundaberg TRC	1.90	0.0	0.0	0.0
Gladstone TRC	0.0	0.0	0.0	0.7
Monto TRC	0.0	0.0	0.0	0.7
Gatton TRC	0.00	0.0	0.0	0.7
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Gympie TRC	36.4	90.5	78.6	75.8
Brisbane TRC	18.2	4.8	21.4	3.0
Wondai TRC	27.3	0.0	0.0	9.1
Maryborough TRC	9.1	0.0	0.0	3.0
Woodford TRC	9.1	0.0	0.0	0.0
Cooroy TRC	0.0	4.8	0.0	3.0
Gladstone TRC	0.0	0.0	0.0	3.0
Mundubbera TRC	0.0	0.0	0.0	3.0
Total	100.0	100.0	100.0	100.0
Within Gympie TRC				
Low Expenditure Items				
Primary Catchment	Gympie	Gympie	Gympie	Gympie
Secondary Catchment	*	*	Kilkivan	Kilkivan
High Expenditure Items				
Primary Catchment	Gympie	Gympie	Gympie	Gympie
Secondary Catchment	*	*	Kilkivan	*
Outside Gympie TRC				
Low Expenditure Items	Greenview	*	*	Maryborough
High Expenditure Items	Greenview	*	Brisbane	*

Note: All values in the table are percentages.

'ND' indicates no data, '*' indicates insufficient data.

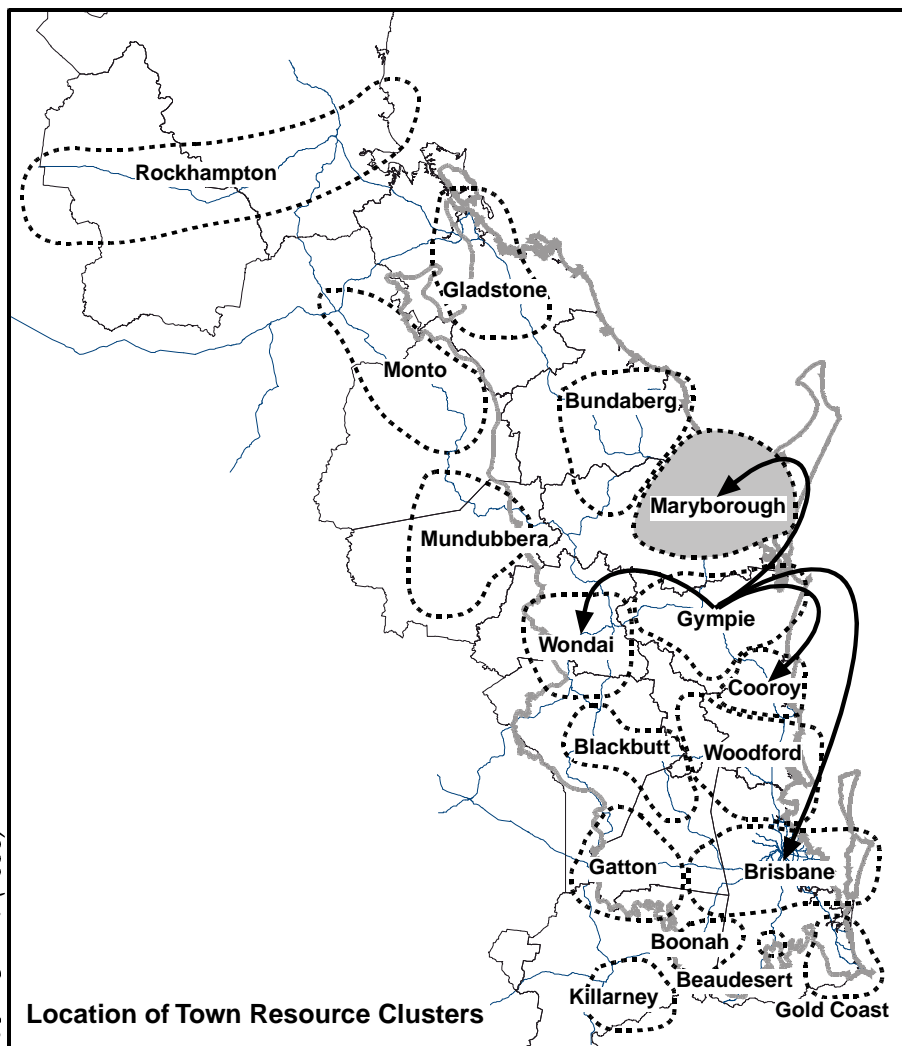
Source: EBC (1998).

Gympie Town Resource Cluster



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 25. Gympie TRC: Employee Household Expenditure Network

7.10 Wondai TRC: Household and Industry Expenditure

The primary and only resource catchment for the Wondai TRC is the Wondai-Murgon sawmill allocation zone (Table 3.2 and Figure 10).

Within the Wondai TRC there were an estimated 26 timber industry employees, with an estimated annual income of approximately \$620,000 and an estimated annual household expenditure of \$469,000. Of the 26 industry employees, 20 or 77%, were resident within the town of Wondai with a further six resident within the town of Kingaroy.

Given that employees were resident in the towns of Wondai and Kingaroy, it is not unexpected that 44% of household expenditure occurred within the town of Wondai and that a further 32% occurred within the town of Kingaroy (Figure 26). Of note is the town of Murgon, which had no timber processing industry employees and yet attracted 16% of the household expenditure from employees resident in the towns of Wondai and Kingaroy (Figure 26).

Although 93% of all household goods and services purchased by timber industry employees were purchased from within the Wondai TRC, and additional 3% of goods and services were purchased from the Mundubbera TRC and that this occurred primarily amongst employees resident in the town of Kingaroy. An inspection of Table 7.12 suggests some interaction between employees within Allies Creek in the southern portion of the Mundubbera TRC and the town of Kingaroy in the Wondai TRC.

Table 7.21 shows that 82% of forest industry expenditure occurs within the Wondai TRC, with Kingaroy, Murgon and Wondai being the primary locations for this expenditure which are the same catchments for household expenditure for employees within the Wondai TRC. Although the Gympie TRC attracted 7% of forest industry expenditure, further examination of Table 7.21 shows that this was primarily within the grazing industries, with the town of Gympie accounting for 23% of low expenditure items within this industry group.

Table 7.20. Wondai TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	19,430	
Total Employed Persons	7,617	
Number of Timber Industry Employees	26	
Estimated Employee Income		616,200
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		468,500
Main Residential Locations of Employees		
Wondai (20)		
Wondai	51.50	185,600
Kingaroy	31.02	111,800
Murgon	12.28	44,300
Kingaroy (6)		
Kingaroy	39.47	42,700
Wondai	32.46	35,100
Mundubbera	21.05	22,800
Town Catchments		
Wondai	43.97	206,000
Kingaroy	32.38	151,700
Murgon	16.37	76,700
Total	92.72	434,400
TRC Expenditure Patterns		
Wondai TRC	93.31	437,200
Mundubbera TRC	2.87	13,400
Cooroy TRC	1.08	5,000
Brisbane TRC	0.96	4,500
Outside RFA Boundary & TRCs	0.36	1,700
Bundaberg TRC	0.36	1,700
Maryborough TRC	0.36	1,700
Gatton TRC	0.36	1,700
Gladstone TRC	0.12	600
Monto TRC	0.12	600
Gympie	0.12	600
Total	100.02	468,500

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

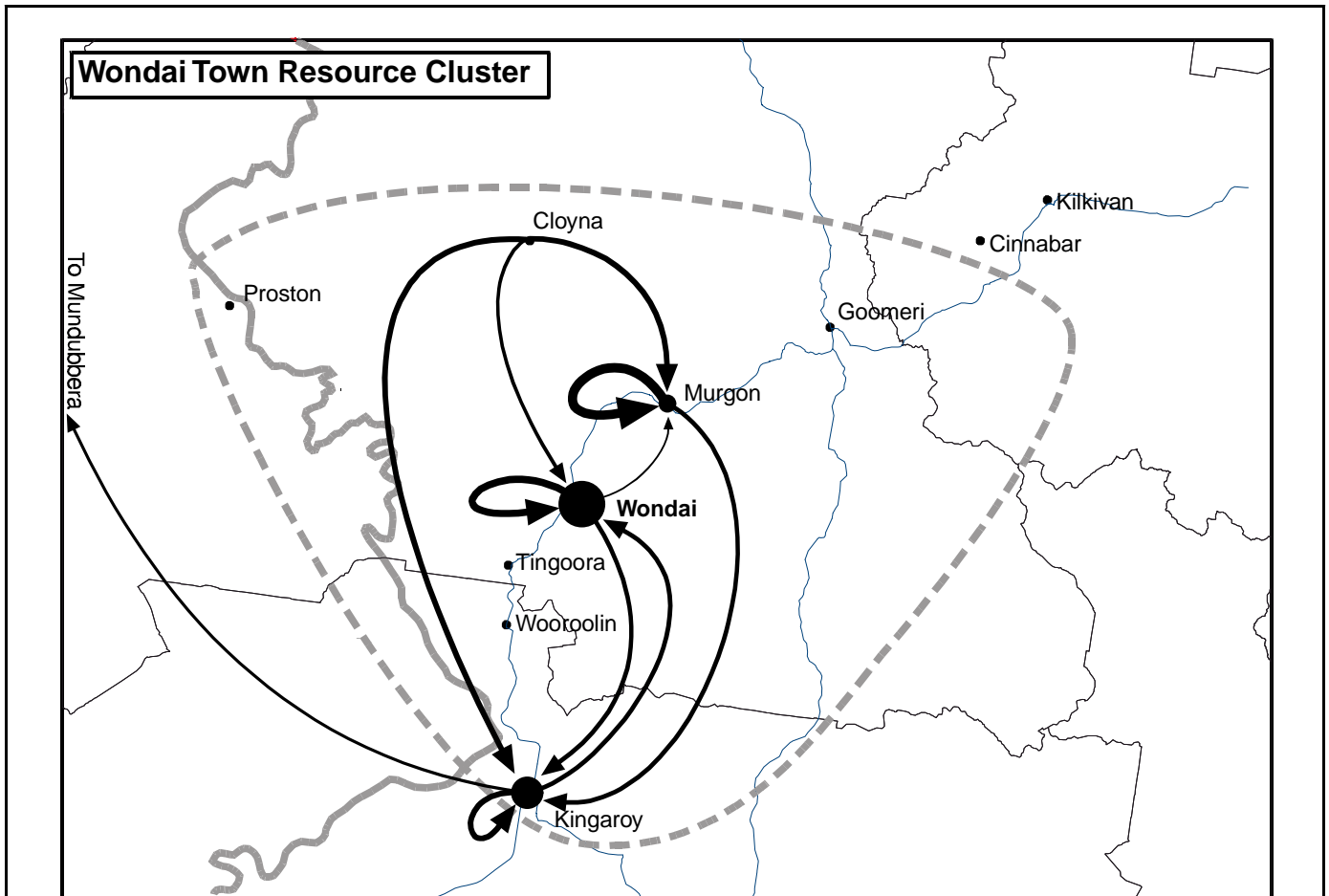
Table 7.21. Wondai TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Wondai TRC	81.6			
Gympie TRC	7.0			
Brisbane TRC	4.4			
Maryborough TRC	2.5			
Gatton TRC	1.9			
Bundaberg TRC	1.3			
Cooroy TRC	0.6			
Woodford TRC	0.6			
Total	100.0			
Town Location of Expenditure				
Kingaroy	33.1			
Murgon	24.4			
Wondai	16.3			
Goomeri	6.9			
Brisbane	4.4			
Gympie	3.1			
Kilkivan	3.1			
Maryborough	2.5			
Toowoomba	1.9			
Bundaberg	1.3			
Other (less than 0.6%)	3.0			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Wondai TRC	72.2	95.2	95.5	64.6
Maryborough TRC	5.6	0.0	0.0	6.3
Cooroy TRC	5.6	0.0	0.0	0.0
Woodford TRC	5.6	0.0	0.0	0.0
Brisbane TRC	5.6	0.0	0.0	4.2
Gatton TRC	5.6	0.0	0.0	2.1
Bundaberg TRC	0.0	4.8	4.5	0.0
Gympie TRC	0.0	0.0	0.0	22.9
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Wondai TRC	75.0	89.5	83.3	100.0
Gatton TRC	25.0	0.0	0.0	0.0
Brisbane TRC	0.0	10.5	16.7	0.0
Gladstone TRC	0.0	0.0	0.0	0.0
Mundubbera TRC	0.0	0.0	0.0	0.0
Gympie TRC	0.0	0.0	0.0	0.0
Woodford TRC	0.0	0.0	0.0	0.0
Cooroy TRC	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0
Within Wondai TRC				
Low Expenditure Items				
Primary Catchment	Wondai	Kingaroy	Kingaroy	Kingaroy
Secondary Catchment	Kingaroy	Wondai	Murgon	Murgon
High Expenditure Items				
Primary Catchment	Wondai	Wondai	Kingaroy	Goomeri
Secondary Catchment	*	Murgon	Murgon	Murgon
Outside Wondai TRC				
Low Expenditure Items	*	*	*	Gympie
High Expenditure Items	*	Brisbane	Brisbane	*

Note: All values in the table are percentages.

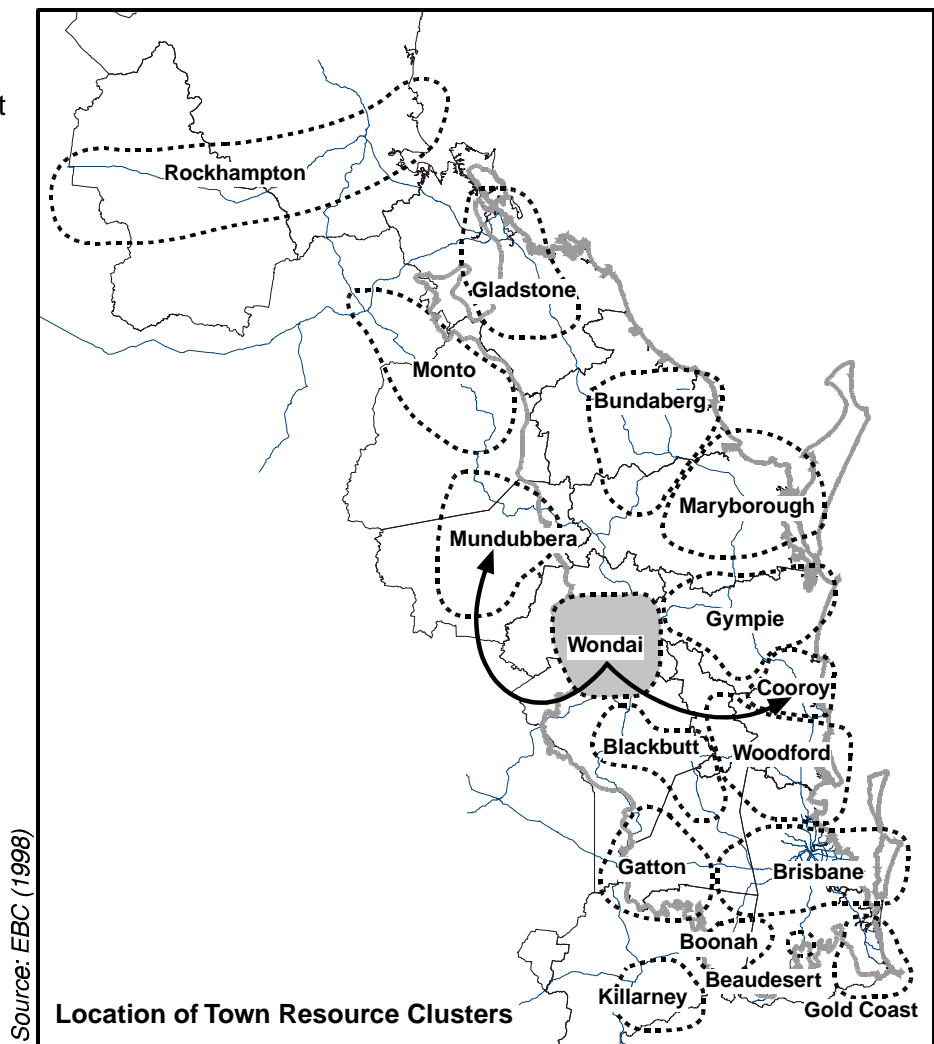
'ND' indicates no data, '*' indicates insufficient data.

Source: EBC (1998)



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 26.
Wondai TRC: Employee Household Expenditure Network

7.11 Blackbutt TRC: Household and Industry Expenditure

The primary resource catchment for the Blackbutt TRC is the Yarraman-Toowoomba sawmill allocation zone, with the secondary catchment being the North Coast Zone (Table 3.2 and Figure 11).

There were an estimated 18 timber processing industry employees resident within the Blackbutt TRC with an approximate income of \$426,600 with an annual household expenditure of approximately \$324,342 (Table 7.22).

The Blackbutt TRC was one of the less distinct TRCs, with only 54% of all items of household expenditure purchased by employees from within the Blackbutt TRC. In addition, the Woodford TRC accounted for 19% of all expenditure items and the Brisbane TRC accounted for a further 13% of all items of expenditure.

Much of the 'spillage' to the Woodford TRC could be accounted for in terms of expenditure to the town of Kilcoy, which although outside the Blackbutt TRC was on the border of the Woodford TRC and adjacent to the Blackbutt TRC (Figure 27). Table 7.22 shows that employees within Linville and Moore did make a high percentage of their household purchases within the town of Kilcoy in the Woodford TRC. In addition to the town of Kilcoy, Caboolture which was within the Woodford TRC also attracted a high percentage of household expenditure. It is probable that Kilcoy and Caboolture represent significant regional centres which attract a high percentage of household expenditure from employees throughout the region.

It was also apparent the expenditure to the Brisbane TRC was primarily to Ipswich, which as shown in Table 7.22 accounted for 9% of all household expenditure items.

Although there was significant 'spillage' of household expenditure to towns outside the Blackbutt TRC, the town of Toogoolawah nevertheless attracted approximately one third of all employee household expenditure. Although the town of Toogoolawah has no resident timber processing industry employees it is clearly has an economic dependence upon these employees through the sale of household goods and services. As shown in Table 7.22 the towns of Kingaroy and Blackbutt also account for 14% of all items of household expenditure amongst timber industry employees.

Table 7.23 shows the location of forest industry expenditure for industries located within the Blackbutt TRC. As indicated in Table 7.23 only 39% of forest industry expenditure occurred within the Blackbutt TRC and this was primarily to the towns of Blackbutt, Kingaroy and Nanango.

Timber processing and contracting industries within the Blackbutt TRC appeared to source much of their expenditure outside the Blackbutt TRC, particularly to Brisbane and other towns within the Woodford TRC, particularly Kilcoy.

Table 7.22. Blackbutt TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	12,893	
Total Employed Persons	3,840	
Number of Timber Industry Employees	18	
Estimated Employee Income		426,600
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		324,300
Main Residential Locations of Employees		
Linville (7)		
Toogoolawah	21.00	26,500
Kilcoy	19.22	24,200
Linville	13.52	17,100
Caboolture	13.17	16,600
Ipswich	11.39	14,400
Moore (4)		
Kingaroy	23.01	16,600
Toogoolawah	17.70	12,800
Kilcoy	17.70	12,800
Moore	14.16	10,200
Caboolture	12.39	8,900
Blackbutt (4)		
Blackbutt	52.48	37,800
Kingaroy	28.71	20,700
Town Catchments		
Toogoolawah	35.10	113,800
Kilcoy	9.98	32,400
Ipswich	9.48	30,700
Kingaroy	7.14	23,200
Blackbutt	6.90	22,400
Caboolture	6.40	20,800
Total	75.00	243,300
TRC Expenditure Patterns		
Blackbutt TRC	54.31	176,100
Woodford TRC	19.09	61,900
Brisbane TRC	12.81	41,500
Wondai TRC	7.14	23,200
Gatton TRC	2.71	8,800
Outside RFA Boundary & TRCs	2.22	7,200
Rockhampton TRC	0.86	2,800
Cooroy TRC	0.49	1,600
Gold Coast TRC	0.25	800
Maryborough TRC	0.12	400
Total	100.00	324,300

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

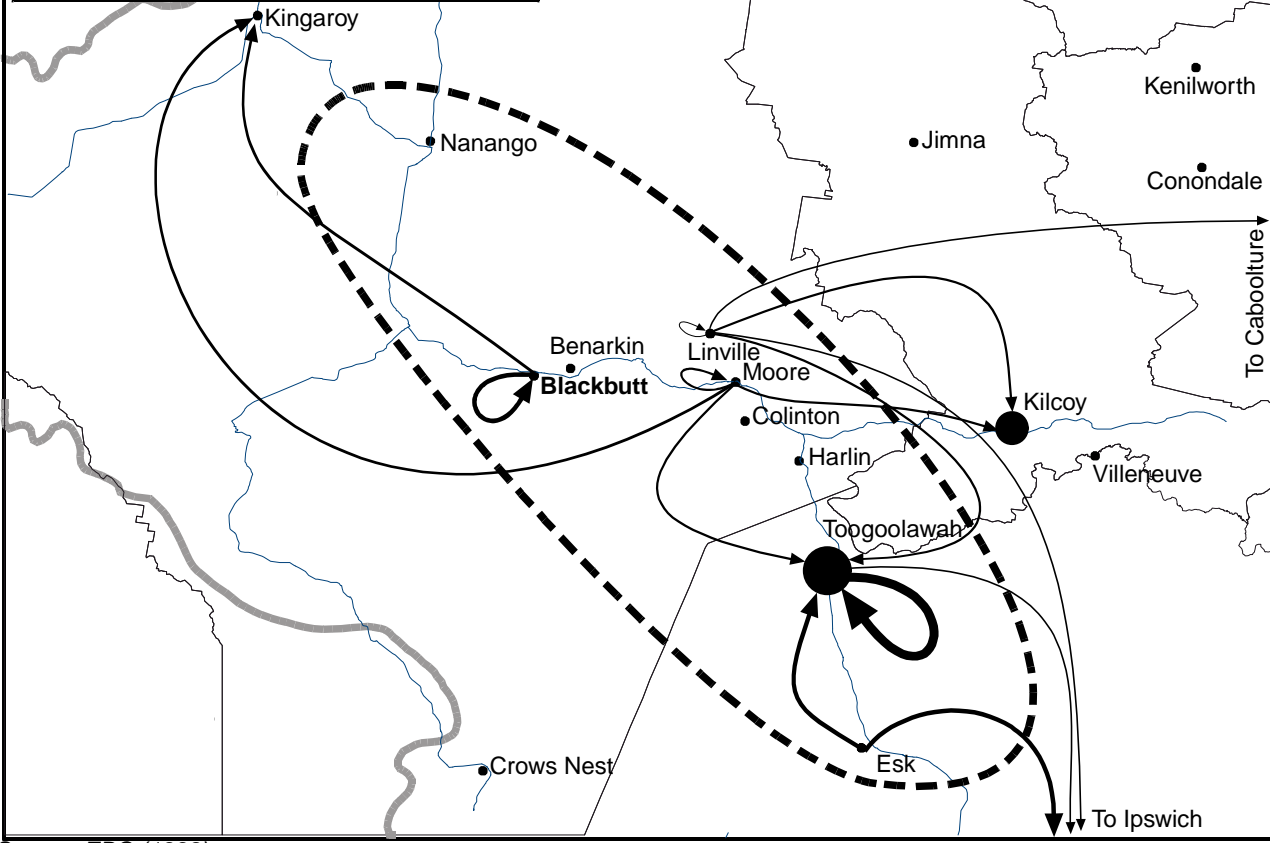
Table 7.23. Blackbutt TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Blackbutt TRC	39.4			
Brisbane TRC	23.1			
Wondai TRC	14.4			
Woodford TRC	7.7			
Killarney TRC	6.7			
Other (less than 3.0%)	8.7			
Total	100.0			
Town Location of Expenditure				
Brisbane	21.3			
Blackbutt	12.3			
Kingaroy	12.3			
Nanango	11.5			
Inverleigh	5.7			
Kilcoy	5.7			
Toobanna	5.7			
Linville	3.3			
Yarraman	3.3			
Esk	2.5			
Theodore	2.5			
Other (less than 1.6%)	13.6			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Blackbutt TRC	29.4	48.6	ND	50.0
Gladstone TRC	0.0	2.9	ND	0.0
Monto TRC	0.0	2.9	ND	0.0
Wondai TRC	0.0	5.7	ND	28.6
Woodford TRC	17.6	0.0	ND	0.0
Brisbane TRC	52.9	20.0	ND	10.7
Gatton TRC	0.0	2.9	ND	7.1
Killarney TRC	0.0	14.3	ND	0.0
Boonah TRC	0.0	2.9	ND	0.0
Cooroy TRC	0.0	0.0	ND	3.6
Total	100.0	100.0	ND	100.0
High Expenditure Items				
Woodford TRC	66.7	15.4	ND	0.0
Gympie TRC	0.0	15.4	ND	0.0
Monto TRC	0.0	7.7	ND	0.0
Wondai TRC	0.0	7.7	ND	50.0
Blackbutt TRC	0.0	15.4	ND	75.0
Brisbane TRC	33.3	23.1	ND	12.5
Killarney TRC	0.0	15.4	ND	0.0
Total	100.0	100.0	ND	100.0
Within Blackbutt TRC				
Low Expenditure Items				
Primary Catchment	*	Nanango	ND	Nanango
Secondary Catchment	*	Blackbutt	ND	Blackbutt
High Expenditure Items				
Primary Catchment	*	Blackbutt	ND	Blackbutt
Secondary Catchment	*	*	ND	*
Outside Blackbutt TRC				
Low Expenditure Items	Brisbane	Brisbane	ND	Kingaroy
High Expenditure Items	*	Brisbane	ND	Kingaroy

Note: All values in the table are percentages.
 'ND' indicates no data, '**' indicates insufficient data.

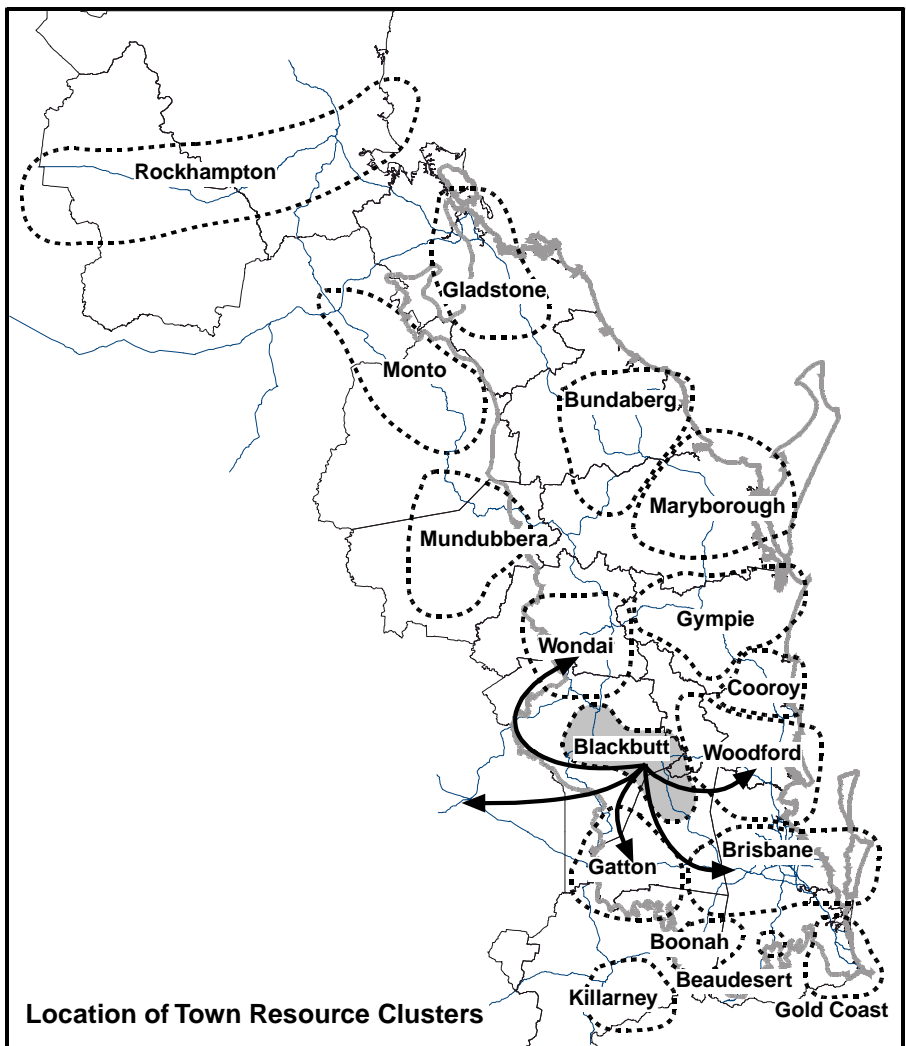
Source: EBC (1998).

Blackbutt Town Resource Cluster



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

Location of Town Resource Clusters

FIGURE 27. Blackbutt TRC: Employee Household Expenditure Network

7.12 Cooroy TRC: Household and Industry Expenditure

The Cooroy TRC is dependent upon crown hardwood resource from the Gympie, North Coast, Yarraman-Toowoomba and Kilcoy-Woodford sawmill allocation zones (Table 3.2 and Figure 12). However, the highest dependence is upon the Gympie and Kilcoy-Woodford allocation zones.

The Cooroy TRC has an estimated 96 timber processing industry employees having an estimated annual income of \$2.3 million and an annual household expenditure of \$1.7 million

As shown in Table 7.24, employee household expenditure appears to be highly constrained to the Cooroy TRC with 92% of the expenditure occurring within the TRC itself. What is of note in relation to the Cooroy TRC is the dispersion of timber industry employees throughout numerous towns within this TRC. While the town of Cooroy has 27% and the town of Yandina 19% of employees, the remaining employees are distributed throughout an additional 13 towns within the Cooroy TRC.

As shown in Figure 28 and as is also evident in Table 7.24, the household expenditure catchments within the Cooroy TRC are split across four towns, which together account for 73% of all purchases of household goods and services by timber industry employees within this TRC. Cooroy attracts the largest percentage of household expenditure but is very much a focus for those employees resident within the North East of the TRC, in particular employees resident in the towns of Cooroy, Ridgewood, Cooran and Pomona and Kenilworth. The town of Nambour, which attracts 15% of household expenditure serves as a primary catchment for employees in the south of the TRC, in particular within the towns of Nambour, North Arm, Yandina, Mapleton and Flaxton. What is important in relation to the town of Nambour, is that while it has few industry employees (Table 7.24), it is nevertheless dependent on the timber industry, with 15% of household expenditure items being purchased within this town. Maroochydore and Noosa, which attract 12% and 10% of household expenditure respectively serve as primary locations for household expenditure amongst those employees located within the two towns.

Although relatively minor, there is some 'seepage' of household expenditure to the adjacent TRC of Gympie and in particular to the town of Gympie. In addition, and is the case in many TRCs there is some additional minor expenditure 'seepage' to the Brisbane TRC.

Table 7.24. Cooroy TRC: Location of Household Expenditure

		Percentage	Annual Income or Expenditure (\$)
Total Population	149,689		
Total Employed Persons	55,645		
Number of Timber Industry Employees	96		
Estimated Employee Income			2,275,200
Estimated Employee Expenditure (Exc. Income tax, mortgage payments, superannuation and life insurance)			1,729,800
Main Residential Locations of Employees			
Cooroy (26)			
Cooroy		63.44	297,200
Noosa		14.70	68,900
Yandina (18)			
Nambour		42.86	139,000
Yandina		39.80	129,000
Maroochydore		10.71	34,700
Pomona (9)			
Cooroy		41.11	66,700
Pomona		33.33	54,000
Tewantin (8)			
Tewantin		25.70	37,000
Noosaville		23.46	33,800
Cooroy		22.35	32,200
Noosa (7)			
Noosa		47.90	60,400
Amamoor		17.65	22,300
Maroochydore		13.45	17,000
Kenilworth (6)			
Cooroy		57.72	62,400
Nambour		20.33	22,000
Maroochydore		10.57	11,400
Nambour (4)			
Nambour		64.37	46,400
Maroochydore		20.69	14,900
Cooran (3)			
Gympie		26.15	14,100
Cooroy		21.54	11,600
Pomona		20.00	10,800
Cooran		16.92	9,100
Maroochydore (3)			
Maroochydore		51.58	27,900
Cooroy		13.68	7,400
Kawana		7.37	4,000
Belli Park (2)			
Yandina		33.33	12,000
Cooroy		25.93	9,300
Nambour		22.22	8,000
Eumundi (2)			
Eumundi		36.11	13,000
Nambour		30.56	11,000
Cooroy		11.11	4,000
Flaxton (2)			
Nambour		86.21	31,000
North Arm (2)			
Nambour		59.42	21,400
Yandina		23.19	8,400
Palmwoods (2)			
Noosa		61.53	22,200
Palmwoods		15.38	5,500
Nambour		11.54	4,200
Ridgewood (2)			
Cooroy		80.00	28,800

Continued...

Table 7.24. Cooroy TRC: Location of Household Expenditure (continued)

	Percentage	Annual Income or Expenditure (\$)
Town Catchments		
Cooroy	36.11	624,600
Nambour	14.75	255,100
Maroochydore	12.15	210,200
Noosa	10.21	176,600
Total	73.22	1,266,600
TRC Expenditure Patterns		
Cooroy TRC	91.98	1,591,000
Gympie TRC	3.48	60,200
Brisbane TRC	1.95	33,700
Rockhampton TRC	1.00	17,300
Outside RFA Boundary & TRCs	0.88	15,200
Woodford TRC	0.47	8,100
Gold Coast TRC	0.17	2,900
Mundubbera TRC	0.06	1,000
Total	100.00	1,729,800

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

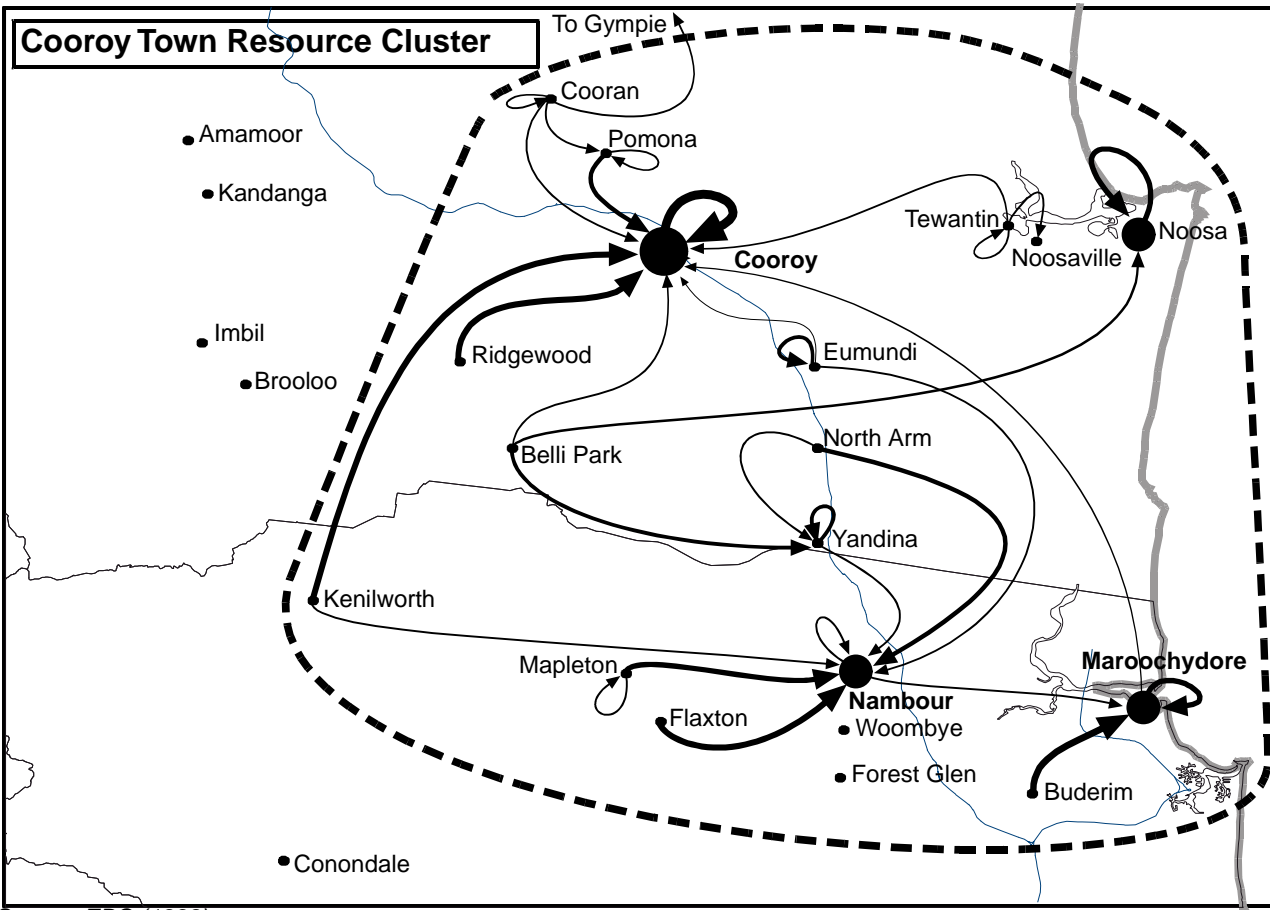
Table 7.25 indicates that 81% of forest industry expenditure within the Cooroy TRC is constrained to the Cooroy TRC, with the town of Nambour attracting 45% of all items of forest industry expenditure and Cooroy attracting 17% of industry expenditure.

Table 7.25. Cooroy TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Cooroy TRC	81.1			
Brisbane TRC	10.2			
Gympie TRC	6.3			
Woodford TRC	2.4			
Total	100.0			
Town Location of Expenditure				
Nambour	45.1			
Cooroy	16.9			
Brisbane	9.2			
Gympie	4.2			
Noosa	5.6			
Maroochydore	3.5			
NSW	2.8			
Palmwoods	2.1			
Beerburum	1.4			
Imbil	1.4			
Jimna	1.4			
Woombye	1.4			
Interstate	4.2			
Other (less than 0.7%)	3.5			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Cooroy TRC	83.3	100.0	94.7	ND
Brisbane TRC	11.1	0.0	2.6	ND
Gympie TRC	5.6	0.0	2.6	ND
Total	100.0	100.0	100.0	ND
High Expenditure Items				
Gympie TRC	42.9	0.0	11.8	ND
Cooroy TRC	28.6	100.0	52.9	ND
Woodford TRC	28.6	0.0	0.0	ND
Brisbane TRC	0.0	0.0	35.3	ND
Total	100.0	100.0	100.0	ND
Within Cooroy TRC				
Low Expenditure Items				
Primary Catchment	Cooroy	Nambour	Nambour	ND
Secondary Catchment	Nambour	*	Cooroy	ND
High Expenditure Items				
Primary Catchment	*	Nambour	Nambour	ND
Secondary Catchment	*	*	*	ND
Outside Cooroy TRC				
Low Expenditure Items	Brisbane	*	*	ND
High Expenditure Items	*	*	Brisbane	ND

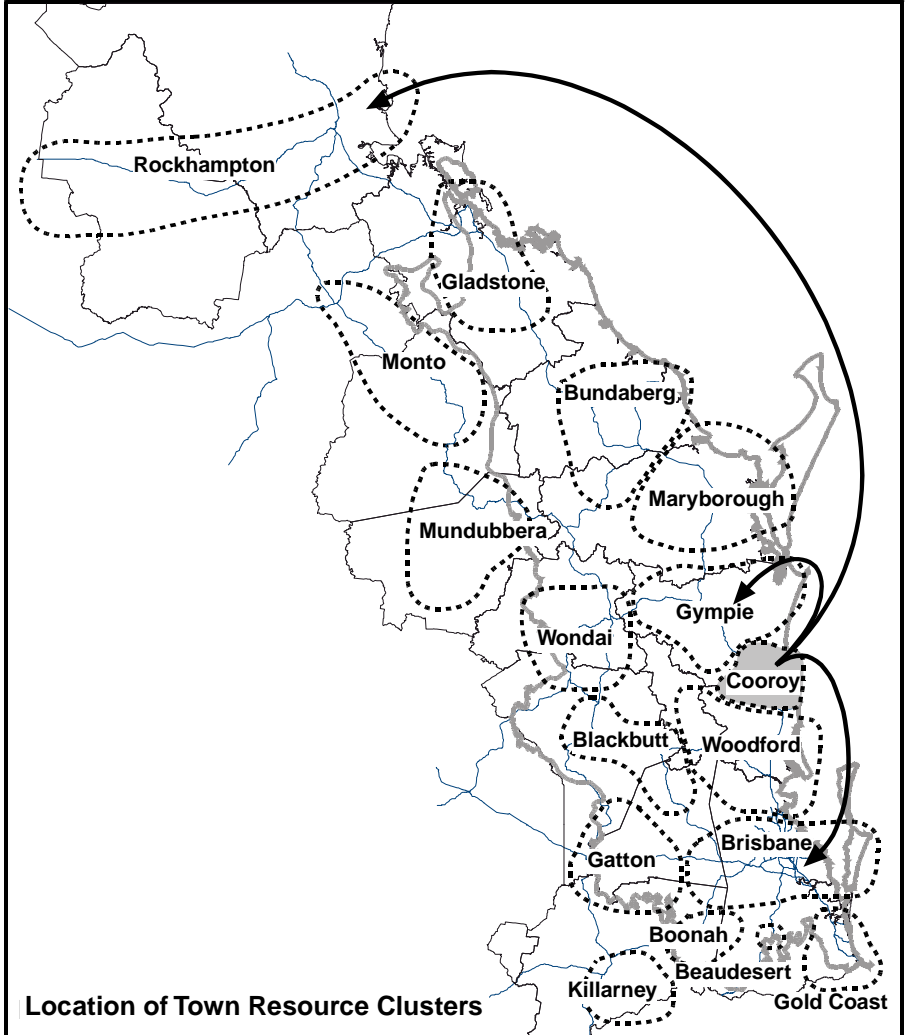
Note: All values in the table are percentages.
 'ND' indicates no data, '*' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 28. Cooroy TRC: Employee Household Expenditure Network

7.13 Woodford TRC: Household and Industry Expenditure

The Woodford TRC is dependent upon crown hardwood resource from the Brisbane, North Coast and Kilcoy-Woodford sawmill allocation zones (Table 3.2 and Figure 13). However, the highest dependence is Kilcoy-Woodford allocation zone.

Within the Woodford TRC there were an estimated 61 timber processing industry employees, with an annual income of \$1.4 million and an estimated annual expenditure on household goods and services of \$1.1 million (Table 7.26).

Timber processing industry employees were resident in eight towns throughout this TRC, with Caboolture (16), Kilcoy (11) and Woodford (11) being the main locations for industry employees. Employees within these towns, in addition to purchasing within the town in which they were resident, also used Caboolture and an important source for the purchase of household items (Figure 29).

Together, Caboolture and Woodford were the primary locations for household expenditure, accounting for 44% of all household purchases by employees within this TRC (Figure 29).

Although 80% of expenditure by employees occurred within this TRC, the Cooroy TRC, which is located adjacent to and to the north of this TRC also attracted 12% of household expenditure. It is probable that some of this expenditure is from towns in the north of the Woodford TRC to the town of Nambour in the south of the adjacent Cooroy TRC.

Table 7.27 shows that across all forest industries 72% of all industry expenditure items are purchased from within the Woodford TRC, with an additional 15% of goods and services purchased from the Brisbane TRC. Within the Woodford TRC, Caboolture, Kilcoy and Woodford are the primary locations for industry expenditure.

In relation to specific forest industries, Table 7.27 shows that within the Woodford TRC, timber processing and contracting industries purchase primarily from Caboolture and Woodford. Apiarists on the other hand were found to purchase items primarily from Caboolture and Redcliffe, while graziers purchased the majority of items from Kilcoy, Woodford and Caboolture. As might be expected, given the proximity of the Brisbane TRC, all forest industries used Brisbane as the primary location for the purchase of low and high expenditure items outside of the Woodford TRC.

Table 7.26. Woodford TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	309,582	
Total Employed Persons	120,362	
Number of Timber Industry Employees	61	
Estimated Employee Income		1,445,700
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		1,099,200
Main Residential Locations of Employees		
Caboolture (16)		
Caboolture	60.75	175,100
Morayfield	18.77	54,100
Kilcoy (11)		
Kilcoy	57.52	114,000
Caboolture	12.93	25,600
Woodford	10.29	20,400
Woodford (11)		
Woodford	62.39	123,700
Caboolture	24.62	48,800
Beerwah (4)		
Beerwah	65.29	47,000
Peechester	12.40	8,900
Caloundra	10.74	7,700
Conondale (4)		
Maleny	100.00	72,000
Eudlo (4)		
Eudlo	30.19	21,800
Nambour	30.19	21,800
Maroochydore	15.09	10,900
Palmwoods	13.21	9,500
Glass House Mountain (4)		
Glass House Mountain	32.11	23,100
Beerwah	25.69	18,500
Caloundra	15.60	11,200
Caloundra (2)		
Caloundra	75.53	27,200
Eudlo	23.53	8,500
Town Catchments		
Caboolture	25.29	278,000
Woodford	18.35	201,700
Kilcoy	9.74	107,100
Beerwah	6.55	72,000
Morayfield	5.51	60,600
Total	65.44	719,300
TRC Expenditure Patterns		
Woodford TRC	79.99	879,200
Cooroy TRC	12.01	132,000
Brisbane TRC	5.00	55,000
Mundubbera TRC	1.06	11,700
Outside RFA Boundary & TRCs	0.57	6,300
Gatton TRC	0.37	4,100
Gold Coast TRC	0.35	3,800
Rockhampton TRC	0.33	3,600
Blackbutt TRC	0.20	2,200
Gympie TRC	0.08	900
Wondai TRC	0.04	400
Total	100.00	1,099,200

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

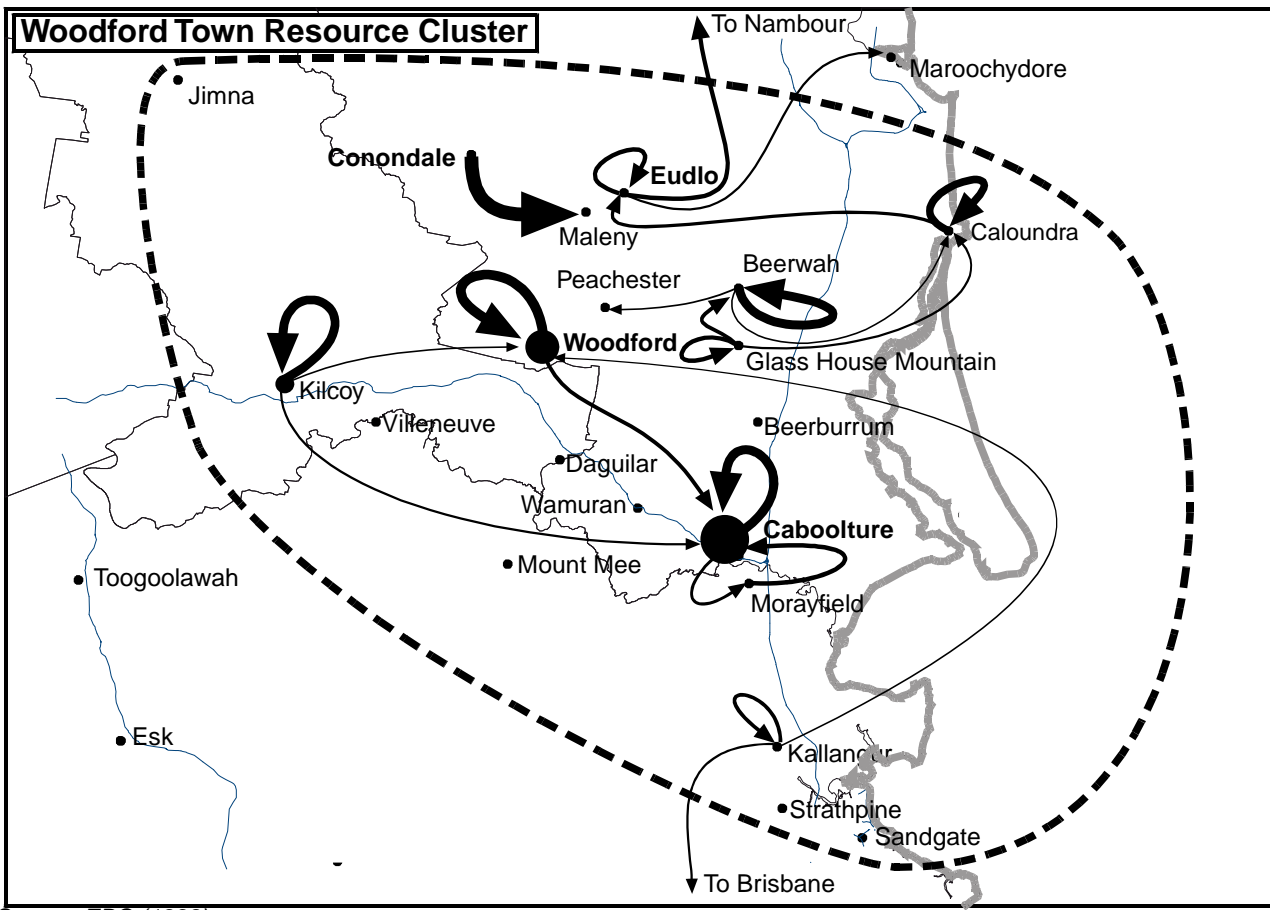
Table 7.27 Woodford TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Woodford TRC	72.5			
Brisbane TRC	14.8			
Cooroy TRC	7.2			
Gympie TRC	2.7			
Blackbutt TRC	1.1			
Gatton TRC	0.9			
Gold Coast TRC	0.7			
Total	100.0			
Town Location of Expenditure				
Caboolture	21.3			
Kilcoy	15.1			
Woodford	14.6			
Brisbane	13.9			
Beerwah	4.1			
Nambour	3.6			
Beerburum	3.2			
Redcliffe	2.7			
Gympie	2.5			
Caloundra	2.2			
Maroochydore	2.2			
Maleny	1.7			
Yandina	1.0			
Other (less than 0.8%)	12.1			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Woodford TRC	72.7	66.0	70.7	83.6
Brisbane TRC	19.5	13.0	18.3	8.2
Cooroy TRC	7.8	9.0	9.8	2.5
Gympie TRC	0.0	8.0	1.2	0.0
Gatton TRC	0.0	1.0	0.0	3.3
Blackbutt TRC	0.0	0.0	0.0	2.5
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Woodford TRC	66.7	63.6	64.3	71.0
Brisbane TRC	33.3	13.6	26.2	12.9
Cooroy TRC	0.0	12.1	7.1	9.7
Gympie TRC	0.0	7.6	2.4	0.0
Blackbutt TRC	0.0	1.5	0.0	6.5
Gold Coast TRC	0.0	1.5	0.0	0.0
Total	100.0	100.0	100.0	100.0
Within Woodford TRC				
Low Expenditure Items				
Primary Catchment	Caboolture	Caboolture	Caboolture	Kilcoy
Secondary Catchment	Woodford	Woodford	Redcliffe	Woodford
High Expenditure Items				
Primary Catchment	Woodford	Caboolture	Caboolture	Kilcoy
Secondary Catchment	*	Woodford	Redcliffe	Caboolture
Outside Woodford TRC				
Low Expenditure Items	Brisbane	Brisbane	Brisbane	Brisbane
High Expenditure Items	Brisbane	Brisbane	Brisbane	Brisbane

Note: All values in the table are percentages.

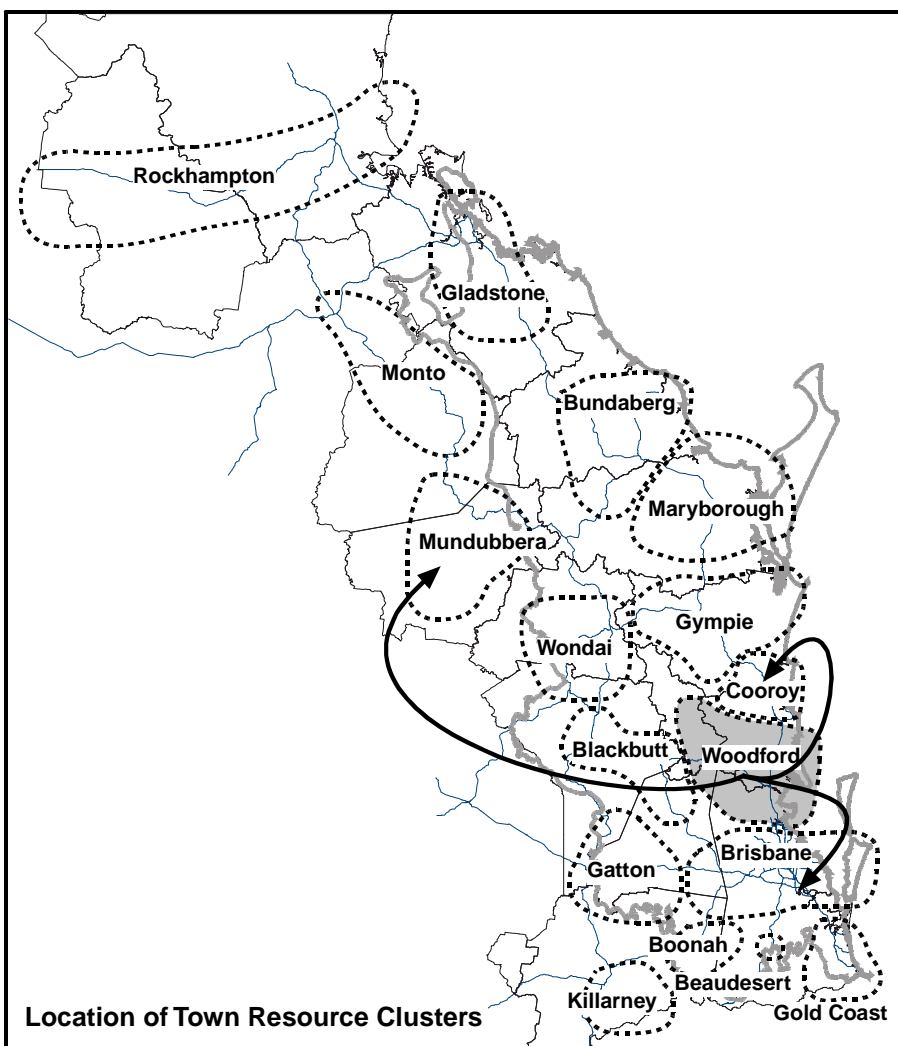
'ND' indicates no data, '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 29. Woodford TRC: Employee Household Expenditure Network

7.14 Brisbane TRC: Household and Industry Expenditure

The Brisbane TRC has no resource dependent timber processing industries, although there are employees resident within this TRC.

Table 7.28 shows that there were an estimated 11 timber processing industry employees within the Brisbane TRC with an estimated annual income of \$261,000 and an annual household expenditure of \$198,000. Brisbane was the primary location of industry employees, with Brisbane and Ipswich being the primary locations for household expenditure (Figure 30).

Although the Brisbane TRC accounted for 81% of all household expenditure items, there was nevertheless some 'seepage' of expenditure to the Cooroy and Mundubbera TRCs and to areas outside of the SEQ RFA region. This may well be due to employees travelling from Brisbane to workplace and forest locations outside of the Brisbane TRC.

Table 7.28. Brisbane TRC: Location of Household Expenditure

	Percentage	Annual Income or Expenditure (\$)
Total Population	1,239,716	
Total Employed Persons	568,312	
Number of Timber Industry Employees	11	
Estimated Employee Income		260,700
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)		198,200
Main Residential Locations of Employees		
Brisbane (5)		
Brisbane	70.17	63,200
Town Catchments		
Brisbane	50.79	100,700
Ipswich	26.46	52,400
TRC Expenditure Patterns		
Brisbane TRC	80.95	160,500
Cooroy TRC	6.88	13,600
Outside RFA Boundary & TRCs	5.29	10,500
Mundubbera TRC	4.23	8,400
Woodford TRC	1.85	3,700
Gold Coast TRC	0.53	1,000
Wondai TRC	0.26	500
Total	100.00	198,200

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

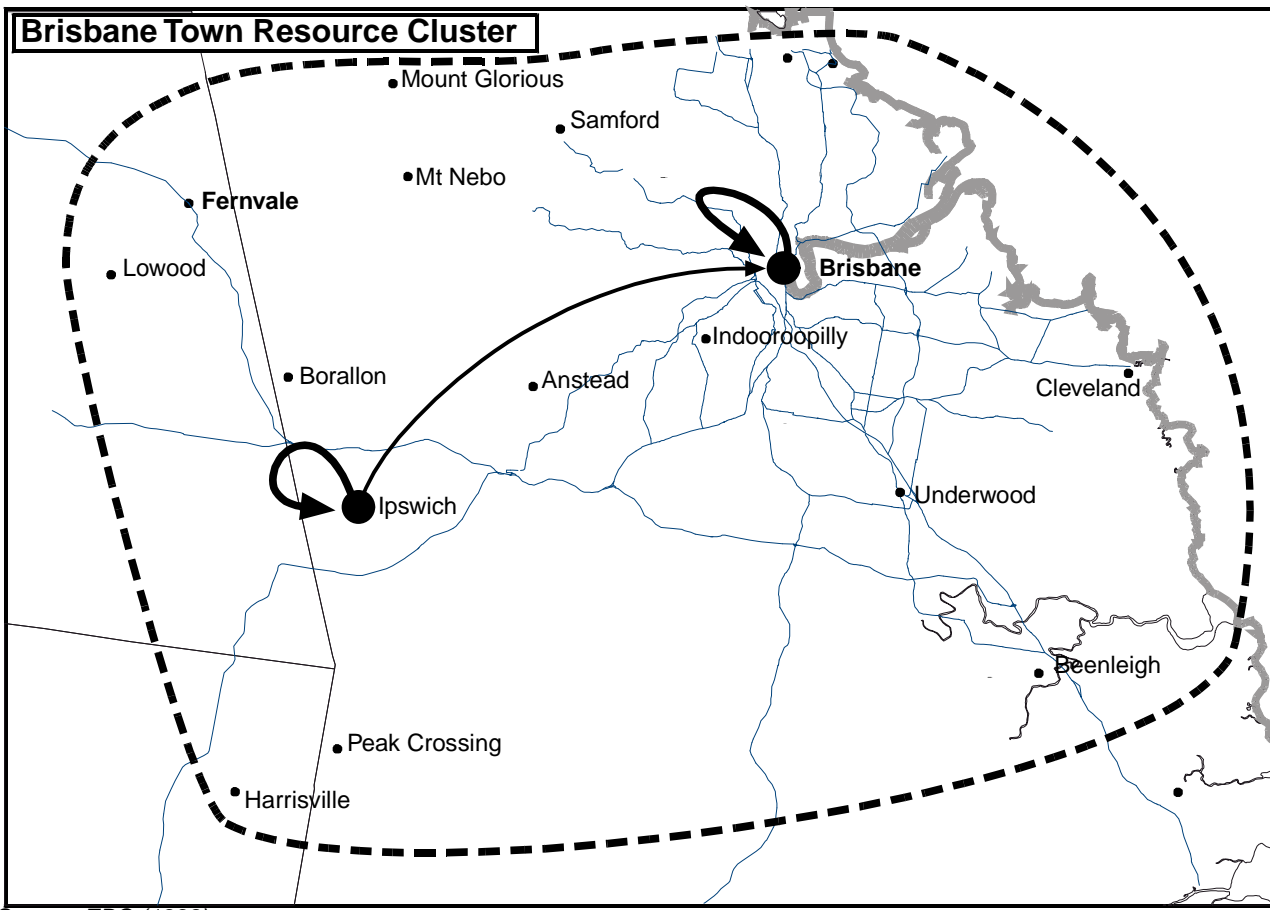
As might be expected forest industries within the Brisbane TRC purchased 95% of their goods and services from within the Brisbane TRC, either from Brisbane or from Ipswich (Table 7.29). This pattern of expenditure appeared to be the case for all types of forest industry.

Table 7.29. Brisbane TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Brisbane TRC	95.2			
Blackbutt TRC	1.3			
Woodford TRC	1.3			
Gold Coast TRC	1.3			
Gatton TRC	0.9			
Total	100.0			
Town Location of Expenditure				
Brisbane	65.8			
Ipswich	12.7			
Beenleigh	3.1			
Logan City	3.1			
Interstate	1.2			
Gold Coast	1.2			
Cleveland	1.2			
Esk	1.2			
Dulwich	1.2			
Other (less than 1.0%)	9.6			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Brisbane TRC	100.0	100.0	97.3	60.0
Blackbutt TRC	0.0	0.0	0.0	20.0
Gold Coast TRC	0.0	0.0	1.8	10.0
Gatton TRC	0.0	0.0	0.0	10.0
Woodford TRC	0.0	0.0	0.9	0.0
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Brisbane TRC	66.7	92.9	95.9	100.0
Blackbutt TRC	33.3	0.0	0.0	0.0
Woodford TRC	0.0	7.1	2.0	0.0
Gatton TRC	0.0	0.0	2.1	0.0
Total	100.0	100.0	100.0	100.0
Within Brisbane TRC				
Low Expenditure Items				
Primary Catchment	Ipswich	Brisbane	Brisbane	Ipswich
Secondary Catchment	Brisbane	*	Ipswich	*
High Expenditure Items				
Primary Catchment	*	Brisbane	Brisbane	*
Secondary Catchment	*	*	Ipswich	*
Outside Brisbane TRC				
Low Expenditure Items	*	*	*	*
High Expenditure Items	*	*	*	*

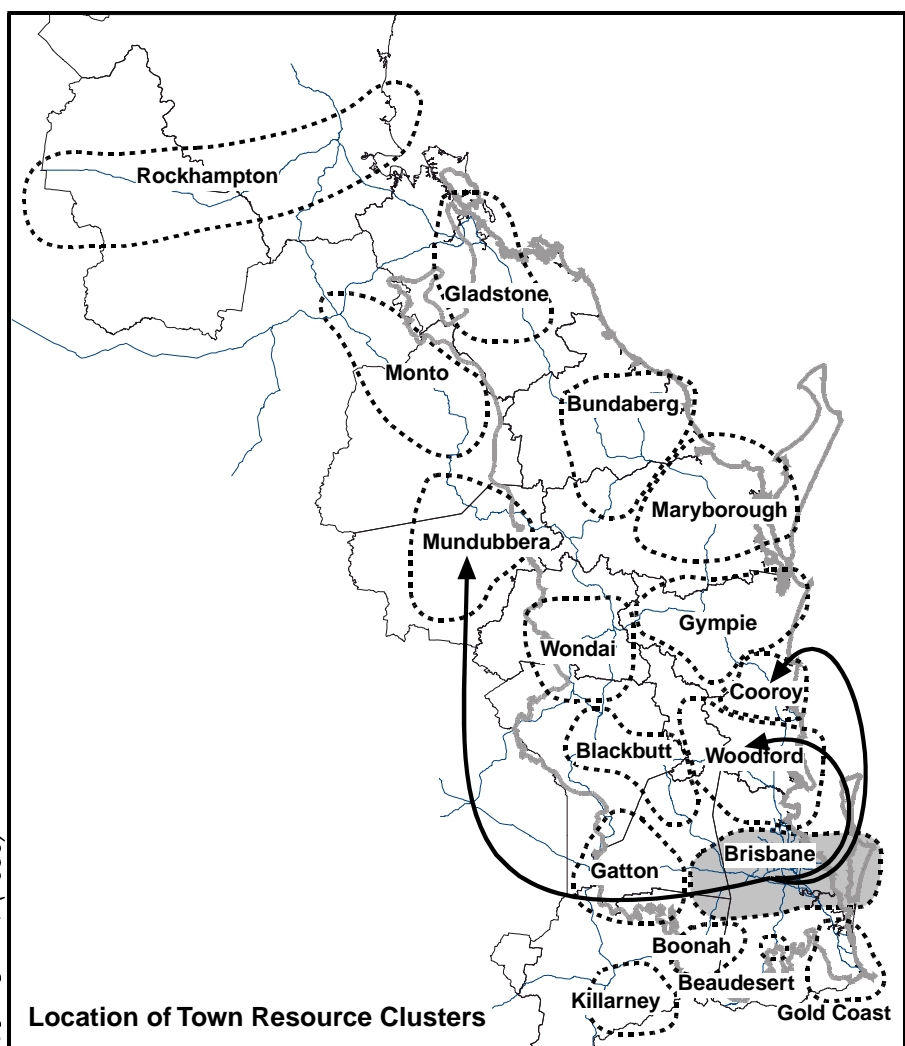
Note: All values in the table are percentages.
 'ND' indicates no data, '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 30. Brisbane TRC: Industry Household Expenditure Network

7.15 Gatton TRC: Household and Industry Expenditure

The Gatton TRC is primarily dependent upon resource drawn from the Gatton-Toogoolawah sawmill allocation zone (Table 3.2 and Figure 15).

Within the Gatton TRC there were an estimated 31 timber industry employees with a total annual income estimated to be \$735,000 and with an annual household expenditure of approximately \$560,000. Gatton (12), Laidley (7) and Ravensbourne were the main residential locations for timber industry employees (Table 7.30).

The three towns of Gatton, Toowoomba and Laidley accounted for 91% of all items of household expenditure purchased by employees within this TRC. Gatton was particularly significant given its central geographic location within the TRC (Table 31).

Table 7.30. Gatton TRC: Location of Household Expenditure

		Percentage	Annual Income or Expenditure (\$)
Total Population	120,654		
Total Employed Persons	48,910		
Number of Timber Industry Employees	31		
Estimated Employee Income			734,700
Estimated Employee Expenditure (Exc. Income tax, mortgage payments and superannuation and life insurance)			558,600
Main Residential Locations of Employees			
Gatton (12)			
Gatton		73.42	158,800
Toowoomba		22.15	47,900
Laidley (7)			
Laidley		59.60	75,200
Gatton		23.84	30,100
Ravensbourne (5)			
Toowoomba		81.82	73,700
Forest Hill (2)			
Laidley		31.11	11,200
Gatton		26.67	9,600
Toowoomba		15.56	5,600
Plainland (2)			
Laidley		40.48	14,600
Gatton		26.19	9,400
Toowoomba		21.43	7,700
Town Catchments			
Gatton		43.96	245,500
Toowoomba		25.42	142,000
Laidley		21.21	118,500
Total		90.59	506,000
TRC Expenditure Patterns			
Gatton TRC		92.56	517,000
Brisbane TRC		4.92	27,500
Outside RFA Boundary & TRCs		1.97	11,000
Woodford TRC		0.28	1,600
Gold Coast TRC		0.28	1,600
Total		100.01	558,600

Note: Based on an average annual income of \$23,700 (ABARE, 1998).

Source: EBC (1998).

Amongst forest industries within this TRC, 82% of expenditure by these industries occurred within the Gatton TRC and in particular to the towns of Gatton, Toowoomba and Laidley (Table 7.31). Given the proximity of the Brisbane TRC, 18% of industry expenditure also occurred within the Brisbane TRC.

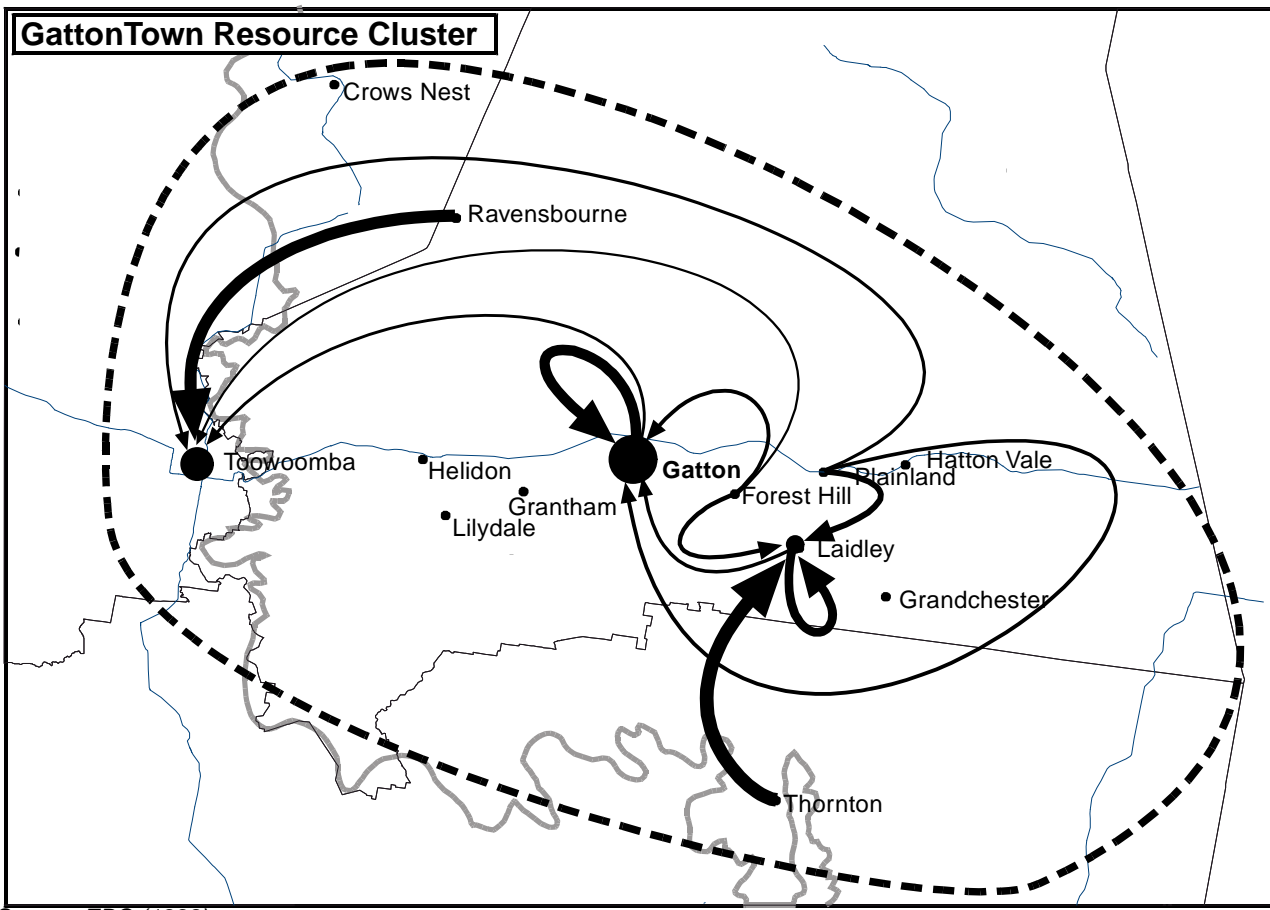
Gatton and Laidley appeared to be the primary locations for expenditure amongst timber processing industries, contractors and graziers, while apiarists within this TRC appeared to all purchase items from Toowoomba.

Table 7.31 Gatton TRC: Forest Industry Expenditure

All Forest Industries	% of All Expenditure Items			
TRC Expenditure Patterns				
Gatton TRC	82.2			
Brisbane TRC	17.8			
Total	100.0			
Town Location of Expenditure				
Gatton	39.8			
Toowoomba	13.9			
Brisbane	11.4			
Laidley	7.8			
Dakenba	7.2			
Crows Nest	3.6			
Dalby	3.0			
Ipswich	3.0			
Tara	3.0			
Meandarra	1.8			
Grandchester	1.2			
Other (less than 0.6%)	4.2			
Total	100.0			
TRC Expenditure Patterns: Specific Forest Industries				
	Timber Processing Industries	Timber Contractors	Apiarists	Grazing Industry
Low Expenditure Items				
Gatton TRC	88.9	100.0	61.5	95.8
Brisbane TRC	11.1	0.0	38.5	4.2
Total	100.0	100.0	100.0	100.0
High Expenditure Items				
Gatton TRC	71.4	100.0	45.5	85.7
Brisbane TRC	28.6	0.0	54.5	33.3
Total	100.0	100.0	100.0	100.0
Within Gatton TRC				
Low Expenditure Items				
Primary Catchment	Gatton	Gatton	Toowoomba	Gatton
Secondary Catchment	Laidley	*	Gatton	*
High Expenditure Items				
Primary Catchment	Gatton	Gatton	Gatton	Gatton
Secondary Catchment	Laidley	*	Toowoomba	*
Outside Gatton TRC				
Low Expenditure Items	Brisbane	*	Ipswich	*
High Expenditure Items	Brisbane	*	Ipswich	*

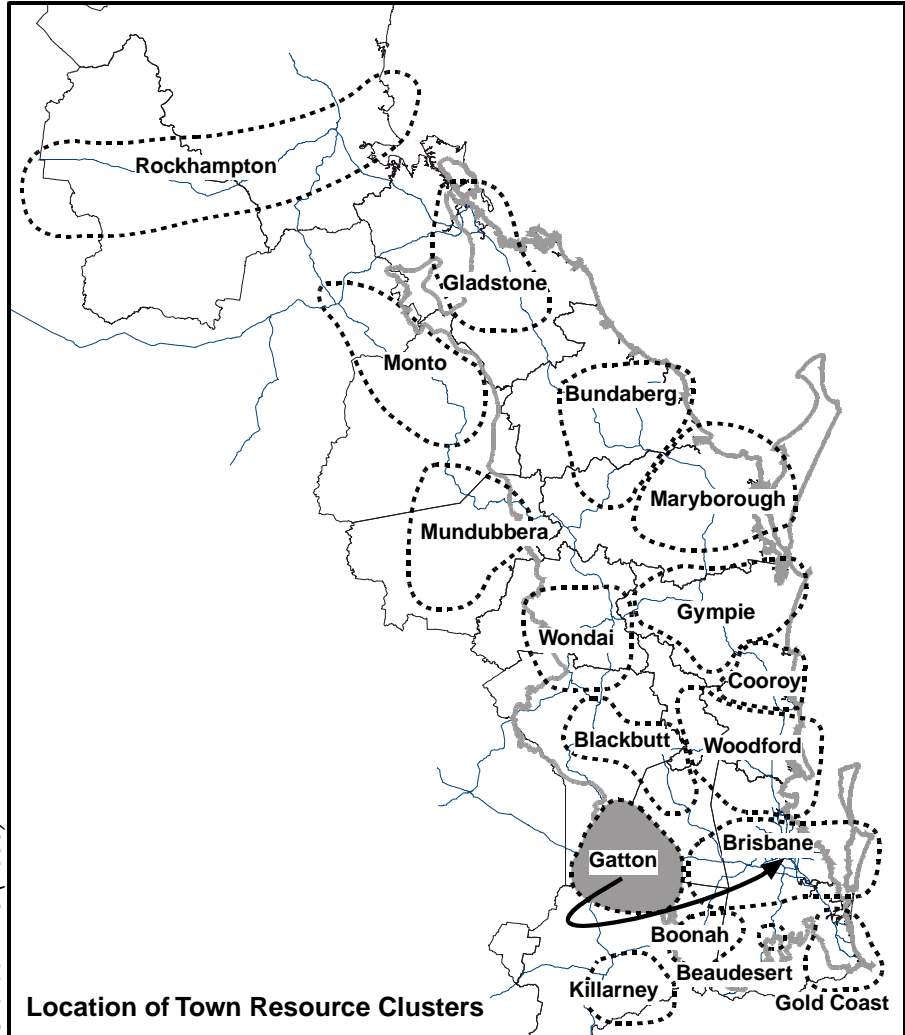
Note: All values in the table are percentages.
 'ND' indicates no data, '**' indicates insufficient data.

Source: EBC (1998).



Source: EBC (1998)

- Primary Catchment
- Secondary Catchment
- Tertiary Catchment
- Arrows indicate location of household expenditure. Width of the arrow indicates the level of expenditure



Source: EBC (1998)

FIGURE 31. Gattontown TRC: Employee Household Expenditure Network

7.16 Other TRCs: Household and Industry Expenditure

Timber processing industries within the TRCs of Killarney, Beaudesert, Boonah and the Gold Coast have limited reliance on the native hardwood resource. In addition the limited number of forest industries within these TRCs and the low number of forest industry employees makes any analysis of industry and household expenditure extremely difficult. Due to the lack of information and the limited activity of forest industries within these TRCs no further analyses of employee and industry expenditure within these TRCs has been undertaken.

8. Location of Schools Attended by Forest Industry Families

Primary and secondary school locations were identified from the survey of forest industry employees. It should be noted that this analysis is based on the survey of all forest industry employees and not only those employees within the timber industry. Large sample sizes would have been required if the school locations of family dependents of specific forest industry employees were required. Table 8.1 shows the inferred location of primary and secondary schools attended by family members of forest industry employees who reside within each of the town resource clusters (TRCs).

Table 8.1 shows that were a forest industry employee resides within a TRC, primary schools are used which are also located within the same TRC in which the industry employee resides. In relation to the use of high schools, and while the majority of family dependents use high schools within the same TRC in which the employee resides, there is nevertheless greater spatial dispersion in the use of high schools when compared to the use of primary schools.

For instance, within the Gladstone TRC, the majority of employees are located in the southern portion of the TRC, in the vicinity of Builyan and Many Peaks (Table 4.2). The towns of Builyan and Many Peaks are in close proximity to the Monto TRC and as such 88.9% of all high school students were estimated to attend High Schools at Monto. Similarly, the distribution of forest industry employees within the Cooroy and Woodford TRCs permits the town of Nambour to attract High School students from both of these Town Resource Clusters.

Table 8.1. Location of Primary Schools Attended Across Town Resource Clusters

Location of Schools (within TRCs)	Primary Schools (%)	High Schools (%)
Rockhampton		
Rockhampton	60.0	41.7
Dingo	40.0	33.3
Blackwater	0.0	16.7
Gladstone		
Builyan	100.0	0.0
Monto	0.0	88.9
Rockhampton	0.0	11.1
Monto		
Monto	83.3	75.0
Mulgildie	16.7	0.0
Beachmere	0.0	25.0
Mundubbera		
Mundubbera	42.1	50.0
Eidsvold	31.6	30.0
Monogorilby	15.8	0.0
Binjour	10.5	0.0
Gayndah	0.0	20.0
Bundaberg		
Bundaberg	84.6	60.9
Biggenden	15.4	4.3
Childers	0.0	17.4
Cordalba	0.0	13.0
Biggenden	0.0	0.0
Kepnock	0.0	4.3
Maryborough		
Maryborough	94.3	100.0
Brooweena	2.9	0.0
Tiaro	2.9	0.0

Continued...

Table 8.1. Location of Primary Schools Attended Across Town Resource Clusters (continued)

Location of Schools (within TRCs)	Primary Schools (%)	High Schools (%)
Gympie		
Gympie	63.2	77.3
Kandanga	21.1	4.5
Imbil	10.5	13.6
Kia Ora	5.3	0.0
Cooloola	0.0	4.5
Wondai		
Wondai	84.2	42.9
Murgon	15.8	14.3
Kingaroy	0.0	42.9
Blackbutt		
Moore	30.0	25.0
Toogoolawah	30.0	50.0
Blackbutt	20.0	0.0
Linville	20.0	0.0
Nanango	0.0	25.0
Cooroy		
Cooroy	58.8	25.0
Mallow	11.8	0.0
Nambour	11.8	31.3
Cooran	5.9	6.3
Pomona	5.9	6.3
Noosa	5.9	12.5
Noosaville	0.0	18.8
Woodford		
Woodford	32.4	45.5
Caboolture	18.9	0.0
Forest Glen	10.8	0.0
Mt Kilcoy	8.1	0.0
Glass House Mountain	5.4	0.0
Kilcoy	5.4	18.2
Monogorilby	5.4	0.0
Mt Mee	5.4	0.0
Beerwah	2.7	0.0
Wamuran	2.7	0.0
Yandina	2.7	0.0
Burnside	0.0	18.2
Nambour	0.0	9.1
Redcliffe	0.0	9.1
Gatton		
Gatton	66.7	40.0
Laidley	33.3	50.0
Ipswich	0.0	10.0
Beaudesert		
Beaudesert	100.0	100.0

Note: Limited information is available on schools attended for forest industry employees within the Brisbane, Killarney, Boonah and Gold Coast TRCs.

Source: EBC(1998)

9. Profile of Forest Industry Employees

Employee profiles for the timber industry, contractors, apiarists and graziers are shown in Table 9.1. The profiles for timber processing industry employees and forest contractors are based on large sample counts and would reasonably reflect the population characteristics of employees within each of these industry groups. The employee profile of apiarists and graziers are based on smaller sample sizes and as such some caution is required when interpreting these profiles.

In general the employee profiles for timber processing industry employees and forest contractor employees are reasonably similar. The most significant difference between the two groups was in relation to home ownership, where a large percentage of timber processing industry employees rented their home when compared to forest industry contractors.

An examination of the employee profiles across the four industry groups shows the mean age of timber processing and forest contractors to be 37 years and 39 years respectively, with the mean age of apiarists being 48 years and the mean age of graziers being 54 years.

Of particular interest is that approximately 50% of apiarists were employed part-time in their business, working an average of 20 hours per week. This is in comparison to timber processing industry employees where 11% were employed part time and where only 6% of forest contractor employees were employed part-time.

Timber processing industry and forest contractor employees had worked for their current business for approximately 10 years, while apiarists had worked for their business for approximately 15 years and graziers 30 years.

Amongst timber processing industry and forest contractor employees, 17% and 18% respectively had previously had to move town to retain their employment within the industry, with the majority of employees having moved from town to town on two previous occasions.

Forty percent of timber industry and forest contractor employees were found to have left school at year 10, with 12% of industry employees and 10% of contractor employees also having left school at year 9.

In relation to the employment status of the partner, 60% of timber industry employees had a partner in employment, with 35% of partners being in full time employment and 25% being in part time employment. Amongst these employees, 25% of employees had partners who worked in the same industry as themselves.

Across all forest industries the mean family size was approximately 3.0, with the majority of employees having either 'most' or 'all' family members living in the same town as the employee.

An analysis of the lifecycle age profiles shows that amongst timber industry and forest contractor employees the majority were young to middle age families with a high percentage of primary school aged children. In contrast apiarists had a large percentage of pre-retirement families, while graziers had a high percentage of pre-retirement and elderly families.

Table 9.1 shows the mean forest value scores for each of the four values and belief dimensions for the general population, which have been reported in a previous study which assessed forest values and beliefs within the general population (EBC,

1998). As might be expected, the general population reports higher levels of intrinsic value than is evident across all forest industry employees, while forest industry employees report, again as might be expected, significantly higher levels of extrinsic use values. As would also be expected, forest industry employees also report higher dependency of their town or area on the timber industry when compared to respondents from the general population.

Table 9.1 also shows that across all forest industry employees the most preferred characteristics about the town or area in which they lived were that they liked the 'people who lived there' and the 'lifestyle'.

Table 9.1. Profile of Forest Industry Employees

Characteristics	Timber Processing	Forest Contractors	Apiarists	Graziers
Sample Size	352	207	29	15
Mean age of employee	37.2	38.7	47.8	54.1
Percent males	85.7	85.9	92.3	83.3
Percent females	14.3	14.1	7.7	16.7
Employment				
Percent full employment	89.4	94.5	53.6	78.6
Percent part time employment	10.6	5.5	46.4	14.3
Mean hours per week worked	28.6	34.5	20.2	12.5
Mean number of years working for current business	9.5	9.5	14.8	29.6
Mean number of years working in industry sector	12.6	13.6	19.1	31.1
Percent who have only worked in current industry sector	61.2	59.1	56.0	54.5
Percent who have moved town to retain employment in industry	16.6	18.1	20.0	0.0
Median number of town moves to retain employment in industry	2.0	2.2	1.0	0.0
Home Ownership Characteristics				
Mean number of years resident in current town	21.4	20.9	26.4	34.2
<i>Home Ownership (percent)</i>				
Rent home	44.6	32.7	14.8	8.3
Own the home	24.3	34.2	70.4	83.3
Have a mortgage	31.1	33.2	14.8	8.3
Highest Level of Education (percent)				
Primary School	6.5	7.5	25.9	15.4
Year 8	7.1	7.0	3.7	7.7
Year 9	12.4	10.9	3.7	7.7
Year 10	39.1	38.3	22.2	38.5
Year 11	3.8	5.5	3.7	0.0
Year 12	12.6	10.4	3.7	7.7
Trade or TAFE certificate	14.1	13.9	14.8	15.4
Degree or diploma	4.4	6.5	22.2	7.7
Marital Status (percent)				
Married or Defacto	70.8	76.4	75.0	85.7
Single	29.2	23.6	25.0	14.3
Partner s Employment Characteristics (percent)				
Full-time	35.0	32.9	27.3	30.0
Part-time	24.5	31.6	40.9	10.0
Not employed	40.5	35.5	31.8	50.0
Percent with partner employed in same industry as employee	24.7	19.4	47.8	85.7
Family Characteristics				
Mean family size	3.0	3.1	3.1	3.2
<i>Percent of employees indicating family in same town as employee</i>				
None	10.3	10.3	7.1	23.1
Some	27.3	29.4	21.4	23.1
Most	27.9	30.4	25.0	30.8
All	34.5	29.9	46.4	23.1
Lifecycle Age Profile (percent)				
0-4 years (pre-school)	6.0	9.0	2.4	15.8
5-12 years (primary school)	13.9	15.8	11.0	13.2
13-17 years (high school)	8.1	10.5	13.4	2.6
18-24 years (young singles/couples)	12.8	10.0	9.8	2.6
25-39 years (young/middle families)	29.9	27.5	13.4	26.3
40-49 years (mature families)	16.4	14.9	14.6	5.3
50-64 years (pre-retirement)	11.1	10.0	30.5	15.8
65+ (elderly)	1.9	2.4	4.9	18.4

Recreation, Leisure and Other Social Activities				
Number of community groups or organisations actively involved in	2.2	2.1	2.2	3.6
Percent of employees indicating friends in same town as employee				
None	2.3	1.5	0.0	0.0
Some	37.4	40.0	29.6	33.3
Most	48.3	48.8	48.1	66.7
All	12.1	9.8	22.2	0.0
Frequency of Visiting State Forests or National Parks (percent)				
Once a month or more	11.0	10.1	30.8	0.0
Once every three months	11.6	13.1	15.4	8.3
Once every six months	13.1	12.6	7.7	25.0
Once a year	9.6	12.6	3.8	0.0
Never	54.6	51.8	42.3	66.7
Forest Values (mean composite scores)¹				
Intrinsic Values (population mean = 1.76)	1.90	1.99	1.95	1.92
Extrinsic Values (population mean =2.42)	1.85	1.89	2.08	1.92
Forest Management Concern (population mean = 2.00)	2.24	2.37	1.96	2.23
Dependency on forest industries (population mean = 3.09)	1.61	1.76	2.69	2.32
Preferred Characteristics of Employee Town or Area of Residence (percent)				
The people who live here	64.7	54.5	53.8	58.3
The lifestyle	71.5	77.2	61.5	83.3
The employment opportunities	22.8	16.8	11.5	16.7
Its isolation or remoteness	17.8	14.9	19.2	8.3
The scenic beauty of the area	33.8	40.6	42.3	66.7
The quality of the environment	33.8	33.7	34.6	66.7
The climate	38.6	51.0	53.8	66.7
Its closeness to my work	79.5	70.3	61.5	58.3
Access to community services and facilities	33.5	33.7	53.8	75.0
The availability of recreation opportunities	32.9	33.2	23.1	25.0

Note: ¹Forest values are compared to population values as described in EBC (1998), *Social and Forest Values of the Community Within the South East Queensland RFA Region*. Forest value scales are represented by (1) strongly agree, (2) agree, (3) disagree and (4) strongly disagree.

Source: EBC (1998).

GLOSSARY OF TERMS

Salvage Industry	A salvage industry is any industry which is reliant on the removal of crown hardwood which is non-sawlog material often remaining after logging
Sawmill Allocation Zone	A Sawmill Allocation Zone is an administrative unit used by DPI-Forestry when allocating hardwood quotas to sawmills and other clients
Special and Term Leases issued	Special Leases are now known as Term Leases. This is a tenure type introduced by the Land Act, 1994 to replace leases with a term (other than perpetual). Term Leases are by DNR for a variety of purposes, including grazing, agriculture, pastoral, tourism, telecommunications, business and residential. The majority of Term Leases issued in Crown forests are for grazing purposes. The Land Act 1994 provides for the issue of Term Leases, which generally do not exceed 30 years, over any crown land, including State Reserves and any land reserved and set aside for public purposes.
Stock Grazing Permit	SGPs are issued for cattle grazing on State Forests only (both native and plantation). They are issued by DPI Forestry for a period not exceeding seven years. SGPs also exist for some areas of National Parks, however, in accordance with the Nature Conservation Act (1992), all of these are non-renewable. Most of these SGPs are over land recently acquired by National Parks from private landholders or other State Government management agencies, for example, DPI Forestry.
Timber Processing Industry	A timber processing industry is defined as an industry that processes hardwood resource and which also has a crown hardwood allocation.
Town Resource Cluster (TRC)	A Town Resource Cluster (TRC), represents a cluster of towns and/or communities which are highly interdependent and which are also dependent upon a natural resource located within a specific geographic area.

Appendix A

**Questionnaires
Forest Contractors and Forest User Businesses
Forest and Timber Industry Employees**

Forest Contractors and Forest User Businesses

IN CONFIDENCE

Under clauses 41, 43 and 45 of the 1982 Freedom of Information Act (Commonwealth), an individual's information cannot be released to another party.

A Regional Forest Agreement (RFA) is being prepared between the Commonwealth and Queensland Governments. This agreement will determine the amount of forest available for timber production as well as the amount to be placed in conservation reserves. As part of the process in Queensland, both governments are jointly conducting an assessment of the social impacts of forest decisions on individuals and communities.

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If Your Business is Substantially Dependent on Access to State Native Forests, Please Complete and Return in the Enclosed Envelope By the 16th January, 1998

Describing Your Business

1. What type of work did your business do in the past 12 months?

■ You may tick more than one box

- | | |
|---|---|
| <input type="checkbox"/> Sawlog operations | <input type="checkbox"/> Mining/quarrying |
| <input type="checkbox"/> Sleeper operations | <input type="checkbox"/> Firewood collection |
| <input type="checkbox"/> Pole and round timber operations | <input type="checkbox"/> Seed collection |
| <input type="checkbox"/> Snigging | <input type="checkbox"/> Wildflower collection |
| <input type="checkbox"/> Felling/cutting | <input type="checkbox"/> Fossicking/prospecting |
| <input type="checkbox"/> Transporting | <input type="checkbox"/> Roothing |
| <input type="checkbox"/> Timber processing | <input type="checkbox"/> Tourism |
| <input type="checkbox"/> Apiarist | |

Other (please specify)

2. How long has this business been in operation?

years

3. In what town (or nearest town) is your business based?

4. What is the trading name of your business?

5. During the last 12 months, and including management, how many full time and part time employees have you had?

Full-time employees

Part-time employees

On average how many hours per week did your part-time employees work hours

6. During the last 12 months has your business used any sub-contractors?

No → **Go to Question 9**

Yes

7. During the last 12 months how many sub-contractors did you use?

number

8. What type of sub-contractors have you used?

Haulage contractors

Harvesting contractors

Other (specify)

9. In the last 12 months, where have your main customers been located?

Town in which Customer Located

Town 1:

Town 2:

Town 3:

Town 4:

Town 5:

Town 6:

10. Does your business mill or process timber products?

No → **Go to Question 12**
 Yes

11. What was the approximate volume of timber you processed during the last 12 months?

Sawlogs	<input type="text"/>	cubic metres
Poles/Round timber	<input type="text"/>	linear metres
Sleeper Logs	<input type="text"/>	numbers

12. Does your business truck or transport any timber products?

No → **Go to Question 14**
 Yes

13. What is the main town location to which you transport timber products?

14. Has your business logged or harvested timber during the last 12 months?

No → **Go to Question 16**
 Yes

15. What was the approximate volume of timber logged during the last 12 months?

Sawlogs	<input type="text"/>	cubic metres
Poles/round timber	<input type="text"/>	linear metres
Sleeper logs	<input type="text"/>	numbers

16. Does this business work or operate in specific logging areas or State Forests?

No → **Go to Question 18**
 Yes

17. What are the names of the logging areas or State Forests you have worked in during the last 12 months?

Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>
Logging Area or State Forest:	<input type="text"/>

18. All businesses require goods and services to operate. Excluding wages, for the following goods and services could you please indicate the town in which your supplier is located. If you can, provide an estimate of whether each item is less than 10% of your total expenditure (S=Small) or greater than 10% of your total expenditure (L=Large).

Items of Expenditure	Town in which your Main Supplier is Located	Indicate: S = Less 10% L = Over 10%
USUAL BUSINESS EXPENSES		
Power (electricity)	<input type="text"/>	<input type="text"/>
Fuel (petrol, diesel, gas etc)	<input type="text"/>	<input type="text"/>
Freight (general business freight)	<input type="text"/>	<input type="text"/>
Freight (timber haulage)	<input type="text"/>	<input type="text"/>
Accounting	<input type="text"/>	<input type="text"/>
Legal expenses	<input type="text"/>	<input type="text"/>
Insurance (all business insurance)	<input type="text"/>	<input type="text"/>
Office supplies (ie., stationary)	<input type="text"/>	<input type="text"/>
Advertising and marketing	<input type="text"/>	<input type="text"/>
Banking	<input type="text"/>	<input type="text"/>
Printing	<input type="text"/>	<input type="text"/>
REPAIRS AND MAINTENANCE		
Machinery or equipment (inc. servicing)	<input type="text"/>	<input type="text"/>
Vehicles (inc. servicing, tyres, repairs)	<input type="text"/>	<input type="text"/>
Building and office (Inc. cleaning)	<input type="text"/>	<input type="text"/>
MAJOR EQUIPMENT OR ASSET PURCHASES		
Machinery, plant or equipment	<input type="text"/>	<input type="text"/>
Vehicles (inc. cars, trucks)	<input type="text"/>	<input type="text"/>
Computing equipment	<input type="text"/>	<input type="text"/>
Extensions or alterations to buildings	<input type="text"/>	<input type="text"/>
New building or land purchases	<input type="text"/>	<input type="text"/>
COUNCIL RATES		
Council rates	<input type="text"/>	<input type="text"/>
LOG COSTS/PRODUCTION COSTS		
Royalties and related levies	<input type="text"/>	<input type="text"/>
Harvesting and log cartage	<input type="text"/>	<input type="text"/>
Permit Fees	<input type="text"/>	<input type="text"/>
ANY OTHER MAIN ITEMS OF BUSINESS EXPENDITURE (Please identify type)		
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

19. Do you access private native forests?

- No → **Go to Question 21**
- Yes

20. What are the locations of the private forest areas that your business uses?

1. _____
2. _____
3. _____
4. _____

Other Issues Affecting Your Business

21. Has your business been affected by any changes in forest management?

- No → **Go to Question 23**
- Yes

22. What were these changes and how did these affect your business?

23. What would you like to see happen in forestry that could improve the operation of your business?

24. Do you have any comments about the forestry debate (please specify)?

Forest and Timber Industry Employees

IN CONFIDENCE

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Your Employment

1. Are you in full or part time employment?

Full-time employment

Part-time employment → average hours/ week

2. What are the main activities of the business you currently work for?

■ You may tick more than one box.

Sawlog operations

Sleeper operations

Pole & round timber operations

Snigging

Felling/cutting

Transporting

Timber processing

Apiarist

Other activities

Mining/quarrying

Firewood collection

Seed collection

Wildflower collection

Fossicking/prospecting

Roading

DPI Forestry management

Tourism

3. What is the name of the business or organisation you currently work for?

4. What is your usual occupation when working for this business or organisation?

5. How long have you been working for this business?

 years

6. How long have you been working in this industry sector?

 years

7. Have you worked in any other industry sectors?

 No Yes, I have worked in the

8. Since you have been working in this industry have you had to move from one town/area to another to keep your employment?

 No Yes, I have moved times

The last towns/areas

I moved from were: 1.

2.

3.

About Myself and My Family

9. In what town or area do you usually live?

10. How long have you lived in this town/area?

 years

11. How many people in your family live in your town/area?

 None Most Some All

12. How many of your friends live in your town/area?

 None Most Some All

13. In the house you are now living in, do you...?

- Tick only one box Rent
 Have a mortgage
 Own the home

14. What type of training or education have you finished?

- Tick only one box Primary School Year 11
 Year 8 Year 12
 Year 9 A trade or TAFE certificate
 Year 10 Degree or Diploma

15. Are you...?

- Married or Defacto
 Single

16. Does your partner earn an income from...?

- Full-time work
 Part-time work
 Not employed

17. What is the age of all family members currently living with you? If they attend a school or work in what town do they attend school or work? Do they work in the same industry as yourself?

Family Member	Age of this Person	Sex of this Person	Town in which they attend school or work	Work in same Industry as self	
<i>Myself</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>		
<i>Person 2</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>Person 3</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>Person 4</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>Person 5</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>Person 6</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>Person 7</i>	<input type="text"/> years	<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="text"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Your Household Expenditure and Purchases

18. When you or members of your family purchase items, what are the main towns from which you usually purchase these items? If possible record other towns you may also purchase from?

	Main Town in which you Purchase Items	Other Towns in which you Purchase items
HOUSEHOLD PURCHASES		
Main household grocery shopping	<input type="text"/>	<input type="text"/>
Minor purchases of food & groceries	<input type="text"/>	<input type="text"/>
CONVENIENCE GOODS		
Hairdressing (men's & women's)	<input type="text"/>	<input type="text"/>
Chemist goods, toiletries & cosmetics	<input type="text"/>	<input type="text"/>
Take away foods	<input type="text"/>	<input type="text"/>
HOUSEHOLD COSTS		
Tools and hardware	<input type="text"/>	<input type="text"/>
Clothing	<input type="text"/>	<input type="text"/>
Books or magazines	<input type="text"/>	<input type="text"/>
Electrical goods	<input type="text"/>	<input type="text"/>
Furniture or carpets	<input type="text"/>	<input type="text"/>
Household repairs & maintenance	<input type="text"/>	<input type="text"/>
VEHICLES OR CAR EXPENSES		
Cars (new and/or used)	<input type="text"/>	<input type="text"/>
Car repairs and service	<input type="text"/>	<input type="text"/>
Petrol or diesel for car	<input type="text"/>	<input type="text"/>
OTHER COSTS		
Power bill payment	<input type="text"/>	<input type="text"/>
Telephone bill payment	<input type="text"/>	<input type="text"/>
Post office	<input type="text"/>	<input type="text"/>
Accounting	<input type="text"/>	<input type="text"/>
Banking	<input type="text"/>	<input type="text"/>
Legal expenses	<input type="text"/>	<input type="text"/>
Insurance (inc. house, car or medical)	<input type="text"/>	<input type="text"/>
Medical (inc. doctors, dentists)	<input type="text"/>	<input type="text"/>
Mortgage payments	<input type="text"/>	<input type="text"/>
Rental payments	<input type="text"/>	<input type="text"/>
School fees and costs	<input type="text"/>	<input type="text"/>
Recreation, sport & entertainment	<input type="text"/>	<input type="text"/>

Recreation, Leisure and Other Social Activities

19. People are often actively involved in community groups, organisations or clubs, which may include sporting clubs, hobby clubs, service clubs, P&C associations. How many of these groups are you **actively involved** in?

groups

20. During the last year have you visited areas of State Forest or National Parks for reasons other than work?

No → **Go to Question 23**
 Yes

21. On average, how often have you visited these State Forests or National Parks?

Once a month or more
 Once every three months
 Once every six months
 Once a year

22. What were the names of the State Forests or National Parks you visited and what did you do there?

Name of the State Forest or National Park
(For example, the name of the State Forest, National Park or nearest town)

What did you do there?
(For example, walking, swimming, sightseeing, photography etc)

1.

1.

2.

3.

2.

1.

2.

3.

3.

1.

2.

3.

4.

1.

2.

3.

Forest Values and Attitudes

- 23.** When people talk about native forests a lot of different issues are raised. Below is a list of statements that people make. Please indicate how much you agree or disagree with each statement by circling a number between 1 and 4.

	Strongly Agree	Agree	Disagree	Strongly Disagree
The area in which I live is dependent upon the timber and logging industry	1	2	3	4
Better laws are needed to regulate the use of native forests in Queensland	1	2	3	4
Laws to protect native forests do not affect me	1	2	3	4
If the forest and timber industries didn't exist in this area I would have to live somewhere else	1	2	3	4
The conservation and protection of native forests in Queensland will benefit the Queensland economy	1	2	3	4
The friendships I have with other people in my town or area mean a lot to me	1	2	3	4
I appreciate the natural beauty of the forest	1	2	3	4
I am concerned about the management and use of native forests in Queensland	1	2	3	4
The balance of the forest ecosystem is fragile	1	2	3	4
The timber industry is important to the Queensland economy	1	2	3	4
I sometimes feel torn between the need for jobs and the need to protect native forests in Queensland	1	2	3	4
I am confident that native forests are being well managed in Queensland	1	2	3	4
Forests are important for their own sake	1	2	3	4
Forest industries should be more involved in the management of forests	1	2	3	4
Protecting native forests will threaten jobs	1	2	3	4

About the area in which you live

24. What do you like most about the town or area in which you live?

■ You may tick more than one box.

- The people who live here
- The lifestyle
- The employment opportunities
- Its isolation or remoteness
- The scenic beauty of the area
- The quality of the environment
- The climate
- Its closeness to my work
- Access to community services and facilities
- The availability of recreational opportunities

Other

About forestry and forest activities

25. Have you or your family been affected by changes in forest management?

- No → **Go to Question 27**
- Yes

26. What were these changes and how did they affect you or your family?

27. Do you think your town or area has been affected by changes in forest management?

- No → **Go to Question 29**
- Yes

28. What were these changes and how did these affect your town or area?

29. What would you like your town or area to be like in 20 years time?

30. Do you have any comments about the forestry debate (please specify)?
