

**NATIONAL CENTRE FOR RESEARCH
INTO THE PREVENTION OF DRUG ABUSE**

**Evaluation of the
Tennant Creek
Liquor Licensing Restrictions**

**A report prepared for the Tennant Creek
Beat the Grog Sub-Committee**

**National Centre for Research into the Prevention of Drug Abuse
Curtin University of Technology**

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Beat the Grog Sub-Committee**

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Contents

List of Tables	v
List of Figures	v
Acknowledgements	vi
1. Introduction	1
2. Methods	4
Qualitative data	4
Quantitative data	4
<i>Community survey</i>	4
<i>Station survey</i>	7
<i>Other quantitative data</i>	7
3. Submissions to the Liquor Commission and key stakeholder interviews	10
Submissions to the Northern Territory Liquor Commission	10
Key stakeholder interviews	12
<i>Positive effects of the restrictions</i>	12
<i>Negative effects of the restrictions</i>	13
<i>Operation of the restrictions</i>	14
<i>Compliance with restrictions</i>	14
<i>The future of alcohol restrictions</i>	14
Limitations of qualitative data	15
4. The community and pastoral station surveys	16
The community survey	16
<i>Personal effects of the restrictions</i>	16
<i>Effects of the restrictions on the community</i>	16
<i>Implementation of the restrictions</i>	19
<i>Compliance with restrictions</i>	19
<i>Attitudes to the current restrictions</i>	20
<i>Other restrictions</i>	22
The pastoral station survey	23
5. The effects of the restrictions	24
Alcohol consumption	24
Health and welfare effects	28
<i>Tennant Creek hospital</i>	28
<i>Anyinginyi Congress</i>	30
<i>Tennant Creek Women's Refuge</i>	31
<i>BRAADAG Sobering Up Shelter</i>	32
Impact on public order	34
Economic impacts	36
6. Circumvention of the restrictions	39
Changes in the types of beverages consumed	39
Changes in drinking location	39

7. Summary and recommendations	44
Key findings	44
<i>Submissions to the Liquor Commission & key stakeholder interviews</i>	44
<i>Community survey</i>	44
<i>Pastoral station survey</i>	45
<i>Alcohol consumption</i>	45
<i>Health and welfare impact of the restrictions</i>	45
<i>Impact on public order</i>	46
<i>Economic impact of the restrictions</i>	46
<i>Circumvention of the restrictions</i>	46
Recommendations	47
8. References	48
9. Appendices	49
1. Key stakeholders interviewed	49
2. Liquor purchases	50
3. Community survey interview schedule	51

List of Tables

Table 1	Summary of submissions made to the NT Liquor Commission regarding the Tennant Creek licensing restrictions	11
Table 2	Effects of the restrictions on respondents personally	17
Table 3	Respondent perceptions of the negative effects of the restrictions on the community	18
Table 4	Respondent perceptions of the positive effects of the restrictions on the community	18
Table 5	Respondent perceptions about the introduction, compliance with, and enforcement of the restrictions	20
Table 6	Respondent attitudes to the future of current restrictions	21
Table 7	Respondents in favour of additional restrictions	22
Table 8	Liquor purchases (litres of pure alcohol) by Tennant Creek licensees by beverage type by quarter, October-December 1994 to January-March 1998	25
Table 9	Licensee purchases of pure alcohol and per capita consumption, Northern Territory and Tennant Creek, 1994-5, 1995-6, 1996-7	27
Table 10	Possible alcohol related admissions to Tennant Creek Hospital	28
Table 11	Potentially acute alcohol related admissions by day of the week	29
Table 12	Tennant Creek Women's Shelter admissions 1994-1998	32
Table 13	BRADAAG Sobering Up Shelter admissions, 1990-91 to 1997-98	33
Table 14	Numbers of Offences reported in Tennant Creek and number in protective custody	34
Table 15	Visitors to the Tennant Creek Visitor Information Centre	37

List of Figures

Figure 1	Liquor purchases (litres of pure alcohol) by Tennant Creek licensees by beverage type, 3rd quarter 1994 to first quarter 1998	26
Figure 2	Liquor purchases (litres of pure alcohol) by licensed clubs and other types of licensed premises, 3rd quarter 1994 to first quarter 1998	40
Figure 3	Liquor purchases (litres of pure alcohol) by Tennant Creek and out-of-town licensees, 3rd quarter 1994 to first quarter 1998	42

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1. Introduction

In this paper we report on an evaluation of the Tennant Creek Liquor Licensing restrictions. These restrictions were introduced by the Northern Territory Liquor Commission in March 1996. Their introduction followed: a period in which some sections of the Tennant Creek Community had agitated for measures to control high rates of alcohol consumption and related harm; the establishment of a 'Beat the Grog' Committee to deal with alcohol issues; a 'grog free day' to focus attention on the problem; and, a six month period during which two sets of restrictions were trialed.

An evaluation of the trial restrictions was undertaken by d'Abbs, Togni, and Crundall.¹ According to the then Chairman of the Liquor Commission:

The conclusion to be drawn from the evaluation report is that over the period of the trial there has been an improvement in the area of police incidents, public order, health and welfare.¹

As a consequence of this demonstrated success, the Liquor Commission introduced the present restrictions, which applied to five licenses—the Tennant Creek Hotel, Tennant Creek Trading, the Goldfields Hotel, the Headframe Bottleshop, and Rockits (now ceased operating). Other licensed premises in the town—mainly clubs and restaurants—were not subject to the restrictions.

As set out in the decision of Liquor Commission, the restrictions are:

A. Takeaway outlets associated with these licenses will be closed Thursdays, other than these, outlets will be able to fill legitimate bush orders on that day.

B. Takeaway sales will be restricted in the following way:

- (i) sales of all wines in casks greater than 2 litres volume will be prohibited
- (ii) sales of all wines in casks of 2 litres or less will be restricted to one transaction per person per day
- (iii) no wine to be sold in glass containers over one litre volume
- (iv) no third party sales to taxi drivers
- (v) these restrictions will not extend to bush orders.

C. The two front bars will be closed Thursdays. Lounge style bars will be able to trade during the hours specified for the Phase 1 Period (i.e. as permitted under existing law, that is 10:00 am to 11:59 pm) with the exception that on Thursdays and Fridays they will open at 12 noon.

D. The Headframe. We recognise that this outlet has been financially disadvantaged (sic) by the measures ... We propose to reinstate the phase one Sunday hours (currently 10:00 am to 10:00 pm) and to align hours between takeaway outlets and bars on three days per week, i.e. Friday (currently 12:00 pm to 9:00 pm), Saturday (currently 10:00 am to 9:00 pm) and Sunday (as above).

- E. The Lounge style bars will be required to make food available and be appropriately signed.
- F. Transition. As provided in the notices of variation that govern present license conditions phase two or second three months period conditions will remain in force until further order. (Those conditions are:
- On days other than Thursday, takeaway sales from 12:00 pm to 9:00 pm;
 - In front bars, wine only to be sold if accompanied by a substantial meal;
 - In front bars, when permitted to trade between 10:00 am and 12:00 pm, light beer to be the only alcoholic beverage to be sold during those hours.)²

In addition, the terms of each of the licenses of these premises specify that:

The sale of fortified wine is restricted to containers of no more than 1125 ml capacity, for removal and consumption away from the licensed premises.

It has recently been claimed that: the 'honeymoon' effect of the restrictions has worn off; they are being circumvented; since their introduction there has been an increase in police incidents and alcohol-related health and medical problems; and, they have had an adverse effect on tourism and business. In the face of these assertions, the Tennant Creek Town Council approached the Liquor Commission and requested a review of the restrictions.

A review of the restrictions was initiated by the Liquor Commission, which conducted public meetings on them and received written submissions. At these meetings, and in those submissions, a number of people and organisations argued the case for an independent evaluation of the restrictions. The Liquor Commission agreed to allow limited time for such an evaluation to be conducted. In June 1988, a Sub-committee of the 'Beat the Grog' Committee was established. Its membership included representatives from the Police, Julalikari Council, Anyinginyi Congress, the Chamber of Commerce, Territory Health; the Regional Tourist Association; the licensees and youth; and its role was to select a consultant to undertake an independent evaluation of the restrictions. The sub-committee developed terms of reference for the evaluation and subsequently called for tenders to undertake the work, which was to be supported with limited funds from the Anyinginyi Congress Aboriginal Corporation.

In accord with those terms of reference, the aim of the evaluation is to report on:

- the continuing impact of the restrictions on the community (i.e. those imposed by the NT Liquor Commission in March 1996);
- the effectiveness of the restrictions since February 1996, both before and since the easing of the restrictions; and,

- the on-going response of the community to each phase of the restrictions.

When we were invited to tender for the evaluation, we expressed concern about the limited time and resources available to conduct it. However, we agreed to submit a tender and to undertake the work free-of-charge as part of our respective universities' community service roles. Some members of the Tennant Creek community have expressed concerns about the potential partiality of both the evaluation process and outside evaluators. At the outset we believe that it is important to state that—while we are committed to reducing the harm caused by the excessive use of alcohol, and to identifying strategies that can further such reduction—we did not undertake the project with a commitment to the Tennant Creek restrictions. We did so in the spirit of inquiring into 'what works', for we believe that, in the long-term, no one benefits from the continued application of strategies that are ineffective.

2. Methods

In accordance with documentation accompanying the terms of reference, the methods we used for the evaluation followed, as closely as possible, those employed by d'Abbs, Togni and Crundall for the evaluation of the trial restrictions, which were in place from August 1995 to February 1996.¹ However, as we indicate below, some modifications to that methodology were required—especially in light of the fact that a period of only nine weeks was available to us in which to complete the evaluation.

Both qualitative and quantitative data were collected and analysed as part of the evaluation. Qualitative data included written submissions on the restrictions made to the Northern Territory Liquor Commission and interviews with key stakeholders or representatives of key stakeholder organisations. The quantitative data included the results of a community survey that we undertook within Tennant Creek, a survey of managers of stations having a Tennant Creek postal address, and statistical collections provided by various organisations.

Qualitative data

The Northern Territory Liquor Commission made available to us 109 of 110 written submissions on the restrictions made to it by 103 individuals—34 of whom represented various community and business organisations. On the basis of discussions with the 'Beat the Grog' Sub-committee and review of the submissions to the Liquor Commission, we identified a range of stakeholders and sought interviews with them. In total, we conducted 38 such interviews with the nominees of licensed premises, police, health personnel, business people, and representatives of community organisations (see Appendix 1). Notes were taken at these interviews and were later entered into a computer.

Subsequently, we summarised both the submissions and the stakeholder interviews and conducted content analyses of them. The aims of these analyses were to:

- identify key issues related to the restrictions;
- identify the range of attitudes to them; and
- to seek evidence, or identification of sources of evidence, that would enable assessment of the impact of the restrictions.

Quantitative data

Community survey

We undertook a community survey of persons aged 18 years and over which was designed to ascertain the views of respondents on:

- the effect the restrictions had on them personally;
- the effects of the restrictions on the community;
- the future of the existing restrictions;
- compliance with the restrictions; and,
- whether or not they favoured other restrictions.

The structure of the interview schedule was similar to that used by d'Abbs and his colleagues, but was modified so we could assess community views about specific restrictions as well as the package of restrictions as a whole.

The survey sample size was determined using the criteria employed by d'Abbs and his colleagues on advice from the Australian Bureau of Statistics.¹ The formula used for this was:

$$n = Nn^1/N+n^1$$

where

$$n^1 = CI^2 \cdot P \cdot Q / SE^2$$

CI = confidence interval

P = estimated proportion of population giving a response to a question

Q = 100 – P

SE = relative standard error

For the non-Aboriginal population this yielded a sample size of

$$\begin{aligned} &= \{1664 \times [(1.96^2 \times 50^2)/7.3^2]\} / \{1664 + [(1.96^2 \times 50^2)/7.3^2]\} \\ &= 165 \end{aligned}$$

and for the Aboriginal population of

$$\begin{aligned} &= \{960 \times [(1.96^2 \times 50^2)/7.3^2]\} / \{930 + [(1.96^2 \times 50^2)/7.3^2]\} \\ &= 100 \end{aligned}$$

Individuals comprising these samples were then selected in proportion to the distribution of non-Aboriginal and Aboriginal people in each of the eight ABS collection districts that make up the Tennant Creek statistical local area.

In each collection district (except the three which are made up wholly of Aboriginal town camps) a dwelling was selected at random as a starting point and, following a pre-determined route, interviewers recruited respondents from every second house. In those instances where a person declined to be interviewed, he or she was replaced by recruiting a person from the next adjacent house. In the case of the collection districts that are made up of town camps—because of the difficulty of associating individuals with particular dwellings—the sample was selected to reflect the population structure of the camps.

Fifty-five of those persons approached declined to participate in the survey. Of these, ten indicated that they were either opposed to the restrictions or that they would not participate because they said they had participated in the survey associated with the trial restrictions and their views had made no difference. We have made the conservative assumption that all of those people were opposed to the restrictions. Four of the 55 indicated that they were in favour of the restrictions but that they had made their views known elsewhere and did not want to complete the survey. The remaining 41 indicated that they were too busy to participate or that they were simply not interested. It was the impression of those conducting the interviews that these people were largely indifferent to the restrictions. It is our considered view that, in terms of both population characteristics and attitudes to the restrictions, these people were probably no different to those included in the sample.

The final sample was comprised of a total of 271 persons aged 18 years or over. In terms of age, sex and Aboriginality, there were no statistically significant differences between the composition of the sample and the population of Tennant Creek as enumerated by the Australian Bureau of Statistics in its 1996 Census of Population and Housing.

The interviews were conducted by three members of the evaluation team (Saggers, Sputore and Bourbon) and by two non-Aboriginal and four Aboriginal people recruited locally. Brooke Sputore trained the locally recruited interviewers. This training included a three-hour session on their roles, responsibilities, and the use of the interview schedule. For the first five interviews conducted by each interviewer, they were accompanied by Ms Sputore who monitored their abilities to conduct the interviews and provided support and feedback to them.

Following the experience of d'Abbs and his colleagues in conducting the evaluation of the trial restrictions, we anticipated that, for cultural reasons, some Aboriginal people might not make the clear distinction—that most non-Aboriginal and other Aboriginal people do— between effects on themselves personally and those on the community. In cases where the interviewers initially found that Aboriginal people were not making such a distinction, they attempted to ask the first four questions from this part of the interview. If, at that stage, respondents were still not making the distinction, the interviewers moved on to those questions that asked about effects on the community. Twenty-six individuals did not clearly distinguish effects on themselves and the community and their responses to the initial questions on personal effects were not entered into the computer; thus the sample size for questions about personal effects totals 245.

The survey data were analysed using the statistical package SPSS 6.1. Responses to the survey questions were simply tabulated, and frequencies, proportions, and 95 per cent confidence limits calculated. (For those readers unfamiliar with statistical methods, the 95 per cent confidence limits enable us to estimate—with 95 per cent probability—the range of per centage values within which members of the wider population are likely to respond to a question in the same way as those in the sample. That is, they provide an estimate of the range of sampling error.)

Station survey

A telephone survey was conducted with pastoral station managers to determine whether or not they were in favour of the restrictions, whether they had been affected by the restrictions, and if they had changed the way in which they purchased alcohol as a result of the restrictions. The schedule we used to conduct these interviews was developed from that used for the same purpose by d'Abbs and his colleagues. Of 20 pastoral stations with Tennant Creek postal addresses listed with the Northern Territory Department of Industry and Fisheries, the managers of 12 participated, five declined to be interviewed stating that they had not been affected by the restrictions, and three could not be contacted.

Other quantitative data

One of the reasons for the introduction of the trial restrictions—as well as the current restrictions—was to reduce *per capita* alcohol consumption.² In order to assist us in assessing whether this had been achieved, the Northern Territory Liquor Commission provided us with data on purchases of various types of alcoholic beverages (in litres) by each type of liquor license for Tennant Creek, the surrounding region, and the Northern Territory as a whole for the period of four quarters prior to the introduction of the trial restrictions through to the first quarter of 1998. Other research has shown that there is a high correlation between these data on purchases and data on retail sales collected by the Australian Bureau of Statistics.³ Similar data have also been shown to provide a better estimate of consumption than survey data.⁴

The amount of particular beverages purchased and consumed varies in relation to its alcohol content. For this reason, direct comparison of the total volume of various beverage types sold was not appropriate. Accordingly, we converted volumetric purchases of beverages to litres of pure alcohol. We did this following the methods used by Philp and Daly, and by Stockwell and his colleagues, and used the following conversion factors:

cask wine	0.119
bottle wine	0.119

fortified wine	0.175
full strength cider	0.063
spirits	0.385
mixed spirits	0.050
high alcohol beer	0.048
low alcohol beer	0.030. ^{5, 6}

In estimating rates of *per capita* consumption of pure alcohol, we used as the denominator the population of the Tennant Creek Local Statistical Area aged 15 years or over as enumerated in the Australian Bureau of Statistics 1996 Census of Population and Housing. It is likely that this is an underestimate of the current population of the town. The Chief Executive Officer of the Tennant Creek Town Council reported to us, that although some non-Aboriginal people had left the town since the Census, they had been replaced by an influx of Aboriginal people. In an informal survey conducted by the Council, in consultation with the Aboriginal and Torres Strait Islander Commission, it was estimated that the population in June 1998 was approximately 3850. That is, about 1.5 per cent greater than that enumerated at the 1996 Census. Julalikari Council estimates that the population is actually larger than this. Given the uncertainty of these population estimates, however, our use of the Census figures results in a slight under-estimate of *per capita* alcohol consumption.

Data on alcohol purchases by licensees in Tennant Creek were subjected to time series analysis using SPSS 6.1. The alcohol data was also analysed to identify whether any shift had occurred in purchases from Tennant Creek to other licensed premises in the Barkly region, and to determine whether or not there was any differences in the pattern of purchases for Tennant Creek and the Northern Territory as a whole.

To enable us to assess some of the consequences of excessive alcohol consumption and to test some of the claims made with regard to their effect, we requested statistical data on the health and welfare indicators from

- Barkly Health Services;
- Anyinginyi Congress Aboriginal Corporation;
- Tennant Creek Women's Refuge;
- Barkly Region Alcohol and Drug Abuse Advisory Group (BRADAAG) Sobering Up Shelter; and
- Tennant Creek Primary School,

data on public order indicators from

- Northern Territory Police,

and data on the economic impact of the restrictions from

- the Tennant Creek Regional Tourist Association;
- Tennant Creek Town Council;

- Julalikari Council Aboriginal Corporation; and
- Tennant Creek Food Barn.

Unfortunately, not all the data we requested was available for the evaluation. The Tennant Creek Food Barn declined to provide data, the Town Council advised us that data on absenteeism were not available, and Julalikari Council advised us that they did not have the resources to extract data on absenteeism. Furthermore, we did not receive hospital data until the mid-August, thus leaving insufficient time to subject them to the detailed analysis that they warrant.

Data from the other sources was undertaken using Microsoft Excel and comparisons made of the data from the periods before and after the introduction of the restrictions. Evaluation of this data is not a simple matter. The data collections were not designed to meet the requirements of an evaluation such as this, and they are subject to a range of influences in addition to the possible impact of the restrictions. These data are indicators, their limitations must be acknowledged, and they must be interpreted with caution.

3. Submissions to the Liquor Commission and key stakeholder interviews

Submissions to the Northern Territory Liquor Commission

As we indicated previously, the Northern Territory Liquor Commission provided us with 109 submissions made to it on the issue of the Tennant Creek restrictions. Of these, seven were letters about the review process rather than submissions providing comment or information. Of the remaining 102 submissions, 36 were signed copies of a form letter (analogous to a petition) and 26 were statutory declarations submitted on behalf of individuals by a legal firm.

The submissions are summarised in Table 1. Most of them were comments on the restrictions, statements of opinion about them, or assertions about their working—only five providing documentary evidence in support of their assertions. Not surprisingly, the submissions represent both extremes of views on the restrictions. Of those that expressed an opinion, 43 submissions were in favour of the restrictions and 51 against.

Those who believed the restrictions were working cited decreased alcohol related incidents in the town, more money spent on food, and other improvements to health and welfare. Those who believed the restrictions were not working were mainly concerned with the perceived inequity for individuals wanting to purchase alcohol, and the increase in the cost of that alcohol. Others cited little reduction in drunkenness, inadequate policing, negative impacts on tourism and the increasing problem of broken glass. Many submissions dealt with the perceived circumvention of restrictions, with the largest number being concerned with people purchasing alcohol at other outlets, and others citing the on-selling of alcohol and increases in club membership.

In spite of the fact that there were more submissions against the restrictions, few of these made specific suggestions with regard to the restrictions, other than to abolish them entirely. Of those few, half recommended a return to the pre-trial restriction trading hours and sale of cask wine, and the other half wanted individual drinkers to be targeted. Submissions favouring the restrictions listed a number of factors which individuals believed would strengthen the impact of the restrictions. These included, in order of frequency: a total ban on Thursday trading; extension of the restrictions to all licensed premises in Tennant Creek on Thursdays; the appointment of an independent liquor inspector; greater enforcement of the restrictions; banning of cheap fortified wine; non-glass packaging of some wine; as well as various other strategies and restrictions.

Table 1: Summary of submissions made to the NT Liquor Commission regarding the Tennant Creek licensing restrictions

Comments or suggestions	Number (n = 102)
<i>Restrictions working</i>	
Working generally	17
Thursday restrictions working	16
Decreased incidents	18
Buying more food	10
Other positive aspects	6
<i>Restrictions being circumvented</i>	
Premises acted against spirit of restrictions	8
Club membership increased	11
On-selling of alcohol	13
Patrons going elsewhere	52
Shift to fortified wine	3
Other circumventions	5
<i>Restrictions not working and/or creating other problems</i>	
Generally not working	3
Not as effective as they were	4
No reduction in drunkenness	4
Restrictions are not policed	6
Tourism or business down	7
Inequitable for some premises	4
Inequitable for individuals	44
Problem of broken glass	11
Increased the cost of alcohol	41
<i>Suggestions for repeal of the restrictions or alternative approaches</i>	
Return to old hours and sale of casks	3
Target individual drinkers	3
<i>Suggestions for strengthening or enforcing the restrictions</i>	
General strengthening	5
Enforcement	8
Appoint independent liquor inspector	10
Total ban on Thursday trading	23
Extend Thursday restrictions to all licensed premises in TC	13
Extend restrictions to regional premises	5
Ban cheap fortified wine	8
Require alternative packaging to glass	8
Other restrictions	8
Other strategies	8
<i>Other</i>	
Other comment	19
Call for independent evaluation	6

Key stakeholder interviews

Interviews were conducted with 39 key stakeholders or representatives of stakeholder organisations, of whom 9 were Aboriginal. These people represented a broad range of occupations and interest groups, including Aboriginal organisations, health and welfare agencies, licensees, business proprietors, and the police (see Appendix 1).

Positive effects of restrictions

There were clear divisions of interest among stakeholders, with Aboriginal people and health and welfare agencies overwhelmingly in favour of the restrictions. These people cited many positive effects—primarily improvements in personal welfare, reductions in drinking and drunkenness, and less disruptive behaviour. Some of the Aboriginal people were passionate about the effects of alcohol and the need to retain the restrictions:

Grog has broken down our culture and it's destroying our culture and language. People living in town don't even speak their own language, and grog erodes family responsibilities. The more restrictions the better because it will slow this down. People have to adapt to the restrictions. We need education about grog; we need Wumuburrarni (Aboriginal) education about grog and how it affects these things (Aboriginal community worker).

Among this group, many cited as another positive effect of the restrictions, the fact that the restrictions themselves and the debates about them made people stop and think about the alcohol problem in the town. As one non-Aboriginal health professional said of Thursdays;

It's a sober moment and often the only sober moment. Some people are actually sober for the first time and they recognised that they had a problem and are now looking at treatment.

Even among people who wanted them lifted, there was acknowledgment that the restrictions have had positive effects on the town, particularly for the Aboriginal population. In fact, only three of the 39 could not cite some advantages accruing to the town and its people as a consequence of the restrictions.

Negative effects of restrictions

Most of those people who supported the restrictions, and all of those who did not, cited a range of negative effects flowing from them. Of these the most important was the perceived negative publicity for Tennant Creek generated by the restrictions and the reporting of them by various media. Local business people felt keenly that Tennant Creek was being unfairly targeted as a town with a unique drinking problem, whereas most people believed the town was little different from many others in the Territory.

One business person said 'This (the restrictions) would never happen in Darwin', and others obviously agreed with this view. Many in this group were incensed by what they regarded as unnecessary interference in the daily life of their town by outsiders such as the Liquor Commissioner. One long term resident said townspeople used to look after their own problems and others should leave them alone to get on with that now.

Tied to this concern about negative publicity was a great concern about the impact of the restrictions on tourism and other business. Many people are committed to living in Tennant Creek and their businesses are dependent not only on local trade, but also on tourist and traveller trade. The restrictions, and more importantly, the adverse publicity about the extent of drinking problems in the town, were seen as contributing to the marginality of some businesses.

Other negative effects of the restrictions cited were the alleged shift of Aboriginal drinkers from cask wine to fortified wines and, associated with this, the resulting increase broken glass around the town. Many people talked about both the unsightliness of the glass and the danger it posed to people's safety. With respect to the drinking of fortified wine, a number of people saw beer (even in large quantities) as relatively benign, as they believed it was the higher alcohol content in fortified wine that was so destructive. Obviously this issue had been discussed at public meetings as many informants repeated this point.

Another factor identified with the introduction of restrictions was a purported increase in gambling, particularly in the camps. Few actually had first-hand accounts of this, but a number of people had heard of higher gambling stakes and involvement of larger numbers of people.

Surprisingly, to us, few of the stakeholders mentioned either the impact of the restrictions on individual liberty or the impact on tensions between different segments of the town's population. These were identified in the evaluation of the trial restrictions and, although both factors were cited by some, among the stakeholders we interviewed there did not appear to be the same intense feelings associated with these issues as reported in the past.

Operation of restrictions

When asked about the way in which the restrictions were working compared to what was intended, most people acknowledged that drinkers were able to get around the Thursday restrictions in a number of ways—by purchasing takeaway alcohol at the Threeways Hotel or at the Tennant Creek Memorial Club, or by drinking at the Shaft 'nightclub' or the Goldfields back bar in the afternoon. Many people spoke about the

‘problem’ associated with takeaways at the Sporties Club (including ‘humberging’ of members outside the club), which resulted in the club deciding to cease selling takeaways on Thursdays. It was widely felt that that the intentions of a largely alcohol free day on Thursday had not been achieved.

Compliance with restrictions

Although most stakeholders thought liquor outlets had complied with the restrictions (‘because they *have to*’), a number cited the operation of the Shaft nightclub as working against the spirit of the restrictions. Others thought that allowing the clubs to sell takeaway alcohol unfairly discriminated against hotels and the bottle shop.

With respect to the taxi company, virtually all of the stakeholders said they were unable to say whether there was compliance with the restrictions. Most said they had heard rumours of grog running or the provision of other services by the taxi operator, but no one had first-hand evidence of these allegations.

Most stakeholders said that police activity in the town had become evident only in the previous few weeks. At the time the stakeholder interviews were conducted, police were conducting foot patrols in the town and policing the ‘two kilometre law’. Many stakeholders claimed that, in the past, policing of liquor offences was almost non-existent. The recent police activity in the town led one business person to claim that the restrictions would not have been deemed necessary if the police had enforced the law in the past as they were currently doing:

Since the police have done the foot patrols and the like, the town is different altogether. Police have cleaned up the place in 48 hours. You can’t believe the difference it’s made.

The future of alcohol restrictions

Of the key stakeholders interviewed, few wanted to drop the restrictions altogether. Many wanted to make the restrictions equitable for licensees—either by applying them to all premises or declaring a totally alcohol free day on Thursday. However, those who opposed the restrictions felt very strongly that they were both unfair to drinkers and licensees, and unsuccessful in achieving reductions either in drinking or in alcohol related harm.

A number of amendments to the restrictions were suggested in order to make them more effective. These included: lifting restrictions on cask wine; banning the sale of cheap fortified wine, or selling it with lower alcohol content and in plastic containers; allowing *bona fide* travellers to purchase takeaway alcohol on Thursdays; closing hotels

completely on Thursdays; closing down the stand alone bottle shop; and reintroducing tougher penalties for public drunkenness. There was a very widespread view that some restrictions were necessary—the problem was that few of the stakeholders could agree on which ones would be more effective.

Limitations of qualitative data

The submissions to the Liquor Commission and the data from our interviews with stakeholders are a valuable source of information about the range of people's perceptions about the restrictions. However, again it must be emphasised that—while the views themselves are informative—they are not necessarily representative of those held by members of the wider Tennant Creek community. This issue of representativeness is taken up in the next section of the report, in which we present the results of the community and pastoral station surveys.

The submissions to the Liquor Commission and the results of our interviews with key stakeholders represent both extremes of view on the restrictions. They are informative about the range of views in the community but they are not representative of them.

4. The community and pastoral station surveys

The community survey

As previously indicated, we conducted a survey of a randomly selected sample of the Tennant Creek population aged 18 years and over which was stratified for Aboriginality (thus ensuring that both non-Aboriginal and Aboriginal were represented in proportion to their numbers in the total population). In the first section of the interview schedule we asked questions aimed at identifying the effects of the current restrictions on respondents personally and their perceptions of the effects of the restrictions upon the community as a whole.

Personal effects of the restrictions

Between four and 24 per cent of respondents reported that they had been negatively affected by any one of restrictions. The restrictions reported as having the greatest adverse effects were the closure of hotel front bars on Thursdays (17 per cent), the ban on the sales of wine in casks of greater than two litres (18 per cent), and the closure of takeaway outlets at hotels and liquor stores on Thursdays (24 per cent). In contrast, between four and 12 per cent of respondents reported that the restrictions had positive effects on them personally.

However, the majority of respondents reported that the restrictions had not affected them personally. Even if the responses to questions about the personal effects are interpreted conservatively—that is, assuming the actual percentage in the community is at the upper end of the 95 per cent confidence intervals—less than 30 per cent of the population has been adversely affected by any one restriction.

Less than 30 per cent of the population has been adversely affected by any one restriction.

Effects of the restrictions on the community

When asked about the effects of the restrictions on the community as a whole, responses were mixed. Thirty-one per cent reported the restrictions had only negative effects, 16 per cent that they had only positive effects, and 33 per cent that they have had both negative and positive effects (with many reporting more than one such effect).

Table 2: Effects of the restrictions on respondents personally (n = 245)

Restriction	Effect		
	Positive	None	Negative
	% 95 % CI	% 95 % CI	% 95 % CI
Lounge bars to make food available	12 8.2 – 16.4	84 79.1 – 88.3	4 2.1 – 7.2
No third party sales to taxi drivers	3 1.3 – 5.6	92 87.9 – 94.8	5 2.7 – 8.2
Wine only sold with meals in front bars	7 4.2 – 10.7	87 82.3 – 90.7	6 3.6 – 9.7
No wine to be sold in glass containers over one litre volume	7 4.3 – 10.7	86 81.4 – 90.0	7 4.3 – 10.7
Sales of all wines in casks of two litres or less restricted to one transaction per person per day	5 2.7 – 8.2	87 82.3 – 90.7	8 5.2 – 12.1
Takeaway sales limited to between 12:00 and 9:00 pm on week days	7 4.2 – 10.7	82 76.9 – 86.5	11 7.5 – 15.4
Sales of fortified wines restricted to containers of less than 1.25 litres	5 2.7 – 8.2	83 77.8 – 87.2	12 8.2 – 16.3
Between 10:00 am and 12:00 pm bar sales limited to only light beer	6 3.6 – 9.7	81 75.5 – 85.4	13 9.3 – 17.7
Lounge/back bars not to open before 12:00 pm on Thursdays and Fridays	4 2.1 – 7.2	82 76.9 – 86.5	14 9.9 – 18.6
Hotel front bars to be closed on Thursdays	6 3.6 – 9.7	77 71.6 – 82.1	17 12.8 – 22.5
Sales of all wines in casks greater than 2 litres volume prohibited	5 2.7 – 8.2	77 71.6 – 82.1	18 13.5 – 23.1
Takeaway outlets from hotels and liquor stores to be closed on Thursdays	6 3.6 – 9.7	70 61.8 – 76.7	24 19.0 – 29.7

In answer to the question 'Do you think the restrictions have had any bad effects on the community of Tennant Creek', the most common response was that people had found ways of getting around them. In essence, this is not a negative effect *per se*, but people clearly recognise the fact that this is a factor which has served to limit the effectiveness of the restrictions. The second most widely cited negative effect of the restrictions was an unintended consequence of them. That is, the increase in broken glass in public places as a result of the ban on the sale of wine in casks of greater than two litres. Those who thought the restrictions had generally positive effects on the community sometimes cited these most common negative responses.

Other negative effects were reported to be: the increase in 'good order' problems, such as loitering; inconvenience to members of the community; decline in business and tourist activity; infringements of individual rights; and increased tension among segments of the community. In all, 69 per cent of the respondents identified one or more negative consequences of the restrictions.

Table 3: Respondent perceptions of the negative effects of the restrictions on the community
(n = 271)

Effect	%	95% CI
People have adjusted their drinking to circumvent the restrictions	28	22.9 - 33.6
Increase in broken glass on the streets	21	16.5 - 26.2
Increase in good order problems	14	10.3 - 18.5
Caused inconvenience	12	8.7 - 16.5
Infringed on the individual rights of the majority	12	8.7 - 16.5
Other negative effects	14	10.3 - 18.5
Decline in tourism and business activity	11	7.7 - 15.2
Increased tension between different segments of the community	10	6.8 - 13.9
Total negative effects	69	63.3 – 74.3
No negative effects	22	17.5 - 27.4
Don't know	9	5.9 - 12.7

Table 4: Respondent perceptions of the positive effects of the restrictions on the community
(n = 271)

Effect	%	95% CI
Improvements in personal welfare	29	23.9 - 34.8
Less drinking and/or less public drinking	22	17.5 - 27.4
Less disruptive behaviour	19	14.5 - 23.8
Town is quieter and appearance and tone has improved	13	9.3 - 17.3
Police incidents reduced and/or people feel safe	6	3.5 - 9.2
Other positive effects	7	4.4 - 10.5
Total positive effects	52	46.1 – 57.9
No positive effects	36	30.6 - 42.0
Don't know	12	8.7 – 16.5

Fifty-three per cent of the respondents identified positive effects of the restrictions on the community as a whole. Among these positive effects were improvements in personal welfare, less drinking and/or public drinking and consequent reductions in disruptive behaviour, and an improvement in the general ambience of the town.

Implementation of the restrictions

As with the introduction of the trial restrictions, a significant per centage of respondents (38 per cent) thought there had been insufficient consultation with the community over the introduction of the restrictions. These people included those who were both for and against the restrictions.

Compliance with the restrictions

With regard to licensee compliance with the restrictions, there was a division of opinion. While 50 per cent thought that licensees had complied with the restrictions, 17 per cent thought they had only partly done so, and 18 per cent that they had not. Among those who thought the licensees had only partly, or had not, complied with the restrictions, concern was expressed about attempts by licensees to overcome the restrictions by: opening the Shaft nightclub on Thursday afternoons; applying a compulsory entry fee in the Charles Eaton Club Bar which entitled patrons to a meal and which enabled them to drink all afternoon; and the promotion of cheap ports and sherries. Even among those who said that the licensees had complied with the restrictions, a small number expressed concern at their attempts to get around them.

A considerable proportion of respondents (40 per cent) were of the opinion that the taxi driver had not complied with the ban on the third party sales to taxi drivers, and another 40 per cent said that they did not know whether or not he had done so. While only a small number of people actually claimed to have witnessed breaches of this restriction, the responses reflect the rumours in the community and the unsubstantiated allegations made in submissions to the Liquor Commission and by some key stakeholders.

Most respondents (55 per cent) were of the view that the police had enforced the restrictions. However, some nine of these thought that they had begun to do so only recently with the arrival of new staff and a change in policing policy. This was also reflected in the responses of the 16 per cent who thought that the police had only partly enforced the restrictions.

Importantly, 81 per cent of respondents thought that people had been able to get around (70 per cent) or partly get around (11 per cent) the restrictions. It was claimed

that people had done this by joining the licensed clubs, having club members purchase takeaways for them on Thursdays, substituting other beverages for cask wine, and by going out of town to purchase alcohol.

Table 5: Respondent perceptions about the introduction, compliance with, and enforcement of the restrictions (n = 271)

Item	Yes % 95% CI	Partly % 95% CI	No % 95% CI
Enough consultation with the community	24 19.2 - 29.3	9 5.9 - 12.7	38 32.4 - 43.9
Liquor outlets have followed the restrictions	50 44.2 - 56.1	17 12.8 - 21.8	18 13.8 - 23.0
Taxi drivers have followed the restrictions	14 10.3 - 18.5	4 2.2 - 7.2	40 34.1 - 45.8
Police have enforced the restrictions	55 49.0 - 60.8	16 11.9 - 20.6	13 9.3 - 17.3
People have been able to get around the restrictions	70 64.5 - 75.3	11 7.7 - 15.2	9 5.9 - 12.7

Attitudes to the current restrictions

Despite the perceptions of negative consequences of the restrictions and the perception that both licensees and some drinkers are circumventing them to varying degrees, there was considerable support for the existing restrictions. Support ranged from 55 per cent of respondents who wished the restriction on front bar trading on Thursdays to either remain the same (46 per cent) or be strengthened (nine per cent) to 86 per cent who believed that the requirement that lounge bars make food available remain the same (75 per cent) or be strengthened (11 per cent).

As we would expect, the restrictions that had the least support, were those that are the most onerous; that is, the closure of takeaway outlets at hotels and liquor stores on Thursdays, the ban on the sale of wine in casks of greater than two litres, and the closure of hotel front bars on Thursdays. Respectively, 30 and seven per cent, 28 and nine per cent, and 35 and four per cent thought these should be dropped or eased. It should be noted, however, that a small number of the respondents who took this position did so because the restrictions were not working, rather than because they were opposed to them in principle. Thus, 18 per cent of those who thought the ban on sale of wine in casks of more than two litres should be dropped or eased, stated that their decision was based on the increase in broken bottles consequent upon the ban rather than whether it was effective in reducing alcohol consumption.

Nevertheless, even if we take the conservative position and assume that the percentage in the total population is at the upper end of the 95 per cent confidence interval, those who believe that the restriction with the least support—the closure of hotel front bars on Thursdays—should be dropped (41 per cent) or eased (seven per cent) make up slightly less than half of the population (48 per cent). Importantly, although a large proportion of respondents identified some negative effects of the restrictions, overall the majority of the population (although in regard to some this might be small) is in favour of retaining or strengthening all the current restrictions.

Overall, the majority of the population is in favour of retaining or strengthening all the current restrictions.

Table 6: Respondent attitudes to the future of current restrictions (n = 271)

Restrictions	Attitude			
	Strengthen	Remain same	Ease	Drop
	% 95% CI	% 95% CI	% 95% CI	% 95% CI
Lounge bars to make food available	11 7.7 – 15.2	75 69.5 – 79.8	1 0.3 – 2.9	10 6.8 – 13.9
No third party sales to taxi drivers	26 20.83 – 31.3	51 44.9 – 56.8	2 0.7 – 4.0	17 12.8 – 21.8
No wine to be sold in glass containers over one litre volume	22 17.5 – 23.4	54 47.9 – 59.8	2 0.7 – 4.0	17 12.8 – 21.8
Sales of fortified wines restricted to containers of less than 1.25 litres	24 19.1 – 29.3	51 44.9 – 56.8	2 0.7 – 4.0	15 11.2 – 19.7
Takeaway sales limited to between 12:00 and 9:00 pm on week days	14 10.3 – 18.5	57 50.9 – 62.6	7 4.4 – 10.5	18 13.8 – 23.0
Lounge/back bars not to open before 12:00 pm on Thursdays and Fridays	11 7.7 – 15.2	59 53.1 – 64.8	3 1.4 – 5.5	23 18.2 – 28.2
Sales of all wines in casks of two litres or less restricted to one transaction per person per day	7 4.4 – 10.5	61 54.9 – 66.6	4 2.2 – 6.9	22 17.5 – 23.4
Wine only sold with meals in front bars	7 4.4 – 10.5	59 53.1 – 64.8	4 2.2 – 6.9	23 18.2 – 28.2
Between 10:00 am and 12:00 pm bar sales limited to only light beer	9 5.9 – 12.7	56 50.1 – 61.9	2 0.7 – 4.0	29 23.9 – 34.8
Takeaway outlets from hotels and liquor stores to be closed on Thursdays	13 9.3 – 17.3	46 40.2 – 52.1	7 4.4 – 10.5	30 24.7 – 35.5
Sales of all wines in casks greater than 2 litres volume prohibited	8 5.3 – 11.8	47 40.9 – 52.8	9 5.9 – 12.7	28 22.9 – 33.6
Hotel front bars to be closed on Thursdays	9 5.9 – 12.7	46 40.9 – 52.8	4 2.2 – 6.9	35 29.5 – 40.9

Other restrictions

Respondents were also asked whether or not they were in favour of other restrictions that had been suggested in Tennant Creek or elsewhere being applied in Tennant Creek. Three of these suggested restrictions—discouraging the sale of alcohol in glass containers, limiting the sale of high alcohol content drinks to one bottle per person per day, and extending the current restrictions on Thursday takeaways to licensed premises within a 50 kilometre radius of Tennant Creek—each had support from more than half the population. With regard to a fourth suggested restriction—extension of current Thursday restrictions to licensed clubs—opinion was almost equally divided with slightly more people opposed to it. The majority of respondents opposed other suggested restrictions, including the often-mooted proposal that all sales of alcohol be banned on Thursdays.

Over half the population favoured additional restrictions that would: discourage the sale of alcohol in glass containers; limit the sale of high alcohol content drinks to one bottle per person per day; and, extend the current restrictions on Thursday takeaways to licensed premises within a 50 kilometre radius of Tennant Creek.

Table 7: Respondents in favour of additional restrictions (n = 271)

Restriction	In favour	
	Yes	No
	% 95% CI	% 95% CI
Discourage the sale of alcohol in glass containers	71 65.2 – 76.0	23 18.2 – 28.2
Limit the sale of high alcohol drinks to one bottle per person per day	57 50.9 – 62.6	35 29.5 – 40.9
Extend current restrictions on Thursday takeaways to licensed premises within a 50 km radius of Tennant Creek	56 50.1 – 61.9	36 30.6 – 42.0
Extend current Thursday restrictions on takeaway sales to social and sporting clubs	46 40.2 – 52.1	48 42.0 – 53.9
Ban happy hours or promotions that encourage excessive drinking	41 35.2 – 46.9	44 38.1 – 49.8
Ban all sales of alcohol on Thursdays	37 31.3 – 42.8	59 53.1 – 64.8
Extend current Thursday restrictions to at least one other day each week	36 30.6 – 42.0	57 50.9 – 62.6
Other restrictions	16 11.9 – 20.6	75 69.5 – 79.8

The pastoral station survey

Ten of the 12 station managers who were interviewed—and all five of those that declined to participate in the survey—stated that the Tennant Creek liquor licensing restrictions had not affected them. Of the other two, one said that the restrictions have had a good effect on the people living on the station as they drank less, and the other said that the restrictions have had a bad effect on them because they caused inconvenience if they wanted to purchase alcohol on Thursdays. However, it is important to note that the latter respondent was not aware that all bush orders were exempt from the restriction on Thursday takeaway sales.

Only two station managers reported having changed the way they purchased alcohol. One said that they purchased alcohol on days other than Thursdays, and the other that they purchased alcohol by placing a bush order. The managers of all stations who purchased alcohol from Tennant Creek prior to the introduction of the restrictions reported that they continued to do so.

In response to a question about whether or not they favoured the restrictions, two of the pastoral station managers were in favour, six were partly in favour and one was against them. The other three managers interviewed were not familiar with the restrictions and therefore did not know whether they were in favour of them or not.

Of 12 pastoral station managers interviewed, two were in favour, six were partly in favour and one was against the restrictions. The others were not familiar with the restrictions and therefore did not know whether they were in favour of them or not.

The managers were also asked whether or not other restrictions of the sale of alcohol should be introduced, and whether there were other strategies that could be implemented to address alcohol-related problems. One person recommended that liquor outlets should be closed for at least two days to coincide with 'pension days', and eight suggested the implementation of strategies such changing social security payments (4), enforcement of existing laws (2), and provision of alcohol education (1).

It appears that the Tennant Creek liquor restrictions have had little impact on people living and working on pastoral stations in the area, and that there has been no change in their alcohol purchasing patterns that would have adversely affected licensees in Tennant Creek.

5. The effects of the restrictions

Alcohol consumption

In Table 8 we present the total purchases of pure alcohol by beverage type for each quarter from October 1994 to March 1998 (the raw data from which this was derived is included in Appendix 2). The data in Table 8 is plotted in Figure 1. The table and the figure show that there are seasonal fluctuations in alcohol purchases by licensees with peaks occurring in the third quarter of each year (except for 1995 when the trial restrictions were introduced). The data presented begins on one of these seasonal peaks and, in absolute terms, as part of the seasonal cycle, falls to the second quarter of 1995. In this 12 month period, mean quarterly purchases of pure alcohol totalled 17 577 litres. In the third quarter 1995, when the trial restrictions were introduced, there was a marked fall in purchases associated with the ban on the sale of wine in casks of more than two litres. From that point to the first quarter of 1998 there is a steady decline in purchases—albeit marked by seasonal fluctuation. In this latter 2.75 year period, mean quarterly purchases fell to 14 575 litres—a decline of 17 per cent.

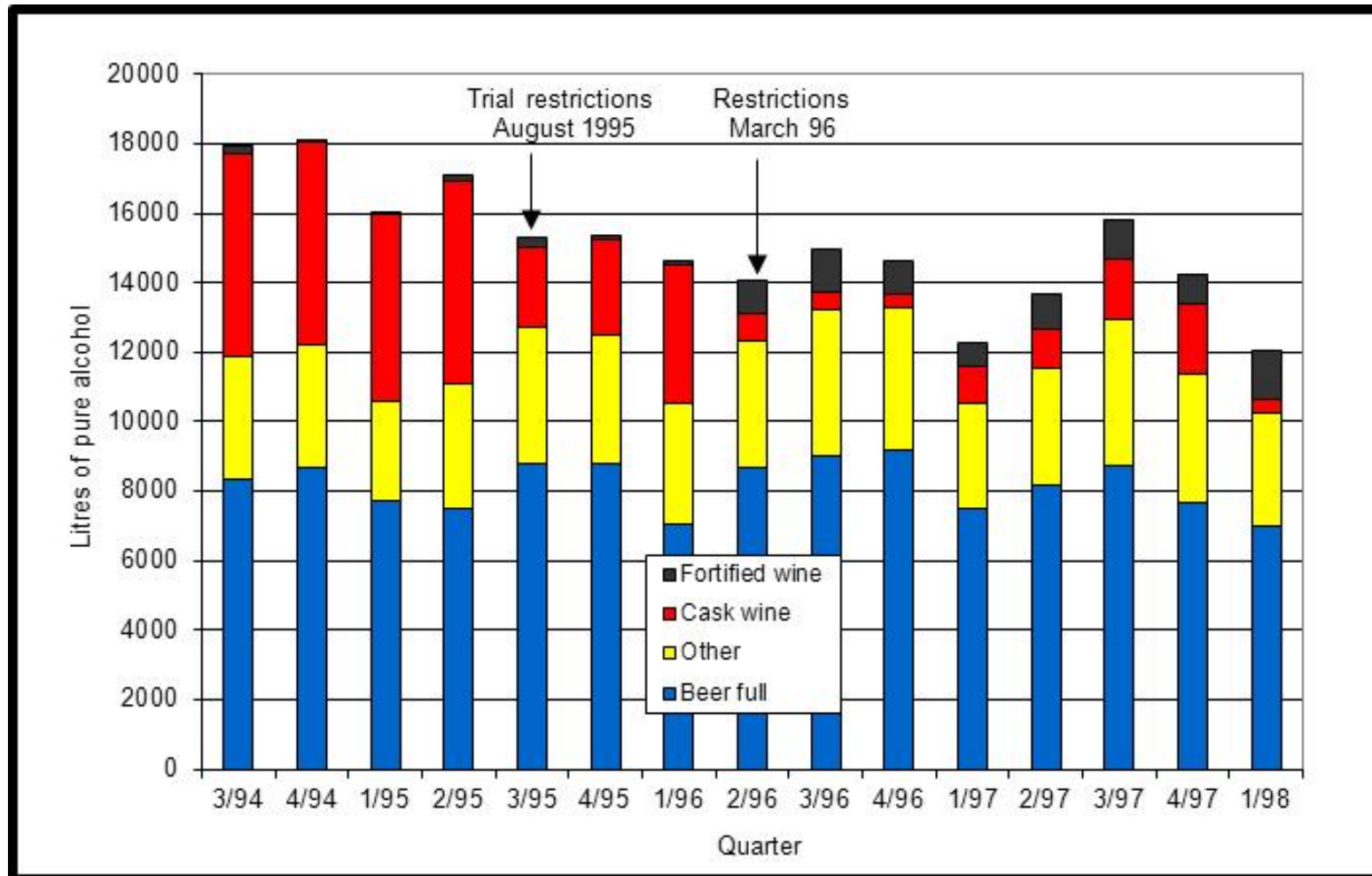
A time series analysis of these data—using SPSS—indicates that prior to the third quarter 1995 there was an upward trend in purchases and since that time a downward trend. It was hypothesised that there was no difference between these trends. However, statistical testing indicates the trend lines are significantly different ($p = .001$).

To ensure that the decline in purchases by licensees in Tennant Creek was attributable to local factors—and not to a general decline in consumption in the Northern Territory as a whole—we compared the Tennant Creek data with those for the Northern Territory for the financial years 1994-95, 1995-96 and 1996-97. As with the Tennant Creek data we converted Northern Territory beverage purchases to litres of pure alcohol. The data in Table 9 show that during this period for the Northern Territory as a whole there was no decline in total purchases, and per capita consumption of pure alcohol among persons aged 15 years or over was approximately 15, 14, and 15 litres in each year respectively. Thus the decline in purchases in Tennant Creek cannot be attributed to a general decline in the Northern Territory as a whole.

Table 8: Liquor purchases (litres of pure alcohol) by Tennant Creek licensees by beverage type, 3rd quarter 1994 to 1st quarter 1998

Type	3/94	4/94	1/95	2/95	3/95	4/95	1/96	2/96	3/96	4/96	1/97	2/97	3/97	4/97	1/98
Beer full	8331	8676	7714	7519	8789	8775	7040	8656	9034	9187	7512	8145	8725	7642	7015
Cask wine	5873	5843	5376	5791	2289	2716	3981	788	475	407	1051	1121	1780	2002	418
Spirits	1984	1761	1340	1873	1997	1763	1754	1852	2132	1902	1512	1869	2220	1838	1579
Beer low	1164	1372	1258	1211	1339	1480	1278	1351	1443	1696	1204	1176	1484	1463	1268
Bottled wine	372	386	269	507	575	482	472	483	626	494	311	373	483	424	378
Fortified wine	214	95	69	173	309	141	107	919	1231	936	665	997	1125	891	1372
Cider full	163	202	173	241	209	252	157	157	246	206	147	200	208	184	134
Spirits mixed	108	103	67	82	163	122	72	104	111	99	65	117	136	112	187
Total	18208	18437	16268	17396	15671	15730	14862	14309	15297	14928	12469	13997	16161	14555	12350

Figure 1: Liquor purchases (litres of pure alcohol) by Tennant Creek licensees by beverage type, 3rd quarter 1994 to 1st quarter 1998



Given what we said in the methods section of the report about the relative stability of the population size, the decline in alcohol purchases by licensees in Tennant Creek cannot be attributed to a decline in population. Using the 1996 census figures as the denominator, *per capita* consumption of pure alcohol by persons aged 15 years or over in the year prior to the introduction of the restrictions was 25 litres. In the year following the introduction, this fell to 22 litres *per capita*; and, in the following year to 20 litres *per capita*.

Table 9: Licensee purchases of pure alcohol and per capita consumption, Northern Territory and Tennant Creek 1994-5, 1995-6, 1996-97

Location	Measure	1994-95	1995-96	1996-97
Northern Territory	Litres of alcohol	2 144 278	2 100 873	2 184 364
	Litres per capita	15	14	15
Tennant Creek	Litres of alcohol	70 309	60 572	56 691
	Litres per capita	25	22	20

At the time the trial restrictions were introduced, there was a reduction in the purchase of pure alcohol by licensees, and there has been a steady decline since that time. The decline in alcohol purchases by licensees in Tennant Creek cannot be attributed to either a general decline in consumption in the Northern Territory as a whole, or to a decline in population of Tennant Creek.

In the year prior to the introduction of the restrictions, the mean annual *per capita* consumption of pure alcohol in Tennant Creek was 25 litres. In the year following the introduction, this fell to 22 litres per capita; and, in the following year to 20 litres *per capita*.

Health and welfare effects

In order to assess the impact of the liquor restrictions on the health and welfare of Tennant Creek residents, we reviewed data provided by the Tennant Creek Hospital, Anyinginyi Congress Aboriginal Corporation Health Service, Tennant Creek Women's Refuge, and the Barkly Region Alcohol and Drug Abuse Advisory Group Sobering Up Shelter.

Tennant Creek Hospital

Tennant Creek Hospital provided data on admissions and Emergency Department attendances. Given the short time available for the evaluation, we were not able to perform a detailed analysis of all the data, however, analysis of key aspects of the admission data was possible.

An analysis of hospital admissions between July 1993 and June 1998 was undertaken, and admissions of 18 to 35 year olds were considered in detail as people in this age range are those most likely to consume high amounts of alcohol. The data sets examined were comprised of Diagnostic Related Groups (DRGs) where alcohol was likely to be a contributing factor to a significant proportion of admissions, and the distribution of these admissions by day of the week was reviewed. This information is summarised in Tables 10 and 11 below.

Table 10: Possible alcohol related admissions to Tennant Creek Hospital

Financial year of admission	Total number of admissions over 1 month of age*	Total admissions 18-35 years of age	Admissions for acute alcohol related DRGs (18-35 yrs)	Admission of males 18-35 yrs
1993-94	1591	631	173	218
1994-95	1685	632	173	245
1995-96	1725	673	152	224
1996-97	1766	690	154	230
1997-98 [#]	1780	653	116	185

* Admissions in the first month of life varied quite considerably from 16 to 97 in different years and was probably a coding artefact.

[#] Admissions in 1998 discharged after the 30th of June are not included in any figures (this represents only a small number of admissions).

Overall, admissions to Tennant Creek Hospital have shown a steady increase over the past five years. Admissions of 18 to 35 year olds have also increased slightly, except for a decline in 1997-98. A large proportion of admissions in this age group are for women, with many of these being related to reproduction. The decline in admissions in this age group in 1997-98 is almost totally attributable to a decline in male admissions.

DRGs that were potentially related to acute alcohol problems—mainly acute trauma—were reviewed separately. It needs to be noted that there was a change in 1995–96 in the DRG system, with some categories in DRG Version 2 becoming obsolete and new categories being introduced into DRG Version 3. Consequently, individual DRGs have to be compared with caution; although it is, still valid to compare all DRGs that cover trauma related admissions. There has been a decline in admissions in these potentially alcohol related DRGs. This decline began in 1995–96, when the restrictions were first introduced, with a further decline in 1997–98. This second decline could quite plausibly be related to the increase in persons being taken into protective custody that has occurred in the past year.

From Table 11, it can be seen that there has been a decline in admissions for trauma on Thursdays and Fridays—remembering that admissions from midnight on Thursday count as admissions on Friday, even if the person first attended before midnight. Admissions on Saturdays and Sundays remain about the same as prior to the restrictions. This change is likely to relate, in part, to the restrictions. The additional decline in 1997–98 almost certainly relates to other factors—possibly the increased levels of police activity. Although these analyses are only preliminary, they suggest that there has been no increase—and that there has probably been a reduction—in acute alcohol related harm since the restrictions were introduced.

Table 11: Potentially acute alcohol related admissions by day of the week.

Day of the week	1993–94	1994–95	1995–96	1996–97	1997–98
Sunday	22	27	23	27	20
Monday	14	27	15	20	9
Tuesday	25	22	21	19	13
Wednesday	21	20	21	19	17
Thursday	25	22	21	17	16
Friday	38	30	25	19	18
Saturday	27	25	26	33	23
Totals	172	173	152	154	116

Tennant Creek Hospital admissions data suggest that there has been no increase, and that there has probably been a reduction, in acute alcohol related harm since the restrictions were introduced.

It was not possible in the time available to perform an adequate analysis of Emergency Department figures. The system used to collect Emergency Department data has changed since the liquor restrictions were introduced and the data themselves need considerable processing to produce reliable and meaningful figures. The Hospital provided some information on Emergency Department attendances to the Liquor Licensing Commission—although this related only to attendances recorded as being alcohol related. Those figures support the view that there has been a reduction in acute alcohol related attendances, are consistent with the admissions data, and at least partly appear to be a positive effect of the restrictions. Unfortunately, a thorough analysis of Emergency Department data to corroborate these figures would require substantially more time than was available for this review.

Although not reviewed in this report, data provided by the Hospital to the Liquor Commission: support the view that there has been a reduction in acute alcohol related attendances; are consistent with the admissions data; and, at least partly appear to be a positive effect of the restrictions.

Anyinginyi Congress

Two possible sources of information were available from Anyinginyi Congress; data on the alcohol programs conducted by the service, and data on both acute and chronic clinic attendances. Anyinginyi Congress has a very active program aimed at reducing the harm associated with excessive alcohol use, and the number and range of services available in this area has increased significantly since the restrictions. As a consequence of these improvements in services, workload figures for the specific alcohol programs have increased. The increase in services may be related to positive effects of the alcohol restriction—for example, increasing the focus on rehabilitation. However, it is not possible to draw any real conclusions based on the numbers of people taking advantage of the services.

Figures from the clinic were a possible source of information for both acute and chronic conditions related to alcohol consumption. According to Anyinginyi Congress medical staff, people with acute alcohol related harm—as indicated by lacerations, fractures, et cetera.—are much more likely to present to the hospital. Thus data from the hospital on acute attendances were likely to be more useful. People with chronic alcohol related problems do present regularly to Anyinginyi, and the possibility of looking at clinic attendances for such conditions was considered. Unfortunately, the data available for the past four years is somewhat inconsistent due to changes in data collection procedures and a change in Anyinginyi's computer system. Given that

collating the available data from paper and computer based records would have been very time consuming, and that data obtained in this way was likely to be of limited value, we decided not to pursue information from this source.

Tennant Creek Women's Refuge

Alcohol is a factor in the majority of cases in which clients seek assistance at the Women's Refuge. Figures on the number of daily presentations to the Refuge were available in paper-based records from the beginning of 1994 to May 1998.

The Refuge has undergone some changes over the past few years, and has been under current management for less than two years. As the willingness of clients to utilise services such as the Refuge is often dependent upon its reputation as a safe and caring environment, changes in management can have a major impact on the levels of use and therefore caution is required when looking at overall patterns of attendance. Apart from overall attendance, two other aspects of the figures can be considered; the source of referral, and attendance at different times of the week.

Overall attendance at the Women's Refuge is now about the same as in 1994, with an average of about 45–47 attendances per month in 1994, 1997 and the first 5 months of 1998. Average monthly figures in 1995 and 1996 were lower. This pattern does not appear to be related to the restrictions, as the major decline occurred in late 1994 and early 1995—well before the restrictions began—and was reversed after the change in management.

Recorded referrals to the Refuge from the Julalikari Night Patrol show a similar pattern, with 14 referrals a month in 1994, 8 per month in 1995, 4 per month in 1996 and returning to 10 per month in 1997. The number of referrals from the hospital and the police have been consistently small over the past four years, but tend to show a similar pattern as those from the Night Patrol. Hospital referrals have been higher in 1997–98, averaging just over 4 per month.

Given the fluctuations in the overall numbers of Refuge admissions, we examined the day of the week when most women are admitted to the Refuge to see if there has been a change during the last 4 years which could be attributed to the restrictions. The first 6 months of 1994, 1995, 1996, and five of the first six months of 1997 and 1998 were compared as shown in Table 12. The table does not include February 1997 figures, which were incomplete, or June 1998 figures, which were not provided.

Table 12: Tennant Creek Women's Refuge admissions 1994 – 1998

Year	Average daily admissions – first 6 months	Average number of admissions on Thursdays (n = 148)	Average number of admissions on Fridays (n = 207)
1994	1.7	1.5	2.1
1995	1.1	1.5	1.6
1996	1.2	0.9	1.6
1997	1.7*	1.1	1.8
1998	1.5*	1.1	1.4

* Figures for February 1997 and June 1998 not available – average calculated over 5 months.

Although the numbers are small and not definitive, they do suggest that the problems which lead women to seek the services of the Refuge have declined on Thursdays and that this decline has been persistent. In addition, there has been no increase on Fridays, suggesting that the problems have not simply been postponed by one day as a result of the restrictions. The overall increase in use of the Women's Refuge since the new management took over is evenly distributed across other days of the week. Without further information on changes in why women attend the Refuge, it is not possible to draw further conclusions from these data.

Although the numbers are small and not definitive, they do suggest that the problems which lead women to seek the services of the Women's Refuge have declined on Thursdays and that this decline has been persistent. In addition, there has been no increase on Fridays, suggesting that the problems have not simply been postponed by one day as a result of the restrictions.

BRADAAG Sobering Up Shelter

The Sobering Up Shelter has been under the same management throughout the last few years. Nevertheless, there have still been changes that relate to factors independent of both the liquor licensing restrictions and any fluctuation in the extent of excessive alcohol consumption.

Many of BRADAAG's clients are brought in by other agencies, usually the police and the Night Patrol, and consequently the number of clients referred to the Shelter often reflects the operations of those agencies rather than of the Shelter itself. For example, referrals from both the police and the Night Patrol have fluctuated, yet the lack of any

consistent pattern in the referrals indicates that the variations are probably due to changes in personnel and policy .

Table 13 provides a summary of Sobering Up Shelter admissions. These figures show a decline when the restrictions were introduced, and then an increase over the last two years. This appears to support the contention that problems stemming from excessive alcohol use returned to former levels once people became accustomed to the restrictions and found ways to circumvent them. However, examination of the these data on a month-by-month basis reveals sharp increases in December 1996 and September 1997. Most of the change in the figures is a result of changes in police referrals, with other sources of referral not changing in any consistent manner. The explanation that best fits these data, therefore, is that the change is a consequence of policing practice rather than a change in alcohol related harm. No documentation of the extent of intoxication of people being taken to the Shelter was available for more detailed analysis.

Table 13: BRADAAG Sobering Up Shelter admissions, 1990–91 to 1997–98

Financial year	Police referrals (protective custody)	Other Admissions	Total Admissions
1990–91	1273	57	1330
1991–92	992	501	1493
1992–93	1114	711	1825
1993–94	1028	945	1973
1994–95	789	484	1273
1995–96	483	319	802
1996–97	877	623	1500
1997–98	*1675	*572	2310

* Referral figures 1997–98 for 11 months only (total is for 12 months)

Since the restrictions came into force, the Sobering Up Shelter has also changed its nights of operation. Prior to the restrictions, it was open from Monday to Friday. After the restrictions were introduced, very few people were being referred on Thursdays, and so BRADAAG decided to close the Shelter on Thursdays and open it on Saturdays instead. Hospital and police data indicate that Saturday is the day when most alcohol related harm occurs, and therefore we can assume that alcohol consumption is generally at its highest on this day. Consequently, having the Shelter open on Saturday would also have contributed to an increase in numbers attending the Shelter. No strong conclusions can be drawn from Sobering Up Shelter figures, except that Thursday is clearly substantially quieter than before the restrictions were introduced.

No strong conclusions can be drawn from Sobering Up Shelter figures, except that Thursday is clearly substantially quieter than before the restrictions.

Impact on public order

Three sets of police data were collected for analysis; Police Headquarters in Darwin supplied data on offences and on protective custody, and incident data was taken from the submission the Police made to the Liquor Commission earlier in 1998. A summary of data on protective custody and selected offences is presented in Table 14.

Table 14: Numbers of offences reported in Tennant Creek and number in protective custody

Reported Offences	Pre Trial Year 1/4/94–31/3/95 n (% on Thurs)	Trial – 6 months 14/8/95–11/2/96 n (% on Thurs)	1 st year post trial 1/4/96–31/3/97 n (% on Thurs)	2 nd year post trial 1/4/97–29/3/98* n (% on Thurs)
Protective Custody	663 (20.4%)	343 (14.9%)	960 (9.1%)	1169 (7.2%)
Assault	95 (19%)	67 (4%)	116 (9%)	108 (9%)
Unlawful entry to buildings	72 (8%)	27 (4%)	67 (9%)	51 (11%)
Unlawful entry to dwellings	69 (13%)	25 (8%)	151 (13%)	59 (10%)
Criminal Damage	188 (12%)	63 (8%)	195 (11%)	170 (6%)
Total of above offences	424 (13.2%)	182 (7.7%)	521 (10.9%)	396 (8.6%)
Interfering with a motor vehicle	27	14	30	17
Stolen Bicycle	33	18	46	29

* Data provided by Police Dept. only up to 29/3/98, not 31/3/98.

As would be expected from the Sobering Up Shelter data, the number of people taken into protective custody has increased substantially over the last two years. Numbers provided to us from Darwin are less than those provided in the Tennant Creek Police Submission—presumably due to different reporting procedures—but they follow a very similar pattern. The reason for the increase over the past two years is explained in the Police submission as being due to increased police activity and an improved police performance. This was generally agreed to be the case by a number of informants.

While the overall numbers have increased, there has been a clear and continued decrease in both the number and proportion of persons taken into protective custody on Thursdays since the trial began. Prior to the trial, Fridays were the busiest days, followed closely by Saturdays and Thursdays. Since the restrictions were implemented,

Thursday has become the second quietest day—after Sunday—and Saturday is now somewhat busier than Friday. This may be due in part to significant numbers of protective custody apprehensions presumably occurring in the early hours of Saturday morning after drinking on Friday night. Friday and Saturday continue to account for just over 50 per cent of protective custodies, which is a very similar proportion as before the trial. The positive aspect of this change is that there are now only two busy days per week, whereas prior to the restrictions, there were three.

Interestingly, since the trial commenced, the ratio of Aboriginal to non-Aboriginal people taken into protective custody has declined from well over three Aboriginal people for every non-Aboriginal person, to about two-and-a-half Aboriginal people for every non-Aboriginal person. This may reflect a real effect on the drinking behaviour of Aboriginal people that could be attributed to the trial.

Most offences have shown relatively small changes over the period under consideration. The only major exception is ‘unlawful entry to a dwelling’ which increased substantially—including a peak in April, May and June 1996—in the first year after the trial concluded. These offences have subsequently returned to around the pre-trial level. Rates for other offences either remained about the same or showed a small increase in the first year post-trial restrictions and then a decline in the most recent year. All offences were slightly lower in the year to March 1998 than they were in the year to March 1995.

Factors which may have had some effect on the rate of reported crime include changes in policing practice, changes in the reporting and recording of offences, and possibly changes in government policy. Certainly, the pattern over the last two years seems to reflect more intensive policing with an increased rate of protective custody and an increased rate of reported and/or recorded crime, followed by a decrease in reported crime. Evidence from the Police suggests this change may be due to improvements in the recording of crime. If, as seems likely, the recording of offences has improved, then the offences discussed in this report may well have declined significantly in recent times. Certainly crime has decreased to some extent in the most recent year under review.

Apart from overall numbers of offences, the other aspect of Police figures that can be examined is the day of the week on which offences occur. While numbers for individual offences are small, there appears to be a clear trend of a reduced proportion of offences being committed on Thursday. There was a substantial initial decline in reported offences on Thursday after the implementation of the restrictions. Overall, of the four most commonly reported offences—assault, criminal damage, unlawful entry of dwelling and unlawful entry of building—13.2 per cent were committed on Thursday before the

trial, 7.7 per cent during the trial and 10.9 and 8.6 per cent respectively in the two years after the trial. While there has been some return to offences on Thursday, this has only been marginal.

Overall police figures on offences support a consistent and continuing effect of the restrictions in reducing criminal behaviour—at least on Thursdays—and indicate that if restrictions are coupled with good policing, they remain effective in reducing criminal behaviour in Tennant Creek.

Economic impacts

Data on the economic impact of the restrictions on the town of Tennant Creek are scant. The Tennant Creek Town Council advised us that data on absenteeism—provided for the evaluation of the trial restrictions—was not available. Julalikari Council also advised that they did not have the resources to collate and provide information on absenteeism from the Community Development Employment Program (CDEP).

Among the submissions to the Liquor Licensing Commission, proprietors of two businesses stated that ‘Business turnover is down’ and ‘The Tennant Creek business community is suffering from a financial and image problem due to the new license restrictions’. However, neither provided any evidence in support of this contention. In addition, the proprietor of the Tennant Creek Food Barn stated in his submission to the Liquor Licensing Commission that ‘Food sales in my store have not increased at all on Thursdays’. However, he declined our request for data on weekly and Thursday turnover figures. Thus, from the information available to us, it was not possible to determine what effects, if any, the restrictions have had on business activity in Tennant Creek.

From the information available to us, it not possible to determine what effects, if any, the restrictions have had on business activity in Tennant Creek.

In four submissions made to the Liquor Commission, it was claimed that the restrictions had resulted in a downturn in tourism in the town. They, and others, claimed that the publicity surrounding the restrictions had created the impression that the town was beset with problems associated with excessive drinking. To the contrary, however, one submission to the Liquor Commission asserted that this was a ‘red-herring’. Several key stakeholders claimed that problems associated with the misuse of

alcohol adversely affected tourism prior to the restrictions, that the restrictions actually made the town more attractive to visitors, and that this outweighed the disadvantages tourists themselves faced as a consequence of the restrictions.

As with those who made the competing assertions about business activity, none of these people provided any statistical data in support of their claims. However, the Tennant Creek Regional Tourist Association provided data on the numbers of people who visited the Tennant Creek Visitor Information Centre. These data are presented in Table 15. They show that the number of tourists visiting the centre has increased significantly in the first two quarters of each year since 1996, and that the number of visitors was significantly higher in 1997 as a whole year than in 1996. However, in the first two quarters of 1996 and 1997 the number of visitors was lower than in the first two quarters of 1994, and is about the same for the first two quarters of 1998 as it was in 1994.

Table 15: Visitors to the Tennant Creek Visitor Information Centre

Year	Quarter	Number
1994	First	1945
	Second	4746
	Third	N/A
	Fourth	N/A
1995	First	N/A
	Second	N/A
	Third	N/A
	Fourth	N/A
1996	First	1114
	Second	2287
	Third	3518
	Fourth	1470
1997	First	818
	Second	3341
	Third	5981
	Fourth	1972
1998	First	1369
	Second	5316

As they do not form a complete record for the period under consideration, these data are difficult to interpret. In the absence of data for the second half of 1994 and all of 1995, it is not possible to determine: whether or not the high figures for the first half of 1994 were an aberration, and; whether there was a decline in 1995 consequent upon the introduction of the restrictions, as has been claimed. The increase shown since the beginning of 1996, might reflect a real increase in the total number of tourists visiting the town. On the other, it might simply reflect an increase in the

number of tourists visiting the Centre (especially after the Centre moved to new premises in April 1997). What the data do suggest, however, is that if there was a decline in visitors due to the restrictions this has turned around and that the number of visitors is increasing—although the size of the increase is difficult to ascertain.

Data provided by the Tennant Creek Regional Tourist Association suggest that, if there was a decline in visitors due to the restrictions (and this has not been demonstrated), this has turned around and that the number of visitors is increasing—although the size of the increase is difficult to ascertain.

6. Circumvention of the restrictions

A number of people who made submissions to the Liquor Licensing Commission and several of the key stakeholders asserted that the restrictions were being circumvented in various ways. Using data provided to us by the Liquor Commission, we sought to test these assertions.

Changes in the types of beverage consumed

It was claimed by some that the intent of the ban on the sale of wine in casks of more than two litres had been negated by a shift to the drinking of fortified wine. The data in Table 8 (page 25) and Figure 1 (page 26) show that average quarterly purchases of fortified wines by licensees in the period since the introduction of the trial restrictions have increased by 573 litres over the quarterly average for the four quarters prior to the introduction of the trial restrictions—a quarterly average increase of 570%. However, sales of fortified wines started from a relatively small proportion of total alcohol purchases, and this increase represents only 14 per cent of the average quarterly average decline of 4173 litres of pure alcohol purchased as cask wine.

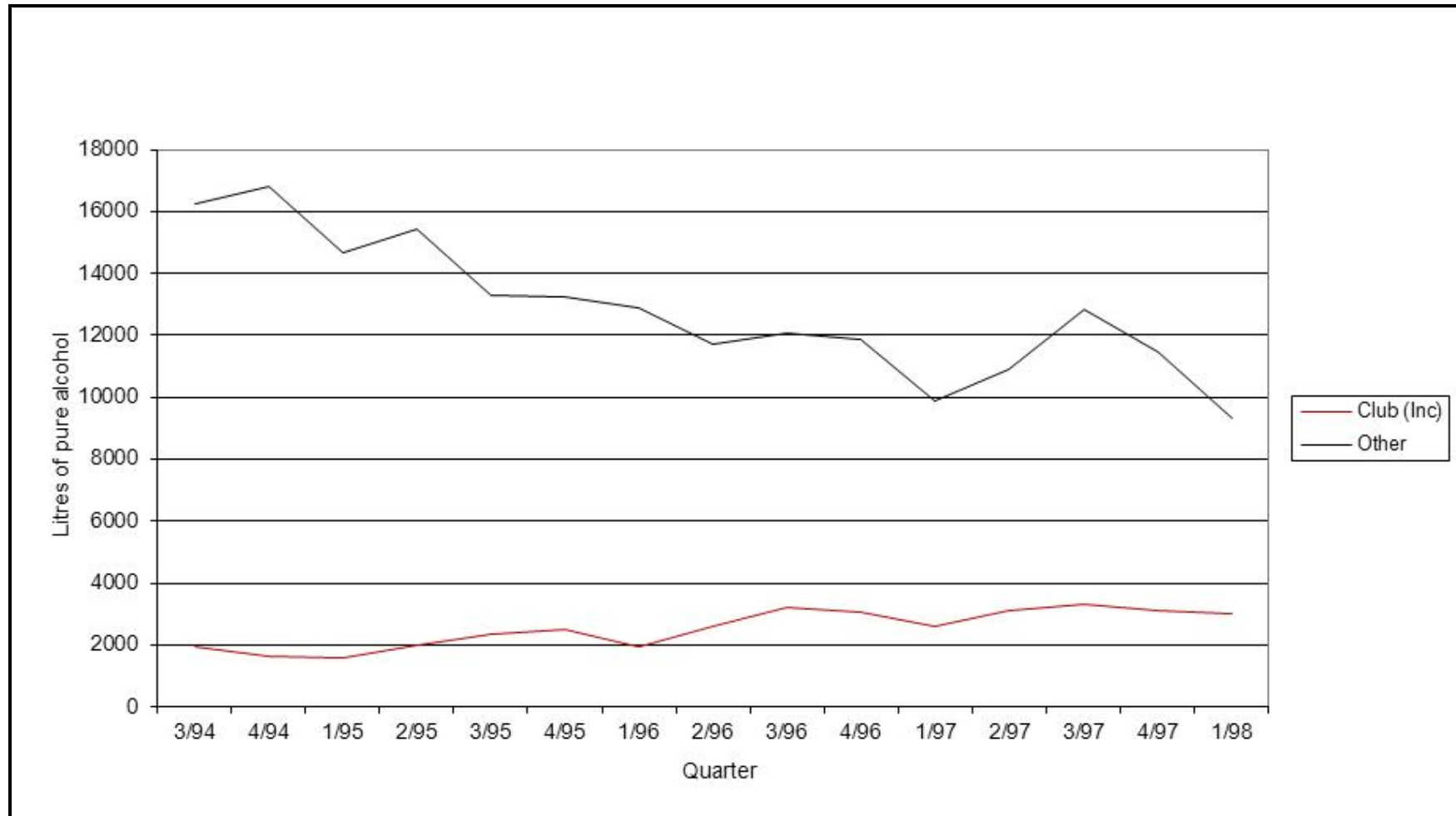
While there has been some increase in purchases of fortified wine, in terms of pure alcohol, this represents only 14 per cent of the decline in cask wine sales.

Changes of drinking location

The four licensed clubs in Tennant Creek were not subject to the restrictions imposed by the Liquor commission in March 1996. There is a common perception—reflected in the written submissions to the Liquor Commission, interviews with key stakeholders, and the results of the community survey—that this lack of application has resulted in either the circumvention of some of the restrictions or in their breakdown. It has been alleged that many individuals joined the clubs to avoid the restrictions on hotel front bar openings and/or, in some cases, to avoid drinking with Aboriginal patrons who frequented hotel lounge bars because of the front bar restrictions.

When the restrictions were introduced, there was a voluntary agreement between the licensed incorporated clubs that they would adhere to the restrictions on takeaway sales that applied to the hotels and liquor store. However, this agreement broke down when one of them resumed sales. It is now commonly perceived that the restrictions on

Figure 2: Liquor purchases (litres of pure alcohol) by licensed clubs and other types of licensed premises, 3rd quarter 1994 to 1st quarter 1998



takeaway sales are circumvented both by individuals who have joined the clubs to purchase takeaways on their own behalf, and by individuals who purchase takeaways on behalf of individuals who are not club members.

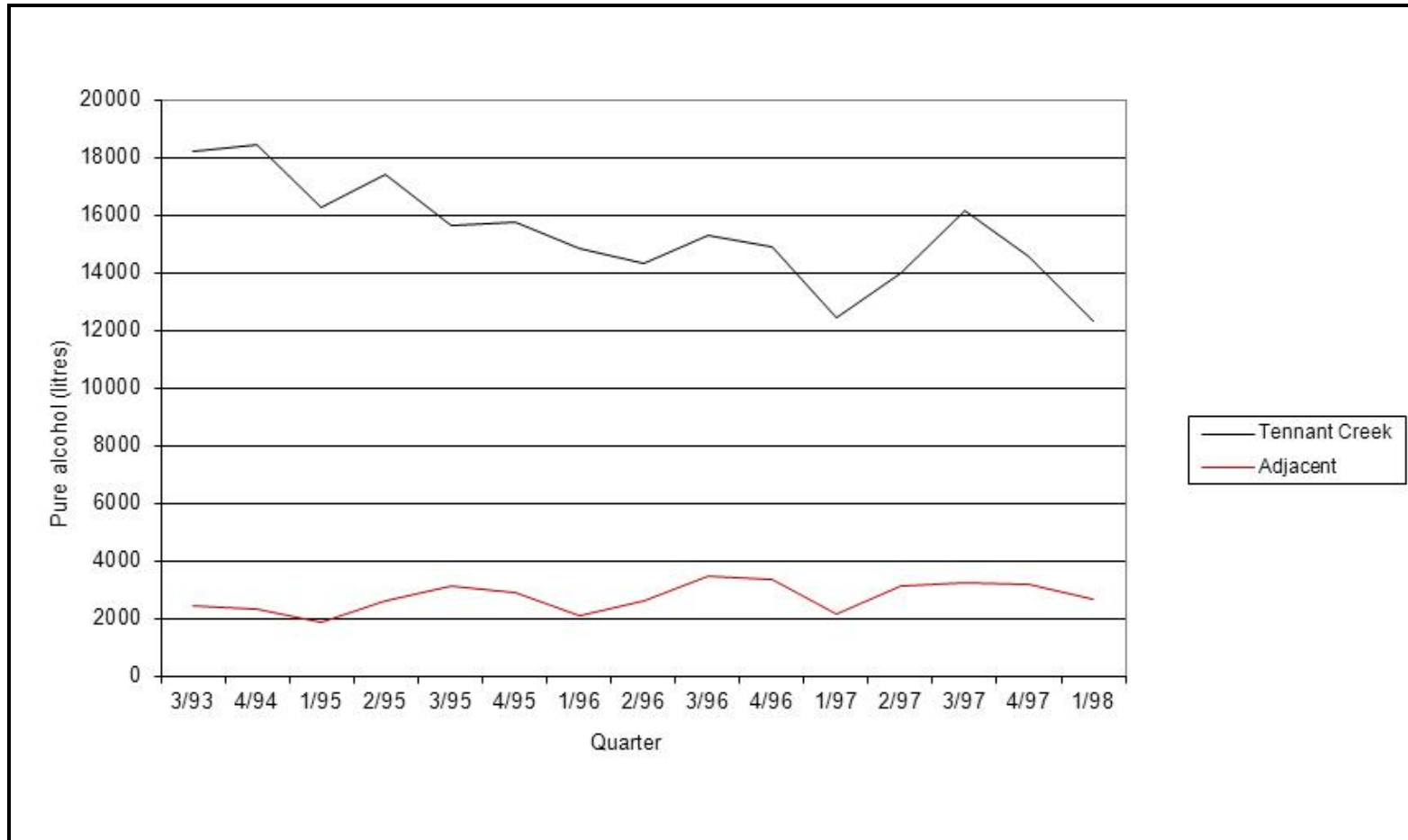
In Figure 2 we present a comparison between the purchase of beverages in terms of pure alcohol by licensed clubs and purchases by other types of licensed premises. Clearly, as purchases by other types of premises have declined significantly since the introduction of the trial restrictions and subsequently, those of the licensed clubs have increased by approximately 50 per cent. However, this dramatic increase in purchases by licensed clubs has nowhere near offset the decline in purchases by other types of premises. This data demonstrates that while sales of alcohol by licensed clubs have helped some residents of Tennant Creek to circumvent restrictions on both front bar and takeaway sales, this has not greatly negated the effect of those restrictions.

Data on alcohol purchases provided by the Liquor Licensing Commission demonstrates that, while sales of alcohol by licensed clubs have helped some residents of Tennant Creek to circumvent restrictions on both front bar and takeaway sales, this has not greatly negated the effect of those restrictions.

It was argued in a number of submissions to the Liquor Licensing Commission, and by several of the key stakeholders, that individuals were circumventing the restrictions on Thursday takeaways by driving to several licensed premises located at varying distances outside the town. These premises were alleged to be Threeways Hotel, Wauchope Hotel, Barkly Homestead, Warrego Sports and Amenities Club, Barrow Creek Hotel, Wycliffe Store, and Renner Springs Roadside Inn. (In this regard, it should be noted that, in a submission to the Liquor Commission the licensee of the Wauchope Hotel indicated he had agreed with the Ali-Curung Council to limit takeaway sales to one six pack of beer per person per day—despite the fact that it occasioned him a financial loss.)

To assess the extent to which this was the case, we obtained from the Liquor Commission alcohol purchase data for the seven out-of-town premises for the same period as for the Tennant Creek premises. In the four quarters prior to the introduction of the restrictions, purchases by the out-of-town premises averaged 2313 litres of pure alcohol per quarter. In the 2.75 years following the introduction of the trial restrictions, this average rose to 2899 litres per quarter—a quarterly increase of 586 litres or 25 per cent. However, this mean quarterly increase of 586 litres was only 20 per cent of mean quarterly decline of 3002 litres that occurred in Tennant Creek. This data is summarised in Figure 3.

Figure 3: Liquor purchases (litres of pure alcohol) by Tennant Creek and out-of-town licensees, 3rd quarter 1994 to 1st quarter 1998



In the four quarters prior to the introduction of the restrictions, purchases by the out-of-town premises averaged 2313 litres of pure alcohol per quarter. In the 2.75 years following the introduction of the trial restrictions, this average rose to 2899 litres per quarter—a quarterly increase of 586 litres or 25 per cent. However, this mean quarterly increase of 586 litres was only 20 per cent of mean quarterly decline of 3002 litres that occurred in Tennant Creek.

7. Summary and Recommendations

We have found that, while there is some division of opinion among people in Tennant Creek, the majority are in favour of the restrictions—particularly if they are seen to be effective. A majority of the population is also in favour of some additional restrictions.

The evidence indicates that the restrictions have led to a significant reduction in *per capita* alcohol consumption in the town. Data provided by the Police, the Sobering Up Shelter and the Hospital provide clear evidence of a reduction in the frequency of alcohol related harm on Thursdays. While some of this harm may have been redistributed to other days, on balance the evidence is in favour of an overall reduction in harm since the restrictions have been in place. Unfortunately, there is little evidence of the economic impact—whether positive or negative—of the restrictions.

Although some members of the community and licensees have attempted to circumvent the restrictions, these efforts have not negated the effects of the restrictions. Specifically there is no evidence to support the contention that ‘restrictions only work for a short time’. Indeed, there is evidence that improved policing, in conjunction with the restrictions, may have resulted in a further reduction in harm over the past year, demonstrating how a combined approach may well be the most productive way for a community to tackle alcohol related problems.

Below, we list our key findings in summary form and present our recommendations.

Key findings

Submissions to the Liquor Commission and key stakeholder interviews

- The submissions to the Liquor Commission and the results of our interviews with key stakeholders represent both extremes of view on the restrictions. They are informative about the range of views in the community, but they are not representative of them.

Community survey

- Less than 30 per cent of the population has been adversely affected by any one restriction.

- Overall, the majority of the population is in favour of retaining, or strengthening, all the current restrictions.
- Over half the population favoured additional restrictions that would: discourage the sale of alcohol in glass containers; limit the sale of high alcohol content drinks to one bottle per person per day; and, extend the current restrictions on Thursday takeaways to licensed premises within a 50 kilometre radius of Tennant Creek.

Pastoral station survey

- Of 12 pastoral station managers interviewed, two were in favour, six were partly in favour and one was against the restrictions. The others were not familiar with the restrictions and therefore did not know whether they were in favour of them or not.
- It appears that the Tennant Creek liquor restrictions have had little impact on people living and working on pastoral stations in the area, and that there has been no change in their alcohol purchasing patterns that would have adversely affected licensees in Tennant Creek.

Alcohol consumption

- At the time the trial restrictions were introduced, there was a reduction in the purchase of pure alcohol by licensees, and there has been a steady decline since that time. The decline in alcohol purchases by licensees in Tennant Creek cannot be attributed to either a general decline in consumption in the Northern Territory as a whole, or to a decline in population of Tennant Creek.
- In the year prior to the introduction of restrictions, the mean annual per capita consumption of pure alcohol in Tennant Creek was 25 litres. In the year following the introduction, this fell to 22 litres per capita; and, in the following year to 20 litres per capita.

Health and welfare impact of the restrictions

- Tennant Creek Hospital admissions data suggest that there has been no increase, and that there has probably been a reduction, in acute alcohol related harm since the restrictions were introduced.
- Although not reviewed in this report, data provided by the Hospital to the Liquor Commission: support the view that there has been a reduction in acute alcohol related attendances; are consistent with the admissions data; and, at least partly appear to be a positive effect of the restrictions.

- Although the numbers are small and not definitive, they do suggest that the problems which lead women to seek the services of the Women's Refuge have declined on Thursdays and that this decline has been persistent. In addition, there has been no increase on Fridays, suggesting that the problems have not simply been postponed by one day as a result of the restrictions.
- No strong conclusions can be drawn from Sobering Up Shelter figures, except that Thursday is clearly substantially quieter than before the restrictions.

Impact on public order

- Overall police figures on offences support a consistent and continuing effect of the restrictions in reducing criminal behaviour—at least on Thursdays—and indicate that if restrictions are coupled with good policing, they remain effective in reducing criminal behaviour in Tennant Creek.

Economic impact of the restrictions

- From the information available to us, it is not possible to determine what effects, if any, the restrictions have had on business activity in Tennant Creek.
- Data provided by the Tennant Creek Regional Tourist Association suggest that, if there was a decline in visitors due to the restrictions (and this has not been demonstrated), this has turned around and that the number of visitors is increasing—although the size of the increase is difficult to ascertain.

Circumvention of the restrictions

- While there has been some increase in purchases of fortified wine, in terms of pure alcohol, this represents only 14 per cent of the decline in cask wine sales.
- Data on alcohol purchases provided by the Liquor Licensing Commission demonstrates that, while sales of alcohol by licensed clubs have helped some residents of Tennant Creek to circumvent restrictions on both front bar and takeaway sales, this has not greatly negated the effect of those restrictions.
- In the four quarters prior to the introduction of the restrictions, purchases by the out-of-town premises averaged 2313 litres of pure alcohol per quarter. In the 2.75 years following the introduction of the trial restrictions, this average rose to 2899 litres per quarter – a quarterly increase of 586 litres or 25 per cent. However, this mean quarterly increase of 586 litres was only 20 per cent of mean quarterly decline of 3002 litres that occurred in Tennant Creek.

Recommendations

On the basis of the evidence that we have reviewed, we recommend the following.

1. All existing restrictions should be retained.
2. Existing restrictions should be strengthened by:
 - a. discouraging the sale of alcohol in glass containers (this might be achieved by negotiation of packaging fortified wine in plastic containers and/or introduction of deposits on bottles);
 - b. limiting the sale of beverages with an alcohol content of greater than 15 per cent to one bottle (\leq one litre) per person per day;
 - c. extending the current Thursdays restrictions to licensed outlets within a 50 kilometre radius of Tennant Creek; and,
 - d. extending the current restrictions on takeaway sales to social and sporting clubs.
3. The front bar restrictions should be applied to the Shaft nightclub, which is trading as a *de facto* front bar on Thursdays.
4. An exemption to the ban on Thursday takeaway sales should be made for *bona fide* tourists—whose usual place of abode is outside the Barkly Region—who arrive in Tennant Creek on a Thursday or who are staying for a short period of time.
5. If resources permit, a liquor inspector should be based in Tennant Creek. Failing this we recommend that the Liquor Commission enter into negotiations with the Northern Territory Police to identify and specially train a 'liquor contact officer' (similar to those in South Australia) who could handle issues related to liquor licensing legislation.

8. References

1. d'Abbs P, Togni S, Crundall I. *The Tennant Creek Liquor Licensing Trial, August 1995 – February 1996: An Evaluation*. Menzies Occasional Papers Issue No 2/96, Darwin: Menzies School of Health Research.
2. Northern Territory Liquor Commission. *Decision from a Hearing Conducted in Tennant Creek During the Week Commencing 3 March, 1996, Concerning the Following Liquor Licenses: Goldfields Hotel, Tennant Creek Trading, Headframe Bottleshop, Tennant Creek Hotel, Rockits*. Darwin: Northern Territory Liquor Commission, Office of the Chairman, 12th March 1996.
3. Measurement of Alcohol Problems for Policy Project. *A First Report of Work in Progress*. Perth: National Centre for Research into the Prevention of Drug Abuse, Curtin University of Technology, 1995.
4. Wyllie A, Zhang JF, Casswell S. Comparison of six alcohol consumption measures from survey data. *Addiction* 1993; 89: 425–430.
5. Philp A, Daly A. *Alcohol Consumption in Selected Regions in Western Australia: July 1989 to June 1991*. Perth: Western Australian Alcohol and Drug Authority.
6. Stockwell T, Midford R, Masters L, Gahegan M, Phillips M, Daly A, Philp A. Consumption of different alcoholic beverages as predictors of night-time assault and acute alcohol-related morbidity. *Australian and New Zealand Journal of Public Health* 1998; 22(2): 237-242.

9. Appendices

Appendix 1: Key stakeholders interviewed

Name	Position	Organisation
Mr PR Allen	Chairman	Northern Territory Liquor Commission
Ms J Afianos	Editor	<i>Tennant & District Times</i>
Mr D Beeton	President	Tennant Creek Chamber of Commerce
Ms S Brown	Proprietor	Tennant Creek Caravan Park
Ms L Bryce		Tennant Creek Chamber of Commerce
Dr H Carney	Medical Officer	Anyinginyi Congress Aboriginal Corporation
Mr G Carpenter	Manager	Tennant Creek News Agency
Mr I Crundall	Director	Alcohol and Other Drugs Program, Territory Health Services
Mr D Curtis	Commissioner	Aboriginal & Torres Strait Islander Commission
Dr P d'Abbs	Senior Lecturer	Menzies School of Health Research
Mr S Edgington	Acting Sergeant	Tennant Creek, Northern Territory Police
Mr N Hayes	Councillor	Aboriginal & Torres Strait Islander Commission
Mr S Hallett	Nominee	Goldfields Hotel, Tennant Creek Trading
Ms L Heslop	Chairperson	Beat the Grog Sub-committee
Mr J Holland	Manager	Family, Youth and Children's Services
Mr A Jackson	Community Liaison Officer	Julalikari Council
Dr A Khan	Chief Executive Officer	Tennant Creek Town Council
Ms S Kinraid	Assistant Director	Barkly Region Alcohol and Drug Abuse Advisory Group
Mr E McAdam	General Manager	Julalikari Council
Mr A McLay	Educator/trainer	Living With Alcohol Program, Territory Health Services
Mr Y Magnery	Regional Director	Barkly Region Alcohol and Drug Abuse Advisory Group
Supt G Mosely	Superintendent	Barkly Division, Northern Territory Police
Mr A Nockels	Manager	Planning and Evaluation, Northern Territory Police
Mr W Patterson	Nominee	Headframe Bottleshop
Mr K Peak	Deputy General Manager	Julalikari Council
Dr M Pearson	Medical Director	Tennant Creek Hospital
Ms H Rosas	Coordinator, Night Patrol	Julalikari Council
Mr D Rutherford	Nominee	Tennant Creek Bowling Club
Mr G Shannon	Community Development Officer	Julalikari Council
Ms V Shannon	Community Liaison Officer	Julalikari Council
Mr P Simpson	Substance Abuse Worker	Anyinginyi Congress Aboriginal Corporation
Mr N Skelton	Coordinator	Uniting Church Tennant Creek Welfare Services
Mrs J Small	General Manager	Tennant Creek Regional Tourist Association
Ms G Smith	Community Development Officer	Central Lands Council
Ms K Stow	General Manager	Barkly Health Services
Mr G Targett	Nominee	Tennant Creek Hotel
Mrs A Taylor	Nominee	Tennant Creek Sporties Club
Mr N Teasdale	Nominee	Tennant Creek Memorial Club
Ms P Tropeano	Coordinator	Tennant Creek Women's Refuge

Appendix 2

Liquor purchases (litres of beverage) by Tennant Creek licensees by beverage type, 3rd quarter 1994 to 1st quarter 1998

Beverage type	3/94	4/94	1/95	2/95	3/95	4/95	1/96	2/96	3/96	4/96	1/97	2/97	3/97	4/97	1/98
Cask	49350	49098	45179	48663	19236	22820	33456	6620	3988	3424	8836	9416	14955	16822	3512
Bottle	3123	3244	2262	4258	4832	4048	3963	4056	5263	4149	2615	3133	4060	3562	3176
Fortified	1225	543	395	989	1768	804	613	5249	7034	5351	3802	5695	6427	5093	7839
Cider full	2583	3203	2752	3829	3315	3997	2497	2492	3910	3268	2332	3169	3306	2920	2127
Spirits	5153	4573	3481	4866	5188	4580	4556	4811	5538	4941	3928	4856	5767	4773	4100
Spirits mixed	2157	2057	1345	1638	3256	2449	1445	2085	2210	1981	1300	2346	2723	2233	3736
Beer full	173561	180749	160716	156637	183106	182803	146669	180330	188200	191399	156502	169688	181776	159203	146142
Beer low	38804	45734	41933	40351	44650	49330	42585	45037	48091	56541	40135	39198	49459	48775	42273

Appendix 3: Community Survey Interview Schedule

(Note the size of the type face and the pagination of the interview schedule have been reduce to save space in this report.)

Interviewer Id No.

Address of household or name of town camp

[Greeting] My name is _____. I'm working with a research team from Curtin University in Western Australia. We are asking about the effects of the liquor licensing restrictions in Tennant Creek.

1. Are you aged 18 years or over, or is there someone else at home aged 18 or over that I could talk to about the restrictions?
 1. No
 2. Yes

[If no, go to the next house.]

As you probably know, in March 1996—after a six-month trial—new liquor licensing conditions were introduced in Tennant Creek. The aim of those conditions was to cut down the availability of grog and the problems that sometimes arise if people drink too much.

The team from Curtin University has been employed to look at:

- whether or not the restrictions are working; and,
- whether the people of Tennant Creek want to: end the restrictions, keep them as they are, or change them.

There are no right or wrong answers to the questions I'd like to ask you. The people doing the survey have no particular views about whether the restrictions are a good thing or a bad thing. We want to know what you think.

The answers people give to the questions will be confidential. No one but members of the research team will know the answers that you give, and—by law—they aren't allowed to tell others what you said.

2. Are you willing to take part in the survey?
 1. No
 2. Yes

[If no, thank the person and move on to the next house.]

If yes, go to next section.]

Section 1.

I'd like to start by asking some questions about how each of the restrictions has affected you personally.

After that, I'll ask you about how you think the restrictions have affected the community.

If you're not sure what I mean by any of the questions, please tell me and I'll explain them.

First, I'll list each of the restrictions and I'd like you to tell me if any of them has affected you.

3. Limiting takeaway sales to the hours between 12:00 midday and 9:00 in the evening on Mondays, Tuesdays, Wednesdays and Fridays.

1. No
2. Yes—Positively
3. Yes—Negatively
4. Don't know
9. No response

4. Banning takeaways from hotels and liquor stores on Thursdays.

1. No
2. Yes—Positively
3. Yes—Negatively
4. Don't know
9. No response

5. Banning sales of wine in casks of more than two litres.

1. No
2. Yes—Positively
3. Yes—Negatively
4. Don't know
9. No response

6. Limiting the sale of two litre wine casks to one cask per person each day.

1. No
2. Yes—Positively
3. Yes—Negatively
4. Don't know
9. No response

7. Banning the sale of wine in flagons or glass containers of more than one litre.

1. No
2. Yes—Positively
3. Yes—Negatively
4. Don't know
9. No response

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8. Restricting the sale of fortified wines—such as port and sherry—to containers of less than one and a quarter litres.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

 9. Banning taxi drivers from buying alcohol for other people.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

 10. Limiting bar sales in hotels to only light beer between 10:00 in the morning and 12:00 midday.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

 11. Only selling wine in hotel front bars with meals.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

 12. Closing hotel front bars on Thursdays.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

 13. Not allowing lounge bars or back bars to open before 12 :00 midday on Thursdays and Fridays.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response
-

14. Requiring lounge bars to make food available.
 1. No
 2. Yes—Positively
 3. Yes—Negatively
 4. Don't know
 9. No response

Section 2

Those questions were about how the restrictions have affected you personally.

Now, I want to ask you what effect you think the restrictions have had on the Tennant Creek community as a whole.

First, I'll ask you about any good effects, and then I'll ask you about any bad effects.

15. Do you think the restrictions have had any good effects on the community of Tennant Creek?

1. No
2. Yes
4. Don't know
9. No response

16. **[If yes]** What are those effects?

Important—Do not list the options below for the respondent. They are only there to help you record the respondent's answers.

16.1 Improvements in personal welfare

- People spending money on items other than alcohol, especially food
- Kids appeared to be better fed and dressed
- Children being more settled at school
- Women and children seeming to be happier
- Aboriginal people are eating more, dressing better and staying cleaner.

16.2 Less drinking and less public drinking

- Fewer drinkers being on the streets
- Less drinking and drunkenness
- Smaller drinking groups in town camps.

16.3 Less disruptive behaviour

- Trouble and humbug among Aboriginal people was less common
- Less fighting
- Less violence generally
- Less domestic violence
- Improved family relations.

16.4 A number of undesirable people had left town

- People from out-of-town who were trouble-makers had stopped visiting.

16.5 Police incidents have been reduced.

16.6 People feel safer.

16.7 Appearance and tone of the town improved

- Less people in streets and public areas
- Less rubbish
- Town generally looking better
- General sense that there was more pride in the town.

16.8 Town is quieter.

16.9 Other

17. Do you think the restrictions have had any bad effects on the community of Tennant Creek?
1. No
 2. Yes
 4. Don't know
 9. No response

18. **[If yes]** What are those effects?

Important—Do not list the options below for the respondent. They are only there to help you record the respondent's answers.

- 18.1 People have adjusted their drinking by:
- Drinking on other days
 - Drinking at other places
 - Drinking other wines or spirits or methylated spirits.
- 18.2 Has increased the price of alcohol.
- 18.3 Caused inconvenience.
- 18.4 Infringed on the individual rights of the majority of people in town.
- 18.5 Increased tension between different segments of the community
- Aboriginal and non-Aboriginal people
 - Drinkers and non-drinkers.
- 18.6 Gambling and gambling stakes have increased in Aboriginal communities.
- 18.7 People are more aggressive because they cannot get hold of alcohol.
- 18.8 Decline in business activity in town generally and particularly for
- Pubs
 - Food Barns
 - Newsagent.
- 18.9 Other
-
-

Section 3

Now I'll list each of the restrictions. I want you to think about how they've affected you personally and how they've affected the community. Then I want you to tell me whether or not you think they should be: dropped altogether, eased, remain the same, or be strengthened.

19. Limiting takeaway sales to the hours between 12:00 midday and 9:00 in the evening on Mondays, Tuesdays, Wednesdays and Fridays.
 1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

20. Banning takeaways from hotels and liquor stores on Thursdays.
 1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

21. Banning sales of wine in casks of more than two litres.
 1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

22. Limiting the sale of two litre wine casks to one cask per person each day.
 1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

23. Banning the sale of wine in flagons or glass containers of more than one litre.
 1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

24. Restricting sale of fortified wines—such as port and sherry—to containers of less than one and a quarter litres.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response
25. Banning taxi drivers from buying alcohol for other people.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response
26. Limiting bar sales in hotels to only light beer between 10.00 in the morning and 12.00 midday.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response
27. Only selling wine in hotel front bars with meals.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response
28. Closing hotel front bars on Thursdays.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

29. Not allowing lounge bars or back bars to open before 12 :00 midday on Thursdays and Fridays.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response
30. Requiring lounge bars to make food available.
1. Dropped altogether
 2. Eased
 3. Remain the same
 4. Be strengthened
 5. Don't know
 9. No response

Section 4

Next I want to ask you some questions about the way the restrictions were introduced and about how well people have followed them.

31. Do you think there was enough consultation with the wider community before the restrictions were introduced?
1. No
 2. Yes
 3. Partly
 4. Don't know
 9. No response
32. Do you think that liquor outlets have followed the restrictions?
1. No
 2. Yes
 3. Partly
 4. Don't know
 9. No response
33. Do you think that taxi drivers have followed the restrictions?
1. No
 2. Yes
 3. Partly
 4. Don't know
 9. No response
34. Do you think the police have enforced the restrictions?
1. No
 2. Yes
 3. Partly
 4. Don't know
 9. No response
35. Do you think that people have been able to get around the restrictions?
1. No
 2. Yes
 3. Partly
 4. Don't know
 9. No response

Section 5

In Tennant Creek and other places, people have suggested other restrictions or stronger restrictions on the availability of alcohol. I'll list some of these, and I want you to tell me whether you'd be in favour of them being applied in Tennant Creek.

36. Discourage the sale of alcohol sold in glass containers.

1. Not in favour
2. In favour
4. Don't know
9. No response

37. Ban happy hours or promotions, such as strip shows, that encourage excessive drinking.

1. Not in favour
2. In favour
4. Don't know
9. No response

38. Limit the sale of other high alcohol drinks—such as spirits and fortified wines—to one bottle per person per day.

1. Not in favour
2. In favour
4. Don't know
9. No response

39. Extend the current Thursday restrictions on takeaway sales to social and sporting clubs.

1. Not in favour
2. In favour
4. Don't know
9. No response

40. Extend the current Thursday restrictions on takeaway sales to licensed outlets within a 50 kilometre radius of Tennant Creek.

1. Not in favour
2. In favour
4. Don't know
9. No response

41. Extend the current Thursday restrictions on hotel opening hours and the ban on takeaways to at least one other day each week.

1. Not in favour
2. In favour
4. Don't know
9. No response

42. Ban all sales of alcohol on Thursdays.
1. Not in favour
 2. In favour
 4. Don't know
 9. No response
43. Are there any other restrictions that you'd like to see introduced in Tennant Creek?
1. No
 2. Yes
 4. Don't know
 9. No response

[If yes] What are they?

44. As well as restricting the sale of alcohol, do you think anything else should be done to address alcohol-related problems in Tennant Creek?
1. No
 2. Yes
 4. Don't know
 9. No response
45. **[If yes]** What do you think should be done?
- 46.1 Enforce existing laws and regulations
 - 46.2 Change the form of social security benefits
 - 46.3. Target strategies at problem drinkers
 - 46.4 Provide more education about the effects of alcohol and responsible drinking
 - 46.5 Other

Section 6

I just have a few more quick questions to finish off the survey.

46. How long have you lived in Tennant Creek? _____ years

47. Have you drunk alcohol in the last month?

1. Yes
2. No
3. Don't know
4. No response

48. Where do you most often drink alcohol?

1. Home
2. Hotel front bar
3. Hotel back bar
4. Social or sporting club
5. Elsewhere _____

49. What was your age last birthday? _____ years

50. Do you have any children aged 15 years or less living with you?

1. Yes
2. No
3. Don't know
4. No response

51. Do you consider yourself to be Aboriginal?

1. Yes
2. No
3. Don't know
4. No response

52. **Sex of respondent**

1. Male
2. Female

That completes the interview. The information that you've given will be used to prepare an independent report for the 'Beat the Grog' Sub-Committee. The report will be submitted to the Chairman of the Liquor Licensing Commission for his consideration when reviewing the current Tennant Creek liquor licensing restrictions.

Do you have any questions?

Thank you for your time.

