

National Alcohol Sales Data Project (NASDP)

Stage Five Report, 2016



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national drug research institute



Preventing harmful drug use in Australia

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WHO Collaborating Centre for the Prevention of Alcohol and Drug Abuse

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NATIONAL ALCOHOL SALES DATA PROJECT
STAGE 5 REPORT

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NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

CONTENTS

TABLE OF TABLES	4
TABLE OF FIGURES	5
ACKNOWLEDGMENTS	6
ACRONYMS	7
GLOSSARY	8
EXECUTIVE SUMMARY	9
INTRODUCTION	13
Background to the NASDP.....	13
The NASDP objectives and aims	15
Implementation and establishment of the NASDP	16
Results from NASDP Stage 4.....	16
METHODS	18
Data transfer.....	18
Overview of methods	18
<i>Per capita</i> consumption calculation method	19
Population estimates.....	19
Overview of PCC calculation by jurisdiction	24
Preparation of alcohol sales data.....	24
Alcohol conversion factors.....	26
Mapping the NASDP data	32
RESULTS	33
The Australia Capital territory	33
The Northern Territory	33
Queensland	37
Western Australia.....	56
Trends in <i>per capita</i> consumption	73
DISCUSSION	75
Summary of regional data.....	75
Future developments in the NASDP	76
REFERENCES	78
APPENDIX I Estimates of Queensland and Western Australian <i>per capita</i> consumption by ERP	80
Queensland	80
Western Australia.....	87
APPENDIX II Estimates of Northern Territory <i>per capita</i> consumption excluding tourists	93

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

TABLE OF TABLES

Table 1	Alcohol conversion factors by jurisdiction	31
Table 2	Volumes (litres) of alcohol sold, by beverage, and pure alcohol in the Australian Capital Territory 2012/13 to 2013/14	33
Table 3	Estimated <i>per capita</i> alcohol consumption, Northern Territory, 2005/06 to 2011/12.....	33
Table 4	Volumes (litres) of alcohol sold by beverage and pure alcohol in Urban Centres and Northern Territory Balance, 2005/06 to 2011/12.....	35
Table 5	Estimated <i>per capita</i> consumption (litres of pure alcohol) by ESP, Queensland 2007/08 to 2012/13	37
Table 6	Volumes (litres) of alcohol sold by beverage and pure alcohol, and <i>per capita</i> consumption by ESP in SA3s, Queensland 2007/08 to 2009/10.....	44
Table 7	Estimated <i>per capita</i> consumption (litres of pure alcohol) by ESP, Western Australia, 2005/06 to 2011/12	56
Table 8	Volumes (litres) of alcohol sold by beverage and pure alcohol, and <i>per capita</i> consumption by ESP in SA3s, Western Australia, 2005/06 to 2011/12.....	61
Table 9	Volumes (litres) of alcohol and pure alcohol, and estimated <i>per capita</i> consumption by ERP in SA3s, Queensland 2007/08 to 2009/10	80
Table 10	Volumes (litres) of alcohol and pure alcohol sold, and estimated <i>per capita</i> consumption by ERP in SA3s, Western Australia, 2005/06 to 2011/12.....	87
Table 11	Estimated <i>per capita</i> consumption (litres of pure alcohol) by ERP, Northern Territory 2005/06 – 2011/12	93

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

TABLE OF FIGURES

Figure 1	National <i>per capita</i> consumption of pure alcohol per person aged 15 years and over (Australian Bureau of Statistics 2015)	13
Figure 2	Volumes of pure alcohol sold in Urban Centres and Northern Territory Balance, 2011/12	34
Figure 3	Volumes of pure alcohol sold, SA3s, Queensland, 2009/10	38
Figure 4	Volumes of pure alcohol sold, SA3s, areas of high tourism, Queensland, 2009/10.....	39
Figure 5	Volumes of pure alcohol sold, SA3s, Brisbane and environs, Queensland, 2009/10.....	40
Figure 6	Estimated <i>per capita</i> consumption (litres of pure alcohol) based on ESP, SA3s, Queensland, 2009/10.....	41
Figure 7	Estimated <i>per capita</i> consumption (litres of pure alcohol) based on ESP, SA3s, areas of high tourism, Queensland, 2009/10	42
Figure 8	Estimated <i>per capita</i> consumption (litres of pure alcohol) based on ESP, SA3s, Brisbane and environs, Queensland, 2009/10	43
Figure 9	Volumes of pure alcohol sold, SA3s, Western Australia, 2011/12	57
Figure 10	Volumes of pure alcohol sold, SA3s, Perth and West Coast, Western Australia, 2011/12.....	58
Figure 11	Estimated <i>per capita</i> consumption (litres of pure alcohol) based on ESP, SA3s, Western Australia, 2011/12	59
Figure 12	Estimated <i>per capita</i> consumption (litres of pure alcohol) based on ESP, SA3s, Perth and West Coast, Western Australia, 2011/12.....	60
Figure 13	<i>Per capita</i> consumption in NASDP jurisdictions and nationally from 2005/06 to 2012/13.....	73
Figure 14	Northern Territory: population plus tourism and <i>per capita</i> consumption, 2005/06 to 2011/12	74
Figure 15	Western Australia: Estimated Service Population and <i>per capita</i> consumption, 2005/06 to 2011/12	74

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

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NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

ACRONYMS

Advisory Committee	AC
Population aged 15 and older	15+
Australian Bureau of Statistics	ABS
Australian Standard Geographical Classification	ASGC
Australian Statistical Geography Standard	ASGS
Estimated Enumerated Population	EEP
Estimated Resident Population	ERP
Estimated Service Population	ESP
Intergovernmental Committee on Drugs	IGCD
National Alcohol Sales Data Project	NASDP
Net Visitors	NV
National Drug Research Institute	NDRI
<i>Per capita</i> consumption	pcc
<i>Per capita</i> consumption derived from ERP	pcc/ERP
<i>Per capita</i> consumption derived from ESP	pcc/ESP
Pure alcohol content by volume	PACV
Statistical Area Level *	SA*
Statistical Subdivision	SSD
World Health Organization	WHO

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

GLOSSARY

Australian Standard Geographical Classification	Discontinued ABS geographical hierarchy. It included four main sub-State regions: Collection Districts, Statistical Local Areas, Statistical Subdivisions and Statistical Divisions .
Australian Statistical Geography Standard	Current ABS geographical hierarchy. It includes five main sub-State regions: Mesh Blocks, SA1s, SA2s, SA3s and SA4s.
Alcohol sales data	Licensed wholesaler records of volumes of alcohol sold to individual licensed retailers, or licensed retailer records of volumes of alcohol sold to the general public.
Estimated Enumerated Population	Count of all persons living in all occupied dwellings on the night of the Census (every 5 years), irrespective of whether they are usually resident in the area or are visitors.
Estimated Resident Population	ABS measure of Australian population based on Census data. Adjusted for population change since the most recent Census year, net overseas migration and estimated interstate movements. Overseas visitors are excluded.
Estimated Service Population	Developed for use in the NASDP. Based on EEP and ERP, accounting for absent residents, Australian visitors and international tourists.
Inter-censal years	Years between census collections.
Mead	Brewed honey-based beverage with an average alcohol content of 12.5%.
<i>Per capita</i> consumption	Litres of pure alcohol consumed, divided by population aged 15 years and over.
Tourists	Persons travelling to a place other than that of his/her usual environment for less than twelve months (ABS, 2000).

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

EXECUTIVE SUMMARY

The harmful use of alcohol causes an estimated 3.3 million deaths every year and is the fifth leading risk factor for poor health globally. Alcohol consumption contributes to a substantial public health burden in Australia, with recent estimates attributing 3.2% of the burden of disease to risky drinking.

The Australian Bureau of Statistics (ABS) demonstrates that alcohol consumption has been decreasing in Australia since 2008, and now stands at 9.7 litres of pure alcohol per Australian over the age of 15 years. However, this reduction may mask the reality that very problematic drinking has remained relatively stable, and may be increasing among older Australians.

Data for monitoring and surveillance are critical to successful alcohol policy. There are currently two ways to collect data on alcohol consumption within a population: alcohol sales data collected for taxation purposes or by wholesaler or retailer record keeping, and population-based surveys. Wholesale sale of alcohol to retailers acts as a good proxy for retail sale to the public and the World Health Organization recommends the collection of sales data as the gold standard in measuring alcohol consumption within communities, but there is a world-wide paucity of information collected on alcohol sales made by liquor retailers. In Australia, substantial efforts have recently been made to improve our knowledge base regarding the levels of alcohol available for consumption at local levels.

The ABS publishes annual national estimates of alcohol *per capita* consumption based on import clearance, excise and domestic alcohol sales data. Until 1996, the ABS estimates were complemented by state and territory wholesale alcohol sales data collected by liquor licensing authorities. In 1996, however, the High Court of Australia ruled that liquor licensing fees and levies were, in fact, excise duties and as such illegal under the terms of the Australian Constitution. The ruling did not preclude the collection of wholesale alcohol sales data by liquor licensing authorities but, for most jurisdictions, the incentive for continued collection was lost. Only the Northern Territory (NT), Queensland and Western Australia (WA) continued to collect this information, but the Australian Capital Territory (ACT) recommenced an alcohol sales data collection from 1 July 2012 and Victoria from 1 July 2015.

The Australian Government, via the Intergovernmental Committee on Drug Strategy (IGCD), has funded the National Drug Research Institute (NDRI) at Curtin University in Perth, to undertake the National Alcohol Sales Data Project (NASDP). The NASDP is now in its fifth

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

funding year (Stage 5), having completed four analyses and reviews of alcohol sales data in up to four Australian jurisdictions (Loxley, Chikritzhs et al. 2010, Loxley, Chikritzhs et al. 2011, Loxley, Catalano et al. 2012, Loxley, Gilmore et al. 2014). The current report presents the work of the NASDP Stage 5.

The overall objective of the NASDP is to construct an ongoing, regularly updated, national database of standardised alcohol sales data, which includes all Australian states/territories. The NASDP works closely with an Advisory Committee consisting of senior representatives of Liquor Licensing, Health and Police in every Australian jurisdiction, and the Australian Government Department of Health.

Per capita alcohol consumption is calculated by dividing volumes of pure alcohol by the number of people in a given population (usually persons aged 15 and over). The objective in measuring *per capita* consumption is to estimate the average amount of alcohol consumed by individuals in a particular population at a particular time as accurately as possible. For that reason the denominator should exclude children and others who are not consuming purchased alcohol at that time, but should include adult residents and visitors who are buying and consuming alcohol in that place at that time.

The NASDP uses a developed population estimate called an Estimated Service Population (ESP) to calculate *per capita* consumption. This measure, based on the ABS Estimated Residential Population (ERP), accounts for absent residents, Australian visitors and international tourists, and is used with all jurisdictions other than NT, who supply local population and tourist data.

Alcohol conversion factors are required to convert volumes of different alcohol-based beverages to volumes of pure alcohol content. In the NASDP we use national alcohol conversion factors in order to derive standardised rates which can be used to compare *per capita* consumption across different regions and jurisdictions.

In the NASDP Stage 4 it was found that that *per capita* consumption estimates for 2010/11 were 13.30 litres in the Northern Territory, 13.24 litres in Western Australia and 10.91 litres in Queensland. Consumption in the Northern Territory had continued to decrease, while in Western Australia it had continued to increase. Queensland remained relatively stable. All three jurisdictions were above the national *per capita* consumption estimate of 10.30 litres published by the Australian Bureau of Statistics.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

In the NASDP Stage 5, alcohol sales data were made available by the:

- ACT Health which provided aggregated sales data at jurisdiction level for the financial year 2013/14;
- NT Department of Business for 2011/12. The Department supplied sales data aggregated into the six Urban Centres and the remaining NT Balance which is the Department's usual mode of presenting geographical information on alcohol sales.
- Queensland Office of Regulatory Policy within the Department of Justice and Fair Trading for 2011/12, 2012/13 and 2014/15. Retailer postcode was the primary geographical information; and
- WA Mental Health Commission Prevention Services Directorate for 2011/12. Retailer postcode was the primary geographical information.

In previous stages, the NASDP undertook regional analysis of Queensland and WA alcohol sales data using the ABS Australian Standard Geographical Classification (ASGC) system at the Statistical Subdivision (SSD) level. From 1 July 2011, the ABS moved to a new geographical system: the Australian Statistical Geography Standard (ASGS). The closest approximation to SSD is Statistical Area Level 3 (SA3) and this is now the primary regional unit of analysis in the NASDP. Data that were presented in earlier stages as SSDs have been re-analysed as SA3s, and new data, not previously presented, have been analysed for the first time as SA3s. No SSD level data are presented in this report.

Advice from ACT Health indicated that there were limitations in the 2013/14 data and it was anticipated that they might cover no more than 50% of wholesalers required to submit data. Similar limitations were found with the 2012/13 data in the NASDP 4. For this reason, *per capita* consumption estimates for the ACT for 2012/13 and 2013/14 have not been included. The overall volume of alcohol sold by the wholesalers that submitted data has been presented and was found to be similar across the two years.

Estimated alcohol *per capita* consumption in the NT in 2011/12 was 13.27 litres of pure alcohol per adult (aged 15+), using population figures which included tourists. This is the lowest level reported in any stage of the NASDP for the NT. Slightly more pure alcohol was sold in 2011/12 than in 2010/11, but population increased markedly between the two years. Between 2010/11 and 2011/12 sales of most beverage types across the NT were relatively stable, with the exception of cider. Cider sales increased by 32% from 2010/11 to 2011/12.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Examination of Queensland alcohol sales data for the financial year 2011/12 suggested that returns did not completely reflect alcohol consumption in Queensland. Fortunately, the Queensland Office of Regulatory Policy had also made the 2012/13 data set available. Although there were some shortfalls in this data set, we were able to use it with selected data from 2014/15 to develop estimates of volumes of pure alcohol sold and *per capita* consumption in Queensland as a whole for 2012/13. Estimates at SA3 level have not been calculated using these assumptions.

The overall estimated alcohol pcc/ESP for Queensland for 2012/13 was 10.96 litres of pure alcohol per individual aged 15+. On this basis it appears that Queensland pcc/ESP has been relatively stable.

The overall estimated alcohol pcc/ESP for WA for 2011/12 was 11.94 litres of pure alcohol per individual aged 15+. This is a considerable reduction from 2010/11, and is the first fall in consumption in WA since 2008/09. Compared to 2010/11, alcohol sales in 2011/12 decreased by 7% with beer and spirits reduced by 7.5% and 6% respectively. Wine sales increased by 9%.

In summary, alcohol consumption in Australia has been decreasing since 2006/07 and there is evidence of decreasing consumption in two of the three jurisdictions for which we have estimated *per capita* consumption.

The NASDP now receives alcohol sales data from four jurisdictions and we look forward to receiving data from other jurisdictions should the project continue into further stages. Several other jurisdictions have also advised on their recent commencement of alcohol sales data collection or plans to enable collection in the future.

We thank the jurisdictions that have supplied alcohol sales data to the NASDP for their participation in the project. The NASDP team trusts that this report, as well as the reports that preceded it, will continue to demonstrate the policy and practical value of alcohol sales data analysis.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

INTRODUCTION

BACKGROUND TO THE NASDP

Alcohol-related morbidity and mortality are global phenomena. The harmful use of alcohol causes an estimated 3.3 million deaths every year and alcohol use is the fifth leading risk factor for poor health globally (WHO 2014). Alcohol consumption contributes to a substantial public health burden in Australia, with recent estimates attributing 3.2% of the burden of disease to risky drinking (Begg, Vos et al. 2007).

The Australian Bureau of Statistics (ABS) publishes annual national estimates of alcohol *per capita* consumption based on import clearance, excise and domestic alcohol sales data. The latest estimates for Australians over the age of 15 years (15+) can be seen in Figure 1 which demonstrates that alcohol consumption has been reducing in Australia since 2006/07.

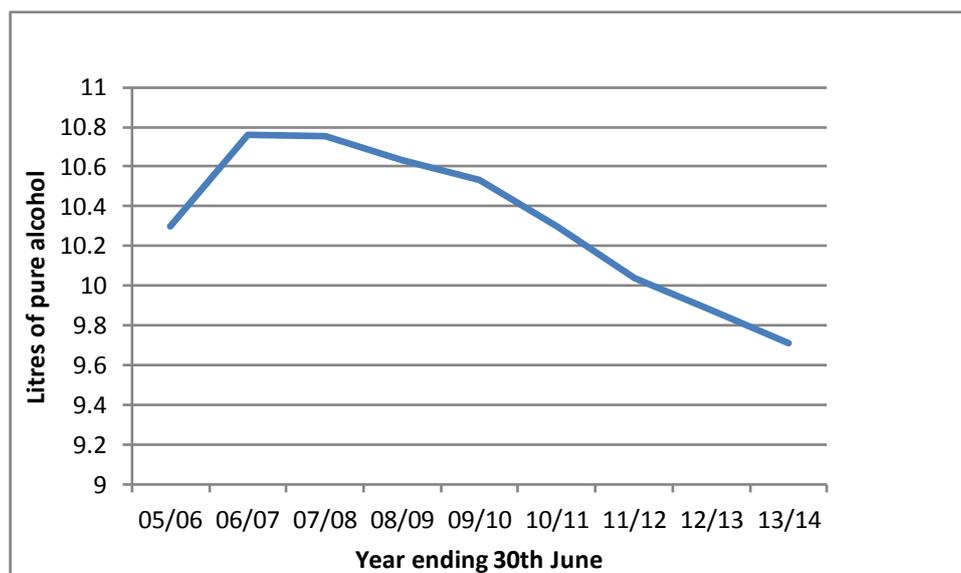


Figure 1 National *per capita* consumption of pure alcohol per person aged 15 years and over¹ (Australian Bureau of Statistics 2015)

The ABS reported that alcohol consumption in 2013/14 was the lowest in Australia for 50 years. The pattern of consumption over that period has also changed, with beer consumption decreasing and wine and spirits consumption increasing. The market share for low alcohol beer

¹ There are some changes to some *per capita* consumption figures due to revisions to population estimates (ABS 2015)

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

has declined, and cider accounts for a small but growing proportion of all alcohol consumed (ABS 2015).

Despite overall reductions in national *per capita* consumption, there is some evidence of variability in the distribution of apparent reduction across the population. A recent Australian study (Livingston 2015) analysed self-reported drinking data from the National Drug Strategy Household Survey between 2001 and 2013 and showed that despite declining *per capita* consumption and rates of risky drinking (defined as having five or more drinks in a single episode at least once in the last 12 months), rates of very problematic drinking (20 or more drinks in a single episode) have remained relatively stable.

According to survey data, decline in alcohol consumption was more evident among lighter drinkers and younger people, particularly those aged under 25 years, who were said to have “sharply reduced their drinking” (Livingston 2015). On the other hand there was evidence of increasing rates of very heavy episodic drinking among older adults, with Australians over the age of 40 showing signs of increasingly problematic drinking.

These findings suggest that there is a need to ensure that policy and prevention focuses on older adults as well as young people, and that while reduced drinking by younger people is applauded positive development, better understanding of factors that drive these changes is needed. The study also demonstrates the value of combining objective measures of drinking volumes such as *per capita* consumption, with self-reported data from sub-population groups, collected over time, to more accurately assess changes in drinking behavior.

Data from monitoring and surveillance are critical to successful evidence-based alcohol policy. The development of sustainable information systems allows for effective evaluation of national efforts to reduce the harmful use of alcohol, and for monitoring trends at regional and subregional levels (World Health Organization 2010). There are currently two ways to collect data on alcohol consumption within a population: alcohol sales data collected for taxation purposes or by wholesaler or retailer record keeping, and population-based surveys. Wholesale sale of alcohol to retailers acts as a good proxy for retail sale to the public and the WHO recommends the collection of sales data as the gold standard in measuring alcohol consumption within communities (sales data are far superior to self-report surveys which typically only account for about 60% of known consumption from sales data) (Stockwell, Donath et al. 2004). There is, however, a world-wide paucity of information collected on alcohol sales made by

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

liquor retailers. Fortunately, in Australia, substantial efforts have recently been made to improve our knowledge base regarding the levels of alcohol available for consumption at local levels.

Until 1996, the ABS estimates were complemented by state and territory alcohol sales data collected by liquor licensing authorities (Hall, Chikritzhs et al. 2008). In 1996, however, the High Court of Australia ruled that liquor licensing fees and levies were, in fact, excise duties and as such illegal under the terms of the Australian Constitution, because only the Commonwealth Government was empowered to impose excise duties. The ruling did not preclude the collection of wholesale alcohol sales data by liquor licensing authorities but, for most jurisdictions, the incentive for continued collection was lost. Only the Northern Territory (NT), Queensland and WA continued to collect this information which meant that invaluable data for informing alcohol policy and liquor licensing action and evaluating licensing restrictions were no longer available (Chikritzhs 2009). Recently, however, the Australian Capital Territory (ACT) and Victoria have recommenced an alcohol sales data collection. Further details about these initiatives can be found in this report.

In Australia, in 2007, the Ministerial Council on Drug Strategy highlighted the absence of systematic and standardised Australia-wide alcohol sales data collections². In response, the Australian Government Department of Health funded the National Drug Research Institute (NDRI) at Curtin University in Perth, to develop the National Alcohol Sales Data Project (NASDP), originally in partnership with the Drug and Alcohol Office of Western Australia (DAO). The NASDP is now in its fifth funding year, having completed four analyses and reviews of alcohol sales data in up to four Australian jurisdictions (Loxley, Chikritzhs et al. 2010, Loxley, Chikritzhs et al. 2011, Loxley, Catalano et al. 2012, Loxley, Gilmore et al. 2014).

The current report presents the work of the NASDP Stage 5.

THE NASDP OBJECTIVES AND AIMS

The overall objective of the NASDP is to construct an ongoing, regularly updated, national database of standardised alcohol sales data which includes all Australian states/territories. This is progressed by jurisdictions supplying the project with electronic copies of their alcohol sales

² Australian Bureau of Statistics national apparent alcohol consumption estimates are derived from customs and excise data and cannot be disaggregated by state/territory.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

records conforming to a minimum set of specifications. These data sets are then systematically prepared and analysed by the NASDP staff.

Other project aims include:

- monitoring alcohol consumption trends by regularly estimating *per capita* alcohol consumption for all participating states/territories;
- providing an annual report on consumption by region containing summaries of alcohol sales data and alcohol *per capita* consumption estimates for all participating states/territories and the Commonwealth; and
- providing standardised alcohol sales data sets for use by jurisdictions.

It is anticipated that the annual report will demonstrate the value of alcohol sales data for policy and services evaluation, and encourage jurisdictions not currently collecting these data to closely consider the merits of doing so. An important aspect of the project is its capacity to work directly with relevant personnel in specific jurisdictions to assist in the development of alcohol sales data collections.

IMPLEMENTATION AND ESTABLISHMENT OF THE NASDP

The NASDP works closely with an Advisory Committee (AC) consisting of senior representatives of Liquor Licensing, Health and Police in every Australian jurisdiction and the Australian Government Department of Health. The purpose of the AC is to:

- provide guidance and advice on proposed processes and the use of sales data;
- communicate representatives' interests and requirements regarding sales data;
- provide comment and suggestions on draft annual reports; and
- support the aims and ongoing functions of the project.

Meetings are held via group teleconference twice a year and provide an opportunity for AC representatives to discuss any data collection issues that may arise and to provide feedback on draft reports. The first teleconference for the NASDP Stage 5 was held on October 12, 2015.

RESULTS FROM NASDP STAGE 4

Estimated alcohol consumption

The ACT provided data from its first year of collection (2012/13) submitted by 90% of wholesalers required to submit sales data but potentially missing data from the major

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

wholesalers. We found estimated *per capita* consumption unlikely to be a reasonable account of actual consumption levels and did not present it in the report.

The estimated alcohol *per capita* consumption in the Northern Territory in 2010/11 was 13.30 litres of pure alcohol per adult (aged 15+), using population figures which included tourists. This was the lowest consumption level seen in the time period reported for the Northern Territory by the NASDP and less pure alcohol was sold in 2010/11 than in any preceding year in the NASDP analysis. Between 2009/10 and 2010/11 sales of most beverage types across the Northern Territory were relatively stable, with the exception of cider where there was a 7% increase in sales overall.

Examination of Queensland alcohol sales data suggested that returns did not completely reflect alcohol consumption in Queensland for the financial year 2010/11. Preliminary calculations found *per capita* consumption to be unreasonably low, suggesting that returns were incomplete from a small number of wholesalers. Estimates of volumes of pure alcohol sold and *per capita* consumption based on ESP (pcc/ESP) in Queensland as a whole were developed for 2010/11 using data from 2010/11 and selected data from 2009/10 to estimate shortfalls from those wholesalers identified by the NASDP as having incomplete returns. Regional estimates have not been calculated using these assumptions.

The overall estimated alcohol pcc/ESP for Queensland for 2010/11 was 10.91 litres of pure alcohol per individual aged 15+. Queensland pcc/ESP was relatively stable, ranging from 11.34 in 2007/08 to 10.91 in 2010/11.

The overall estimated alcohol pcc/ESP for Western Australia for 2010/11 was 13.24 litres of pure alcohol per individual aged 15+. Western Australia had the highest pcc/ESP in 2010/11 in the six years of the NASDP, having increased steadily during the last three years of the period. Between 2009/10 and 2010/11, Western Australia pure alcohol sales increased by 8.1%. Beer sales increased by 7.9% although wine sales decreased by 1.1%. The biggest rise was found in spirits sales which increased by 19.9%.

Trends in alcohol consumption

In the Northern Territory *per capita* consumption decreased across the period. In Western Australia consumption, although fluctuating a little, generally increased across the period.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

METHODS

DATA TRANSFER

A number of general conditions underlie data transfer arrangements in the NASDP.

- Individual state and territory governments are responsible for and retain ownership over the collection of electronic alcohol sales data within their own jurisdiction.
- The NASDP staff consult individually with responsible departments on minimum data set specifications, data transfer arrangements, confidentiality requirements and data quality checks.
- The NDRI liaises with participating jurisdictions to ensure confidentiality requirements are satisfied. All the NASDP staff are required to sign a data confidentiality agreement.
- All jurisdictions contributing alcohol sales data are consulted in relation to appropriate functional levels of reporting. Alcohol sales are not reported by liquor licence, and minimum sample rules (i.e. by geographic area) have been established to ensure the privacy of individual retailers is protected.

OVERVIEW OF METHODS

All analytical work is supervised by senior researchers at the NDRI and electronic data are housed on secure servers at the NDRI.

- Upon data transfer from jurisdictional collection agencies (e.g. liquor licensing authorities), alcohol sales data are cleaned, standardised and analysed.
- Regional alcohol *per capita* consumption estimates are made using annual population estimates.
- Standardised data sets containing jurisdictional alcohol sales data are made available to nominated jurisdictional representatives.
- Alcohol sales data cannot be transferred to third parties without the approval and written consent of the relevant jurisdiction(s) data custodian.
- De-identified alcohol sales data were made available to the NASDP 5 by jurisdictions for different financial years as follows:

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

ACT	2013/14
NT	2011/12
Queensland	2011/12, 2012/13, 2014/15
WA	2011/12

The current report presents all data available to the NASDP, including that previously presented, for comparison. Some previously presented data have been revised as detailed below.

***PER CAPITA* CONSUMPTION CALCULATION METHOD**

Per capita consumption is calculated by relating pure alcohol content by volume (PACV) consumed, to the population aged 15+ as described in the following equation (Farah, Unwin et al. 2007):

$$\text{Per capita consumption} = \frac{\text{litres of absolute alcohol}}{\text{population 15+}}$$

POPULATION ESTIMATES

Background

The objective in measuring *per capita* alcohol consumption is to estimate the average amount of alcohol consumed by individuals in a particular population at a particular time as accurately as possible. For that reason the denominator should exclude children and others who are not consuming purchased alcohol at that time, but should include adult residents and visitors who are buying and consuming alcohol in that place at that time.

Measures of residential population such as Estimated Resident Population (ERP), can be poor guides to population in areas of high mobility such as regions with high levels of tourism, mobile work-force or large entertainment districts. In some high tourism areas, for example, excluding tourists from the population denominator can be demonstrated to have inflated estimated *per capita* consumption.

The term ‘service population’ is used to denote a population that has been adjusted to include all relevant people for a particular purpose. An Estimated Service Population (ESP) was developed for the NASDP Stage 2 and compared to ERP and Estimated Enumerated Population (EEP) which was included as a control condition.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

At a state level, the differences found between consumption based on ERP or ESP were minimal, but larger differences were found in some regional areas. These differences suggested that ESP was a useful estimate for calculating alcohol consumption at a regional level, and was likely to be more accurate at local levels where population mobility is relatively high when compared to estimates based on ERP.

A brief paper and summary of these issues was given to the IGCD Standing Committee on Alcohol. The Committee supported the use of ESP as the primary denominator in the NASDP reports, provided that *per capita* consumption estimates based on ERP were retained in an appendix to allow broader comparison. In Stage 3 most tables and maps were based on pcc/ESP (*per capita* consumption derived from ESPs), and pcc/ERPs (*per capita* consumption derived from ERPs) were appended. The same approach has been used in Stage 5.

ASGS regional units

In previous stages, the NASDP undertook regional analysis of alcohol sales data using the ABS Australian Standard Geographical Classification (ASGC) system. This provided hierarchies of geographical areas to allow coding of data into pre-established regional categories. The NASDP used the Statistical Subdivisions (SSD) level for the analysis of regional data.

From 1 July 2011, the ABS moved to a new geographical system: the Australian Statistical Geography Standard (ASGS). This structure has five sub-State hierarchical levels comprising in ascending order: Mesh Blocks, SA1s, SA2s, SA3s and SA4s. Each level directly aggregates to the level above (Australian Bureau of Statistics 2010). The closest approximation to SSD is Statistical Area Level 3 (SA3) and this is now the primary regional unit of analysis in the NASDP.

All alcohol sales data in the NASDP 5 have been analysed or re-analysed under the new system. Data that were presented in earlier stages SSDs have been re-analysed as SA3s in the ASGS system and are presented in tables and maps. New data, not previously presented, have also been analysed under the ASGS system. Maps have been drawn or re-drawn with ASGS. No SSD data are presented in this report.

Derivation of population estimates

The objective in the NASDP Stage 5 was to calculate the Estimated Service Population (ESP) for Queensland and Western Australia, using the (ASGS) (Australian Bureau of Statistics 2010).

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

As noted above, past NASDP analysis has used the ABS SSD regions, which, with the introduction of the ASGS in 2011, are no longer supported by the ABS. Statistical Area Level 3 (SA3) regions are the most equivalent of the new geography to the old SSD regions. There are 82 SA3 regions for Queensland, over double the 39 old SSD regions. For Western Australia, there is greater equivalence, with 35 SA3 regions versus 29 SSD regions.

Because SSD boundaries are comparable to, but do not always match, SA3 boundaries, it has been necessary to recalculate historical ESP for Western Australia and Queensland using the new SA3 boundaries.

Population data for SA3 regions were obtained from the ABS for annual resident population estimates and a special customised data set was obtained for census data based on the SA3 geography.

Method

- The method remains consistent with past methods applied in the NASDP (Loxley, Gilmore et al. 2014). In summary, ESP is calculated for each SA3 by adding an estimate of Net Visitors (which can be negative) to the Estimated Resident Population (ERP) for each year of interest:
 - $ESP = ERP + \text{Net Visitors (NV)}$
- NV is calculated from census counts for the total overnight population (otherwise called the Estimated Enumerated Population or EEP) minus the total ERP.
- As the census counts apply only to the relevant census year, estimates of the overnight population for years between censuses are calculated using the average of the immediate past and immediate following census. For the census years, ESP simply equals the census count.
- ESP for census years 2006 and 2011 is calculated as follows:
 - $ESP = ERP + NV$
 - Where $NV = EEP - ERP$
 - So, $ESP = ERP + EEP - ERP$ or simply $ESP = EEP$
- ESP for 2007 through 2010 is calculated as follows:
 - $ESP = ERP + NV$
 - Where $NV = (NV_{2006} + NV_{2011}) / 2$
 - $NV_{2006} = EEP_{2006} - ERP_{2006}$

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

- $NV\ 2011 = EEP\ 2011 - ERP\ 2011$
- Using this method, for 2012, an estimate of NV requires data from the 2011 and 2016 census and 2016 ERP, however, as 2016 data are not yet available an alternative approach was necessary. Consideration was given to simply using the 2011 visitor numbers for 2012 but given the rapid economic growth in Queensland and WA which was peaking around 2012, it was felt this would be inadequate. The research literature suggests that a simple extrapolation would be appropriate given the mix of stable and rapidly growing SA3 regions in both Queensland and WA and the fact that the estimate is only one year from the previous census (Smith and Shahidullah 1995, Rayer and Smith 2010).
- Therefore, in keeping with the existing ESP methodology for years up to 2011, the method for 2012 was to extrapolate forward from 2011 to the next 5 year census (2016) for EEP and ERP. EEP 2016 and ERP 2016 was estimated using a geometric extrapolation based on the EEP figures for 2001 and 2011 and the ERP figures for 2011 and 2014. The Visitor Number for each SA3 for 2012 would then be the average of the 2011 and 2016 NV:
 - $ESP\ for\ 2012 = ERP\ for\ 2012 + NV\ for\ 2012$
 - Where $NV\ 2012 = (NV\ 2011 + NV\ 2016) / 2$
 - $NV\ 2011 = EEP\ 2011 - ERP\ 2011$
 - $NV\ 2016 = EEP\ 2016\ (estimated) - ERP\ 2016\ (estimated)$
- A state level ESP was also required for Queensland in 2013. This was done using the same extrapolation method used for SA3 regions in 2012.

Results

In Western Australia, between 2006 and 2011, total ESP increased 14.7% from 1,986,250 to 2,326,416 whereas ERP increased 14.8% from 2,050,581 to 2,353,409.

Greatest increases in ESP occurred in the Pilbara (56.6%), Wanneroo (37.0%) and Serpentine-Jarrahdale (35.3%). Significant increases of over 20% also occurred in Armadale, Cockburn, Kwinana, Mandurah and Rockingham. Lowest growth, at less than 3%, was recorded in Esperance, Joondalup and Melville.

In 2011, the largest variation between ESP and ERP occurred in the Gascoyne (65.8%), Pilbara (30.7%) and Kimberley (36.2%), with only the Goldfields (7.4%), Midwest (4.7%) and Perth

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

City (2.3%) also recording greater ESP than ERP. The remaining SA3 regions had greater ERP than ESP, with the majority ranging between 3% and 7%.

These results reflect the growth and peaking of the mining boom in 2011, with high ESP in resource areas, and declines in the majority of other SA3 regions to accommodate the flow of workers.

For Queensland between 2006 and 2011, total ESP increased 10.2% from 4,046,877 to 4,457,914 whereas ERP increased 11.7% from 4,007,992 to 4,476,778.

Greatest increases in ESP occurred in the North Lakes (33.0%), Ormeau-Oxenford (29.6%), Springfield-Redbank (27.2%), Bowen-Basin (20.6%) and Caboolture (20.5%) SA3 regions. Significant increases also occurred in Jimboomba (15.3%) and Rocklea-Acacia Ridge (16.7%). Lowest growth, from 0.4% to -3.0%, was recorded in Centenary, Coolangatta, Surfers Paradise and Whitsunday.

In 2011, the largest variation between ESP and ERP in Queensland occurred in Port Douglas-Daintree (62.4%), Bowen-Basin North (34.2%), Surfers Paradise (25.0%) and Whitsunday (20.8%). Brisbane Inner, Outback South and North and Central Highlands also experienced ESP over 10% greater than ERP. The majority or remaining SA3 regions had a difference between ERP and ESP of +/- 5%. The more mixed picture of population movements in Queensland, appear to reflect seasonal work and tourism trends as well as the effect of mining activity.

In 2012 in WA, some SA3 regions had ESP reducing from previous years (for example, Armadale) whereas other SA3 regions had a very high result, such as Pilbara. These results are probably in-line with the effect of the FIFO workforce at the peak of the mining boom.

In Queensland, on the other hand, there was a series of SA3 regions that had > 7% ESP growth between 2011 and 2012, for example, Bowen Basin (10%), Hervey Bay (7%), North Lakes (13%), Ormeau-Oxenford (15%) and Robina (9.6%). These results arguably reflect high regional growth as well as effects of the mining boom.

For 2013, the Queensland state ESP was 4,683,814 and for persons aged 15+, 3,768,600, reflecting a 2% rise from 2012.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

OVERVIEW OF PCC CALCULATION BY JURISDICTION

The NASDP Stage 5 data for Queensland and WA were analysed at the level of SA3s. The ACT data related to the Territory as whole and have been presented as a single jurisdictional area. Different regional areas were used for the NT as detailed below.

Because of the different geographies and the different methods of allocating alcohol sales and population between SA3 and SSD regions, and the subsequent calculation of service populations over the periods of interest, state totals of SA3 and SSD results will not sum to the exact same totals. This has minimally affected the calculation of *per capita* consumption.

PREPARATION OF ALCOHOL SALES DATA

General considerations for data cleaning and preparation included:

- Anomalies in the data were identified and either corrected or removed.
- Apparent outliers in the data were queried with the relevant authority and appropriate action taken.
- Volumes of alcohol sold (litres) were the base unit of *per capita* consumption calculation. A small number of records which did not contain volume data were removed.
- Records were removed if they related to supply to other wholesalers or wine producers as these would otherwise be duplicated in wholesaler to retailer records.

Jurisdictional preparations included:

- In Queensland and WA, alcohol volume data were aggregated by the NASDP into SA3s using postcodes contained within the data sets.
- Volume data were partialled out to regional areas, where appropriate, and alcohol conversion factors (see below) were applied to volumes of different beverages to create total pure alcohol content by volume (PACV).
- Year appropriate population estimates were adjusted for the 15+ population, and *per capita* consumption calculated according to the above equation.
- SA3s in Queensland and WA were checked for having fewer than six clearly identifiable licensed premises. None were identified.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

The Australian Capital Territory

The ACT utilises an annual return. The ACT Liquor Regulation 2010 applies to a licensee who sells liquor by wholesale under an off-licence. No later than 1 month after the end of each financial year, all such licensees must give the Commissioner of Fair Trading and ACT Health's Chief Health Officer information, in writing, about the volume in litres of all types of liquor sold by wholesale during the financial year. Alcohol sales data for the financial year 2013/14 were made available to the NASDP by the ACT Health Directorate who provided aggregated volumes by each beverage type for the whole of the ACT to the NASDP.

The Northern Territory

The NT utilises a quarterly return. At the end of every quarter of each year all registered NT wholesalers are emailed, reminding them of their obligations under Section 114 of the Liquor Act which states they have 28 days from the end of the quarter to lodge with the Wholesale Quarterly Return of Liquor Sales, showing details of all purchases and sales of liquor made in the quarter.

Alcohol sales data were made available to the NASDP by the NT Department of Business for 2011/12, conveyed in an Excel spreadsheet. The Department supplied Reporting Areas for retailers, which allowed sales information to be aggregated into the six Urban Centres and NT Balance which is the Department's usual mode of presenting geographical information on alcohol sales. The numbers of Estimated Residential Population aged 15+ for the years 2005/06 to 2011/12 were supplied, as well as Department of Tourism estimates of the number of interstate and overseas visitors aged 15+ to the NT in the same years. Population figures have been amended in line with ABS changes to population estimates, which has necessitated minor updating of previous population estimates.

The Department of Business has requested that the NASDP report *per capita* consumption for the NT using ERP plus tourism figures for the jurisdiction as a whole, but not for regional units where tourist estimations were not as reliable. It has been agreed that volumes of alcohol sold would be reported for Urban Centres and the NT Balance, and that *per capita* consumption for the NT as whole would be calculated primarily with the tourism estimate³.

³ Estimates of Northern Territory *per capita* consumption without the influence of tourism can be found in Appendix II. \

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Queensland

Queensland utilises two annual returns:

- Return of Liquor Sales under the Liquor Act 1992. This return should be completed by every holder of a producer/wholesaler licence.
- Annual return under the Wine Industry Act 1994. This return should be completed by every holder of a wine producer or wine merchant licence.

Alcohol sales data were made available to the NASDP by the Queensland Office of Regulatory Policy for the years 2011/12, 2012/13 and 2014/15 via Excel spreadsheets. Postcodes were aggregated into SA3s using the Postcode 2011 to Statistical Area Level 3 2011 Correspondence, prepared by the ABS.

Western Australia

The Government of WA utilises two annual returns:

- Summary of Transaction Under a Wholesale Licence, Liquor Control Act, 1988. This return should be completed by every holder of a Wholesaler's Licence.
- Summary of Transaction Under a Producer's Licence, Liquor Control Act, 1988. This return should be completed by every holder of a Producer's Licence.

Data for 2011/12 were made available to the NASDP through the WA Prevention Services Directorate of the Mental Health Commission via Excel spreadsheets. Postcodes were aggregated into SA3s using the Postcode 2011 to Statistical Area Level 3 2011 Correspondence, prepared by the ABS.

ALCOHOL CONVERSION FACTORS

Alcohol conversion factors are required to convert volumes of different alcoholic beverages (which may contain many other substances in addition to alcohol such as water and sugar) to volumes of pure alcohol content (PACV). The NASDP has used national alcohol conversion factors in order to derive standardised rates which are used to compare *per capita* consumption across different regions and jurisdictions. As an example, the NASDP PACV for mid-strength beer is 0.0348. This means that the average mid-strength beer contains 3.48% pure alcohol. In this example, the volume of mid-strength beer sold by retailers was multiplied by 0.0348 to obtain the volume of pure alcohol.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

The NASDP relies on the ABS as a major source of information for its alcohol conversion factors and for the most part, has used the ABS 2010 alcohol conversion factors for beer, table wine, fortified and sparkling wine (Australian Bureau of Statistics 2010). Information informing alcohol conversion factors for spirits and pre-mixed spirits are derived from a review performed for the Department of Health on standard drink estimations, hereafter described as the NDRI review (Chikritzhs and Catalano 2008). (The ABS collects pure alcohol volumes data for spirits and pre-mixed spirits and does not collect data on cider, therefore it does not publish pure alcohol contents for these beverages in its reports.) The NDRI review is based on market brand shares for each major beverage type (beer, wine and spirits) identified using Euromonitors data. Average alcohol contents of the most popular brands were identified using on-line liquor guides and reference books. When alcohol contents could not be identified from these sources, visits were made to local liquor stores. Preliminary conversion factors were estimated for the following groups of beverages:

- **Beer:** low- (2.5-2.9%) mid- (3.0-3.5%) and full-strength (>3.5%)⁴
- **Bottled wine:** red, white, sparkling and fortified
- **Cask wine:** red and white
- **Spirits:** whisky, bourbon, brandy, dark rum and white rum, vodka, gin
- **Pre-mixed spirits:** mid-strength (3.5% alcohol content); full-strength (3.5% to less than 6%) and super-strength (6% to 10%)⁵
- **Cider:** in keeping with previous consensus (Catalano, Chikritzhs et al. 2001) an alcohol content of 5%.

Where applied, the specific PACV derived from the NDRI review has been identified in Table 1. Specific considerations given to each jurisdiction are described below, with final jurisdiction-specific conversion factors also summarised in Table 1.

The Australian Capital Territory

The ACT alcohol sales data contained the following categories:

- full-strength, mid-strength and low-strength beer;
- regular-strength bottled and cask wine, low-strength bottled and cask wine; fortified wine;

⁴ 'Light' beer was not included

⁵ Any product with greater alcohol content than 10% was considered full-strength spirit and not included.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

- spirits and pre-mixed spirits.

The PACV estimated for different categories of beer by the ABS in 2010 has been applied to ACT beers (see Table 1). The definition of full-strength, mid-strength and low-strength beer used in the ACT ‘Liquor Sales Reporting Template’ approximates those used by the ABS for the same categories. The ACT defines full-strength beer as 4% or greater, mid-strength beer as 3% to less than 4% and low-strength beer as less than 3% PACV.

ACT sales data do not differentiate between red, white and sparkling table wines. The NDRI review estimates an overall pure alcohol content for table wine of 12.3% and this figure was applied to ACT regular-strength wine data. In other evaluations it has been assumed that cask wine has the same alcohol content as bottled wine (Gray, Chikritzhs et al. 1999) and this assumption has also been applied to ACT cask wine. The ABS estimate of the pure alcohol content of fortified wine has been used. Low-strength wine is defined by the ACT as containing less than 3.5% PACV and has been converted with a factor of 3.5% (Catalano, Chikritzhs et al. 2001). Spirits and pre-mixed spirits are not defined in the ACT Liquor Act 2010. The PACV of spirits and pre-mixed spirits estimated in the NDRI review have been applied.

The Northern Territory

The NT alcohol sales data contained the following categories:

- full (strength) beer, mid (strength) beer, low (strength) beer;
- cask wine, bottled wine, fortified wine;
- pre-mixed spirits, standard spirits; and
- cider.

The PACV estimated for different categories of beer by the ABS in 2010 has been applied to NT beers. The definition of full-strength, mid-strength and low-strength used in the NT ‘Wholesaler Return of Liquor Sales’ approximated those used by the ABS for the same categories. The NT defines full-strength beer as greater than 3.99%, mid-strength beer as 3.01% to 3.99% and low-strength beer as 1.15% to 3.00%.

The NT sales data did not differentiate between red, white and sparkling table wines. The NDRI review estimates an overall pure alcohol content for table wine of 12.3% and this figure was applied to the NT wine data. In other evaluations it has been assumed that cask wine has the same alcohol content as bottled wine (Gray, Chikritzhs et al. 1999) and this assumption has

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

also been applied to NT cask wine. The ABS estimate of the pure alcohol content of fortified wine has been used.

The pure alcohol contents for spirits and cider estimated by the NDRI review have been applied to the NT data.

The NASDP alcohol conversion factors are slightly different than those used by the Department of Business, hence there are small differences in estimated *per capita* consumption reported by the NASDP and by the NT.

Queensland

Queensland alcohol sales data contained the following alcohol beverage categories:

- heavy beer, medium beer, light beer;
- cider;
- bottled table wine, bottled fortified wine, bulk table wine, bulk fortified wine;
- regular spirits, pre-mixed spirits; and
- alcoholic sodas.

The PACV estimated for different categories of beer by the ABS in 2010 has been applied to Queensland beers (see Table 1). The definition of 'heavy', 'medium' and 'light' beer used in the Queensland 'Return of Liquor Sales' approximated those used by the ABS for full-strength, mid-strength and low-strength beers. Queensland defines heavy beer as 4% or greater, medium beer as 3% to less than 4% and light beer as less than 3% PACV.

As in the NT, the Queensland sales data did not differentiate between red, white and sparkling wines, thus the NDRI overall conversion figure of 12.3% was applied. The ABS conversion factor for fortified wine has been applied.

There is also no differentiation in the Queensland data for cask wine. There is, however, a category referred to as 'bulk wine', which is a large quantity of table or fortified wine acquired or supplied in a container of more than 20 litres. This analysis has used the same alcohol content for Queensland bulk table and fortified wines as for bottled table and fortified wines respectively.

The PACV of spirits and pre-mixed spirits and cider estimated in the NDRI review have been applied. The alcohol content of alcoholic sodas was established by (Catalano, Chikritzhs et al. 2001).

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Western Australia

The Western Australia alcohol sales data contained the following beverage categories:

- high (alcohol) beer, low (alcohol) beer;
- high (alcohol) wine, low (alcohol) wine; and
- spirits.

The PACV estimated for full- and mid-strength beer by the ABS in 2010 has been applied to WA ‘high’ and ‘low’ beers, low beer having previously been defined in WA as having an alcohol content of 0.035 (Catalano *et al.*, 2001).

The WA data, like the NT and Queensland data, did not differentiate between different kinds of table wine so an overall average alcohol content of 12.3% was assumed. Low alcohol wine in the WA data has been converted with a factor of 3.5% as it was by Catalano *et al.* (2001).

WA alcohol sales data do not distinguish straight spirits (e.g. bottled vodka) from pre-mixed spirits (e.g. ‘vodka cruisers’), as they only record volumes for all spirit-based products combined. Thus, the alcohol content of ‘spirits’ in WA depends upon the proportion of pre-mixed spirits in the total volume sold. Information sourced from the Distilled Industry Council of Australia has identified that the proportion of the total spirits market made up of pre-mixed products has been steadily rising since 2001 (Distilled industry Council of Australia 2006). Using this information, the NDRI has calculated that the average alcohol content of spirits in WA was about 0.108 in 2005/06 and 0.106 in 2006/07. Information about the market share of pre-mixed spirits in subsequent years is not available. The NASDP, therefore, has used the alcohol conversion factor of 0.108 in 2005/06 and 0.106 in 2006/07 to 2010/11.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Summary of alcohol conversion factors

Table 1 Alcohol conversion factors by jurisdiction

Beverage	Source	Terms	PACV¹
Beer	ABS, 2010	full beer	0.0476
		low beer	0.0269
	ACT 12/13, 13/14	full beer	0.0476
		mid beer	0.0348
	NT 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	low beer	0.0269
		full beer	0.0476
		mid beer	0.0348
	Queensland 07/08, 08/09, 09/10, 10/11, 12/13, 13/14	low beer	0.0269
		heavy beer	0.0476
		medium beer	0.0348
WA 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	light beer	0.0269	
	high beer	0.0476	
Wine	NDRI Review	low beer	0.0348
		table wine	0.1230
	ABS, 2010	fortified wine	0.1790
		regular bottled wine	0.1230
		regular cask wine	0.1230
		low bottled wine	0.0350
		low cask wine	0.0350
		fortified wine	0.1790
	ACT 12/13, 13/14	high beer	0.0476
		low beer	0.0348
		cask wine	0.1230
	NT 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	bottled wine	0.1230
		fortified wine	0.1790
bottled table wine		0.1230	
Queensland 07/08, 08/09, 09/10, 10/11, 12/13, 13/14	bulk table wine	0.1230	
	bottled fortified wine	0.1790	
	bulk fortified wine	0.1790	
	high wine	0.1230	
WA 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	low wine	0.0350	
	NDRI review	spirits	0.4170
ACT 12/13, 13/14		pre-mixed spirits	0.0501
	NT 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	spirits	0.4170
pre-mixed spirits		0.0501	
Spirits	Queensland 07/08, 08/09, 09/10, 10/11, 12/13, 13/14	standard spirits	0.4170
		pre-mixed spirits	0.0501
	WA 05/06	regular spirits	0.4170
		pre-mixed spirits	0.0501
	WA 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	spirits	0.1080
	spirits	0.1060	

¹ Pure alcohol content by volume

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Table 1 Alcohol conversion factors by jurisdiction (Cont.)

Beverage	Source	Terms	PACV¹
Other	NDRI review	cider	0.0500
	NT 05/06, 06/07, 07/08, 08/09, 09/10, 10/11, 11/12	cider	0.0500
	Queensland 07/08, 08/09, 09/10, 10/11, 12/13, 13/14	alcoholic soda and cider	0.0500
	Queensland 07/08, 08/09, 09/10, 10/11, 12/13, 13/14	mead	0.1250

¹ Pure alcohol content by volume

MAPPING THE NASDP DATA

Regional volumes of pure alcohol sold and *per capita* consumption were mapped using the software ArcGIS 10.3.1. ArcGIS is a geographic information system which allows the user to map information on geographic regions.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

RESULTS

THE AUSTRALIA CAPITAL TERRITORY

Advice from ACT Health indicated that there were limitations in the data arising from the legislation and regulations, including no licence category defining ‘wholesaler’ and no follow-up or consequences to ensure that all sales data were submitted. Consequently it was anticipated that the 2013/14 sales data might cover no more than 50% of wholesalers required to submit data (with some of the larger wholesalers potentially among the missing).

Similar limitations were found with the 2012/13 ACT data in the NASDP 4. For this reason, we have not included *per capita* consumption estimates for the ACT for 2012/13 or 2013/14.

Volumes as reported to the NASDP of pure alcohol sold are shown in Table 2.

Table 2 Volumes (litres) of alcohol sold, by beverage, and pure alcohol in the Australian Capital Territory 2012/13 to 2013/14

	All beer	All wine	All spirits	All alcohol	All pure alcohol
2012/13	12,705,927	2,933,013	1,793,123	17,432,063	1,157,454
2013/14	11,523,691	2,856,471	1,641,412	16,021,574	1,074,308

THE NORTHERN TERRITORY

Per capita pure alcohol consumption was estimated for the whole of the NT as shown in the following table. Data presented in earlier reports have been updated as previously described.

Table 3 Estimated *per capita* alcohol consumption, Northern Territory, 2005/06 to 2011/12

	Total pure alcohol (litres)	Adult ERP aged 15+ and tourism	NT <i>per capita</i> consumption	National <i>per capita</i> consumption ¹
2005/06	2,696,090	178,692	15.09	10.31
2006/07	2,699,391	187,054	14.43	10.76
2007/08	2,748,347	187,661	14.65	10.75
2008/09	2,719,986	194,486	13.99	10.63
2009/10	2,746,757	202,023	13.60	10.53
2010/11	2,682,155	201,773	13.29	10.30
2011/12	2,709,797	204,134	13.27	10.04

1. Australian Bureau of Statistics 2015

Volumes of pure alcohol sold were estimated for Urban Centres and NT Balance. These estimates can be seen in Figure 2 with details in Table 4. It should be noted that *per capita* regional consumption has not been calculated at the request of the NT Department of Business.

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

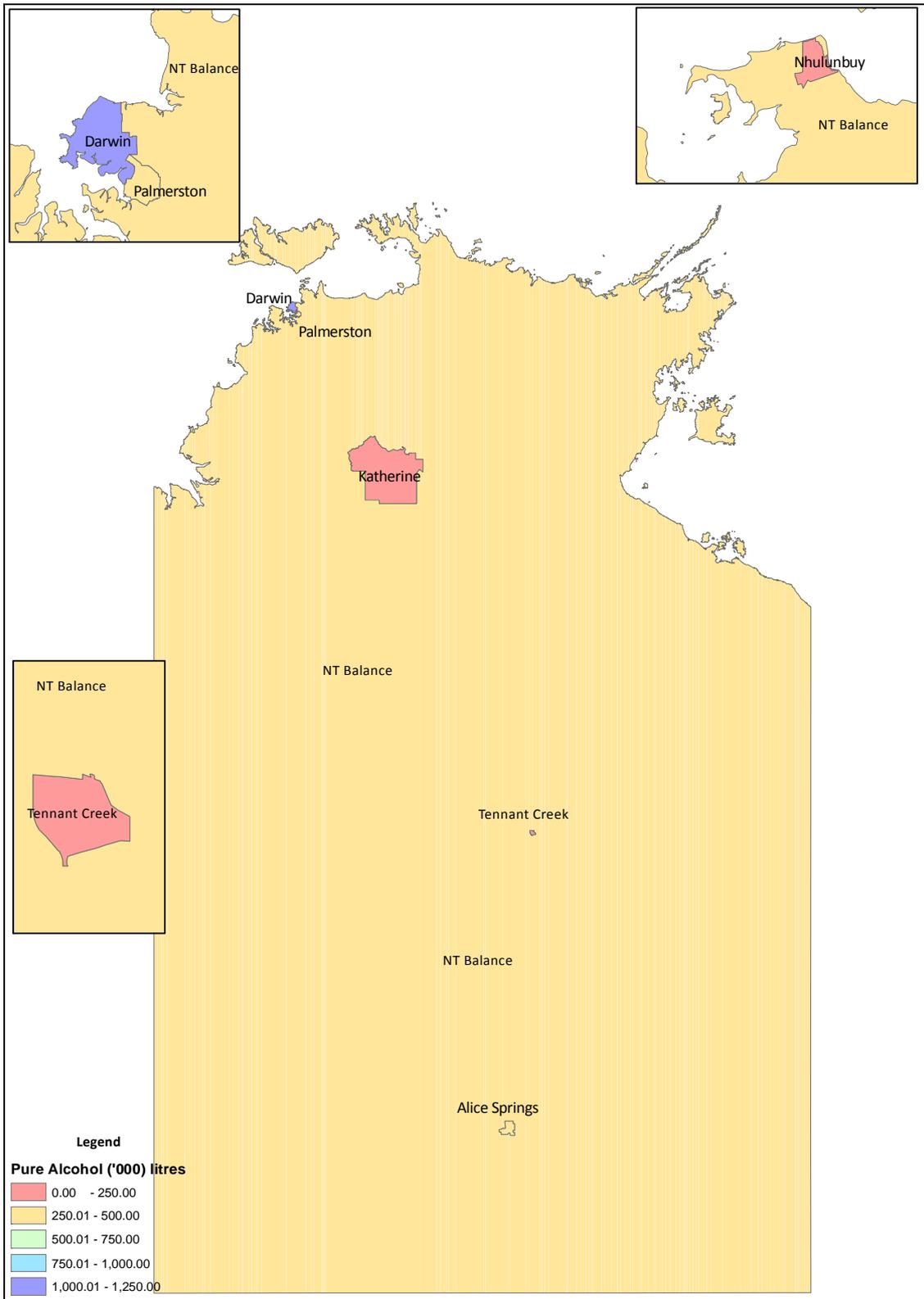


Figure 2 Volumes of pure alcohol sold in Urban Centres and Northern Territory Balance, 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Table 4 Volumes (litres) of alcohol sold by beverage and pure alcohol in Urban Centres and Northern Territory Balance, 2005/06 to 2011/12

Region	Year	All beer	All wine	All spirits	All cider	All alcohol	All pure alcohol
Alice Springs	2005/06	4,573,361	1,908,935	963,735	102,342	7,548,373	533,117
	2006/07	5,614,803	908,336	996,448	105,715	7,625,302	463,835
	2007/08	5,655,559	612,542	968,536	91,353	7,327,991	427,883
	2008/09	5,628,961	662,107	738,162	122,069	7,151,299	439,481
	2009/10	5,720,011	761,161	834,763	161,753	7,477,689	468,269
	2010/11	5,341,533	768,840	813,942	157,808	7,082,123	450,802
	2011/12	5,099,337	712,291	781,932	191,507	6,785,067	444,141
Darwin	2005/06	11,659,157	2,497,219	2,364,698	282,622	16,803,697	1,092,300
	2006/07	11,705,547	2,655,914	2,366,967	278,817	17,007,246	1,116,289
	2007/08	12,541,761	2,768,430	2,606,156	290,990	18,207,337	1,187,658
	2008/09	13,187,525	2,414,414	2,023,460	394,856	18,020,255	1,172,411
	2009/10	13,044,217	2,466,827	2,005,218	485,821	18,002,083	1,169,790
	2010/11	12,598,977	2,234,103	2,007,414	559,365	17,399,859	1,149,079
	2011/12	12,821,795	2,131,497	1,962,537	763,117	17,678,945	1,151,884
Katherine	2005/06	2,154,920	615,999	374,830	29,874	3,175,622	201,692
	2006/07	2,142,563	549,849	403,874	28,160	3,124,446	198,523
	2007/08	2,266,369	374,688	470,332	25,392	3,136,781	189,234
	2008/09	2,572,572	245,024	324,663	41,382	3,183,641	180,063
	2009/10	2,703,863	277,186	331,898	44,172	3,357,118	188,467
	2010/11	2,988,979	262,691	350,432	47,361	3,649,463	203,252
	2011/12	2,937,229	245,097	403,314	66,351	3,651,992	205,714
Nhulunbuy	2005/06	1,143,251	194,401	280,626	19,137	1,637,414	100,027
	2006/07	1,279,157	110,837	302,706	17,562	1,710,262	100,834
	2007/08	1,081,546	105,719	240,554	15,137	1,442,955	89,055
	2008/09	998,537	65,392	125,253	17,129	1,206,310	71,021
	2009/10	937,684	68,909	127,245	16,236	1,150,075	67,999
	2010/11	908,330	69,738	129,173	15,406	1,122,647	66,825
	2011/12	890,581	70,237	149,406	30,700	1,140,924	68,645
Palmerston	2005/06	3,133,527	471,526	778,152	86,100	4,469,305	264,522
	2006/07	3,291,274	579,163	796,490	88,486	4,755,413	285,880
	2007/08	3,556,880	628,167	935,323	84,833	5,205,203	314,964
	2008/09	4,048,572	529,019	778,976	113,571	5,470,137	325,538
	2009/10	4,060,241	553,434	875,751	125,948	5,615,374	333,345
	2010/11	4,002,070	477,328	841,505	134,429	5,455,332	321,938
	2011/12	4,229,915	458,606	891,853	190,006	5,770,379	339,022

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Table 4 Volumes (litres) of alcohol sold by beverage and pure alcohol in Urban Centres and Northern Territory Balance, 2005/06 to 2011/12 (Cont.)

Region	Year	All beer	All wine	All spirits	All cider	All alcohol	All pure alcohol
Tennant Creek	2005/06	766,997	123,395	101,327	10,512	1,002,230	58,878
	2006/07	783,302	155,382	111,682	8,571	1,058,936	63,669
	2007/08	748,020	139,259	146,135	9,496	1,042,911	62,560
	2008/09	880,118	74,771	104,237	15,360	1,074,486	59,853
	2009/10	929,470	94,552	100,080	22,024	1,146,126	64,942
	2010/11	940,564	102,463	117,141	20,484	1,180,652	68,497
	2011/12	920,007	80,485	143,506	24,298	1,168,295	68,109
NT Balance	2005/06	6,764,517	480,866	929,714	222,784	8,397,881	445,553
	2006/07	7,024,425	588,344	1,049,137	174,107	8,836,012	470,361
	2007/08	7,084,484	620,162	1,140,465	159,842	9,004,953	476,992
	2008/09	7,166,178	564,190	896,290	213,464	8,840,121	471,619
	2009/10	7,032,792	537,331	886,996	229,690	8,686,810	453,946
	2010/11	6,318,194	486,333	879,176	237,641	7,921,345	421,763
	2011/12	6,536,227	453,119	909,753	277,424	8,176,524	432,281
Total	2005/06	30,195,730	6,292,339	5,793,082	753,370	43,034,522	2,696,090
Total	2006/07	31,841,070	5,547,824	6,027,303	701,419	44,117,617	2,699,391
Total	2007/08	32,934,619	5,248,966	6,507,502	677,045	45,368,131	2,748,347
Total	2008/09	34,482,463	4,554,916	4,991,040	917,830	44,946,249	2,719,986
Total	2009/10	34,428,279	4,759,400	5,161,951	1,085,644	45,435,274	2,746,757
Total	2010/11	33,098,648	4,401,497	5,138,782	1,172,493	43,811,421	2,682,155
Total	2011/12	33,435,091	4,151,332	5,242,300	1,543,403	44,372,127	2,709,797

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

QUEENSLAND

Examination of Queensland alcohol sales data for the financial year 2011/12 suggested that returns did not completely reflect alcohol consumption in Queensland. We considered that these data were too incomplete to be presented in this report.

Fortunately the Queensland Office of Regulatory Policy had also made the 2012/13 data set available to the NASDP. Although there were some shortfalls in this data set, we were able to use it with selected data from 2014/15 to develop estimates of volumes of pure alcohol sold in Queensland as a whole for 2012/13. Estimates at SA3 level have not been calculated using these assumptions. *Per capita* consumption (litres of pure alcohol), based on ESP, for 2012/13 was estimated for the whole of Queensland as shown in Table 5.

Table 5 Estimated *per capita* consumption (litres of pure alcohol) by ESP, Queensland 2007/08 to 2012/13

	Total pure alcohol (litres)	ESP aged 15+	QLD <i>per capita</i> consumption	National <i>per capita</i> consumption ¹
2007/08	36,914,740	3,376,296	10.93	10.75
2008/09	37,812,201	3,466,961	10.91	10.63
2009/10	38,753,617	3,532,429	10.97	10.53
2010/11²	38,295,916	3,509,694	10.91	10.30
2011/12²	-	-	-	10.04
2012/13⁴	41,291,721	3,768,600	10.96	9.88

¹ (Australian Bureau of Statistics 2015)

² Estimate based on 2009/10 and 2010/11

³ 20011/12 estimate not available

⁴ Estimate based on 2012/13 and 2014/15

As noted above, we have not calculated volumes of pure alcohol *per capita* consumption for Queensland SA3s for 2012/13. However, given the ABS move to the Australian Statistical Geography Standard (ASGS), we have recalculated regional estimates for 2009/10 (the most recent year in which the NASDP calculated Queensland regional estimates) as SA3s, and presented these in Figure 3 to Figure 8. Details of Queensland SA3 estimates for all financial years up to 2009/10 can be seen in Table 6.

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

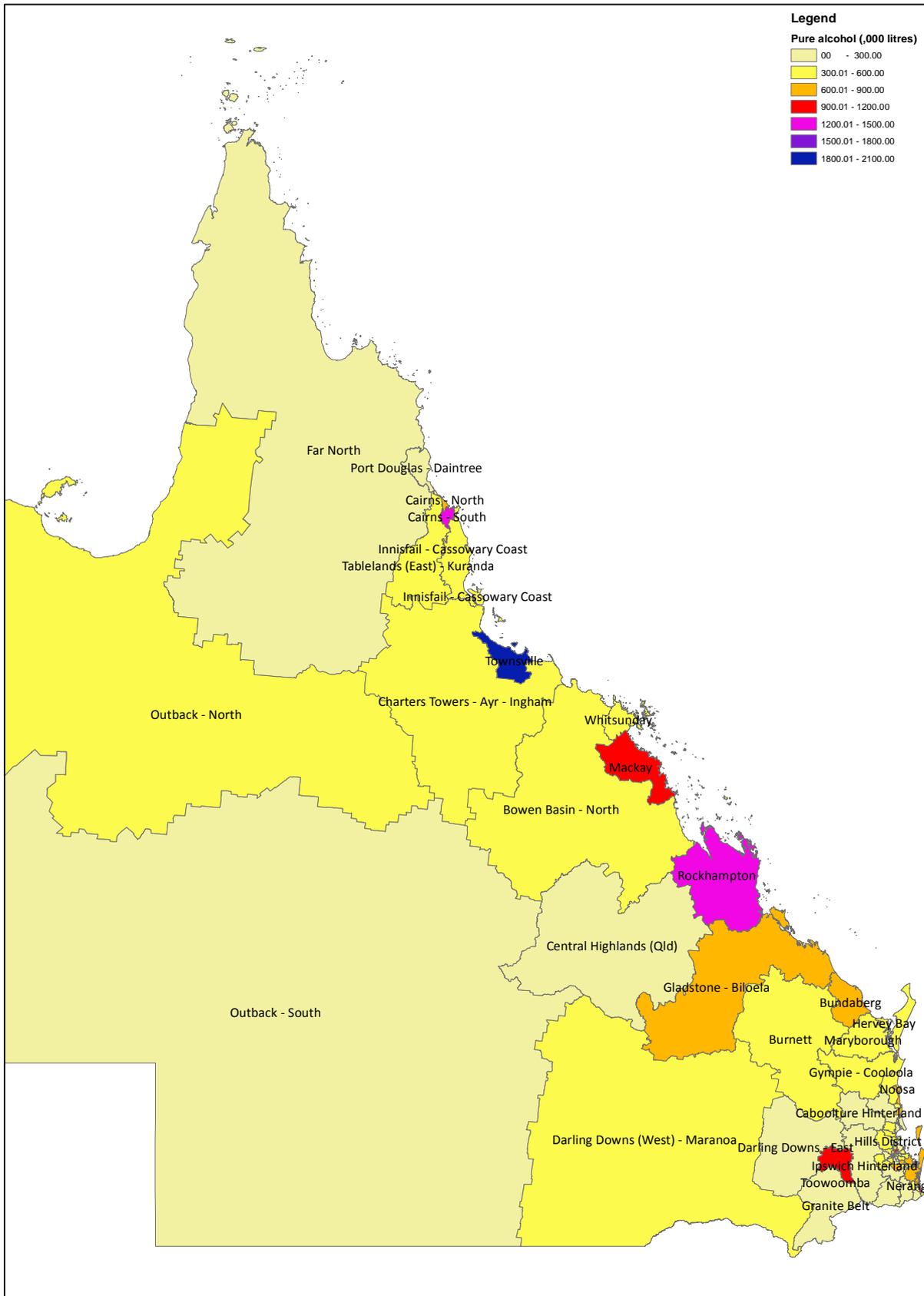


Figure 3 Volumes of pure alcohol sold, SA3s, Queensland, 2009/10

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

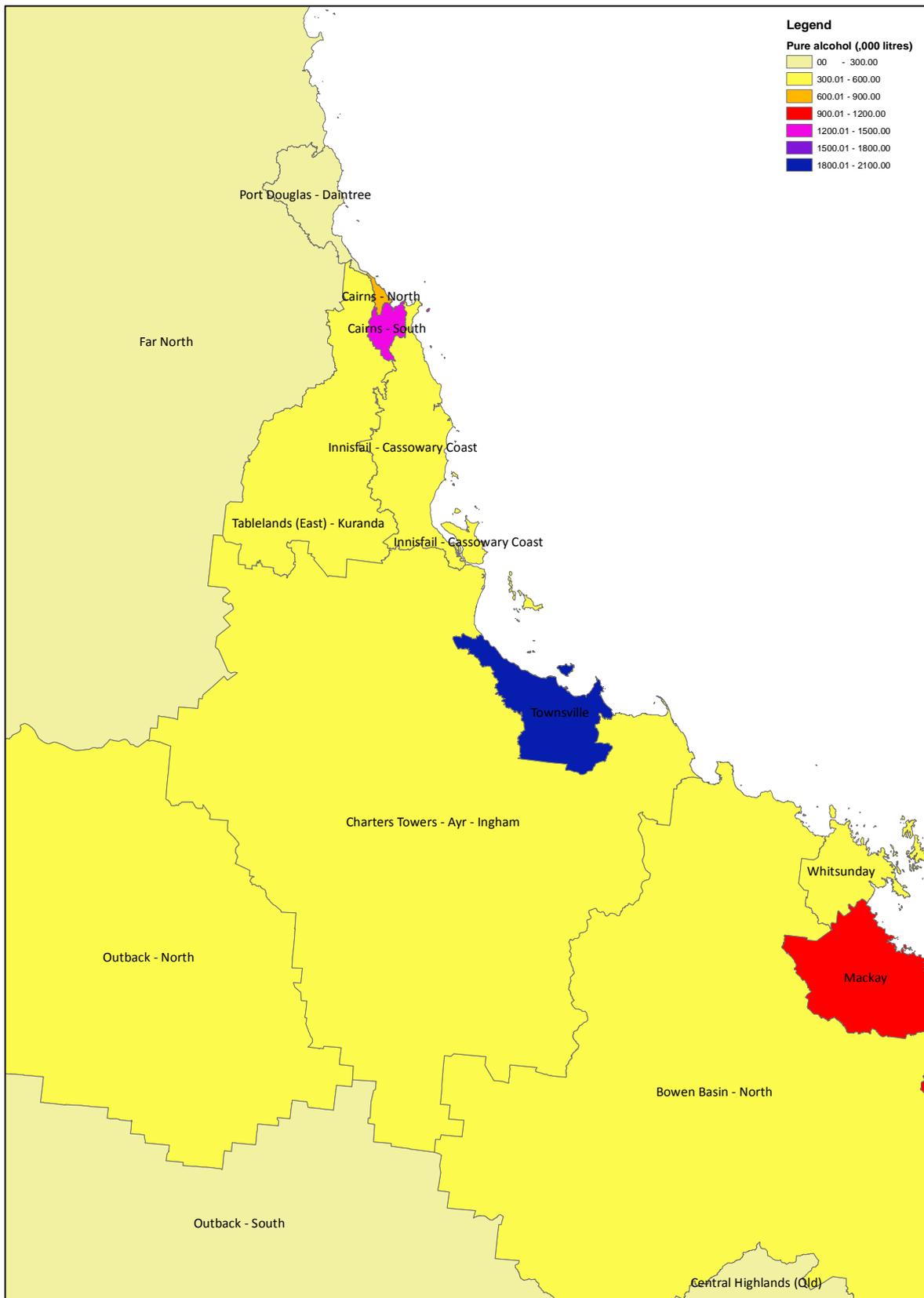


Figure 4 Volumes of pure alcohol sold, SA3s, areas of high tourism, Queensland, 2009/10

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 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

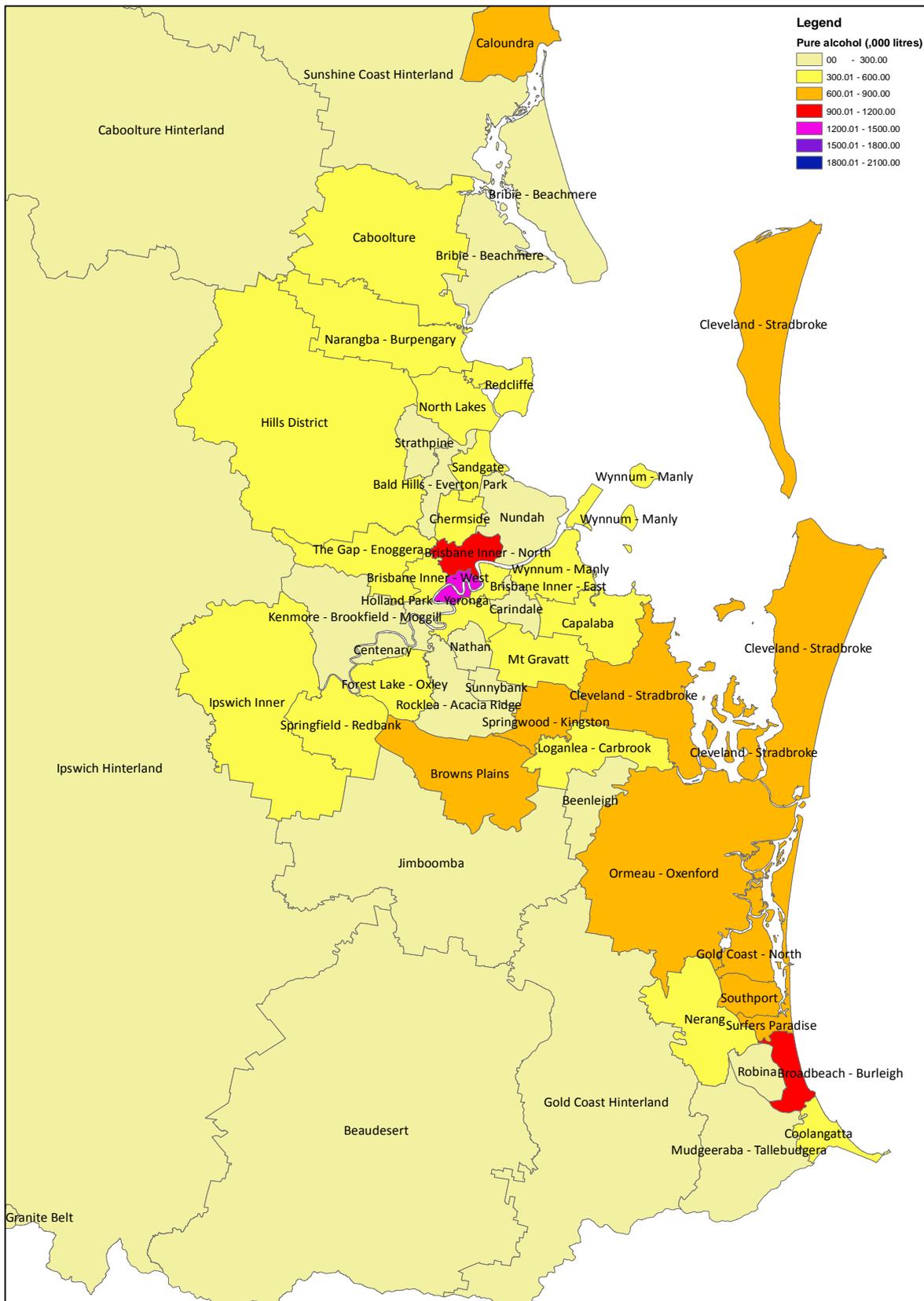


Figure 5 Volumes of pure alcohol sold, SA3s, Brisbane and environs, Queensland, 2009/10

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 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

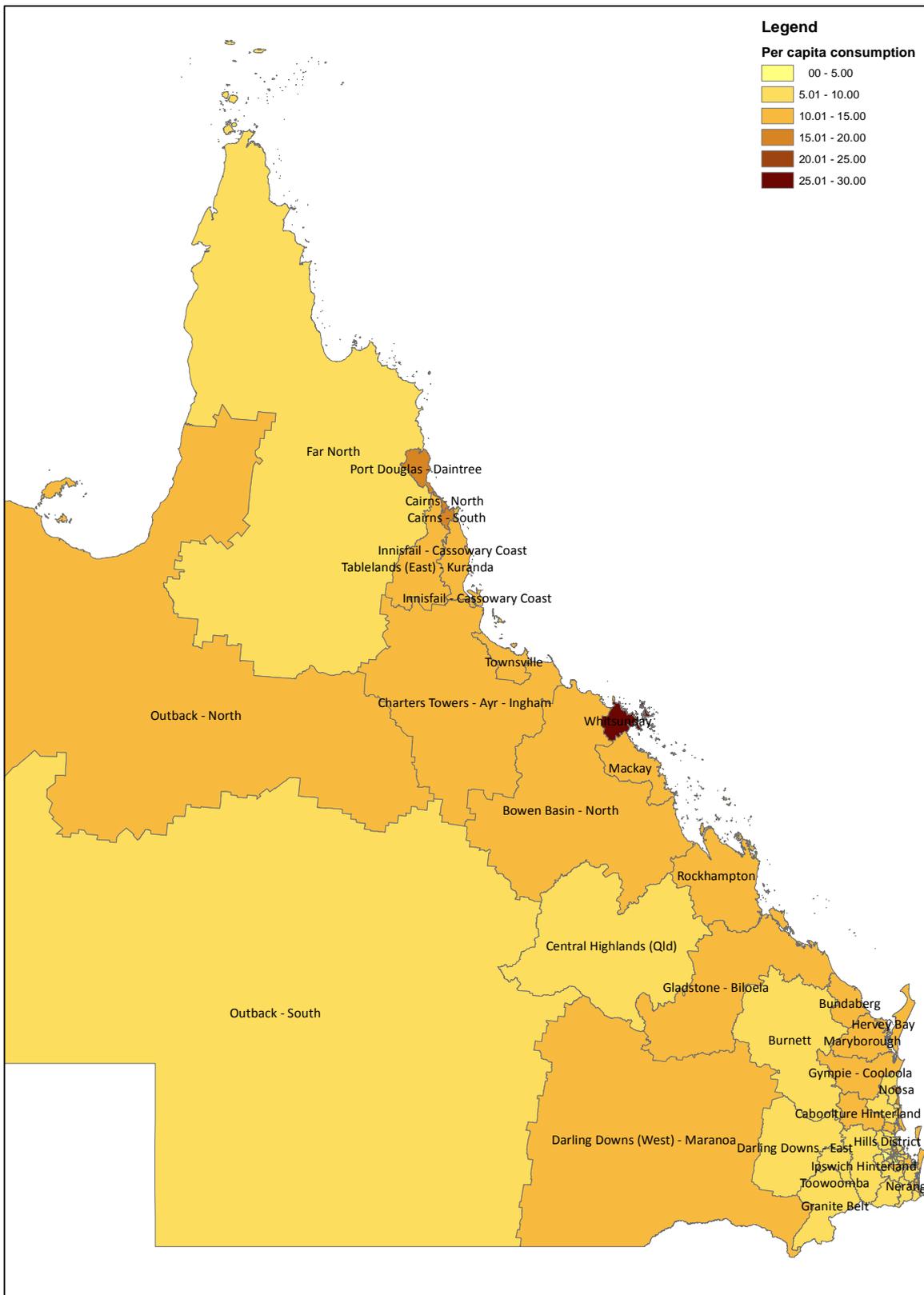


Figure 6 Estimated *per capita* consumption (litres of pure alcohol) based on ESP, SA3s, Queensland, 2009/10

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 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

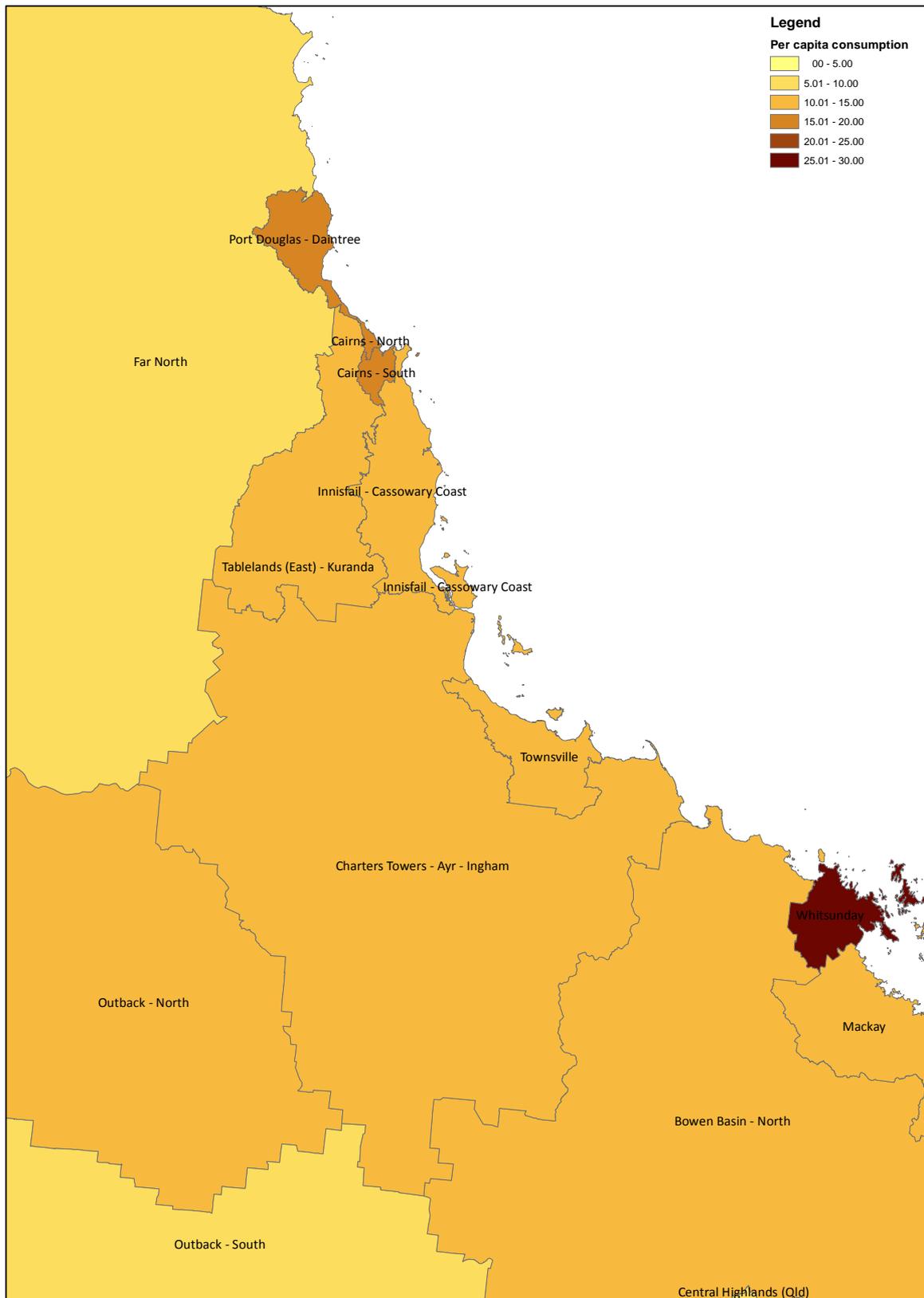


Figure 7 Estimated *per capita* consumption (litres of pure alcohol) based on ESP, SA3s, areas of high tourism, Queensland, 2009/10

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

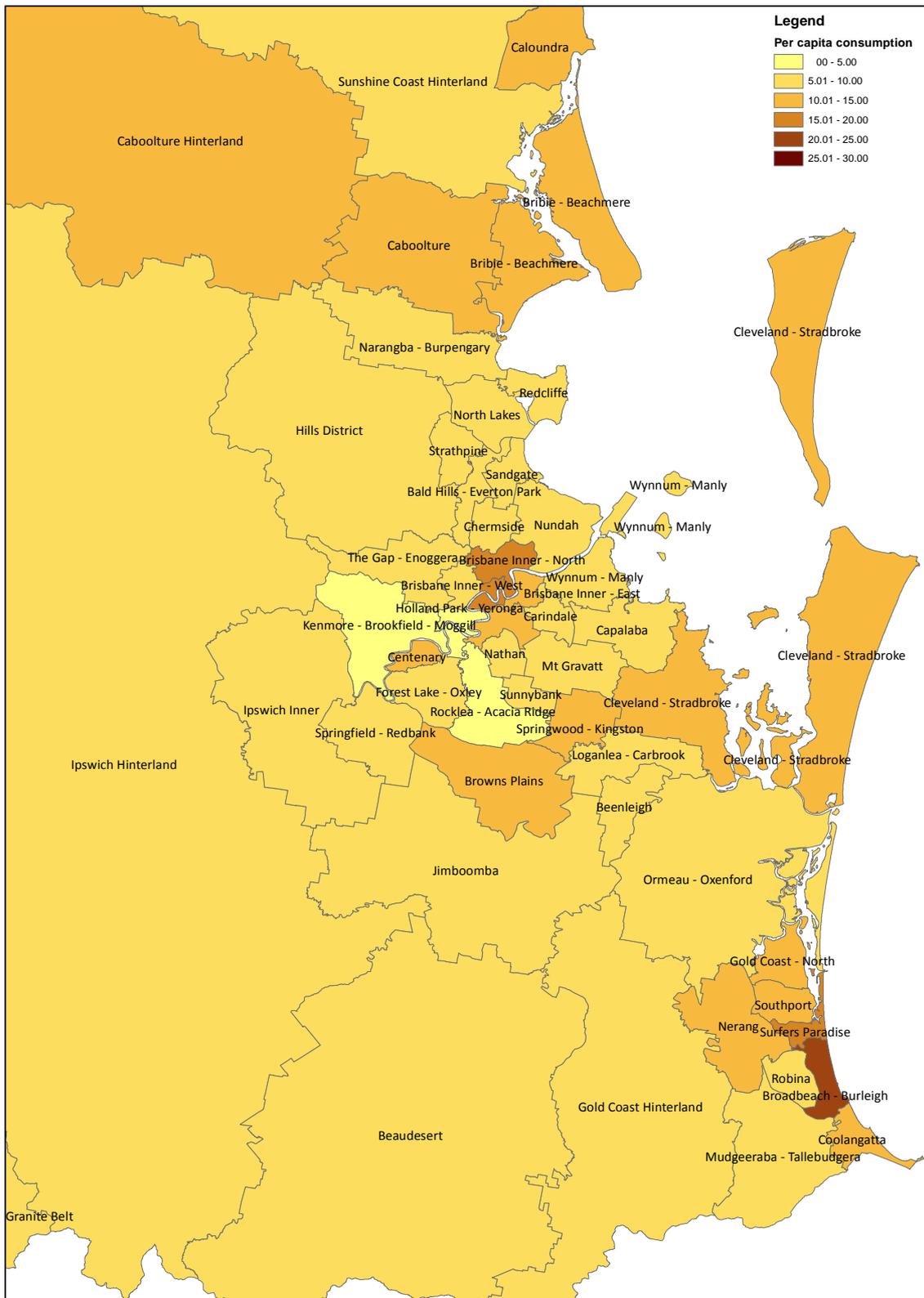


Figure 8 Estimated *per capita* consumption (litres of pure alcohol) based on ESP, SA3s, Brisbane and environs, Queensland, 2009/10

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Table 6 Volumes (litres) of alcohol sold by beverage and pure alcohol, and *per capita* consumption by ESP in SA3s, Queensland 2007/08 to 2009/10

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30101	Capalaba	2007/08	3,947,176	1,130,293	1,202,562	40,824	6,320,856	423,709	7.89
		2008/09	5,789,070	1,144,999	877,369	47,544	7,858,983	482,119	8.87
		2009/10	4,679,832	1,186,693	821,394	62,566	6,750,485	456,981	8.35
30102	Cleveland - Stradbroke	2007/08	5,392,440	2,097,866	1,705,823	83,960	9,280,089	676,244	11.94
		2008/09	6,464,812	1,919,325	1,246,198	89,357	9,719,693	677,617	11.53
		2009/10	7,071,278	1,983,198	1,166,536	134,802	10,355,815	705,258	11.74
30103	Wynnum - Manly	2007/08	3,532,372	1,505,346	1,229,934	57,467	6,325,118	457,418	9.58
		2008/09	3,554,249	1,016,977	803,676	59,209	5,434,111	370,082	7.49
		2009/10	4,564,202	921,371	972,182	73,591	6,531,347	409,710	8.14
30201	Bald Hills - Everton Park	2007/08	2,492,962	668,598	538,686	16,174	3,716,420	238,354	8.27
		2008/09	4,267,825	553,452	459,348	17,574	5,298,199	276,389	9.25
		2009/10	2,721,477	566,456	448,911	29,049	3,765,893	237,958	7.84
30202	Chermside	2007/08	4,183,890	1,663,311	1,022,612	38,561	6,908,374	499,163	9.60
		2008/09	4,446,979	1,288,224	822,386	44,336	6,601,925	461,159	8.69
		2009/10	4,683,947	1,296,438	751,655	72,170	6,804,209	468,231	8.69
30203	Nundah	2007/08	2,479,119	494,189	585,554	23,074	3,581,936	219,426	8.27
		2008/09	3,056,894	498,880	478,395	26,688	4,060,857	240,196	8.70
		2009/10	2,448,252	573,242	464,774	34,276	3,520,544	231,885	8.13
30204	Sandgate	2007/08	3,461,084	1,048,019	1,110,082	42,408	5,661,593	385,058	9.49
		2008/09	5,977,063	841,005	647,353	47,597	7,513,018	413,488	9.97
		2009/10	4,304,737	942,729	720,040	57,070	6,024,576	382,789	9.07

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30301	Carindale	2007/08	1,904,721	534,783	350,412	20,206	2,810,122	190,804	5.21
		2008/09	2,226,622	549,765	276,169	23,248	3,075,803	202,774	5.44
		2009/10	2,399,885	629,620	278,419	37,987	3,345,911	226,875	6.01
30302	Holland Park - Yeronga	2007/08	3,297,483	1,046,739	686,752	42,568	5,073,542	361,671	6.79
		2008/09	5,326,476	1,772,880	813,612	80,799	7,993,766	591,283	10.82
		2009/10	5,982,959	1,688,745	708,206	109,576	8,489,485	596,223	10.71
30303	Mt Gravatt	2007/08	4,305,879	3,215,660	908,231	46,610	8,476,379	742,025	14.24
		2008/09	5,402,563	1,868,247	616,830	38,423	7,926,062	543,992	10.19
		2009/10	5,279,592	1,471,082	710,643	58,615	7,519,932	518,919	9.58
30304	Nathan	2007/08	1,083,210	395,342	247,050	10,812	1,736,415	127,344	4.36
		2008/09	1,593,808	528,041	300,383	20,082	2,442,314	183,038	6.13
		2009/10	1,633,046	538,816	256,772	27,094	2,455,727	180,460	5.96
30305	Rocklea - Acacia Ridge	2007/08	2,167,761	507,824	658,563	21,871	3,356,019	214,148	5.58
		2008/09	2,710,705	381,923	482,245	18,186	3,593,059	208,112	5.12
		2009/10	1,924,244	354,488	495,467	19,198	2,793,397	175,019	4.19
30306	Sunnybank	2007/08	1,624,031	413,131	415,751	15,825	2,468,738	165,836	4.56
		2008/09	2,951,221	503,924	393,504	19,037	3,867,687	242,291	6.52
		2009/10	3,235,472	590,990	369,399	27,265	4,223,126	267,486	7.09
30401	Centenary	2007/08	2,729,866	1,659,905	511,204	24,914	4,925,888	393,446	15.46
		2008/09	3,207,771	1,212,261	395,525	27,036	4,842,593	357,687	13.96
		2009/10	2,095,624	1,056,338	322,006	40,627	3,514,595	280,186	10.92

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30402	Kenmore - Brookfield - Moggill	2007/08	738,619	478,313	191,076	11,484	1,419,493	117,414	3.59
		2008/09	907,608	472,843	152,641	12,716	1,545,809	121,402	3.62
		2009/10	728,773	457,439	151,841	15,866	1,353,919	114,221	3.35
30403	Sherwood - Indooroopilly	2007/08	1,286,143	511,368	324,140	16,692	2,138,344	157,523	3.88
		2008/09	1,283,636	563,938	299,543	27,644	2,174,760	170,171	4.12
		2009/10	1,622,820	677,568	309,077	53,794	2,663,259	205,267	4.93
30404	The Gap - Enoggera	2007/08	3,050,947	801,000	463,773	24,729	4,340,449	281,900	7.80
		2008/09	3,463,305	840,414	408,407	22,212	4,734,338	302,274	8.21
		2009/10	3,057,818	919,185	384,038	45,597	4,406,637	305,325	8.16
30501	Brisbane Inner	2007/08	13,744,615	4,277,668	2,720,961	202,976	20,946,219	1,546,678	24.33
		2008/09	13,349,708	3,040,782	1,770,041	261,132	18,421,663	1,284,720	19.82
		2009/10	13,075,679	3,017,160	1,722,586	400,034	18,215,458	1,301,504	19.86
30502	Brisbane Inner - East	2007/08	4,117,342	1,469,913	750,551	38,072	6,375,878	455,087	15.48
		2008/09	3,397,497	803,434	443,901	35,832	4,680,664	314,252	10.43
		2009/10	3,558,693	969,144	487,535	52,906	5,068,278	355,232	11.62
30503	Brisbane Inner - North	2007/08	8,315,120	3,158,022	1,891,657	92,173	13,456,973	1,014,311	16.10
		2008/09	9,300,163	3,094,470	1,590,434	157,514	14,142,582	1,061,613	16.52
		2009/10	10,210,701	3,406,867	1,584,700	203,330	15,405,598	1,160,818	17.83
30504	Brisbane Inner - West	2007/08	3,875,519	1,312,105	754,487	37,018	5,979,130	431,740	9.65
		2008/09	4,346,120	1,301,465	566,029	51,126	6,264,740	445,356	9.81
		2009/10	3,955,188	1,201,862	476,306	57,885	5,691,241	409,751	8.93

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30601	Cairns - North	2007/08	6,398,534	1,702,809	1,448,239	130,714	9,680,296	634,508	16.96
		2008/09	7,633,987	1,702,904	1,068,317	134,878	10,540,087	675,127	17.32
		2009/10	9,668,700	1,768,013	1,108,407	229,665	12,774,784	779,275	19.41
30602	Cairns - South	2007/08	11,586,767	2,398,969	2,765,351	216,084	16,967,172	1,056,839	12.73
		2008/09	16,237,605	2,770,329	2,338,742	233,683	21,580,358	1,309,274	15.44
		2009/10	16,330,343	2,811,435	2,477,704	343,082	21,962,564	1,339,245	15.56
30603	Innisfail - Cassowary Coast	2007/08	4,991,455	723,524	1,053,089	53,377	6,821,446	380,360	13.10
		2008/09	5,597,720	669,029	775,665	54,447	7,096,861	376,332	12.91
		2009/10	4,523,997	799,729	910,543	58,213	6,292,482	380,206	13.00
30604	Port Douglas - Daintree	2007/08	2,404,461	720,457	460,300	42,986	3,628,205	247,071	16.71
		2008/09	2,377,375	715,463	319,062	41,737	3,453,637	240,921	16.17
		2009/10	2,488,821	843,162	464,247	57,102	3,853,331	273,166	18.29
30605	Tablelands (East) - Kuranda	2007/08	3,477,670	928,632	906,140	76,214	5,388,656	340,417	11.38
		2008/09	3,176,919	760,578	597,771	51,170	4,586,438	287,528	9.45
		2009/10	4,669,592	818,791	684,147	52,825	6,225,355	357,507	11.59
30701	Darling Downs (West) - Maranoa	2007/08	6,017,545	492,473	1,193,697	26,012	7,729,727	399,782	11.72
		2008/09	7,306,212	429,798	791,867	37,623	8,565,500	422,165	12.21
		2009/10	5,319,958	497,739	915,635	29,019	6,762,351	372,821	10.63
30702	Darling Downs - East	2007/08	3,451,685	455,984	838,671	22,553	4,768,893	267,259	8.95
		2008/09	4,948,930	341,086	526,870	17,644	5,834,530	294,637	9.71
		2009/10	3,233,786	408,983	561,600	23,339	4,227,707	241,999	7.88

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30703	Granite Belt	2007/08	3,157,959	791,273	693,252	28,546	4,671,030	293,418	10.14
		2008/09	4,812,475	587,032	495,085	31,898	5,926,490	303,311	10.27
		2009/10	2,815,179	778,483	479,318	32,285	4,105,266	269,869	9.04
30801	Central Highlands (Qld)	2007/08	2,721,935	285,705	870,233	25,137	3,903,010	216,844	8.43
		2008/09	4,119,133	250,331	662,627	27,059	5,059,151	259,036	9.85
		2009/10	2,712,402	282,518	623,572	32,291	3,650,782	210,847	7.92
30802	Gladstone - Biloela	2007/08	8,093,704	847,152	1,800,790	78,937	10,820,583	590,028	10.62
		2008/09	11,912,649	863,437	1,385,337	90,197	14,251,620	730,837	12.80
		2009/10	7,548,978	1,015,218	1,406,946	105,273	10,076,415	602,459	10.45
30803	Rockhampton	2007/08	2,639,811	753,217	870,502	42,636	4,306,168	289,454	3.45
		2008/09	16,115,453	1,976,666	2,740,157	146,856	20,979,132	1,192,851	13.90
		2009/10	15,338,276	2,135,605	2,774,066	168,214	20,416,161	1,213,142	13.95
30901	Broadbeach - Burleigh	2007/08	8,770,847	3,611,187	2,150,567	94,373	14,626,974	1,081,836	19.44
		2008/09	10,187,296	3,487,538	1,808,191	120,277	15,603,302	1,141,999	20.27
		2009/10	10,874,046	3,400,411	1,691,283	129,649	16,095,389	1,162,582	20.44
30902	Coolangatta	2007/08	4,280,244	1,145,661	961,525	51,310	6,438,739	426,634	9.42
		2008/09	4,168,189	966,166	691,781	46,290	5,872,426	385,768	8.47
		2009/10	5,841,150	1,082,581	646,476	61,451	7,631,658	477,027	10.40
30903	Gold Coast - North	2007/08	5,618,445	2,193,935	1,349,973	59,754	9,222,108	671,773	13.67
		2008/09	5,445,367	2,060,475	964,838	64,384	8,535,063	629,186	12.55
		2009/10	6,917,892	2,246,714	976,882	88,790	10,230,279	727,157	14.28

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
30904	Gold Coast Hinterland	2007/08	930,295	329,326	212,676	11,783	1,484,079	101,629	7.47
		2008/09	1,115,884	322,324	206,553	16,732	1,661,494	113,027	8.13
		2009/10	1,192,718	430,072	204,324	22,916	1,850,030	132,816	9.42
30905	Mudgeeraba - Tallebudgera	2007/08	1,108,216	381,477	252,556	10,203	1,752,452	122,543	5.59
		2008/09	1,389,768	446,778	209,699	13,867	2,060,112	145,955	6.45
		2009/10	1,665,590	466,287	213,684	15,205	2,360,766	161,081	6.92
30906	Nerang	2007/08	5,858,333	2,161,618	1,349,494	72,850	9,442,295	663,237	14.52
		2008/09	5,668,771	1,440,431	1,019,835	79,979	8,209,016	558,552	11.84
		2009/10	6,059,147	1,439,235	899,791	80,485	8,478,658	556,610	11.48
30907	Ormeau - Oxenford	2007/08	5,089,553	1,415,200	1,711,062	77,862	8,293,677	555,638	9.16
		2008/09	5,119,644	1,521,774	1,256,128	84,251	7,981,796	553,161	8.47
		2009/10	5,813,086	1,778,424	1,352,844	110,499	9,054,853	648,549	9.45
30908	Robina	2007/08	2,839,593	1,698,427	761,952	37,609	5,337,581	425,436	11.91
		2008/09	2,046,220	824,660	421,879	29,396	3,322,155	248,123	6.80
		2009/10	2,546,842	857,782	412,661	46,749	3,864,034	273,071	7.40
30909	Southport	2007/08	5,840,996	2,030,922	1,515,664	73,625	9,461,207	667,454	14.91
		2008/09	5,190,337	1,719,045	977,196	66,686	7,953,264	565,482	12.24
		2009/10	6,487,405	2,039,204	1,073,570	102,529	9,702,708	685,400	14.49
30910	Surfers Paradise	2007/08	4,604,885	2,307,712	1,831,040	61,421	8,805,058	732,921	17.58
		2008/09	5,767,956	1,471,028	1,534,103	77,435	8,850,522	672,311	16.01
		2009/10	5,642,079	1,422,102	1,389,283	90,041	8,543,506	658,966	15.57

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
31001	Forest Lake - Oxley	2007/08	2,998,577	775,619	844,162	32,879	4,651,238	304,448	6.55
		2008/09	3,280,504	683,604	569,827	35,321	4,569,256	285,724	5.98
		2009/10	3,251,893	981,401	1,446,876	68,920	5,749,090	431,806	8.80
31002	Ipswich Hinterland	2007/08	3,505,967	589,616	1,022,485	35,692	5,153,760	298,868	7.32
		2008/09	3,809,194	487,934	598,685	36,719	4,932,533	274,596	6.51
		2009/10	3,279,965	535,340	675,973	37,819	4,529,096	266,427	6.15
31003	Ipswich Inner	2007/08	6,623,654	1,448,658	2,606,529	81,510	10,760,350	683,136	9.99
		2008/09	6,941,293	1,241,604	1,564,225	90,767	9,837,890	600,602	8.50
		2009/10	6,392,740	1,228,866	1,536,854	105,435	9,263,894	587,212	8.13
31004	Springfield - Redbank	2007/08	3,383,570	595,871	1,125,505	45,648	5,150,593	314,531	7.67
		2008/09	3,738,385	570,606	837,756	51,058	5,197,805	317,618	7.21
		2009/10	4,065,519	827,563	1,004,962	68,308	5,966,353	390,495	8.42
31101	Beaudesert	2007/08	758,806	128,820	205,151	8,312	1,101,090	63,526	7.04
		2008/09	708,928	92,092	145,637	8,991	955,648	53,889	5.78
		2009/10	701,788	136,113	169,223	12,493	1,019,617	62,627	6.57
31102	Beenleigh	2007/08	2,198,147	465,366	909,700	36,691	3,609,905	228,796	8.59
		2008/09	2,431,048	427,652	585,424	40,880	3,485,004	217,292	7.91
		2009/10	2,937,095	568,973	695,277	52,347	4,253,692	269,019	9.52
31103	Browns Plains	2007/08	4,910,324	1,002,820	1,985,616	43,371	7,942,132	509,778	9.93
		2008/09	6,251,644	1,037,551	1,604,652	59,049	8,952,896	567,844	10.76
		2009/10	7,322,381	1,160,735	1,598,144	67,142	10,148,402	629,654	11.72

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
31104	Jimboomba	2007/08	1,543,548	332,316	620,030	23,874	2,519,769	158,846	6.43
		2008/09	2,258,147	339,411	526,316	25,669	3,149,542	179,551	6.94
		2009/10	2,036,163	476,806	544,809	38,045	3,095,822	206,132	7.71
31105	Loganlea - Carbrook	2007/08	3,933,059	895,757	1,627,593	45,549	6,501,958	421,461	10.58
		2008/09	3,856,324	781,864	946,645	36,785	5,621,618	365,068	8.86
		2009/10	4,158,019	765,241	934,750	46,610	5,904,620	377,054	8.92
31106	Springwood - Kingston	2007/08	5,164,297	1,612,679	1,568,572	57,723	8,403,270	563,073	10.01
		2008/09	4,683,195	1,035,336	1,141,024	54,474	6,914,030	469,488	8.21
		2009/10	5,805,892	2,044,548	1,009,575	76,261	8,936,277	622,083	10.75
31201	Bowen Basin - North	2007/08	4,431,627	391,619	1,129,112	32,954	5,985,313	317,381	8.79
		2008/09	4,627,379	401,100	865,007	29,850	5,923,336	322,437	8.76
		2009/10	4,919,998	466,329	1,198,227	59,865	6,644,419	373,387	10.04
31202	Mackay	2007/08	15,250,261	2,088,571	3,595,518	149,856	21,084,205	1,205,911	14.67
		2008/09	17,178,165	1,573,861	2,900,236	154,772	21,807,034	1,226,933	14.48
		2009/10	16,172,035	1,556,596	3,091,671	197,962	21,018,265	1,188,606	13.73
31203	Whitsunday	2007/08	4,661,106	1,030,860	1,109,936	98,659	6,900,562	464,266	23.37
		2008/09	4,379,229	970,639	805,191	107,788	6,262,847	436,060	21.74
		2009/10	5,434,734	1,020,570	859,742	124,048	7,439,094	506,428	25.08
31301	Bribie - Beachmere	2007/08	2,408,958	649,796	555,887	22,288	3,636,929	232,620	9.54
		2008/09	3,119,709	638,805	440,719	27,120	4,226,353	258,195	10.29
		2009/10	2,714,951	738,124	449,433	52,761	3,955,268	260,505	10.15

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other¹	All alcohol	All pure alcohol	pcc/ESP
31302	Caboolture	2007/08	4,820,370	1,090,432	1,579,247	52,289	7,542,339	474,698	12.14
		2008/09	8,042,315	1,051,111	1,286,896	64,580	10,444,901	555,019	13.45
		2009/10	5,807,891	1,358,252	1,265,938	89,732	8,521,814	551,710	12.71
31303	Caboolture Hinterland	2007/08	999,511	145,965	279,118	16,319	1,440,913	79,455	9.59
		2008/09	1,586,271	141,779	234,322	21,403	1,983,774	96,197	11.22
		2009/10	1,118,668	194,649	245,427	25,027	1,583,770	94,981	10.86
31304	Narangba - Burpengary	2007/08	3,315,142	769,919	1,158,001	49,923	5,292,986	334,511	8.07
		2008/09	4,656,639	710,752	913,540	52,169	6,333,100	358,986	8.40
		2009/10	3,480,810	862,064	912,768	73,157	5,328,798	353,345	8.07
31305	Redcliffe	2007/08	3,758,493	1,158,131	1,162,836	55,342	6,134,803	424,301	9.62
		2008/09	3,756,713	1,042,260	792,965	57,846	5,649,784	383,560	8.49
		2009/10	3,607,209	1,260,490	812,042	81,160	5,760,901	417,942	9.08
31401	Hills District	2007/08	4,362,130	1,836,400	1,007,846	49,450	7,255,826	518,626	9.11
		2008/09	5,926,154	1,282,321	815,210	47,205	8,070,890	485,898	8.26
		2009/10	4,935,381	1,335,891	721,612	78,933	7,071,817	475,141	7.89
31402	North Lakes	2007/08	2,725,250	790,014	863,787	31,247	4,410,298	293,154	9.51
		2008/09	3,048,680	730,760	741,589	45,267	4,566,296	312,864	9.27
		2009/10	2,861,343	809,204	753,722	54,727	4,478,995	311,958	8.60
31403	Strathpine	2007/08	1,569,383	436,615	609,858	24,625	2,640,481	175,714	6.44
		2008/09	1,561,223	428,597	521,589	26,953	2,538,362	175,096	6.37
		2009/10	1,785,664	575,615	509,662	33,614	2,904,555	210,478	7.59

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
31501	Far North	2007/08	3,073,284	509,700	683,582	35,354	4,301,920	238,491	9.86
		2008/09	3,043,313	397,881	491,689	16,714	3,949,596	211,701	8.56
		2009/10	2,253,654	403,685	451,702	16,280	3,125,322	179,440	7.14
31502	Outback - North	2007/08	5,865,841	619,939	1,653,093	43,068	8,181,941	443,316	14.80
		2008/09	5,832,111	602,089	1,098,282	44,464	7,576,946	423,082	13.94
		2009/10	6,122,373	667,619	1,082,625	49,350	7,921,967	447,742	14.56
31503	Outback - South	2007/08	3,032,658	249,386	504,039	9,665	3,795,748	194,990	10.67
		2008/09	3,666,460	206,379	314,960	8,889	4,196,688	196,749	10.71
		2009/10	2,477,755	258,999	331,948	10,157	3,078,859	166,720	9.01
31601	Buderim	2007/08	2,388,838	1,196,679	796,098	30,809	4,412,424	344,534	10.11
		2008/09	1,931,588	1,062,956	566,509	36,223	3,597,275	299,618	8.54
		2009/10	2,115,479	1,190,829	536,034	46,083	3,888,425	326,017	9.09
31602	Caloundra	2007/08	6,351,779	3,358,038	1,558,243	59,671	11,327,731	851,695	15.48
		2008/09	9,259,797	2,298,100	1,246,516	73,637	12,878,050	807,000	14.19
		2009/10	8,137,200	2,410,460	1,148,216	114,090	11,809,967	804,509	13.83
31603	Maroochy	2007/08	6,468,931	2,624,135	1,909,493	76,986	11,079,546	801,974	16.57
		2008/09	6,320,900	2,460,110	1,363,302	92,101	10,236,413	758,339	15.45
		2009/10	8,447,624	2,611,880	1,436,719	147,377	12,643,599	887,194	17.86
31604	Nambour - Pomona	2007/08	2,764,245	966,066	841,741	60,371	4,632,423	313,295	7.22
		2008/09	3,671,404	1,071,921	882,581	70,905	5,696,811	383,355	8.60
		2009/10	3,472,307	926,107	625,730	71,647	5,095,792	336,678	7.41

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
31605	Noosa	2007/08	5,331,408	2,709,558	999,136	69,495	9,109,597	689,593	20.96
		2008/09	5,969,317	2,040,864	838,990	84,860	8,934,031	640,356	19.01
		2009/10	6,635,676	1,882,255	679,081	132,662	9,329,673	626,903	18.34
31606	Sunshine Coast Hinterland	2007/08	3,395,281	958,482	991,935	55,250	5,400,948	351,884	10.35
		2008/09	4,253,948	750,174	597,190	58,015	5,659,327	335,463	9.53
		2009/10	2,251,455	626,818	563,377	56,619	3,498,269	235,068	6.53
31701	Toowoomba	2007/08	9,475,433	2,786,131	3,000,461	88,371	15,350,396	1,043,615	9.98
		2008/09	11,342,152	2,215,101	2,206,747	102,094	15,866,094	1,025,963	9.59
		2009/10	11,755,059	2,308,526	2,359,257	105,840	16,528,682	1,057,583	9.75
31801	Charters Towers - Ayr - Ingham	2007/08	4,294,076	428,992	797,556	32,681	5,553,305	287,192	8.17
		2008/09	5,947,929	528,064	631,284	34,296	7,141,573	360,116	10.13
		2009/10	4,711,499	708,126	888,913	46,707	6,355,244	366,335	10.21
31802	Townsville	2007/08	18,478,772	3,480,218	4,385,231	243,724	26,587,945	1,599,721	12.07
		2008/09	28,980,671	3,037,627	3,846,967	294,173	36,159,438	1,873,516	13.74
		2009/10	23,222,590	3,031,220	3,972,703	394,663	30,621,176	1,808,175	12.97
31901	Bundaberg	2007/08	7,185,361	1,671,851	1,951,922	70,804	10,879,938	669,575	9.98
		2008/09	11,776,331	1,695,305	1,558,986	82,732	15,113,354	847,584	12.36
		2009/10	7,605,017	2,162,913	1,629,073	108,306	11,505,309	787,843	11.34
31902	Burnett	2007/08	4,129,760	852,134	1,057,397	36,547	6,075,837	367,959	10.09
		2008/09	5,696,352	606,246	661,194	38,413	7,002,204	367,214	9.87
		2009/10	4,084,419	700,568	688,127	35,577	5,508,691	331,255	8.80

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All other ¹	All alcohol	All pure alcohol	pcc/ESP
31903	Gympie - Cooloola	2007/08	4,987,325	1,049,651	1,312,813	68,370	7,418,158	448,006	12.76
		2008/09	6,451,203	744,482	796,149	67,997	8,059,830	433,388	12.03
		2009/10	4,745,766	988,849	821,810	77,889	6,634,313	414,521	11.33
31904	Hervey Bay	2007/08	5,595,605	1,689,350	1,211,140	81,996	8,578,091	569,763	13.48
		2008/09	5,515,981	1,202,948	824,206	79,679	7,622,814	489,871	11.20
		2009/10	5,138,624	1,369,830	823,411	123,080	7,454,946	498,838	11.17
31905	Maryborough	2007/08	4,414,922	816,630	1,010,134	46,661	6,288,347	367,656	10.86
		2008/09	5,387,594	641,342	649,676	45,140	6,723,752	360,372	10.40
		2009/10	4,581,908	829,511	734,523	66,556	6,212,498	377,910	10.73
Totals	Queensland	2007/08	358,168,935	99,967,839	93,497,141	4,306,429	555,940,344	36,914,740	10.93
Totals	Queensland	2008/09	444,250,174	86,755,352	72,048,375	4,898,778	607,952,678	37,812,201	10.91
Totals	Queensland	2009/10	417,472,749	93,753,479	74,079,404	6,540,169	591,845,801	38,753,617	10.97

1. Alcoholic soda, cider and mead.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

WESTERN AUSTRALIA

Per capita consumption (litres of pure alcohol) based on ESP was estimated for the whole of WA as shown in the following table.

Table 7 Estimated *per capita* consumption (litres of pure alcohol) by ESP, Western Australia, 2005/06 to 2011/12

Year	Total pure alcohol (litres)	ESP aged 15+	WA <i>per capita</i> consumption/ESP	National <i>per capita</i> consumption¹
2005/06	18,084,774	1,584,774	11.41	10.31
2006/07	17,908,321	1,627,436	11.00	10.76
2007/08	21,312,472	1,682,806	12.66	10.75
2008/09	20,221,996	1,740,733	11.62	10.63
2009/10	22,053,193	1,784,179	12.36	10.53
2010/11	23,987,872	1,833,199	13.09	10.30
2011/12	22,484,211	1,883,000	11.94	10.04

¹ Australian Bureau of Statistics 2015

Volumes of alcohol sold and *per capita* pure alcohol consumption were estimated for SA3s for 2011/12. These estimates can be seen in Figure 9 to Figure 12 with details in Table 8 which also presents details of SA3 estimates for all financial years up to 2011/12. *Per capita* pure alcohol consumption in maps has been estimated using ESP as the population base.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

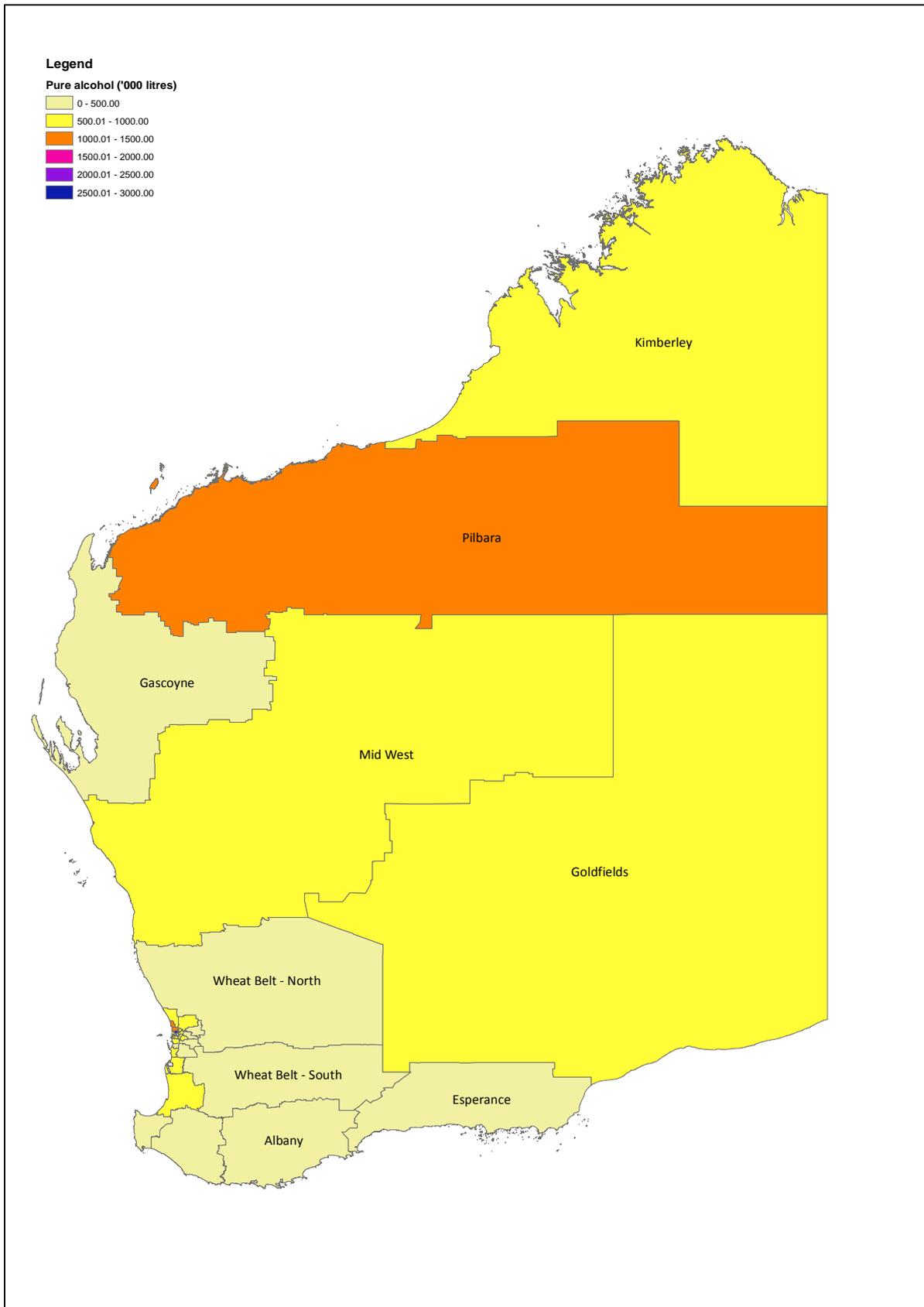


Figure 9 Volumes of pure alcohol sold, SA3s, Western Australia, 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

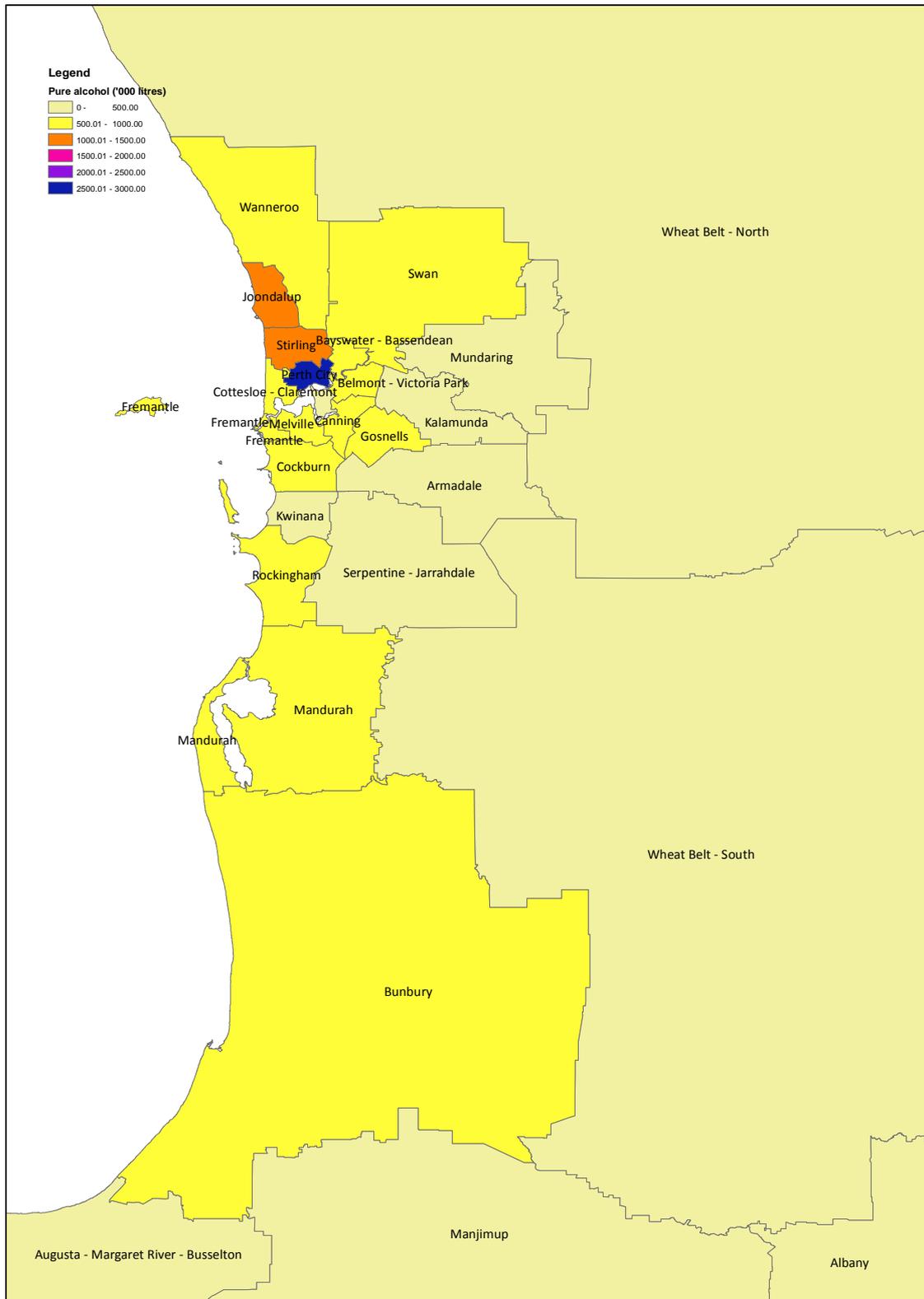


Figure 10 Volumes of pure alcohol sold, SA3s, Perth and West Coast, Western Australia, 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

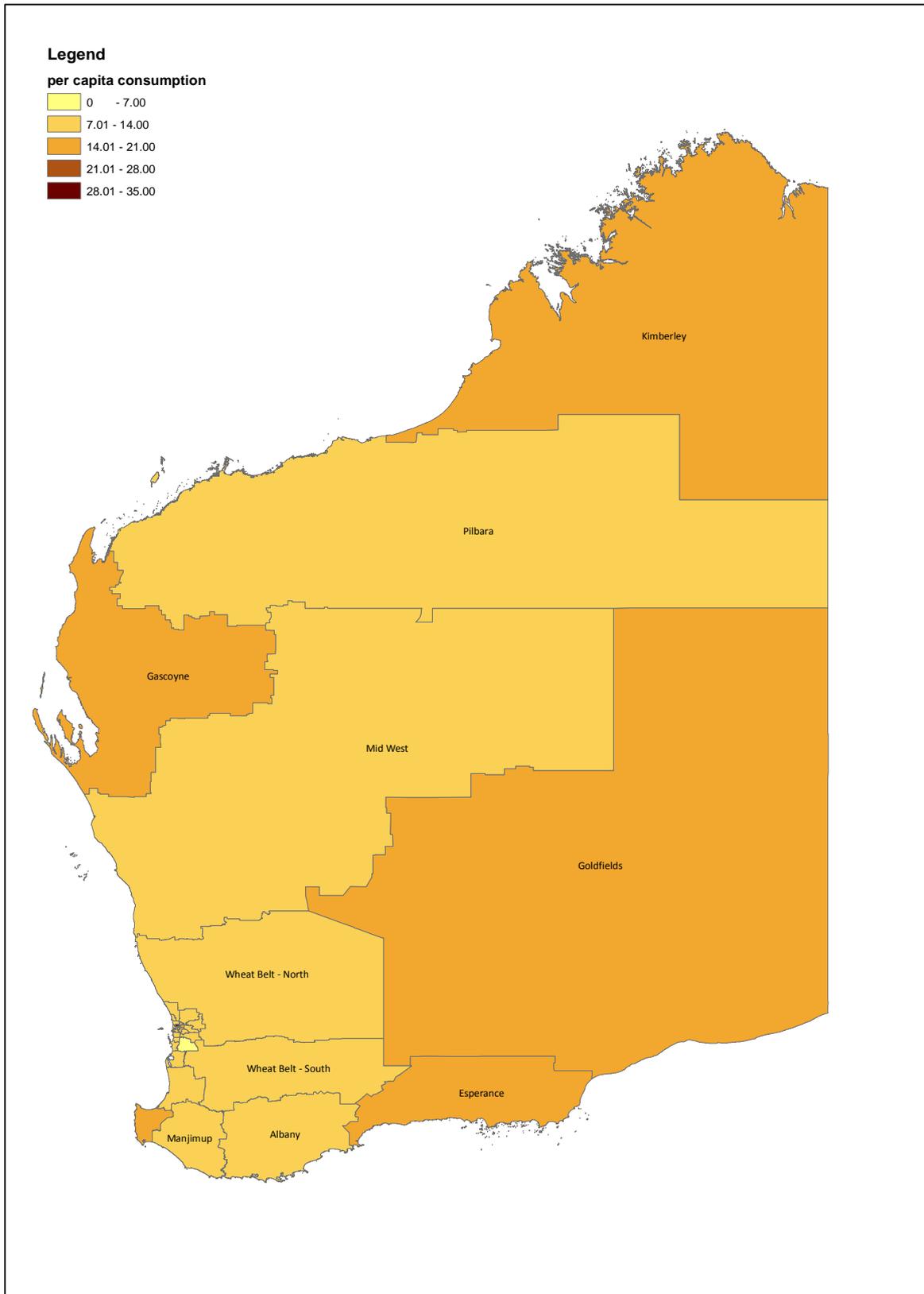


Figure 11 Estimated *per capita* consumption (litres of pure alcohol) based on ESP, SA3s, Western Australia, 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

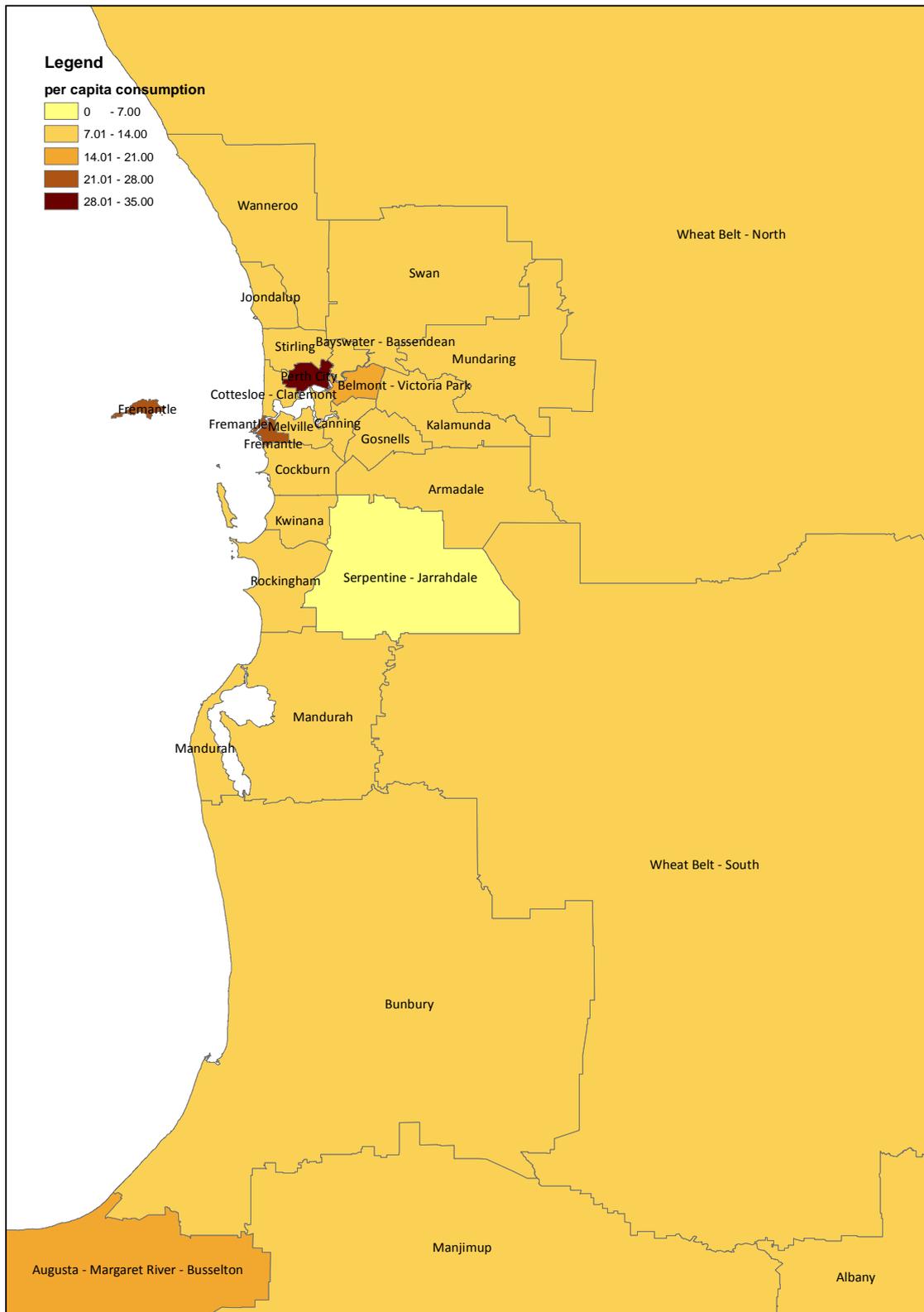


Figure 12 Estimated *per capita* consumption (litres of pure alcohol) based on ESP, SA3s, Perth and West Coast, Western Australia, 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

Table 8 Volumes (litres) of alcohol sold by beverage and pure alcohol, and *per capita* consumption by ESP in SA3s, Western Australia, 2005/06 to 2011/12

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50101	Augusta - Margaret River - Busselton	2005/06	4,282,415	1,468,474	924,426	6,675,314	473,748	16.95
		2006/07	4,604,938	1,203,548	1,037,660	6,846,145	463,117	16.27
		2007/08	5,462,520	824,014	555,567	6,842,101	407,257	13.73
		2008/09	5,171,434	1,388,667	842,228	7,402,329	496,834	16.11
		2009/10	4,754,244	1,632,889	973,097	7,360,229	521,103	16.37
		2010/11	6,934,865	1,514,814	962,238	9,411,917	609,323	18.70
		2011/12	4,930,670	1,423,359	659,740	7,013,768	470,659	14.24
50102	Bunbury	2005/06	9,514,990	1,519,730	2,091,271	13,125,991	836,533	13.50
		2006/07	8,973,372	1,558,089	2,043,647	12,575,108	795,287	12.47
		2007/08	11,351,599	1,590,942	1,628,367	14,570,908	865,210	13.10
		2008/09	9,753,751	1,694,808	1,831,082	13,279,641	833,869	12.17
		2009/10	10,386,470	1,930,741	1,843,077	14,160,288	894,851	12.71
		2010/11	11,487,414	1,960,696	2,294,412	15,742,522	995,863	13.62
		2011/12	8,667,493	2,020,061	976,396	11,663,950	737,068	9.75
50103	Manjimup	2005/06	1,670,125	332,807	440,546	2,443,478	162,862	10.30
		2006/07	1,600,913	320,701	313,321	2,234,935	141,728	8.85
		2007/08	1,927,138	162,235	99,963	2,189,336	114,157	7.04
		2008/09	2,162,725	454,681	359,998	2,977,403	189,538	11.50
		2009/10	2,225,413	438,007	353,977	3,017,397	189,938	11.42
		2010/11	2,171,436	421,878	352,839	2,946,152	185,786	11.00
		2011/12	1,899,961	291,994	175,278	2,367,233	138,619	8.17

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50201	Mandurah	2005/06	7,316,902	1,589,097	1,226,881	10,132,880	649,568	12.58
		2006/07	7,394,757	1,617,467	1,351,805	10,364,028	655,356	12.24
		2007/08	10,104,670	1,643,705	1,411,681	13,160,057	791,442	13.90
		2008/09	8,945,863	2,260,202	1,569,322	12,775,387	832,249	13.86
		2009/10	8,695,152	2,489,728	1,378,264	12,563,145	833,817	13.50
		2010/11	9,365,209	2,482,984	1,848,509	13,696,702	912,673	14.21
		2011/12	8,661,189	2,864,615	1,388,985	12,914,789	878,791	13.01
50301	Cottesloe - Claremont	2005/06	6,158,125	2,938,568	923,976	10,020,670	737,437	14.29
		2006/07	6,377,714	2,497,185	819,447	9,694,346	677,783	13.12
		2007/08	11,419,985	2,100,710	1,122,859	14,643,555	893,472	17.09
		2008/09	4,272,528	2,109,084	479,128	6,860,740	505,659	9.57
		2009/10	5,809,844	2,509,294	612,719	8,931,856	629,789	11.86
		2010/11	5,458,017	2,044,953	1,535,154	9,038,125	666,717	12.46
		2011/12	5,851,433	2,275,252	724,738	8,851,423	623,568	11.79
50302	Perth City	2005/06	12,232,010	4,692,115	1,341,062	18,265,187	1,275,189	16.51
		2006/07	13,165,474	3,928,948	2,560,330	19,654,752	1,341,043	16.98
		2007/08	20,050,323	2,859,753	1,405,072	24,315,148	1,408,105	17.17
		2008/09	15,083,893	4,857,042	1,999,502	21,940,437	1,501,581	17.60
		2009/10	21,562,829	6,365,872	3,425,045	31,353,746	2,121,632	24.36
		2010/11	24,329,942	7,050,119	5,119,589	36,499,650	2,541,186	28.61
		2011/12	25,016,315	8,530,363	6,334,306	39,880,984	2,880,975	31.50

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50401	Bayswater - Bassendean	2005/06	5,616,892	1,254,799	1,067,498	7,939,189	521,436	9.04
		2006/07	5,771,313	1,132,715	841,490	7,745,519	481,383	8.30
		2007/08	10,420,401	1,514,117	1,156,637	13,091,156	780,158	13.08
		2008/09	5,218,270	1,523,599	882,164	7,624,034	515,482	8.42
		2009/10	7,014,170	1,963,249	946,203	9,923,622	651,964	10.44
		2010/11	9,665,766	1,885,641	1,215,525	12,766,933	805,359	12.76
		2011/12	6,044,805	2,051,741	897,453	8,993,999	620,309	9.86
50402	Mundaring	2005/06	2,087,321	543,352	459,225	3,089,898	209,950	7.09
		2006/07	2,225,913	582,338	468,947	3,277,197	217,992	7.30
		2007/08	2,501,406	446,125	531,204	3,478,735	221,126	7.29
		2008/09	3,765,955	1,054,685	747,254	5,567,894	374,751	12.09
		2009/10	3,488,520	1,011,759	551,513	5,051,793	335,882	10.67
		2010/11	3,913,364	1,114,484	840,502	5,868,349	400,641	12.57
		2011/12	3,663,511	1,253,422	520,141	5,437,075	371,411	11.51
50403	Swan	2005/06	7,816,725	1,648,400	1,465,235	10,930,360	709,079	10.69
		2006/07	8,933,844	1,698,534	1,563,814	12,196,192	764,030	11.19
		2007/08	13,314,082	1,794,800	1,758,568	16,867,449	996,675	13.91
		2008/09	8,108,787	1,845,109	1,568,746	11,522,643	754,104	10.08
		2009/10	7,979,483	1,965,283	1,281,711	11,226,477	730,568	9.46
		2010/11	8,925,438	2,090,468	1,901,516	12,917,422	862,044	10.93
		2011/12	8,090,994	2,476,539	1,423,917	11,991,450	817,342	10.24

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50501	Joondalup	2005/06	10,924,057	3,785,736	1,814,271	16,524,064	1,155,283	9.81
		2006/07	11,122,824	3,677,551	1,919,103	16,719,478	1,147,760	9.81
		2007/08	17,547,791	3,275,568	1,569,296	22,392,656	1,365,800	11.55
		2008/09	11,850,415	5,985,899	2,979,780	20,816,094	1,589,693	13.31
		2009/10	12,261,807	4,622,008	3,038,584	19,922,399	1,448,843	12.02
		2010/11	12,543,547	4,490,505	2,277,065	19,311,117	1,366,392	11.30
		2011/12	12,477,984	5,000,049	1,774,372	19,252,405	1,368,015	11.37
50502	Stirling	2005/06	11,346,457	3,753,347	2,289,477	17,389,281	1,221,738	9.23
		2006/07	12,019,846	3,581,257	2,016,485	17,617,588	1,185,791	8.85
		2007/08	25,658,941	2,701,410	1,553,779	29,914,131	1,675,455	12.18
		2008/09	14,908,719	3,970,526	1,962,928	20,842,173	1,368,433	9.66
		2009/10	15,910,432	5,040,283	2,179,136	23,129,851	1,572,167	10.86
		2010/11	17,109,999	5,014,543	2,802,217	24,926,759	1,694,940	11.55
		2011/12	15,379,819	4,624,652	1,905,386	21,909,857	1,472,262	10.02
50503	Wanneroo	2005/06	6,361,020	1,414,922	1,349,186	9,125,128	606,172	7.43
		2006/07	6,449,549	1,323,933	1,256,712	9,030,193	578,900	6.59
		2007/08	14,584,723	1,549,317	1,381,029	17,515,068	998,891	10.47
		2008/09	9,068,478	2,061,948	1,727,897	12,858,323	844,392	8.18
		2009/10	9,773,423	2,351,163	1,809,215	13,933,801	922,627	8.49
		2010/11	12,361,764	2,419,315	2,387,410	17,168,489	1,114,014	9.88
		2011/12	10,682,215	2,559,379	1,504,422	14,746,017	952,821	7.59

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50601	Armadale	2005/06	3,806,698	784,705	841,779	5,433,182	357,144	9.19
		2006/07	3,685,207	827,356	971,095	5,483,658	363,680	9.22
		2007/08	4,092,681	763,092	780,285	5,636,058	356,211	8.65
		2008/09	3,855,845	1,064,033	956,372	5,876,250	403,958	9.31
		2009/10	3,338,003	996,679	690,159	5,024,842	345,343	7.51
		2010/11	5,104,501	1,319,482	1,219,300	7,643,283	520,781	10.84
		2011/12	4,865,170	1,520,259	848,940	7,234,369	494,838	10.58
50602	Belmont - Victoria Park	2005/06	7,245,870	3,066,818	1,423,430	11,736,118	855,658	18.16
		2006/07	7,288,771	3,081,134	1,621,601	11,991,506	870,395	18.07
		2007/08	8,614,393	1,264,167	1,993,642	11,872,202	748,621	14.90
		2008/09	7,798,544	2,020,396	1,420,826	11,239,767	750,895	14.35
		2009/10	8,999,384	1,976,849	1,451,728	12,427,961	793,288	14.76
		2010/11	9,580,567	1,930,435	2,001,151	13,512,153	887,277	16.09
		2011/12	8,032,040	2,215,686	1,613,222	11,860,949	809,257	14.40
50603	Canning	2005/06	3,294,093	846,839	478,760	4,619,692	302,713	4.59
		2006/07	3,657,741	1,134,214	625,504	5,417,460	365,342	5.43
		2007/08	4,523,376	959,262	711,959	6,194,598	396,294	5.73
		2008/09	6,408,264	1,781,380	1,109,013	9,298,657	624,545	8.81
		2009/10	6,494,004	2,028,850	920,131	9,442,985	637,044	8.79
		2010/11	6,353,753	1,911,519	1,303,841	9,569,113	659,297	8.96
		2011/12	5,990,393	2,377,513	973,782	9,341,687	662,609	8.94

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50604	Gosnells	2005/06	7,250,455	1,144,899	1,480,257	9,875,611	625,503	8.87
		2006/07	7,353,554	1,225,420	1,664,474	10,243,448	646,717	9.00
		2007/08	9,084,792	1,114,014	1,193,254	11,392,060	663,067	8.83
		2008/09	6,711,596	1,666,781	1,361,636	9,740,013	649,669	8.28
		2009/10	6,957,700	1,657,678	1,360,878	9,976,256	658,718	8.09
		2010/11	7,690,960	1,760,072	1,657,530	11,108,562	738,309	8.89
		2011/12	7,248,676	1,944,166	1,155,579	10,348,422	688,878	8.01
50605	Kalamunda	2005/06	3,125,226	787,146	647,102	4,559,473	306,981	7.90
		2006/07	2,918,717	625,001	551,274	4,094,992	262,276	6.67
		2007/08	4,682,250	848,052	598,592	6,128,894	377,011	9.39
		2008/09	3,645,513	1,076,187	739,005	5,460,705	373,892	9.13
		2009/10	3,705,034	1,061,964	733,895	5,500,893	374,359	8.95
		2010/11	3,612,355	1,024,245	889,469	5,526,069	382,724	9.08
		2011/12	3,599,221	1,140,846	1,556,881	6,296,948	467,705	11.01
50606	Serpentine - Jarrahdale	2005/06	693,287	106,167	202,360	1,001,813	65,972	6.74
		2006/07	768,693	127,428	200,518	1,096,639	69,847	6.86
		2007/08	866,195	29,131	29,428	924,754	44,185	3.97
		2008/09	1,141,025	165,351	229,815	1,536,191	95,133	7.86
		2009/10	1,048,152	171,744	296,576	1,516,472	98,385	7.80
		2010/11	918,745	146,389	294,082	1,359,216	89,991	6.83
		2011/12	942,565	120,922	161,670	1,225,157	73,851	5.47

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50607	South Perth	2005/06	2,984,231	1,168,098	460,625	4,612,953	327,423	9.82
		2006/07	3,860,550	1,146,195	615,403	5,622,148	379,996	11.32
		2007/08	4,631,536	781,884	545,081	5,958,500	365,634	10.65
		2008/09	2,620,947	1,067,897	359,472	4,048,315	289,815	8.30
		2009/10	3,266,394	1,204,911	370,908	4,842,213	336,142	9.60
		2010/11	3,823,861	1,017,974	461,862	5,303,697	350,373	9.92
		2011/12	2,722,789	953,190	419,360	4,095,340	285,848	8.00
50701	Cockburn	2005/06	4,347,267	973,593	889,640	6,210,500	412,054	7.38
		2006/07	5,679,417	1,184,118	1,074,356	7,937,891	509,677	8.81
		2007/08	6,449,829	1,056,022	892,108	8,397,959	513,255	8.45
		2008/09	6,446,134	1,588,151	1,043,216	9,077,501	597,044	9.33
		2009/10	7,024,453	1,805,168	1,077,968	9,907,589	652,670	9.87
		2010/11	6,904,167	1,774,054	1,357,002	10,035,223	675,506	9.96
		2011/12	6,965,989	2,101,627	844,117	9,911,733	661,456	9.48
50702	Fremantle	2005/06	4,716,569	1,433,607	675,566	6,825,743	462,719	16.82
		2006/07	4,952,089	1,179,309	655,646	6,787,044	435,425	15.69
		2007/08	6,417,189	991,359	337,296	7,745,844	449,112	15.91
		2008/09	5,317,836	1,815,182	651,911	7,784,930	535,577	18.67
		2009/10	6,875,396	2,206,711	1,034,007	10,116,114	693,390	23.93
		2010/11	7,050,074	1,961,410	2,209,496	11,220,979	800,717	27.13
		2011/12	7,085,198	2,158,515	1,639,217	10,882,930	765,134	26.05

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50703	Kwinana	2005/06	1,837,668	182,562	347,560	2,367,790	142,267	8.08
		2006/07	2,276,359	237,761	415,122	2,929,242	171,345	9.56
		2007/08	2,215,521	272,554	426,290	2,914,365	175,420	9.17
		2008/09	2,446,919	536,952	654,892	3,638,763	243,255	11.93
		2009/10	2,440,059	536,576	419,195	3,395,830	218,373	10.29
		2010/11	2,285,279	541,329	715,172	3,541,780	244,342	11.06
		2011/12	2,453,088	733,241	344,672	3,531,001	235,177	10.47
50704	Melville	2005/06	6,521,924	2,968,072	1,006,284	10,496,280	766,170	9.78
		2006/07	6,544,249	2,654,569	1,238,809	10,437,627	741,746	9.49
		2007/08	15,911,955	3,173,105	1,364,293	20,449,353	1,260,704	15.99
		2008/09	6,918,646	3,134,843	1,038,603	11,092,091	808,117	10.10
		2009/10	7,399,475	3,411,510	1,737,349	12,548,334	936,444	11.59
		2010/11	7,938,362	3,246,493	1,241,712	12,426,567	893,753	11.05
		2011/12	7,413,492	3,396,367	1,120,098	11,929,957	868,337	10.79
50705	Rockingham	2005/06	6,483,003	1,727,001	1,626,599	9,836,603	677,756	10.73
		2006/07	6,945,889	1,818,581	1,758,307	10,522,777	712,738	10.82
		2007/08	9,977,538	3,027,721	1,329,847	14,335,106	957,919	13.83
		2008/09	7,660,774	2,118,802	2,489,100	12,268,676	865,614	11.92
		2009/10	7,771,789	2,272,887	1,781,154	11,825,830	815,054	10.72
		2010/11	9,686,782	2,268,455	1,967,560	13,922,797	926,814	11.85
		2011/12	8,199,633	2,519,841	1,544,107	12,263,581	842,235	10.41

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50801	Esperance	2005/06	2,182,154	361,255	440,963	2,984,373	189,478	15.62
		2006/07	2,375,317	394,948	493,492	3,263,757	202,942	16.89
		2007/08	2,426,087	376,889	475,529	3,278,505	201,541	16.67
		2008/09	2,204,333	404,126	394,705	3,003,164	188,134	15.46
		2009/10	2,208,250	402,489	303,093	2,913,832	179,128	14.59
		2010/11	2,212,611	341,984	310,570	2,865,165	172,859	14.13
		2011/12	2,134,571	457,484	301,868	2,893,923	182,125	14.68
50802	Gascoyne	2005/06	2,509,910	428,969	489,716	3,428,595	216,815	16.70
		2006/07	2,514,025	439,439	431,294	3,384,758	206,525	15.76
		2007/08	3,004,601	266,005	254,444	3,525,050	188,998	14.37
		2008/09	2,373,723	498,916	344,463	3,217,103	200,656	15.17
		2009/10	2,764,595	566,465	411,436	3,742,495	234,476	17.63
		2010/11	2,785,065	513,541	424,461	3,723,067	230,114	16.83
		2011/12	2,660,330	442,619	305,959	3,408,909	204,130	14.91
50803	Goldfields	2005/06	5,896,378	708,647	771,506	7,376,531	433,282	13.72
		2006/07	6,240,485	746,762	1,121,952	8,109,199	475,966	14.51
		2007/08	7,980,782	722,063	1,243,484	9,946,329	567,530	16.76
		2008/09	6,390,747	893,343	1,143,750	8,427,840	508,569	14.61
		2009/10	6,402,753	921,132	1,025,382	8,349,267	502,035	14.14
		2010/11	7,027,165	843,212	1,306,386	9,176,763	548,027	14.83
		2011/12	7,048,833	1,180,350	1,139,649	9,368,833	573,591	14.90

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50804	Kimberley	2005/06	7,723,734	914,701	1,114,406	9,752,841	576,663	17.15
		2006/07	7,510,031	954,260	1,071,174	9,535,465	556,665	15.33
		2007/08	9,162,549	933,448	862,455	10,958,452	603,439	16.31
		2008/09	8,078,643	1,199,491	1,109,005	10,387,139	619,105	16.48
		2009/10	8,702,098	1,115,258	886,627	10,703,983	611,037	16.09
		2010/11	8,397,251	944,389	1,107,369	10,449,009	599,502	14.71
		2011/12	10,005,529	1,329,931	836,498	12,171,958	684,210	16.10
50805	Mid-West	2005/06	8,989,885	1,576,330	1,565,348	12,131,563	764,630	18.99
		2006/07	7,416,010	1,226,906	1,431,127	10,074,043	617,989	14.81
		2007/08	11,897,664	1,291,711	1,150,533	14,339,908	800,087	18.67
		2008/09	7,926,378	1,342,053	1,158,714	10,427,146	633,436	14.44
		2009/10	9,580,727	1,827,587	1,893,903	13,302,216	840,543	18.93
		2010/11	9,176,747	1,541,709	2,567,895	13,286,351	862,350	18.60
		2011/12	7,783,251	1,239,689	700,406	9,723,346	567,997	11.99
50806	Pilbara	2005/06	8,990,012	945,904	1,835,581	11,771,497	720,425	17.56
		2006/07	9,306,243	925,220	1,951,596	12,183,059	723,985	14.22
		2007/08	12,575,128	872,800	1,922,539	15,370,467	863,036	16.12
		2008/09	11,271,120	1,076,693	1,971,827	14,319,640	841,298	14.88
		2009/10	12,706,797	1,199,824	2,461,894	16,368,515	972,391	16.50
		2010/11	12,632,519	1,174,332	2,650,392	16,457,243	984,883	14.20
		2011/12	14,104,233	1,441,084	2,100,462	17,645,779	1,023,518	12.29

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
50901	Albany	2005/06	4,958,880	1,307,789	1,226,813	7,493,481	515,457	12.83
		2006/07	4,754,324	1,157,442	1,257,765	7,169,531	482,530	11.93
		2007/08	6,886,378	1,030,752	973,172	8,890,302	535,883	13.12
		2008/09	5,292,400	1,196,589	970,984	7,459,973	485,516	11.71
		2009/10	6,278,963	1,403,054	1,268,663	8,950,679	587,577	14.08
		2010/11	6,051,596	1,440,743	1,212,724	8,705,063	577,218	13.56
		2011/12	5,196,895	1,304,499	985,024	7,486,418	497,699	11.71
50902	Wheat Belt - North	2005/06	7,503,404	914,889	1,384,569	9,802,862	596,744	15.16
		2006/07	5,916,464	943,550	1,119,053	7,979,067	484,497	12.19
		2007/08	7,384,844	524,203	684,980	8,594,027	454,963	11.31
		2008/09	5,884,885	944,388	912,528	7,741,801	468,607	11.43
		2009/10	6,320,755	1,012,949	987,995	8,321,699	504,760	12.17
		2010/11	5,833,171	951,283	872,049	7,656,502	465,972	11.04
		2011/12	5,349,775	763,359	798,491	6,911,625	413,629	9.73
50903	Wheat Belt - South	2005/06	2,863,722	237,468	470,532	3,571,722	209,927	13.80
		2006/07	2,423,961	247,594	400,425	3,071,980	177,867	11.40
		2007/08	3,150,298	714,554	429,917	4,294,769	271,816	17.22
		2008/09	3,222,418	296,661	472,089	3,991,168	232,575	14.50
		2009/10	2,845,886	323,308	391,434	3,560,628	208,855	12.83
		2010/11	2,954,771	358,188	425,318	3,738,277	222,126	13.32
		2011/12	2,200,687	203,304	251,150	2,655,141	150,147	8.80

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All beer	All wine	All spirits	All alcohol	All pure alcohol	pcc/ESP
Total	Western Australia	2005/06	189,251,410	47,526,804	34,772,449	271,550,664	18,084,774	11.41
Total	Western Australia	2006/07	193,028,552	45,399,474	36,862,748	275,290,773	17,908,321	11.00
Total	Western Australia	2007/08	286,279,167	41,475,484	32,373,150	360,127,801	21,312,472	12.66
Total	Western Australia	2008/09	211,927,507	55,094,468	37,481,955	304,503,930	20,221,996	11.62
Total	Western Australia	2009/10	232,992,454	60,423,869	39,896,914	333,313,237	22,053,193	12.36
Total	Western Australia	2010/11	252,287,060	59,501,638	49,732,317	361,521,016	23,987,872	13.09
Total	Western Australia	2011/12	233,368,748	64,915,921	37,926,286	336,210,956	22,484,211	11.94

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

TRENDS IN *PER CAPITA* CONSUMPTION

The following figure illustrates trends in *per capita* consumption in those jurisdictions and financial years for which there were NASDP consumption estimates.

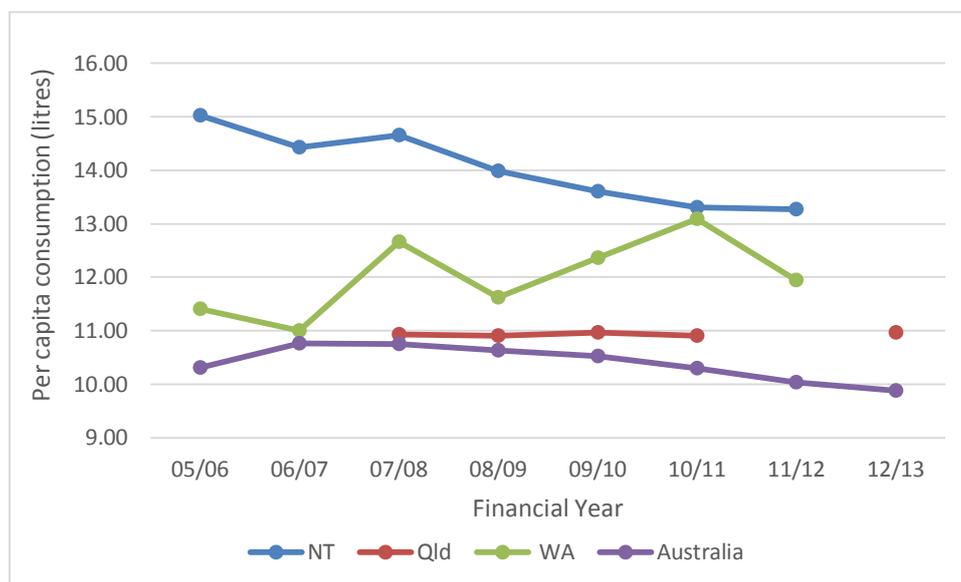


Figure 13 *Per capita* consumption in NASDP jurisdictions and nationally from 2005/06 to 2012/13⁶

In the NT there has been a clear trend of decreasing alcohol consumption over seven years although the rate of reduction diminished in the last reporting period. In Queensland, *per capita* consumption has been relatively stable throughout the period. In WA consumption increased between 2008/09 and 2010/11 but decreased in 2011/12. Nationally, alcohol consumption has been decreasing since 2006/07⁷.

In the NT, population plus tourism figures, as supplied by the Department of Business, increased until 2009/10, then fell slightly, before increasing in 2011/12. Nevertheless, alcohol consumption declined largely consistently throughout the series. (Figure 14).

⁶ Queensland 2010/11 and 12/13 have been estimated.

⁷ Australia trend sourced from Australian Bureau of Statistics 2015

NATIONAL ALCOHOL SALES DATA PROJECT
 National Drug Research Institute, Curtin University
 STAGE 5 REPORT

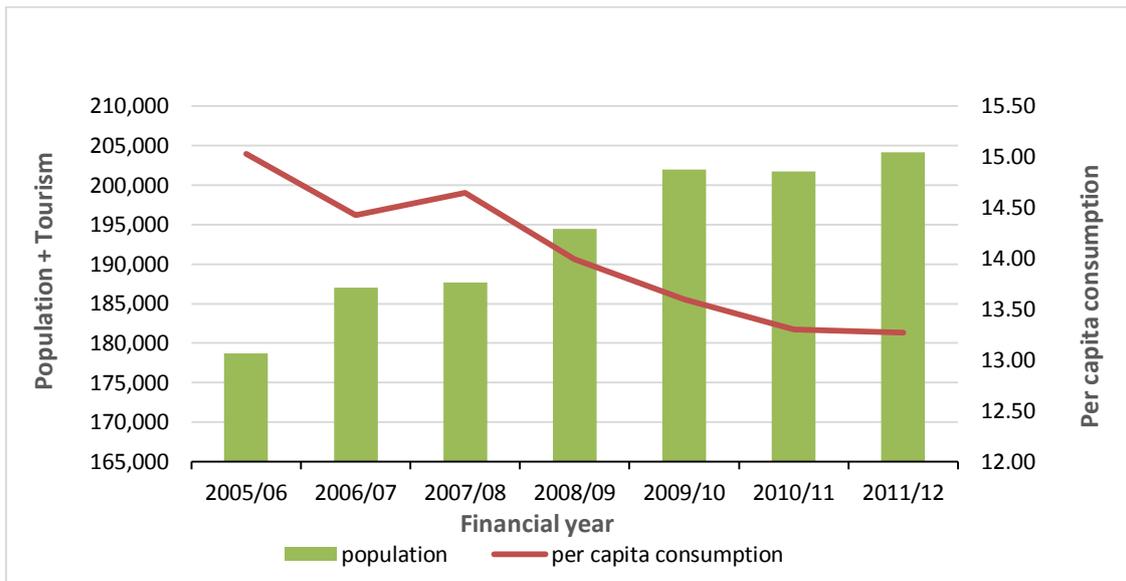


Figure 14 Northern Territory: population plus tourism and *per capita* consumption, 2005/06 to 2011/12

In WA the Estimated Service Population (ESP) steadily increased over the series, and although there has been an overall increase in consumption, the trend has not been smooth (Figure 15).

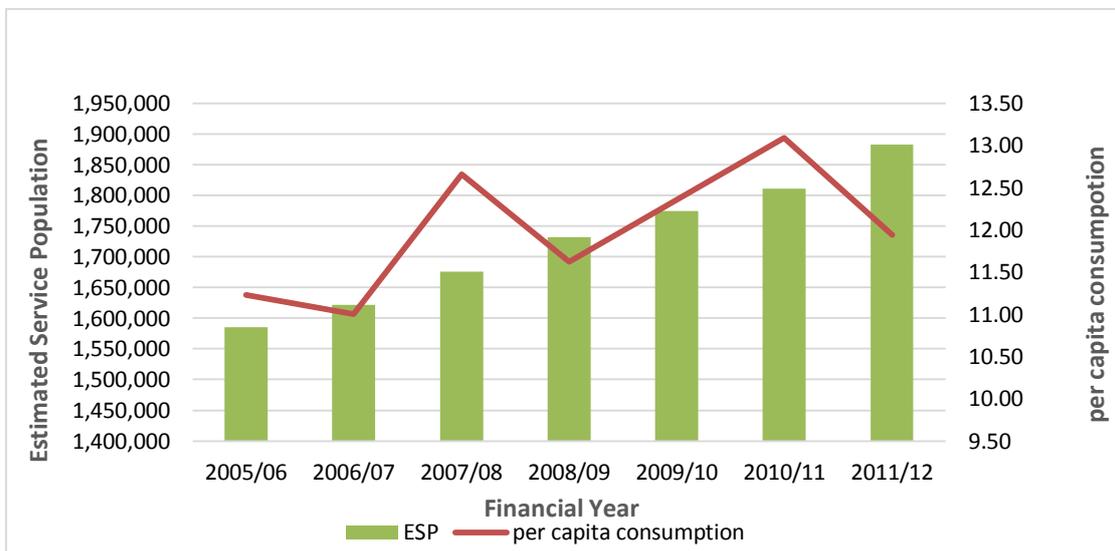


Figure 15 Western Australia: Estimated Service Population and *per capita* consumption, 2005/06 to 2011/12

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

DISCUSSION

SUMMARY OF REGIONAL DATA

The Australian Capital Territory

The ACT provided data from their second year of collection (2013/14) provided by an estimated 50% of wholesalers required to submit data. We found estimated *per capita* consumption unlikely to be a reasonable account of actual consumption levels and have not presented it in this report. Volumes of alcohol and pure alcohol sold in 2013/14 are shown in Table 2 and it should be noted that they are similar to the volumes sold in 2012/13.

It is anticipated that coverage will increase in the future. A current review of the Liquor Act reforms supports sales data collection, and enhancements to data collection and reporting will address proposals for further reform identified in the review.

The Northern Territory

- The estimated alcohol *per capita* consumption in the NT in 2011/12 was 13.27 litres of pure alcohol per individual aged 15+, using population figures which included tourists. To date this is the lowest level reported to the NASDP by the NT.

Queensland⁸

- The overall estimated alcohol pcc/ESP for Queensland for 2012/13 was 10.96 litres of pure alcohol per individual aged 15+. Queensland pcc/ESP has been relatively stable.
- Regional estimates were not available for 2011/12 or 2010/11 but data from 2009/10 have been re-estimated from SA3s. In 2009/10, high alcohol consumption (pcc/ESP >15 litres of pure alcohol) was found in 10 SA3s, most of which were in coastal areas of high tourism such as Cairns, Surfers Paradise and Noosa, and in Inner Brisbane.
- Low alcohol consumption (pcc/ESP < 8 litres of pure alcohol) was found in areas inland of the coast, some parts of Brisbane and in the Far North.
- These findings are similar to those in 2008/09 where it was posited that the inner Brisbane area had particularly high alcohol consumption because of a combination of relatively low resident population, its status as an entertainment area and alcohol sales to city workers,

⁸ This summarises regional 2009/10 data as complete data for 2010/11 and 2011/12 are not available.

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

and that the coastal cities with high alcohol consumption had relatively high levels of tourism.

- Across the state, sales of pure alcohol were increased in 2009/10 compared to the previous year, and the largest amounts of alcohol were generally sold on the eastern seaboard, particularly in the South East, although these did not necessarily translate into high *per capita* consumption because of large populations.

Western Australia

- The overall estimated alcohol pcc/ESP for WA for 2011/12 was 11.94 litres of pure alcohol per individual aged 15+. This is a considerable reduction from 2010/11, and is the first fall in consumption in WA since 2008/09.
- Low alcohol consumption (pcc/ESP < 8 litres of pure alcohol) was found in Serpentine-Jarrahdale and Wanneroo, and high consumption (pcc/ESP >15 litres of pure alcohol) in Kimberley, Fremantle and Perth City. The Goldfields and Gascoyne regions had consumption levels very close to 15 litres.
- This reflects a common trend found in the NASDP – areas with highly mobile populations, or regions with highly mobile workforces and/or regions of high tourism, and relatively low resident population, with status as an entertainment area and high alcohol sales to city workers, have been found to be those with the highest alcohol consumption.

FUTURE DEVELOPMENTS IN THE NASDP

The NASDP now receives alcohol sales data from four jurisdictions and we thank the relevant agencies for their participation in the project. We look forward to receiving data from other jurisdictions if the NASDP continues into further stages. At the Advisory Committee teleconference on 12 October, 2015, a number of other jurisdictions outlined recent commencement of alcohol sales data collections or plans to do so, these can be summarised as follows:

- **South Australia:** A review of the *Liquor Licensing Act 1997* is underway.
- **Tasmania:** The *Liquor Licensing Act 1990* has been reviewed and it is intended to introduce a section requiring licensees to submit wholesale sales data. This would involve

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

enabling legislation, consultation with industry and the development of regulations to determine the collection process.

- **Victoria:** Legislation, regulations and Ministerial Directions requiring Victorian wholesalers to report sales data came into effect on 1 July 2015. The 2015/16 data will be available for inclusion in the NASDP in early 2017.

Finally, at the same teleconference, the possibility of establishing a nation-wide common approach to sales data collection procedures was discussed. It was noted that this would be difficult to achieve without major Federal Government support, as liquor legislation is jurisdictionally based.

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

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NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

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NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

APPENDIX I

Estimates of Queensland and Western Australian *per capita* consumption by ERP

In the main body of the current report we have presented pcc/ESP for Queensland and WA for all available years. In this Appendix we have presented pcc/ERP data re-estimated for SA3s in all available years for Queensland (Table 9) and WA (Table 10). This will permit direct comparability between years and with pcc/ESP.

QUEENSLAND

Table 9 Volumes (litres) of alcohol and pure alcohol, and estimated *per capita* consumption by ERP in SA3s, Queensland 2007/08 to 2009/10

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
30101	Capalaba	2007/08	6,320,856	423,709	7.51
		2008/09	7,858,983	482,119	8.45
		2009/10	6,750,485	456,981	7.96
30102	Cleveland - Stradbroke	2007/08	9,280,089	676,244	11.51
		2008/09	9,719,693	677,617	11.13
		2009/10	10,355,815	705,258	11.34
30103	Wynnum - Manly	2007/08	6,325,118	457,418	9.24
		2008/09	5,434,111	370,082	7.23
		2009/10	6,531,347	409,710	7.86
30201	Bald Hills - Everton Park	2007/08	3,716,420	238,354	7.92
		2008/09	5,298,199	276,389	8.87
		2009/10	3,765,893	237,958	7.52
30202	Chermside	2007/08	6,908,374	499,163	9.33
		2008/09	6,601,925	461,159	8.45
		2009/10	6,804,209	468,231	8.46
30203	Nundah	2007/08	3,581,936	219,426	7.98
		2008/09	4,060,857	240,196	8.41
		2009/10	3,520,544	231,885	7.87
30204	Sandgate	2007/08	5,661,593	385,058	9.11
		2008/09	7,513,018	413,488	9.58
		2009/10	6,024,576	382,789	8.72
30301	Carindale	2007/08	2,810,122	190,804	5.00
		2008/09	3,075,803	202,774	5.23
		2009/10	3,345,911	226,875	5.78
30302	Holland Park - Yeronga	2007/08	5,073,542	361,671	6.64
		2008/09	7,993,766	591,283	10.58
		2009/10	8,489,485	596,223	10.49

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
30303	Mt Gravatt	2007/08	8,476,379	742,025	13.78
		2008/09	7,926,062	543,992	9.87
		2009/10	7,519,932	518,919	9.29
30304	Nathan	2007/08	1,736,415	127,344	4.25
		2008/09	2,442,314	183,038	5.98
		2009/10	2,455,727	180,460	5.82
30305	Rocklea - Acacia Ridge	2007/08	3,356,019	214,148	5.38
		2008/09	3,593,059	208,112	4.95
		2009/10	2,793,397	175,019	4.05
30306	Sunnybank	2007/08	2,468,738	165,836	4.39
		2008/09	3,867,687	242,291	6.28
		2009/10	4,223,126	267,486	6.83
30401	Centenary	2007/08	4,925,888	393,446	14.77
		2008/09	4,842,593	357,687	13.34
		2009/10	3,514,595	280,186	10.43
30402	Kenmore - Brookfield - Moggill	2007/08	1,419,493	117,414	3.42
		2008/09	1,545,809	121,402	3.45
		2009/10	1,353,919	114,221	3.20
30403	Sherwood - Indooroopilly	2007/08	2,138,344	157,523	3.78
		2008/09	2,174,760	170,171	4.02
		2009/10	2,663,259	205,267	4.81
30404	The Gap - Enoggera	2007/08	4,340,449	281,900	7.43
		2008/09	4,734,338	302,274	7.83
		2009/10	4,406,637	305,325	7.79
30501	Brisbane Inner	2007/08	20,946,219	1,546,678	29.01
		2008/09	18,421,663	1,284,720	23.55
		2009/10	18,215,458	1,301,504	23.54
30502	Brisbane Inner - East	2007/08	6,375,878	455,087	14.66
		2008/09	4,680,664	314,252	9.89
		2009/10	5,068,278	355,232	11.02
30503	Brisbane Inner - North	2007/08	13,456,973	1,014,311	15.93
		2008/09	14,142,582	1,061,613	16.34
		2009/10	15,405,598	1,160,818	17.64
30504	Brisbane Inner - West	2007/08	5,979,130	431,740	9.40
		2008/09	6,264,740	445,356	9.56
		2009/10	5,691,241	409,751	8.70
30601	Cairns - North	2007/08	9,680,296	634,508	18.35
		2008/09	10,540,087	675,127	18.68
		2009/10	12,774,784	779,275	20.88
30602	Cairns - South	2007/08	16,967,172	1,056,839	14.48
		2008/09	21,580,358	1,309,274	17.50
		2009/10	21,962,564	1,339,245	17.61

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
30603	Innisfail - Cassowary Coast	2007/08	6,821,446	380,360	13.83
		2008/09	7,096,861	376,332	13.62
		2009/10	6,292,482	380,206	13.72
30604	Port Douglas - Daintree	2007/08	3,628,205	247,071	27.83
		2008/09	3,453,637	240,921	26.81
		2009/10	3,853,331	273,166	30.27
30605	Tablelands (East) - Kuranda	2007/08	5,388,656	340,417	11.29
		2008/09	4,586,438	287,528	9.38
		2009/10	6,225,355	357,507	11.50
30701	Darling Downs (West) - Maranoa	2007/08	7,729,727	399,782	12.17
		2008/09	8,565,500	422,165	12.67
		2009/10	6,762,351	372,821	11.03
30702	Darling Downs - East	2007/08	4,768,893	267,259	8.68
		2008/09	5,834,530	294,637	9.41
		2009/10	4,227,707	241,999	7.64
30703	Granite Belt	2007/08	4,671,030	293,418	9.82
		2008/09	5,926,490	303,311	9.95
		2009/10	4,105,266	269,869	8.76
30801	Central Highlands (Qld)	2007/08	3,903,010	216,844	9.97
		2008/09	5,059,151	259,036	11.61
		2009/10	3,650,782	210,847	9.30
30802	Gladstone - Biloela	2007/08	10,820,583	590,028	10.91
		2008/09	14,251,620	730,837	13.14
		2009/10	10,076,415	602,459	10.72
30803	Rockhampton	2007/08	4,306,168	289,454	3.41
		2008/09	20,979,132	1,192,851	13.73
		2009/10	20,416,161	1,213,142	13.78
30901	Broadbeach - Burleigh	2007/08	14,626,974	1,081,836	21.32
		2008/09	15,603,302	1,141,999	22.21
		2009/10	16,095,389	1,162,582	22.38
30902	Coolangatta	2007/08	6,438,739	426,634	10.03
		2008/09	5,872,426	385,768	9.02
		2009/10	7,631,658	477,027	11.07
30903	Gold Coast - North	2007/08	9,222,108	671,773	13.36
		2008/09	8,535,063	629,186	12.28
		2009/10	10,230,279	727,157	13.97
30904	Gold Coast Hinterland	2007/08	1,484,079	101,629	7.44
		2008/09	1,661,494	113,027	8.09
		2009/10	1,850,030	132,816	9.37
30905	Mudgeeraba - Tallebudgera	2007/08	1,752,452	122,543	5.35
		2008/09	2,060,112	145,955	6.18
		2009/10	2,360,766	161,081	6.64

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
30906	Nerang	2007/08	9,442,295	663,237	14.02
		2008/09	8,209,016	558,552	11.44
		2009/10	8,478,658	556,610	11.10
30907	Ormeau - Oxenford	2007/08	8,293,677	555,638	8.87
		2008/09	7,981,796	553,161	8.22
		2009/10	9,054,853	648,549	9.19
30908	Robina	2007/08	5,337,581	425,436	11.58
		2008/09	3,322,155	248,123	6.61
		2009/10	3,864,034	273,071	7.20
30909	Southport	2007/08	9,461,207	667,454	14.85
		2008/09	7,953,264	565,482	12.19
		2009/10	9,702,708	685,400	14.43
30910	Surfers Paradise	2007/08	8,805,058	732,921	22.84
		2008/09	8,850,522	672,311	20.76
		2009/10	8,543,506	658,966	20.14
31001	Forest Lake - Oxley	2007/08	4,651,238	304,448	6.33
		2008/09	4,569,256	285,724	5.79
		2009/10	5,749,090	431,806	8.52
31002	Ipswich Hinterland	2007/08	5,153,760	298,868	6.99
		2008/09	4,932,533	274,596	6.22
		2009/10	4,529,096	266,427	5.88
31003	Ipswich Inner	2007/08	10,760,350	683,136	9.63
		2008/09	9,837,890	600,602	8.20
		2009/10	9,263,894	587,212	7.85
31004	Springfield - Redbank	2007/08	5,150,593	314,531	7.37
		2008/09	5,197,805	317,618	6.94
		2009/10	5,966,353	390,495	8.12
31101	Beaudesert	2007/08	1,101,090	63,526	6.81
		2008/09	955,648	53,889	5.60
		2009/10	1,019,617	62,627	6.37
31102	Beenleigh	2007/08	3,609,905	228,796	8.08
		2008/09	3,485,004	217,292	7.46
		2009/10	4,253,692	269,019	8.99
31103	Browns Plains	2007/08	7,942,132	509,778	9.55
		2008/09	8,952,896	567,844	10.35
		2009/10	10,148,402	629,654	11.28
31104	Jimboomba	2007/08	2,519,769	158,846	6.17
		2008/09	3,149,542	179,551	6.67
		2009/10	3,095,822	206,132	7.42
31105	Loganlea - Carbrook	2007/08	6,501,958	421,461	10.15
		2008/09	5,621,618	365,068	8.51
		2009/10	5,904,620	377,054	8.58

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
31106	Springwood - Kingston	2007/08	8,403,270	563,073	9.63
		2008/09	6,914,030	469,488	7.91
		2009/10	8,936,277	622,083	10.35
31201	Bowen Basin - North	2007/08	5,985,313	317,381	11.84
		2008/09	5,923,336	322,437	11.73
		2009/10	6,644,419	373,387	13.39
31202	Mackay	2007/08	21,084,205	1,205,911	14.11
		2008/09	21,807,034	1,226,933	13.95
		2009/10	21,018,265	1,188,606	13.23
31203	Whitsunday	2007/08	6,900,562	464,266	30.48
		2008/09	6,262,847	436,060	28.27
		2009/10	7,439,094	506,428	32.54
31301	Bribie - Beachmere	2007/08	3,636,929	232,620	9.30
		2008/09	4,226,353	258,195	10.04
		2009/10	3,955,268	260,505	9.91
31302	Caboolture	2007/08	7,542,339	474,698	11.76
		2008/09	10,444,901	555,019	13.04
		2009/10	8,521,814	551,710	12.35
31303	Caboolture Hinterland	2007/08	1,440,913	79,455	9.01
		2008/09	1,983,774	96,197	10.56
		2009/10	1,583,770	94,981	10.24
31304	Narangba - Burpengary	2007/08	5,292,986	334,511	7.76
		2008/09	6,333,100	358,986	8.10
		2009/10	5,328,798	353,345	7.78
31305	Redcliffe	2007/08	6,134,803	424,301	9.34
		2008/09	5,649,784	383,560	8.25
		2009/10	5,760,901	417,942	8.83
31401	Hills District	2007/08	7,255,826	518,626	8.67
		2008/09	8,070,890	485,898	7.87
		2009/10	7,071,817	475,141	7.54
31402	North Lakes	2007/08	4,410,298	293,154	9.14
		2008/09	4,566,296	312,864	8.94
		2009/10	4,478,995	311,958	8.31
31403	Strathpine	2007/08	2,640,481	175,714	6.17
		2008/09	2,538,362	175,096	6.11
		2009/10	2,904,555	210,478	7.28
31501	Far North	2007/08	4,301,920	238,491	10.84
		2008/09	3,949,596	211,701	9.40
		2009/10	3,125,322	179,440	7.82
31502	Outback - North	2007/08	8,181,941	443,316	17.65
		2008/09	7,576,946	423,082	16.58
		2009/10	7,921,967	447,742	17.27

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
31503	Outback - South	2007/08	3,795,748	194,990	12.46
		2008/09	4,196,688	196,749	12.50
		2009/10	3,078,859	166,720	10.51
31601	Buderim	2007/08	4,412,424	344,534	9.68
		2008/09	3,597,275	299,618	8.18
		2009/10	3,888,425	326,017	8.72
31602	Caloundra	2007/08	11,327,731	851,695	15.48
		2008/09	12,878,050	807,000	14.19
		2009/10	11,809,967	804,509	13.83
31603	Maroochy	2007/08	11,079,546	801,974	18.67
		2008/09	10,236,413	758,339	17.37
		2009/10	12,643,599	887,194	20.05
31604	Nambour - Pomona	2007/08	4,632,423	313,295	6.96
		2008/09	5,696,811	383,355	8.29
		2009/10	5,095,792	336,678	7.15
31605	Noosa	2007/08	9,109,597	689,593	23.78
		2008/09	8,934,031	640,356	21.50
		2009/10	9,329,673	626,903	20.70
31606	Sunshine Coast Hinterland	2007/08	5,400,948	351,884	9.89
		2008/09	5,659,327	335,463	9.12
		2009/10	3,498,269	235,068	6.26
31701	Toowoomba	2007/08	15,350,396	1,043,615	9.60
		2008/09	15,866,094	1,025,963	9.24
		2009/10	16,528,682	1,057,583	9.40
31801	Charters Towers - Ayr - Ingham	2007/08	5,553,305	287,192	8.40
		2008/09	7,141,573	360,116	10.41
		2009/10	6,355,244	366,335	10.49
31802	Townsville	2007/08	26,587,945	1,599,721	12.04
		2008/09	36,159,438	1,873,516	13.71
		2009/10	30,621,176	1,808,175	12.95
31901	Bundaberg	2007/08	10,879,938	669,575	9.99
		2008/09	15,113,354	847,584	12.37
		2009/10	11,505,309	787,843	11.34
31902	Burnett	2007/08	6,075,837	367,959	9.98
		2008/09	7,002,204	367,214	9.77
		2009/10	5,508,691	331,255	8.71
31903	Gympie - Cooloola	2007/08	7,418,158	448,006	12.68
		2008/09	8,059,830	433,388	11.95
		2009/10	6,634,313	414,521	11.26
31904	Hervey Bay	2007/08	8,578,091	569,763	13.96
		2008/09	7,622,814	489,871	11.59
		2009/10	7,454,946	498,838	11.54

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
31905	Maryborough	2007/08	6,288,347	367,656	10.93
		2008/09	6,723,752	360,372	10.46
		2009/10	6,212,498	377,910	10.80
Totals	Queensland	2007/08	555,940,344	36,914,740	10.97
Totals	Queensland	2008/09	607,952,678	37,812,201	10.94
Totals	Queensland	2009/10	591,845,801	38,753,617	11.00

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

WESTERN AUSTRALIA

Table 10 shows all previously presented ERP data re-estimated for SA3s and extended to include 2011/12

Table 10 Volumes (litres) of alcohol and pure alcohol sold, and estimated *per capita* consumption by ERP in SA3s, Western Australia, 2005/06 to 2011/12

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50101	Augusta - Margaret River - Busselton	2005/06	6,675,314	473,748	15.94
		2006/07	6,846,145	463,117	15.29
		2007/08	6,842,101	407,257	12.93
		2008/09	7,402,329	496,834	15.22
		2009/10	7,360,229	521,103	15.49
		2010/11	9,411,917	609,323	17.69
		2011/12	7,013,768	470,659	13.09
50102	Bunbury	2005/06	13,125,991	836,533	12.42
		2006/07	12,575,108	795,287	11.64
		2007/08	14,570,908	865,210	12.26
		2008/09	13,279,641	833,869	11.41
		2009/10	14,160,288	894,851	11.93
		2010/11	15,742,522	995,863	12.95
		2011/12	11,663,950	737,068	9.28
50103	Manjimup	2005/06	2,443,478	162,862	9.59
		2006/07	2,234,935	141,728	8.34
		2007/08	2,189,336	114,157	6.63
		2008/09	2,977,403	189,538	10.85
		2009/10	3,017,397	189,938	10.78
		2010/11	2,946,152	185,786	10.49
		2011/12	2,367,233	138,619	7.72
50201	Mandurah	2005/06	10,132,880	649,568	11.29
		2006/07	10,364,028	655,356	10.93
		2007/08	13,160,057	791,442	12.50
		2008/09	12,775,387	832,249	12.53
		2009/10	12,563,145	833,817	12.24
		2010/11	13,696,702	912,673	12.84
		2011/12	12,914,789	878,791	11.81
50301	Cottesloe - Claremont	2005/06	10,020,670	737,437	13.61
		2006/07	9,694,346	677,783	12.43
		2007/08	14,643,555	893,472	16.21
		2008/09	6,860,740	505,659	9.08
		2009/10	8,931,856	629,789	11.25
		2010/11	9,038,125	666,717	11.77
		2011/12	8,851,423	623,568	10.81

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50302	Perth City	2005/06	18,265,187	1,275,189	17.33
		2006/07	19,654,752	1,341,043	17.64
		2007/08	24,315,148	1,408,105	17.81
		2008/09	21,940,437	1,501,581	18.23
		2009/10	31,353,746	2,121,632	25.21
		2010/11	36,499,650	2,541,186	29.34
		2011/12	39,880,984	2,880,975	32.16
50401	Bayswater - Bassendean	2005/06	7,939,189	521,436	8.53
		2006/07	7,745,519	481,383	7.73
		2007/08	13,091,156	780,158	12.20
		2008/09	7,624,034	515,482	7.87
		2009/10	9,923,622	651,964	9.77
		2010/11	12,766,933	805,359	11.79
		2011/12	8,993,999	620,309	8.80
50402	Mundaring	2005/06	3,089,898	209,950	6.58
		2006/07	3,277,197	217,992	6.75
		2007/08	3,478,735	221,126	6.75
		2008/09	5,567,894	374,751	11.21
		2009/10	5,051,793	335,882	9.91
		2010/11	5,868,349	400,641	11.63
		2011/12	5,437,075	371,411	10.55
50403	Swan	2005/06	10,930,360	709,079	10.19
		2006/07	12,196,192	764,030	10.50
		2007/08	16,867,449	996,675	13.10
		2008/09	11,522,643	754,104	9.52
		2009/10	11,226,477	730,568	8.94
		2010/11	12,917,422	862,044	10.20
		2011/12	11,991,450	817,342	9.20
50501	Joondalup	2005/06	16,524,064	1,155,283	9.21
		2006/07	16,719,478	1,147,760	9.08
		2007/08	22,392,656	1,365,800	10.71
		2008/09	20,816,094	1,589,693	12.35
		2009/10	19,922,399	1,448,843	11.16
		2010/11	19,311,117	1,366,392	10.37
		2011/12	19,252,405	1,368,015	10.20
50502	Stirling	2005/06	17,389,281	1,221,738	8.74
		2006/07	17,617,588	1,185,791	8.24
		2007/08	29,914,131	1,675,455	11.36
		2008/09	20,842,173	1,368,433	9.03
		2009/10	23,129,851	1,572,167	10.17
		2010/11	24,926,759	1,694,940	10.66
		2011/12	21,909,857	1,472,262	8.94

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50503	Wanneroo	2005/06	9,125,128	606,172	6.99
		2006/07	9,030,193	578,900	6.09
		2007/08	17,515,068	998,891	9.73
		2008/09	12,858,323	844,392	7.65
		2009/10	13,933,801	922,627	7.96
		2010/11	17,168,489	1,114,014	9.12
		2011/12	14,746,017	952,821	7.35
50601	Armadale	2005/06	5,433,182	357,144	8.69
		2006/07	5,483,658	363,680	8.58
		2007/08	5,636,058	356,211	8.07
		2008/09	5,876,250	403,958	8.72
		2009/10	5,024,842	345,343	7.06
		2010/11	7,643,283	520,781	10.08
		2011/12	7,234,369	494,838	9.02
50602	Belmont - Victoria Park	2005/06	11,736,118	855,658	17.66
		2006/07	11,991,506	870,395	17.33
		2007/08	11,872,202	748,621	14.31
		2008/09	11,239,767	750,895	13.81
		2009/10	12,427,961	793,288	14.21
		2010/11	13,512,153	887,277	15.32
		2011/12	11,860,949	809,257	13.42
50603	Canning	2005/06	4,619,692	302,713	4.35
		2006/07	5,417,460	365,342	5.10
		2007/08	6,194,598	396,294	5.39
		2008/09	9,298,657	624,545	8.29
		2009/10	9,442,985	637,044	8.29
		2010/11	9,569,113	659,297	8.37
		2011/12	9,341,687	662,609	8.17
50604	Gosnells	2005/06	9,875,611	625,503	8.41
		2006/07	10,243,448	646,717	8.41
		2007/08	11,392,060	663,067	8.28
		2008/09	9,740,013	649,669	7.78
		2009/10	9,976,256	658,718	7.62
		2010/11	11,108,562	738,309	8.27
		2011/12	10,348,422	688,878	7.44
50605	Kalamunda	2005/06	4,559,473	306,981	7.44
		2006/07	4,094,992	262,276	6.21
		2007/08	6,128,894	377,011	8.75
		2008/09	5,460,705	373,892	8.52
		2009/10	5,500,893	374,359	8.36
		2010/11	5,526,069	382,724	8.40
		2011/12	6,296,948	467,705	9.98

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50606	Serpentine - Jarrahdale	2005/06	1,001,813	65,972	6.43
		2006/07	1,096,639	69,847	6.37
		2007/08	924,754	44,185	3.71
		2008/09	1,536,191	95,133	7.37
		2009/10	1,516,472	98,385	7.34
		2010/11	1,359,216	89,991	6.30
		2011/12	1,225,157	73,851	4.81
50607	South Perth	2005/06	4,612,953	327,423	9.35
		2006/07	5,622,148	379,996	10.69
		2007/08	5,958,500	365,634	10.08
		2008/09	4,048,315	289,815	7.86
		2009/10	4,842,213	336,142	9.09
		2010/11	5,303,697	350,373	9.32
		2011/12	4,095,340	285,848	7.39
50701	Cockburn	2005/06	6,210,500	412,054	6.92
		2006/07	7,937,891	509,677	8.14
		2007/08	8,397,959	513,255	7.84
		2008/09	9,077,501	597,044	8.69
		2009/10	9,907,589	652,670	9.20
		2010/11	10,035,223	675,506	9.17
		2011/12	9,911,733	661,456	8.57
50702	Fremantle	2005/06	6,825,743	462,719	16.34
		2006/07	6,787,044	435,425	15.15
		2007/08	7,745,844	449,112	15.38
		2008/09	7,784,930	535,577	18.06
		2009/10	10,116,114	693,390	23.15
		2010/11	11,220,979	800,717	26.13
		2011/12	10,882,930	765,134	24.23
50703	Kwinana	2005/06	2,367,790	142,267	7.67
		2006/07	2,929,242	171,345	8.89
		2007/08	2,914,365	175,420	8.56
		2008/09	3,638,763	243,255	11.19
		2009/10	3,395,830	218,373	9.67
		2010/11	3,541,780	244,342	10.24
		2011/12	3,531,001	235,177	9.31
50704	Melville	2005/06	10,496,280	766,170	9.28
		2006/07	10,437,627	741,746	8.86
		2007/08	20,449,353	1,260,704	14.94
		2008/09	11,092,091	808,117	9.44
		2009/10	12,548,334	936,444	10.85
		2010/11	12,426,567	893,753	10.19
		2011/12	11,929,957	868,337	9.68

NATIONAL ALCOHOL SALES DATA PROJECT

National Drug Research Institute, Curtin University

STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50705	Rockingham	2005/06	9,836,603	677,756	10.08
		2006/07	10,522,777	712,738	9.99
		2007/08	14,335,106	957,919	12.81
		2008/09	12,268,676	865,614	11.07
		2009/10	11,825,830	815,054	9.99
		2010/11	13,922,797	926,814	10.88
		2011/12	12,263,581	842,235	9.40
50801	Esperance	2005/06	2,984,373	189,478	15.67
		2006/07	3,263,757	202,942	16.70
		2007/08	3,278,505	201,541	16.48
		2008/09	3,003,164	188,134	15.29
		2009/10	2,913,832	179,128	14.43
		2010/11	2,865,165	172,859	13.78
		2011/12	2,893,923	182,125	14.27
50802	Gascoyne	2005/06	3,428,595	216,815	29.46
		2006/07	3,384,758	206,525	28.44
		2007/08	3,525,050	188,998	25.87
		2008/09	3,217,103	200,656	27.20
		2009/10	3,742,495	234,476	31.46
		2010/11	3,723,067	230,114	30.28
		2011/12	3,408,909	204,130	26.43
50803	Goldfields	2005/06	7,376,531	433,282	14.65
		2006/07	8,109,199	475,966	15.81
		2007/08	9,946,329	567,530	18.21
		2008/09	8,427,840	508,569	15.84
		2009/10	8,349,267	502,035	15.30
		2010/11	9,176,763	548,027	16.33
		2011/12	9,368,833	573,591	16.54
50804	Kimberley	2005/06	9,752,841	576,663	22.94
		2006/07	9,535,465	556,665	21.77
		2007/08	10,958,452	603,439	22.96
		2008/09	10,387,139	619,105	23.08
		2009/10	10,703,983	611,037	22.42
		2010/11	10,449,009	599,502	21.59
		2011/12	12,171,958	684,210	23.54
50805	Mid West	2005/06	12,131,563	764,630	19.23
		2006/07	10,074,043	617,989	15.42
		2007/08	14,339,908	800,087	19.42
		2008/09	10,427,146	633,436	15.00
		2009/10	13,302,216	840,543	19.66
		2010/11	13,286,351	862,350	19.80
		2011/12	9,723,346	567,997	12.69

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

SA3 Code	SA3 Name	Year	All alcohol	All pure alcohol	pcc/ERP
50806	Pilbara	2005/06	11,771,497	720,425	19.47
		2006/07	12,183,059	723,985	18.47
		2007/08	15,370,467	863,036	20.64
		2008/09	14,319,640	841,298	18.77
		2009/10	16,368,515	972,391	20.60
		2010/11	16,457,243	984,883	19.71
		2011/12	17,645,779	1,023,518	19.51
50901	Albany	2005/06	7,493,481	515,457	11.82
		2006/07	7,169,531	482,530	11.07
		2007/08	8,890,302	535,883	12.18
		2008/09	7,459,973	485,516	10.89
		2009/10	8,950,679	587,577	13.10
		2010/11	8,705,063	577,218	12.71
		2011/12	7,486,418	497,699	10.75
50902	Wheat Belt - North	2005/06	9,802,862	596,744	14.35
		2006/07	7,979,067	484,497	11.66
		2007/08	8,594,027	454,963	10.82
		2008/09	7,741,801	468,607	10.95
		2009/10	8,321,699	504,760	11.67
		2010/11	7,656,502	465,972	10.69
		2011/12	6,911,625	413,629	9.32
50903	Wheat Belt - South	2005/06	3,571,722	209,927	13.01
		2006/07	3,071,980	177,867	11.01
		2007/08	4,294,769	271,816	16.64
		2008/09	3,991,168	232,575	14.02
		2009/10	3,560,628	208,855	12.42
		2010/11	3,738,277	222,126	13.18
		2011/12	2,655,141	150,147	8.77
Total	Western Australia	2005/06	271,550,664	18,084,774	11.01
Total	Western Australia	2006/07	275,290,773	17,908,321	10.60
Total	Western Australia	2007/08	360,127,801	21,312,472	12.21
Total	Western Australia	2008/09	304,503,930	20,221,996	11.21
Total	Western Australia	2009/10	333,313,237	22,053,193	11.94
Total	Western Australia	2010/11	361,521,016	23,987,872	12.62
Total	Western Australia	2011/12	336,210,956	22,484,211	11.41

NATIONAL ALCOHOL SALES DATA PROJECT
National Drug Research Institute, Curtin University
STAGE 5 REPORT

APPENDIX II

Estimates of Northern Territory *per capita* consumption excluding tourists

As we did in earlier Stages, we have presented consumption estimates for the NT using ERP which is not adjusted for tourism, so that direct comparisons can be made with similar NT estimates in previous years, and also with pcc/ERP estimates for Queensland and WA (Appendix I).

Table 11 shows that the 2011/12 NT consumption figure which included tourists was 11.5% lower than the non-tourist figure. This is similar to the extent of differences found in preceding years.

Our work with ESP underlies our belief that that consumption estimates which allow for the influence of tourists are more likely to be accurate than those which do not, and we therefore recommend that readers use the NT consumption estimates given in the main text.

Table 11 Estimated *per capita* consumption (litres of pure alcohol) by ERP, Northern Territory 2005/06 – 2011/12

	Total pure alcohol (litres)	ERP aged 15+	NT pcc ¹	ERP aged 15+ and tourism	NT pcc ²	National pcc ³
2005/06	2,696,090	156,261	17.25	178,692	15.09	10.31
2006/07	2,699,391	160,071	16.86	187,054	14.43	10.76
2007/08	2,748,347	165,012	16.66	187,661	14.65	10.75
2008/09	2,719,986	170,552	15.95	194,486	13.99	10.63
2009/10	2,746,757	175,154	15.68	202,023	13.60	10.53
2010/11	2,682,155	177,821	15.08	201,773	13.29	10.30
2011/12	2,709,797	180,655	15.00	204,134	13.27	10.04

¹ Total pure alcohol divided by ERP aged 15+

² Total pure alcohol divided by ERP aged 15+ and estimated tourism.

³ Australian Bureau of Statistics 2015



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